gtlan

Telecommunications solutions

gtlan

www.gtlan.com

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GOTE,
A FORWARD-LOOKING COMPANY
We are a reliable, sustainable and environmentally-friendly company.

Our commercial activity is carried out through a distribution network, because we firmly believe that traditional sales channels are the best means of making a wide range of quality technological products and services available to our customers.

In recent years, we have worked hard to consolidate our five technological business areas, thanks to the extensive experience accumulated by our staff in the field of electronics.

As a result, we have positioned ourselves as a leading company in important areas such as telecommunications, LED lighting, electric vehicles, wastewater treatment systems, residential water cleaning and air purification and sterilisation.

CONTENTS

FAMILIES

Rack cabinets　　　　10 - 55

Metal cabinets designed to house electronic, computer and telecommunications equipment. With standard widths of 600 and 800 mm, and depths of 600, 800, 900, 1000 or 1200 mm.

1

Copper twisted pair network　　56 - 129

Structured cabling is used to implement a local area network, to transmit information and to achieve the speeds required for voice, data and video transmission.

2
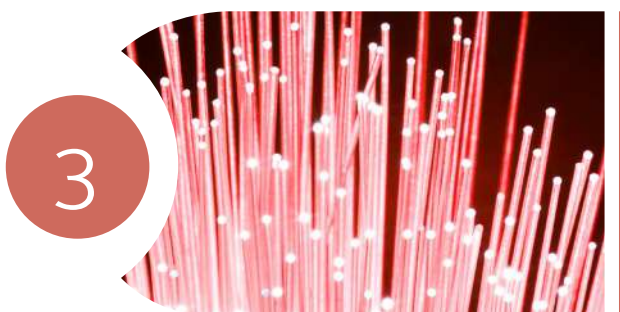
Fibre optics　　　　130 - 223

Over time, the requirements for communication networks have become more demanding. This is why research has been carried out to find physical propagation media that can increase transmission capacities securely and with low interference, this option is FIBRE OPTICS.

3

Electronics　　　　224 - 249

Equipment that is capable of managing, administering, enabling and distributing the flow of information in accordance with the way our intranet is designed.

4

Gote

OUR HISTORY

The company Gote S.A. was founded in 1984, in Valencia. Initially, it focused its activity on products for voice and data networks, becoming the **first telecoms distributor in the Valencian Community.** It has distributed and provided support for major telecoms brands, always remaining at the forefront of technology.

Through high product quality, good workmanship and customer service the company has established a significant market share in Spain, securing large customers.

By 1987, Gote S.A. needed to expand and therefore moved to new premises with more space. Even so, by 1990 the growth in the volume of business meant a new warehouse was needed, which was built in Godella (Valencia). The company continues to grow and in 2001, the head office moved to **Parque Tecnológico de Paterna (Valencia).**

After more than 10 years of experience, the company expanded nationally and in 2001 **Gote Aragón S.L.** was created in order to offer a better service to customers in Aragon, Navarra, La Rioja and the Basque Country. In 2007, it moved to the Zaragoza Logistics Platform (Plaza).

Progressively Gote began to diversify its areas of specialisation. In 2002, **Gtlan** was launched as a brand of telecoms products featuring a complete solution of racks, cabling, fibre optics, network electronics, UPS and everything necessary to carry out a complete network installation from the most professional environment to the home.

In 2004, Gote S.A. started a research project on ecological alternatives with LED technology products. After two years of intense work, **Gtled** was launched.

In 2008, Gtlan and Gtled consolidated their presence in the national market, through a network of external agents that currently totals more than 20.

In 2011, the first Gote S.A. logistics centre was built in Requena (Valencia), and in 2015, due to continuous growth, the warehouse in the Táctica industrial estate in Paterna (Valencia) was acquired as an auxiliary warehouse - as well as housing the new line of electric vehicles started by Gote S.A., called **GoteBike.**

2018 saw the launch of a new line of business, **Gtpool,** a brand specialising in residential water purification and cleaning systems.

In 2021, Gote S.A.'s latest brand, **Gtcel**, was launched. It is a brand committed to customer needs and new market challenges, offering high-quality products with the latest technology in residential and industrial air purification.

Today, the company has established a great brand image with Gtlan, Gtled, Gtcel, Gtpool and Gotebike thanks to the excellent work of the Gote team and the loyalty of all its customers.

1984
GOTE S.A. founded

2001
New warehouse in PATERNA Technology Park

2001
GOTE ARAGÓN S.L is created

2002
Launch of gtlan

2004
Launch of gtled

2011
REQUENA Logistics Centre

2015
PATERNA Logistics Centre

2015
Launch of gotebike

2018
Launch of gtpool

2021
Launch of gtcel

Gote

OUR PHILOSOPHY

Gote, through its brands **Gtlan, Gtled, Gtcel, Gtpool and Gotebike**, is a leading national manufacturer of telecoms, LED lighting, electric vehicles and residential water purification and cleaning systems. We have **extensive professional experience and a team committed to our values: transparency, respect for the distribution channel, efficiency and effectiveness in problem solving and punctuality**.

Gtlan is a **telecoms** brand belonging to GOTE S.A. It was created with the intention of offering the most professional solutions.

We have been operating for more than 39 years in Spain, France and Portugal, with a complete catalogue of products for data and telecoms networks. We are a Spanish company based in Valencia that is constantly growing and improving and is committed to teamwork with our distributors.

Thanks to our experience in the telecoms sector, we can offer professional advice for the implementation of all types of projects, whether using traditional media such as copper or fibre optics, or for projects where state-of-the-art wireless technologies are required.

Our commercial activity is carried out through a **distribution network**: we strongly believe in traditional sales channels, where technical expertise and knowledge is made available to end customers. Our challenge is to always offer the best service as quickly as possible, which is why we are committed to shipping orders within 24 hours and we offer a follow-up service in case of incidents.

We are a **reliable, sustainable and environmentally-friendly** company. We are committed to preserving our ecosystem and improving our environment and quality of life. We are accredited with various national and international quality certificates (ISO 9001, ISO 14001, IQNet).

OUR NAME HAS BECOME
SYNONYMOUS WITH A COMMITMENT TO SERVICE AND CUTTING-EDGE TECHNOLOGY

Gote

OUR TEAM

At Gote we pursue a single common goal: to improve the quality of life of people and the environment through the best use of technology. An objective which is shared by the entire Gote team. Because at Gote we believe that creativity and individual talent are enhanced when we are part of a team, and this offers countless **competitive advantages**.

For this reason, we have a solid network of **highly qualified specialists** with a recognised professional background at local and national level, experts in research, consultancy and logistics who work side by side complementing each other, contributing different skills and creating synergies.

Gote is organised into seven departments: **ADMINISTRATION, WAREHOUSE, PURCHASING, COMMERCIAL, MARKETING, TECHNICAL DEPARTMENT and LABORATORY** under the leadership of **MANAGEMENT**, leadership based on active and positive communication, continuous motivation and joint decision making to resolve conflicts.
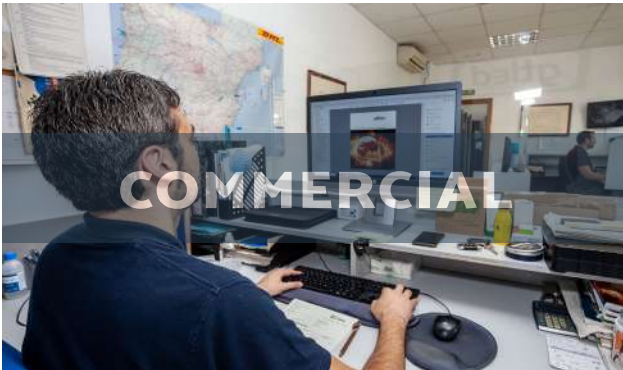
›**25**
National
AGENTS

›**7**
COUNTRIES
represented

›**39**
years of
EXPERIENCE

›**2000**
CUSTOMERS

ADMINISTRATION

PURCHASING

LOGISTICS

COMMERCIAL

MARKETING

TECHNICAL DEPARTMENT

LABORATORY

WARRANTY

Gtlan products are guaranteed for a period of 25 years from the date of installation.

Structured Cabling Systems (SCS) built with Gtlan products meet and exceed established specifications and support the applications demanded by today's communication systems.

Warranty applicable to systems built to the following TIA-568 and ISO/IEC 11801 standards: Category 3/Class C, Category 5e/Class D, Category 6/Class E, Category 6A/Class Ea, Category 8/Class I (Cat 8.1) or Class II (Cat 8.2), and applicable to systems tested according to ISO 14763-3, EN 61280-4-1 and EN 61280-4-2: OM1, OM2, OM3, OM4, OS1, OS2.

The Gtlan products that make up a Structured Cabling System (SCS) are all those passive products featured in the current Gtlan catalogue: cables, connectors, panels, patch cables, pigtails, racks, etc.

With the Gtlan brand, the eligibility requirements for the extended warranty are minimal:
1. The SCS installation must consist of new Gtlan products or previously-approved products from other brands.

2. The personnel installing the equipment must be qualified. No specific Gtlan brand qualification is required.

3. Documentation and certification of the work must be provided.

All Structured Cabling System products covered by this warranty will be repaired or replaced when defective in workmanship or after deterioration as a result of normal use of the system.

1
RACK CABINETS

A rack is a base, metallic structure or framework, designed to house computer systems and telecoms networks. All dimensions are standardised so that they are compatible with any equipment, regardless of the manufacturer.

The development of standards aims to maintain system interoperability and quality in different market segments. Racks are commonly used to install electronics in an orderly manner in critical spaces.

The EIA/ECA-310-E, IEC 60297 and ETSI/EN 300 119 standards provide basic references for the different measurements of the racks, whether these are closed or open racks, wall-mounted or floor-standing, for indoor or outdoor installation, highlighting the importance of managing the internal space in the rack, during the design phase in a data centre, with respect to the equipment that will be housed within it. Following the demise of the EIA, all standards development and updating work which had been the responsibility of the EIA was handed over to the ECA (Electronic Components, Assemblies, Equipment & Supplies Association) and the TIA (Telecommunications Industry Association).

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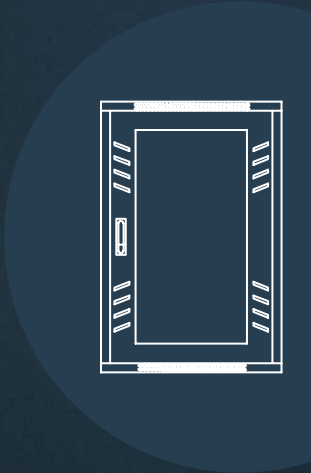
A **wide variety** of rack cabinets are available. These cabinets are equipped with **various accessories** to facilitate the installation of equipment such as: shelves, panels, cable guides, cable distribution rings, power supply strips, ventilation units, thermostats, etc.

They are divided into **several product ranges**, depending on their use, external size and height. The **height** of the racks is measured in a **unit called "U",** which is equivalent to **44.45 mm or 1.75 inches**. Devices designed to be installed in a rack cabinet must have an approved height. The **Rack Unit** ("RU" or "U") is defined as a standard **1.75"** **unit of measurement within which there is a repeated pattern of holes**. To create this space, **the regulation standardises** measurements between **3 alternating holes** with the following dimensions: **1/2"-5/8"-5/8",** then repeat the same sequence to form the next U.

The standard also **refers to the width of the racks**, the unit of measurement being inches, equal to **19", 21" (ETSI) or 23"**. However, the **19"** size is technically and commercially the **most used**.
On the other hand, there is no pre-set standard for the depth of the racks as this depends on the manufacturer and the equipment to be installed in the rack.

They are often used in places that need to host a large number of devices such as data processing centres, companies, places with limited space. Servers, switches, switchboards, telephone and fibre optic distributors, television headends, sound equipment, etc. are usually installed, as well as the structured cabling of an office or company that needs to have its entire work network centralised in an orderly and controlled manner.

They can also have shelves and brackets to support other types of less standardised devices, such as monitors, keyboards or other systems which are larger or heavier.

If a chassis does not comply with the design criteria and standardised measurements, this could lead to problems of incompatibility with standard equipment and put electronic equipment at risk, with very negative consequences.

For this reason, it is always **strongly recommended** that you consider the cost-benefit analysis and **purchase a chassis from a reliable manufacturer such as Gtlan** that meets the design, engineering and quality control requirements.

That "metal box" is extremely important, as it will be your **critical containment space housing high-value information equipment**and will help maintain business continuity in companies 24 hours a day, 7 days a week, 365 days a year.

Standard configuration

19" Standard width between rack strips

1 U
Standard accessory height

1 U

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SUBFAMILIES
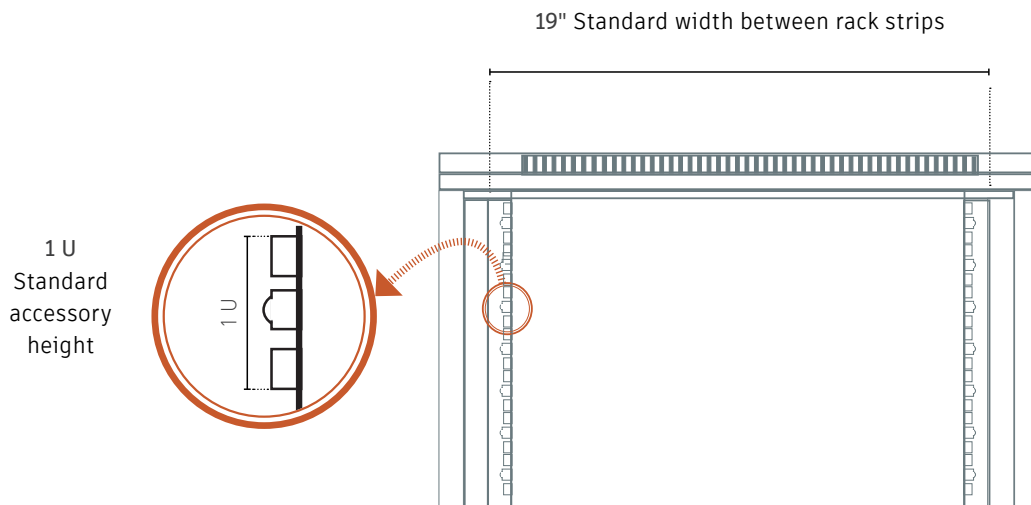
WALL-MOUNTED 19" RACK CABINETS

1.1

Cost-effective solution for sites with limited space or low density. They are 19" wall-mounted racks for maximum loads of 60 kg and 80 kg, with one or two bodies according to the model. IP20.
They have a "Drill & Go" fixing system that allows them to be installed by a single operator. Doors are reversible and removable without the use of tools. Removable sides. Top and bottom cable access.

MINILAN SOHO 10" RACK CABINETS

1.2

Solution for domestic installations and small offices. These are 10" wall-mounted racks for maximum loads of 20 kg. IP20. Door is reversible and removable without the use of tools. Top, bottom and rear cable access. Fixed sides.

FLOOR-STANDING 19" RACK CABINETS

1.3

Solution for offices, shops, industrial sites, data centres, etc. These are 19" floor-standing racks for maximum loads of 800 kg. IP20. Doors are reversible and removable without the use of tools. Removable sides and four depth-adjustable "U-type" rack strips. Top and bottom cable access.

SERVER 19" RACK CABINETS

1.4

High-density solution for offices, shops, industrial sites, data centres, etc. These are 19" floor-standing racks for maximum loads of 800 kg. Due to their dimensions, ventilation and cabling organisation, they are suitable for the installation of servers and for high-density sites. IP20. Doors are reversible, perforated and removable without the use of tools. Perforated and removable sides. Four depth-adjustable "U-type" rack strips. Top and bottom cable access.

DATA SERVER SERIES FLOOR-STANDING CABINETS

Solution for offices, shops, industrial sites, data centres, etc. These are 19" floor-standing racks for maximum loads of 1000 kg. Their dimensions, ventilation and cabling organisation are designed especially for the installation of servers. IP20. Double rear doors are, reversible, perforated and removable without tools. Removable sides. Four depth-adjustable "L-type" rack strips. Top and bottom cable access.

OUTDOOR 19" RACK CABINETS

1.5
19" outdoor racks built to withstand demanding outdoor conditions. IP55, finished with anti-corrosion treatment and rain protection features. Available in wall-mounted and floor-standing options. Our range of accessories covers the vast number of configuration possibilities of this series.

OPEN 19" RACK CABINETS

1.6
Exposed structure solution for mounting network equipment that does not require physical security or ventilation control. These are racks with mounting rack strips, without sides or doors. An open rack provides easy access to equipment and open space for cable management.

SPECIAL RACK CABINETS

1.7
Solutions adapted to specific projects which have requirements justifying the use of alternative enclosure models: open cabinets, corner units, shallow-depth wall-mounted units, security cabinets, cabinets for equipment, soundproof enclosures, etc.

VOICE/DATA KIT RACK CABINETS

1.8
Complete solutions consisting of cabinet, cables, panels and switch. The kit contains all the components necessary for the installation of a structured copper cabling system for several voice and data stations. Available in Cat 5e or Cat6, up to a maximum of 46 stations.

RACK CABINET ACCESSORIES

1.9
Elements required to configure cabinets and adapt them to the technical and functional needs of the project: shelves, panels, cable guides, brackets, trims, fans, thermostats, fixings, castors, levellers, locks, etc.

1.1

RACK CABINETS
WALL-MOUNTED 19"

GLOBAL SERIES K-line 1 body

EIA/ECA-310-E, IEC 60297-3-100

Black RAL 9004

IP 20

Load max.

60 kg (3S)
80 kg (4S/4SD)

ASSEMBLED	31GTM**4F3S**	31GTM**6F3S**	31GTM**6F4S**	31GTM**9F4S**	31GTM**12F4S**	31GTM**15F4S**
DISASSEMBLED	-	-	31GTM**6F4SD**	31GTM**9F4SD**	31GTM**12F4SD**	31GTM**15F4SD**
Capacity	4 U	6 U	6 U	9 U	12 U	15 U
Rack strips	4 "L-type" depth-adjustable (2 mm thick)					
Bodies	1 body					
Material	SPCC steel, high-quality cold-rolled, 2 mm					
Front door	5 mm tempered glass, with rectangular lock					
Rear	Flat. With Drill & Go fastening (1-person assembly)					
Sides	Flat. Removable. With plastic latches (round lock optional)					
Cable entry	Top and bottom					
Finish	Fine-grained powder coating					
Height (mm)	300	367	367	500	635	769
Width (mm)	600	600	600	600	600	600
Depth (mm)	300	300	450	450	450	450
Weight (kg)	12.7	14.70	12.5	15	17.8	20.5
ACCESSORIES NOT INCLUDED						

"D"= Disassembled option.

DRILL & GO
1-person assembly

F= 300 mm

F= 450 mm
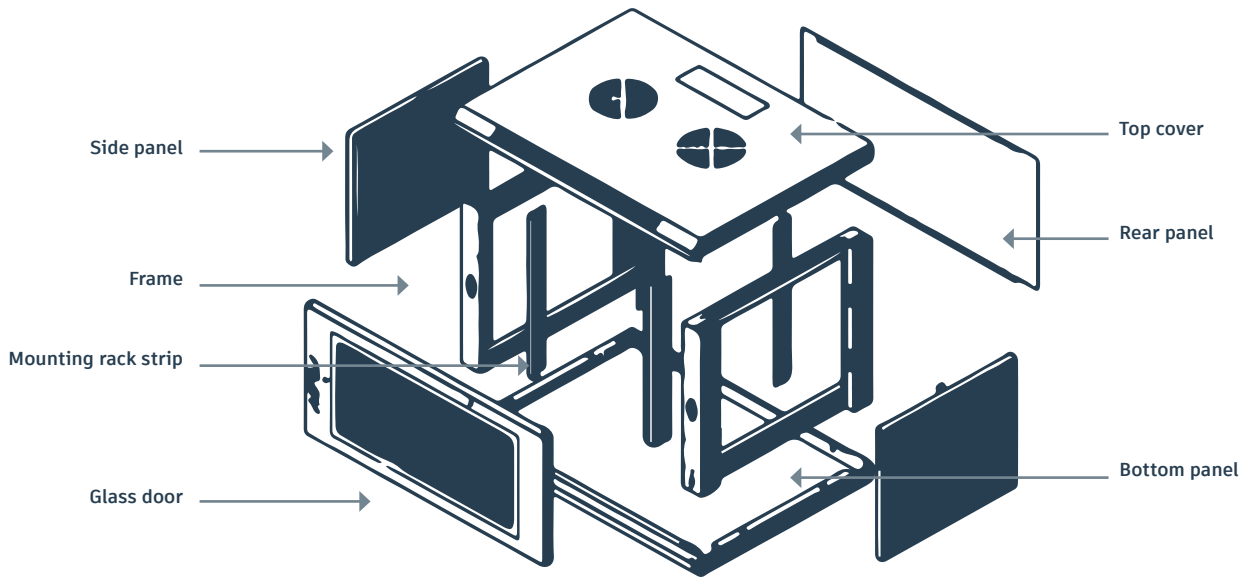
SCHEMATIC OF **DISASSEMBLED CABINET**

Side panel

Top cover

Frame

Rear panel

Mounting rack strip

Glass door

Bottom panel

See the assembly instructions:
GTLAN Telecommunications Experts

Manual for the assembly of disassembled rack cabinets, Gtlan Telecomunicaciones.

1.1

RACK CABINETS
WALL-MOUNTED 19"

GLOBAL SERIES 1 body

EIA/ECA-310-E, IEC 60297-3-100

Black RAL 9004 | IP 20 | Load max. 60 kg

	31GTM**6F4**	31GTM**9F4**	31GTM**12F4**	31GTM**15F4**	31GTM**9F6**	31GTM**12F6**	31GTM**15F6**	31GTM**18F6**
Capacity	6 U	9 U	12 U	15 U	9 U	12 U	15 U	18 U
Rack strips	4 "L-type" depth-adjustable (2 mm thick)							
Bodies	1 body							
Material	SPCC steel, high-quality cold-rolled, 2 mm							
Front door	5 mm tempered glass, with rectangular lock							
Rear	Flat. With Drill & Go fastening (1-person assembly)							
Sides	Flat. Removable. With plastic latches (round lock optional)							
Cable entry	Top and bottom							
Finish	Fine-grained powder coating							
Height (mm)	367	500	634	768	500	634	768	897
Width (mm)	600	600	600	600	600	600	600	600
Depth (mm)	450	450	450	450	600	600	600	600
Weight (kg)	17.29	20.90	23.75	27.08	25.30	28.55	30.88	35.15
ACCESSORIES INCLUDED	x1 fixed shelf		x1 ceiling fan		x1 kit 25 pcs screws		x1 19" power strip	

DRILL & GO
1-person assembly

See the assembly instructions:
GTLAN Telecommunications Experts

Parts and accessories for the Gtlan Telecommunications 6U wall-mounted cabinet.

12U wall-mounted rack cabinet depth 400 Gtlan Telecommunications.

RACK CABINETS
WALL-MOUNTED 19"

GLOBAL SERIES 2 bodies

EIA/ECA-310-E, IEC 60297-3-100

Black RAL 9004 | IP 20 | Load max. 60 kg

	31GTM**6F5**	31GTM**9F5**	31GTM**12F5**	31GTM**15F5**
Capacity	6 U	9 U	12 U	15 U
Rack strips	4 "L-type" depth-adjustable (2 mm thick)			
Bodies	2 bodies			
Material	SPCC steel, high-quality cold-rolled, 2 mm			
Front door	5 mm tempered glass, with rectangular lock			
Rear	Hinged for improved rear access to cabinet			
Sides	Flat. Removable. With plastic latches (round lock optional)			
Cable entry	Top and bottom			
Finish	Fine-grained powder coating			
Height (mm)	367	500	634	768
Width (mm)	600	600	600	600
Depth (mm)	550	550	550	550
Weight (kg)	20.43	24.04	27.93	29.65
ACCESSORIES INCLUDED	x1 fixed shelf	x1 ceiling fan	x1 kit 25 pcs screws	x1 19" power strip

1.2

RACK CABINETS
SOHO 10"

MINILAN SOHO 10"

EIA/ECA-310-E

Black RAL 9004 | IP 20 | Load max. 20 kg

31GTSOHO2

Capacity	6 U
Rack strips	2 "L Type".
Material	SPCC steel, cold-rolled, 2 mm
Front door	Glass with round lock
Rear	Open
Sides	Fixed. Flat.
Cable entry	Rear, top and bottom
Finish	Fine-grained powder coating
Height (mm)	315
Width (mm)	300
Depth (mm)	325
Weight (kg)	7.03
ACCESSORIES INCLUDED	x1 cantilever shelf / x1 kit 25 pcs screws/nuts / x1 power strip 3 Schuko sockets

ACCESSORIES FOR MINILAN SOHO 10"

Unpopulated 10" panel 45x45

Code	Height	Capacity	Material	Dimensions (mm)
50PH45SH	1.5 U	4 modules of 45x45 mm	SPCC steel, cold-rolled, 1.5 mm	59x254x10

EIA/ECA-310-E

· For installation of 45x45 mm elements.

Black RAL 9004

Unpopulated 10" panel 8 slots for RJ45 connectors

Code	Height	Capacity	Cable entry	Material	Dimensions (mm)
50P8V	1.5 U	8 slots for RJ45 Keystone connectors	90º	SPCC steel, cold-rolled, 1.5 mm	44x254x9

EIA/ECA-310-E

· Supplied without connectors.

Black RAL 9004

10" panels 1U C-5E / C-6 for 12 RJ45 connectors

Code	Category	Height	Connectors	Connection	Section	Insertion force	Holding force	Material	Dimensions (mm)
31GT12PU5	C-5E								
31GT12PU6	C-6	1 U	12 (2 modules of 6)	Type 110	22 to 26 AWG	900 g for 8 contacts	7.7 kg	SPCC steel 1.5 mm, ABS plastic, bronze	44x254x49
31GT12PU6S	C-6								

ANSI/TIA/EIA 568.2 Rev. D, ISO/IEC 11801-1, UL94-V0, UL94-V2

· Labelled for T568 and 568B connection.

Black RAL 9004

Cantilever shelf

Code	Cabinet type	Fixing	Material	Dimensions (mm)
31GTBSH	SOHO	Cantilever	SPCC steel, cold-rolled, 1.5 mm	16x254x190

EIA/ECA-310-E

· Ideal for installation in MiniLan SOHO-10" cabinets.

Fine-grained powder coating

Black RAL 9004

Load max. 5 kg

1.3

RACK CABINETS
FLOOR-STANDING 19"

gtlan

GLOBAL SERIES K-line

EIA/ECA-310-E, IEC 60297-3-100, ETSI/EN 300 119

Black RAL 9004 | IP 20 | Load max. 800 kg

ASSEMBLED	31GTS1866S	31GTS2266S
DISASSEMBLED	31GTS**1866SD**	31GTS**2266SD**
Capacity	18 U	22 U
Rack strips	4 "U-type" depth-adjustable (2 mm thick)	
Material	SPCC steel, high-quality cold-rolled, 2 mm	
Front door	5 mm tempered glass, with rectangular lock	
Rear door	Flat. Round lock	
Sides	Flat. Removable. With plastic latches (round lock optional)	
Cable entry	Top and bottom	
Finish	Fine-grained powder coating	
Vertical cable guide	NO	NO
Ceiling fans	NO	NO
Height (mm) (WITHOUT CASTORS/ FEET)	900	1098
Width (mm)	600	600
Depth (mm)	600	600
Weight (kg)	53.20	59.66
ACCESSORIES INCLUDED	x1 4 feet levelling kit	x1 kit 4 castors

"D"= Disassembled option.
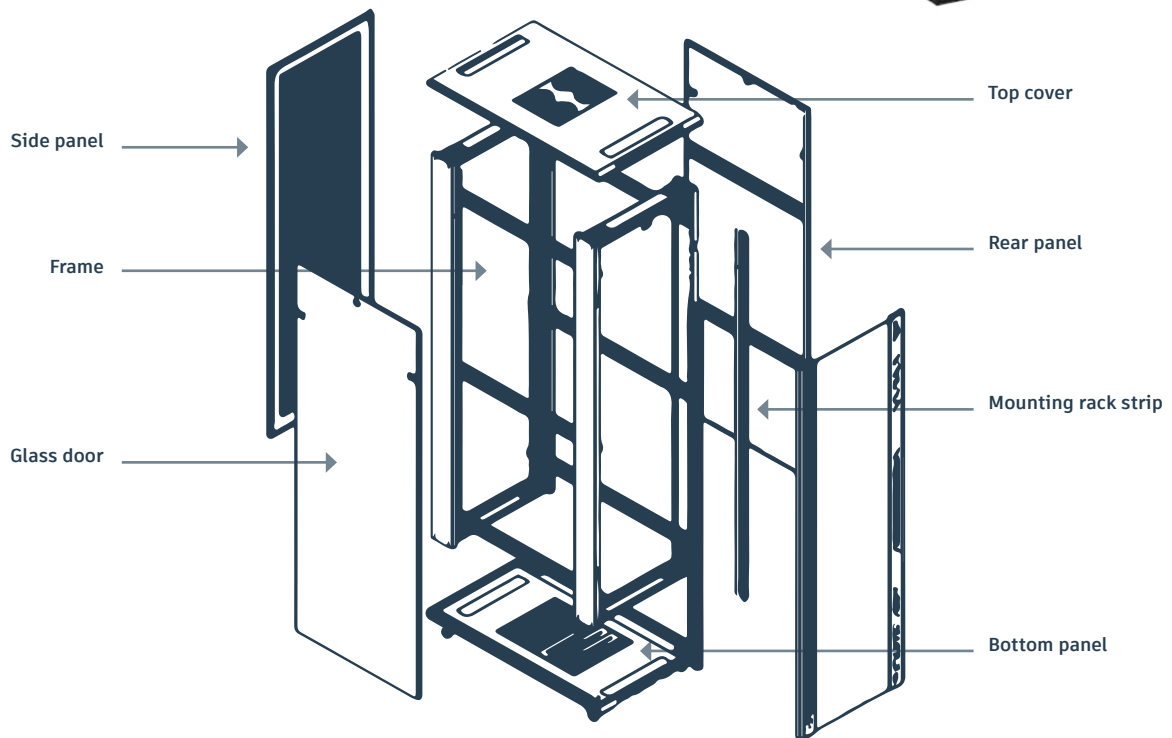
RACK CABINETS

SCHEMATIC OF **DISASSEMBLED CABINET**

Side panel

Frame

Glass door

Top cover

Rear panel

Mounting rack strip

Bottom panel

See the assembly instructions:
GTLAN Telecommunications Experts

Manual for the assembly of the disassembled Gtlan rack cabinet, GTS1866SD.

Manual for the assembly of Gtlan telecoms rack cabinet GTS2266SD.

1.3

RACK CABINETS
FLOOR-STANDING 19"

GLOBAL SERIES

EIA/ECA-310-E, IEC 60297-3-100

Black RAL 9004 | IP 20 | Load max. 800 kg

ASSEMBLED	31GTS**1866**	31GTS**2266**	31GTS**2296**	31GTS**2766**	31GTS**3266**	31GTS**3296**
DISASSEMBLED	31GTS**1866D**	31GTS**2266D**	31GTS**2296D**	31GTS**2766D**	31GTS**3266D**	31GTS**3296D**
Capacity	18 U	22 U	22 U	27 U	32 U	32 U
Rack strips	4 "U-type" depth-adjustable (2 mm thick)					
Material	SPCC steel, high-quality cold-rolled, 2 mm					
Front door	5 mm tempered glass, with rectangular lock					
Rear door	Flat. Round lock					
Sides	Flat. Removable. With plastic latches (round lock optional)					
Cable entry	Top and bottom					
Finish	Fine-grained powder coating					
Vertical cable guide	NO	NO	NO	NO	NO	NO
Ceiling fans	2	2	4	2	2	4
Height (mm) (WITHOUT CASTORS/FEET)	918	1098	1098	1315	1543	1543
Width (mm)	600	600	600	600	600	600
Depth (mm)	600	600	900	600	600	900
Weight (kg)	53.20	59.66	73.91	66.88	75.53	95

ASSEMBLED	31GTS**4266***	31GTS**4296***	31GTS**4288***
DISASSEMBLED	31GTS**4266D***	31GTS**4296D***	31GTS**4288D***
Capacity	42 U	42 U	42 U
Rack strips	4 "U-type" depth-adjustable (2 mm thick)		
Material	SPCC steel, high-quality cold-rolled, 2 mm		
Front door	5 mm tempered glass, with rectangular lock		
Rear	Flat. Round lock		
Sides	Flat. Removable. With plastic latches (round lock optional)		
Cable entry	Top and bottom		
Finish	Fine-grained powder coating		
Vertical cable guide	NO	NO	YES
Ceiling fans	2	4	4
Height (mm) (WITHOUT CASTORS/FEET)	1975	1975	1975
Width (mm)	600	600	800
Depth (mm)	600	900	800
Weight (kg)	92.15	114.95	132.05

"D"= Disassembled option.

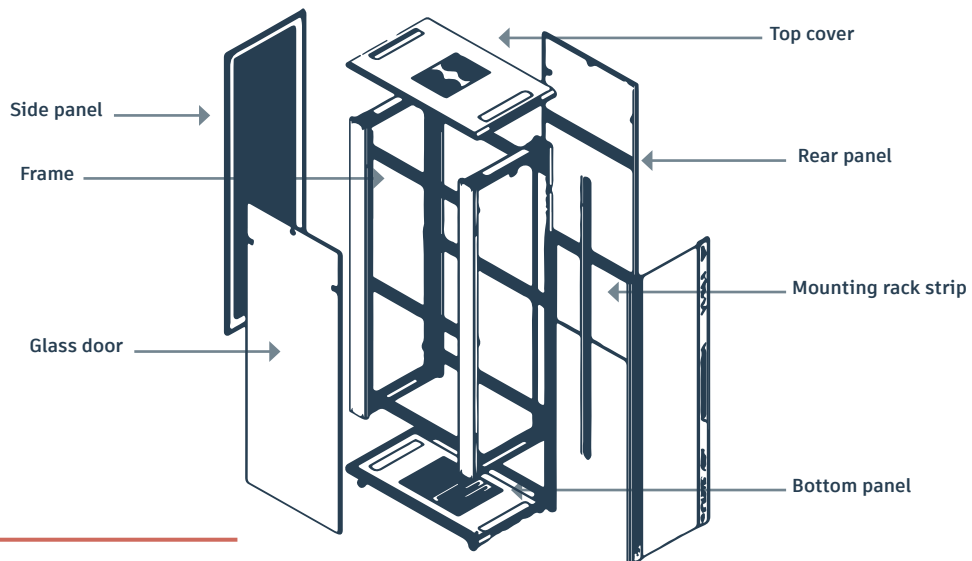| ACCESSORIES INCLUDED	x1 / *x2 Fixed shelf	x1 19" power strip	*see table Ceiling fans	x1 kit 4 levelling feet	x1 kit 4 castors	x1 kit 25 pcs screws/nuts

SCHEMATIC OF **DISASSEMBLED CABINET**

- Side panel
- Frame
- Glass door
- Top cover
- Rear panel
- Mounting rack strip
- Bottom panel

See the assembly instructions:
GTLAN Telecommunications Experts

Gtlan telecoms rack cabinet assembly manual.

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1.3
RACK CABINETS
FLOOR-STANDING 19"

GLOBAL PRO SERIES
EIA/ECA-310-E, IEC 60297-3-100

Black RAL 9004 | IP 20 | Load max. 800 kg

	31GTP**2266**	31GTP**2296**	31GTP**4266***	31GTP**4296***	31GTP**4288***
Capacity	22 U	22 U	42 U	42 U	42 U
Rack strips	4 "U-type" depth-adjustable (2 mm thick)				
Material	SPCC steel, high-quality cold-rolled, 2 mm				
Front door	Perforated, curved, with rectangular lock				
Rear door	Flat. Round lock				
Sides	Flat. Removable. With plastic latches (round lock optional)				
Cable entry	Top and bottom				
Finish	Fine-grained powder coating				
Vertical cable guide	NO	NO	NO	NO	YES
Ceiling fans	2	4	2	4	4
Height (mm) (WITHOUT CASTORS/ FEET)	1098	1098	1975	1975	1975
Width (mm)	600	600	600	600	800
Depth (mm)	650	950	650	950	850
Weight (kg)	59.66	73.91	92.15	114.95	132.05
ACCESSORIES INCLUDED	x1 / x2* fixed shelf	*see table ceiling fan	x 1 kit 4 levelling feet	x 1 kit 4 castors	x1 kit 25 pcs screws/nuts	x1 power strip 19" power supply

RACK CABINETS
FLOOR-STANDING 19"

GLOBAL PRO SERIES

EIA/ECA-310-E, IEC 60297-3-100

● Black RAL 9004	IP 20

Load max. 800 kg

31GTPD**4288**

Capacity	42 U
Rack strips	4 "U-type" depth-adjustable (2 mm thick)
Material	SPCC steel, high-quality cold-rolled, 2 mm
Front door	Double perforated with rectangular lock
Rear door	Double perforated with rectangular lock
Sides	Flat. Removable. With plastic latches (round lock optional)
Cable entry	Top and bottom
Finish	Fine-grained powder coating
Vertical cable guide	Vertical cable guides in part no. 31GTP4288
Ceiling fans	YES
Height (mm) (WITHOUT CASTORS/ FEET)	1975
Width (mm)	800
Depth (mm)	800
Weight (kg)	132.05

ACCESSORIES INCLUDED	x2 fixed shelf	x4 ceiling fan	x 1 kit 4 levelling feet	x 1 kit 4 castors	x1 kit 25 pcs screws/nuts	x1 power strip 19" power supply

This is the same cabinet as the global series, but with a double perforated front door for better ventilation.

1.4

RACK CABINETS
SERVER 19"

SERVER SERIES

EIA/ECA-310-E, IEC 60297-3-100

Black RAL 9004 | IP 20 | Load max. 800 kg

	31GTS**2216**	31GTS**32128**	31GTS**4218***	31GTS**4718***
ASSEMBLED				
DISASSEMBLED	31GTS**2216D**	31GTS**32128D**	31GTS**4218D***	31GTS**4718D***
Capacity	22 U	32 U	42 U	47 U
Rack strips	4 "U-type" depth-adjustable (2 mm thick)			
Material	SPCC steel, high-quality cold-rolled, 2 mm			
Front door	5 mm tempered glass, with rectangular lock			
Rear door	Perforated with round lock			
Sides	Removable, with perforations and plastic latches (round lock optional)			
Cable entry	Top and bottom			
Finish	Fine-grained powder coating			
Vertical cable guide	NO	NO	YES	YES
Ceiling fans	4	4	4	4
Height (mm) (WITHOUT CASTORS/ FEET)	1098	1543	1975	2180
Width (mm)	600	800	800	800
Depth (mm)	1000	1200	1000	1000
Weight (kg)	75.62	118.75	142.5	154.7
ACCESSORIES INCLUDED	x1 / x2* fixed shelf	x4 ceiling fan	x 1 kit 4 levelling feet	x 1 kit 4 castors	x1 kit 25 pcs screws/nuts	x1 power strip 19" power supply

"D"= Disassembled option.

SCHEMATIC OF **DISASSEMBLED CABINET**
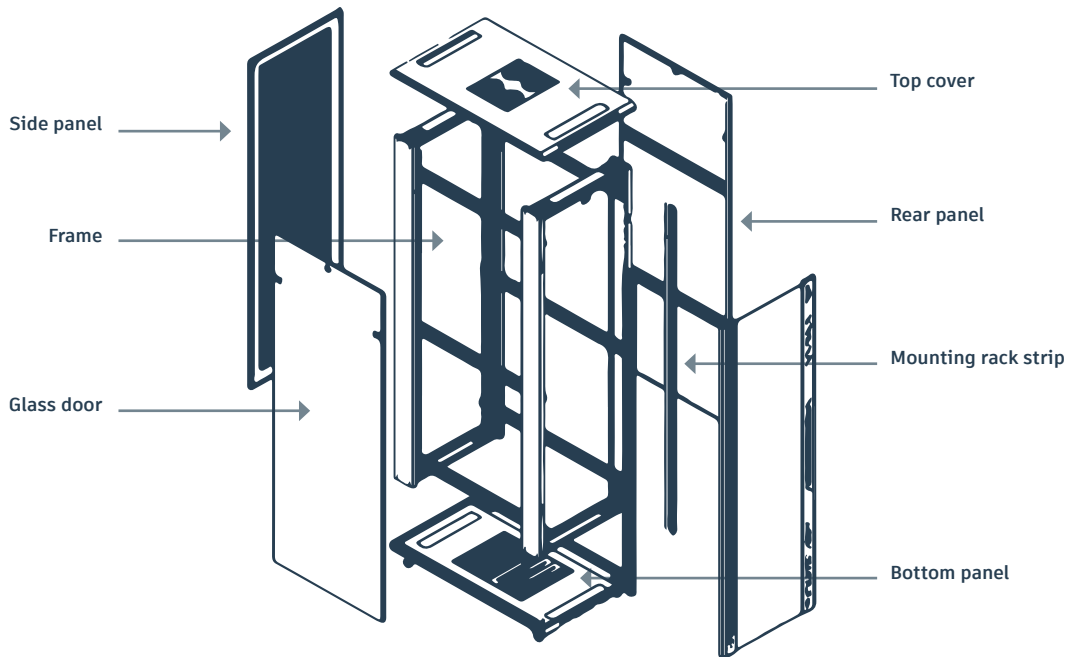
Side panel

Frame

Glass door

Top cover

Rear panel

Mounting rack strip

Bottom panel

See the assembly instructions:
GTLAN Telecommunications Experts

Gtlan telecoms rack cabinet assembly manual.

1.4

RACK CABINETS
SERVER 19"

gtlan

PRO SERVER SERIES

EIA/ECA-310-E, IEC 60297-3-100

● Black RAL 9004 | IP 20 | Load max. 800 kg

	31GTP**2216**	31GTP**4218***	31GTP**4718***
Capacity	22 U	42 U	47 U
Rack strips	4 "U-type" depth-adjustable (2 mm thick)		
Material	SPCC steel, high-quality cold-rolled, 2 mm		
Front door	5 mm tempered glass, with rectangular lock		
Rear door	Perforated with round lock		
Sides	Removable, with perforations and plastic latches (round lock optional)		
Cable entry	Top and bottom		
Finish	Fine-grained powder coating		
Vertical cable guide	NO	YES	YES
Ceiling fans	4	4	4
Height (mm) (WITHOUT CASTORS/ FEET)	1098	1975	2180
Width (mm)	600	800	800
Depth (mm)	1050	1050	1050
Weight (kg)	75.62	142.5	154.7

ACCESSORIES INCLUDED	x1 / x2* fixed shelf	x4 ceiling fan	x 1 kit 4 levelling feet	x 1 kit 4 castors	x1 kit 25 pcs screws/nuts	x1 power strip 19" power supply

1.4

RACK CABINETS
SERVER 19"

DATA SERVER SERIES

EIA/ECA-310-E, IEC 60297-3-100

Black RAL 9004 | **IP 20** | **Load max. 1000 kg**

	31GTD**2216**	31GTD**4216***	31GTD**4218***	31GTD**4788***	31GTD**4718***
Capacity	22 U	42 U	42 U	47 U	47 U
Rack strips	4 "L-type" depth-adjustable (2 mm thick)				
Material	SPCC steel, high-quality cold-rolled, 2 mm				
Front door	Perforated, 1 leaf, with lock				
Rear door	Perforated, 2-leaf, with lock				
Sides	Flat, removable with lock				
Cable entry	Top and bottom				
Finish	Fine-grained powder coating				
Vertical cable guide	YES	YES	YES	YES	YES
Ceiling fans	4	4	4	4	4
Height (mm) (WITHOUT CASTORS/ FEET)	1098	1975	1975	2180	2180
Width (mm)	600	600	800	800	800
Depth (mm)	1000	1000	1000	800	1000
Weight (kg)	80.47	132.43	147.44	157.01	159
ACCESSORIES INCLUDED	x1 / x2* fixed shelf	x4 ceiling fan	x 1 kit 4 levelling feet	x 1 kit 4 castors	x1 kit 25 pcs screws/nuts	x1 kit cable guide ring

Front door

Rear door

Vertical cable management system using rings, which allows the cabinet to be kept tidy and accessible for work at all times.

1.5

RACK CABINETS
OUTDOOR 19"

OUTDOOR WALL-MOUNTED

IEC 62208, IEC 61969-1

| | Grey RAL 7032 | IP 55 | Load max. 25 kg |

	31EM**9F4**	31EM**12F4**	31EM**9F4T**	31EM**12F4T**
Capacity	9 U	12 U	9 U	12 U
Rack strips	2 "L-type" depth-adjustable (2 mm thick)			
Material	Steel 2 mm			
Front door	Flat, lockable, rubber seal for IP protection and metal hinges			
Rear	Flat			
Sides	Fixed. Flat.			
Top	Flat		Canopy with pitched gutter	
Finish	Zinc metallic anti-corrosion primer			
Height (mm)	500	600	550	650
Width (mm)	600	600	640	640
Depth (mm)	410	410	445	445
Weight (kg)	17	22	19	24

Optional:

• Available depths 400 mm, 500 mm 600 mm.
• Available heights, 6U, 9U, 12U, 15U and 18U.
• The 12U, 15U and 18U racks can be fitted with two locks with keys.
• 2-fan roof ventilation option when the cabinet includes a canopy.
• Optional side ventilation with grille and dust filter.
• Option of adjustable rear rack strips.
• Option of different wall mounting systems:
    - Fixing with standard anchorages.
    - Fixing to poles.
    - Special fixing.
• Sound-dampening blanket.
• Option for customised manufacture and painting.
• Option for manufacture in stainless steel.
• IP65 option.

1.5

RACK CABINETS
OUTDOOR 19"

OUTDOOR FLOOR-STANDING

IEC 62208, IEC 61969-1

Grey RAL 7032 | IP 55 | Load max. 800 kg

31E2466T

Capacity	24 U
Rack strips	2 "L-type" depth-adjustable (2 mm thick)
Material	Steel 2 mm
Front door	Flat, lockable, rubber seal for IP protection and metal hinges
Rear	Flat with 4 recesses and holes for wall mounting
Sides	Fixed. Flat.
Top	Canopy with guttering around the perimeter
Finish	Zinc metallic anti-corrosion primer
Height (mm)	1250
Width (mm)	600
Depth (mm)	600
Weight (kg)	45

Optional:

• Option for manufacture in stainless steel.
• Roof guttering.
• 2-fan roof ventilation when the cabinet includes a canopy.

• Ventilation on the side with grille and dust filter.
• Rear adjustable rack strips
• Different wall mounting systems.
- Fixing with standard anchorages.
- Fixing to poles.
- Special fixing.
• Sound-dampening blanket
• Option for customised manufacture and painting.

RACK CABINETS

RACK CABINETS
OPEN 19"

1.6

QUICK FIXING **STABLE STRUCTURES**

EIA/ECA-310-E

Black
RAL 9004

Load max.
150 kg

	31GTA**22**	31GTA**42**
Capacity	22 U	42 U
Rack strips	4 integrated in the chassis	
Material	SPCC steel, high-quality cold-rolled, 2 mm	
Bracket	19" front and rear	
Finish	Fine-grained powder coating	
Height (mm) (WITHOUT CASTORS/ FEET)	1093	1980
Width (mm)	575	575
Depth (mm)	600	600
Weight (kg)	23	41
ACCESSORIES INCLUDED	x1 kit 4 castors	

1.6

RACK CABINETS
OPEN 19"

WALL BRACKETS FOR 19" PANEL

IEC 60297-3-100

Black RAL 9004

Load max.
20 kg

	50S**P2**	50S**P4T**
Capacity	2 U	4 U
Sides	Fixed	Folding and telescopic
Material	SPCC cold-rolled metal, 1.5 mm	SPCC cold-rolled metal, 2 mm
Brackets	Open-fronted ready for installation in small telecoms or server rooms	
Finish	Fine-grained powder coating	
Height (mm)	88	176
Width (mm)	483	483
Depth (mm)	150	235 - 248

50**SP2**	50**SP4T**

1.7

SHALLOW WALL-MOUNTED CABINET

EIA/ECA-310-E

Black RAL 9004 | IP 20 | Load max. 60 kg

31GTM**12F15**

Capacity	12 U
Rack strips	2 "L-type" depth-adjustable (2 mm thick)
Bodies	1 body
Material	SPCC steel, high-quality cold-rolled, 2 mm
Front door	Tempered glass with round lock
Rear	Flat
Sides	Fixed. Flat.
Cable entry	Top and bottom
Finish	Fine-grained powder coating
Height (mm)	634
Width (mm)	600
Depth (mm)	150
Weight (kg)	12.80
ACCESSORIES INCLUDED	x1 kit 25 pcs screws/nuts

1.7

RACK CABINETS
SPECIAL

19" SECURITY RACK CABINET

EIA/ECA-310-E, IEC 60297-3-100

Black RAL 9004 | IP 20 | Load max. 60 kg

31GTM9F4SG

Capacity	9 U
Rack strips	2 "L-type" depth-adjustable (2 mm thick)
Bodies	1 body
Material	SPCC steel, high-quality cold-rolled, 2 mm
Front door	Perforated, with security lock
Rear	Flat. With Drill & Go fastening (1-person assembly)
Sides	Fixed. Flat.
Cable entry	Top and bottom
Finish	Fine-grained powder coating
Height (mm)	500
Width (mm)	600
Depth (mm)	450
Weight (kg)	20.90
ACCESSORIES INCLUDED	x1 fixed shelf — x1 ceiling fan — x1 kit 25 pcs screws/nuts — x1 19" power strip

DRILL & GO
1-person assembly

RACK CABINETS (vertical sidebar text)

F600 WALL-MOUNTED/ FLOOR-STANDING 19" CABINETS

EIA/ECA-310-E, IEC 60297-3-100, ETSI/EN 300 119

Black RAL 9004 | IP 20 | Load max. 80 kg (wall) 150 kg (floor)

ASSEMBLED	31GTM**12F6PS**	31GTM**15F6PS**	31GTM**18F6PS**
DISASSEMBLED	31GTM**12F6PSD**	31GTM**15F6PSD**	31GTM**18F6PSD**
Capacity	12 U	15 U	18 U
Rack strips	4 "L-type" depth-adjustable (2 mm thick)		
Material	SPCC steel, high-quality cold-rolled, 2 mm		
Front door	5 mm tempered glass, with rectangular lock		
Rear	Flat		
Sides	Flat. Removable. With plastic latches (round side lock optional)		
Cable entry	Top		
Finish	Fine-grained powder coating		
Height (mm) (WITHOUT CASTORS/FEET)	635	769	901
Width (mm)	600	600	600
Depth (mm)	600	600	600
Weight (kg)	22.60	25.85	28.60
ACCESSORIES INCLUDED	x1 4 feet levelling kit		

DRILL & GO
1-person assembly
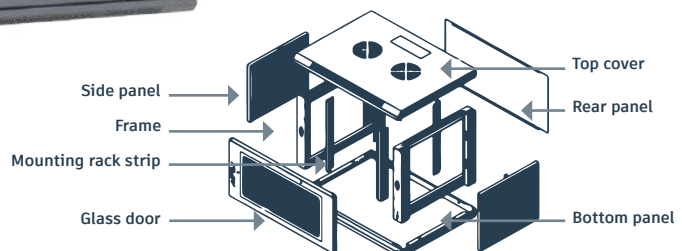
See the assembly instructions:
GTLAN Telecommunications Experts

Gtlan telecoms wall-mounted rack cabinet assembly manual.

Side panel
Frame
Mounting rack strip
Glass door

Top cover
Rear panel
Bottom panel

1.7

RACK CABINETS
SPECIAL

EQUIPMENT RACK CABINET

| | Grey RAL 7032 | Black RAL 9004 | IP 20 | Load max. 200 kg |

31S**SEG**

Capacity	34 laptops (maximum dimension 410x305x52 mm)					
Material	SPCC steel, high-quality cold-rolled, 2 mm					
Front door	Flat, removable with security lock					
Rear	Flat, removable					
Sides	Fixed. Flat.					
Finish	Fine-grained powder coating					
Height (mm) (WITHOUT CASTORS/ FEET)	1040					
Width (mm)	897					
Depth (mm)	500					
Weight (kg)	41					
ACCESSORIES INCLUDED	x6 power strips with 6 Schuko sockets	x1 main switch	x1 double-pole circuit breaker 16A	x 1 kit 4 castors	x1 thermostat	x2 fans	x2 programmers

- Safety cabinet for storage and charging of devices such as laptops, tablets...
- Features two shelves for a total of up to 34 units (17 units in each), external on/off button, timers to start/stop charging, circuit breaker, and thermostat with fans for internal temperature control.
- Carrying handle and castors for easy movement.
- With security key.

See the assembly instructions:
GTLAN Telecommunications Experts

Gtlan rack cabinet for laptop and tablet charging, programmable charging time and ventilation.

ASSEMBLY INSTRUCTIONS

1. The top panel is used for incoming lines from the PABX (switchboard).
2. The middle one for outgoing telephone lines to the workstation.
3. The bottom one for outgoing data lines to the workstation.
4. The switch can be placed on the floor of the cabinet.
5. Once all this has been done, there is still room for the router for internet connection.
6. The cabinet is mounted on the wall by means of the perforations in the bottom.

KIT FOR 8 C-6 STATIONS

Code	Category	Workstations	Voice stations	Data stations
31GT**KIT8C6**	C-6	8	8	8

CONTAINS:				
x1 31GTSOHO2	x1 31GT12PU5	x2 31GT12PU6	x16 50U605GRK	x1 RPSW8G
10" 6U cabinet 1 shelf 1 power strip with 3 Schuko sockets 315x300x325 mm	10" panels 12 RJ45 UTP C-5E T568A/B	10" panels 12 RJ45	Patch cables UTP C-6 0.5 m	Switch 8 RJ45 1000 Mbps Netis

KIT FOR 12 C-5E STATIONS

Code	Category	Workstations	Voice stations	Data stations
31GT**KIT12**	C-5E	12	12	12

CONTAINS:			
x1 31GTSOHO2	x3 31GT12PU5	x24 50U5025GRK	x1 RPSW16S
10" 6U cabinet 1 shelf 1 power strip with 3 Schuko sockets 315x300x325 mm	10" panels 12 RJ45 UTP C-5E T568A/B	Patch cables RJ45 UTP C-5E 0.25 m	Switch 16 RJ45 10/100 BT

1.8

RACK CABINETS
VOICE/DATA KIT

ASSEMBLY INSTRUCTIONS

1. The first three 19" panels (from above) correspond to the telephony distribution. The top one receives the PABX extensions. The third one down carries the lines out to the workstations. The cable guide panel in the middle helps to keep the cables tidy.
2. The fourth panel starts the data distribution block. The data lines go from there to the workstations.
3. The workstations are connected to the switch via the cable guide panel.
4. The shelf can be used for a router for internet access.
5. At the bottom of the cabinet is the 6-way multiple Schuko socket for connecting the power supplies of the installed electrics.

KIT FOR 24 C-6 STATIONS

Code	Category	Workstations	Voice stations	Data stations
31GT**KIT24C6**	C-6	24	24	24

CONTAINS:					
x1 31GTM9F4	**x1** 50PU5K	**x2** 50P4A	**x2** 50PU6K	**x48** 50U605GRK	**x1** RPSW24G
19" 9U cabinet 1 shelf Fan 1 power strip with 6 Schuko sockets 500x600x450 mm	19" panels 24 RJ45 C-5E UTP	19" panels for 5-ring patch cables, 1U	19" panels 24RJ45 C-6 UTP	RJ45 patch cables UTP C-6 0.50 m	19" switch 24 RJ45 10/100/1000 Mbps Netis

KIT FOR 24 C-5E STATIONS

Code	Category	Workstations	Voice stations	Data stations
31GT**KIT24**	C-5E	24	24	24

CONTAINS:				
x1 31GTM9F4	**x3** 50PU5K	**x2** 50P4A	**x48** 50U505GRK	**x1** RPSW24
19" 9U cabinet 1 shelf Fan 1 power strip with 6 Schuko sockets 500x600x450 mm	19" panels 24 RJ45 C-5E UTP	19" panels for 5-ring patch cables 1 U	RJ45 patch cables C-5E UTP 0.50 m	Switch 16 RJ45 10/100 BT

1.8

RACK CABINETS
VOICE/DATA KIT

ASSEMBLY INSTRUCTIONS

1. The top 5 panels are used to distribute the telephone service.
2. The 24 RJ45 C-5E panels in the 1st and 5th positions are the telephone outlets (1-24 and 25-48 respectively) to the workstations.
3. The 2nd and 4th panels are cable guides that help to keep all the cables used to provide telephone service tidy.
4. The panel in 3rd position, 50RJ45 C-3, is the one through which all the available lines arrive from the telephone exchange (PABX). Each telephone number is assigned to the corresponding workstation by means of a patch cord.
5. The 6th and 9th panels, with the switches in between, correspond to the distribution of data to the workstations.
6. For each station that is to be added to the network, a patch cord must be installed to connect the corresponding workstation to one of the 24 ports of the switch (backbone). This is done with a patch cord between the 10/100 Mbps copper outputs.

KIT FOR 46 C-6 / C-5E STATIONS

Code	Category	Workstations	Voice stations	Data stations
31GT**KIT46C6**	C-6	46	46	46
31GT**KIT46**	C-5E	46	46	46

CONTAINS:				
x1 31GTM15F4 19" 15U cabinet 1 fixed shelf Fan 1 power strip with 6 Schuko sockets Removable sides Dimensions: 768x600x450 mm	**x1 50PU3K** 19" panel 50 RJ45 C-3 for telephony **x4 50PU5K (C-5E)** 19" 24 RJ45 C-5E UTP for workstation connection **x4 50PU6K (C-6)** 19" 24 RJ45 C-6 panels for workstation connection **x4 50P4A** 19" panels for 5-ring patch cables, 1U	**x92 50U505GRK (C-5E)** RJ45 patch cables UTP C-5E 0.50 m **x92 50U605GRK (C-6)** RJ45 patch cables UTP C-6 0.5 m	**x2 RPSW24 (C-5E)** 19" switch 24 RJ45 10/100 Mbps, in copper **x2 RPSW24G (C-6)** 19" switch 24 RJ45 10/100/1000 Mbps, in copper	**x1 17TTA25** kit 25 pcs screws and nuts

Digital Temperature Unit

1U fan unit

+34 961 368 571   43

1.9

RACK CABINET

ACCESSORIES

SHELVES

FIXING SCREW AND NUT

BOXES

CASTORS

"L-TYPE" BRACKET

LEVELLING FEET

LIGHT PANEL

LOCKS

VENTILATION UNIT

BATTERY CONNECTOR

FAN

EARTHING CABLE

THERMOSTAT

DOOR FIXING

CABLE GUIDE RINGS

PANELS

VERTICAL CABLE GUIDE

POWER STRIPS

CABLE GUIDE COVER

1.9

ACCESSORIES

RACK CABINETS

Cantilever shelves for 19" cabinets

Code	Height	Fixing	Material	Dimensions (mm)
31GTB**C66**	1 U	Front guides	SPCC steel, cold-rolled, 1.5 mm	45x485x251
31GTB**C662U**	2 U			90x485x251

EIA/ECA-310-E, IEC 60297-3-100

• For 19" wall-mounted and floor-standing cabinets.
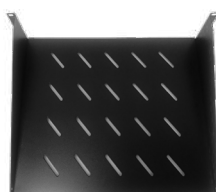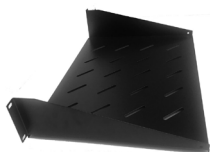
Fine-grained powder coating

Black RAL 9004

Load max. 20 kg

Sliding cantilever keyboard shelf for 19" cabinets

Code	Height	Fixing	Material	Dimensions (mm)
31GTB**E66**	1 U	Front guides	SPCC steel, cold-rolled, 1.5 mm	45x485x360

EIA/ECA-310-E, IEC 60297-3-100

• For 19" wall-mounted and floor-standing cabinets.
• Usable depth: 270 mm

Fine-grained powder coating

Black RAL 9004

Load max. 10 kg

Fixed shelves for 19" wall-mounted cabinets

Code	Fixing	Material	Dimensions (mm)
31GTB**M**	4 points	SPCC steel, cold-rolled, 1.5 mm	35x500x283
31GTB**FM6**			35x500x298

EIA/ECA-310-E, IEC 60297-3-100

• Fixed shelf for 19" wall-mounted cabinets.

Fine-grained powder coating

Black RAL 9004

Load max. 50 kg

1.9

ACCESSORIES

Fixed shelves for 19" floor-standing cabinets (Gtlan only)

Code	Fixing	Material	Dimensions (mm)
31GTB**F66**			35x465x300
31GTB**F88**			35x465x500
31GTB**F96**	4 points	SPCC steel, cold-rolled, 1.5 mm	35x465x600
31GTB**F18**			35x465x700
31GT**F12**			35x465x900

EIA/ECA-310-E, IEC 60297-3-100

· 300 / 500 / 600 / 700 deep for cabinets of depth 600 / 800 / 900 / 1000 / 1200 mm

Fine-grained powder coating | Black RAL 9004 | Load max. 50 kg

Fixed shelves for 19" floor-standing cabinets. Removable. (Gtlan only)

Code	Fixing	Material	Dimensions (mm)
31GTB**E6**			45x465x360
31GTB**E8**	4 points (rail)	SPCC steel, cold-rolled, 1.5 mm	45x465x550
31GTB**E9**			45x465x650
31GTB**E1**			45x465x750

EIA/ECA-310-E, IEC 60297-3-100

· For Global, Server and PRO series cabinets.
· For Data series cabinets, accessory **31GTFBE** is required.

Fine-grained powder coating | Black RAL 9004 | Load max. 50 kg
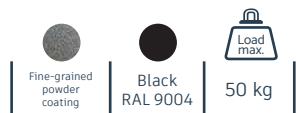
31GT**FBE** | 4-piece fixing kit for pull-out shelf in Data series cabinets.

Cantilever shelf for MiniLan SOHO 10" cabinets

Code	Cabinet type	Fixing	Material	Dimensions (mm)
31GTB**SH**	SOHO	Cantilever	SPCC steel, cold-rolled, 1.5 mm	16x254x190

EIA/ECA-310-E

· Ideal for installation in MiniLan SOHO 10" cabinets.

Fine-grained powder coating | Black RAL 9004 | Load max. 5 kg

1.9 ACCESSORIES

19" security drawers

Code	Height	Material	Dimensions (mm)
31GT**CJ2**	2 U	SPCC steel, cold-rolled, 1.5 mm; and plastic	88x483x382
31GT**CJ4**	4 U		176x483x382

IEC 60297-3-100

- Includes lock with key.

31GT**CJ2**

31GT**CJ4**

Black RAL 9004

Load max. 1 kg 2 kg

"L-type" bracket for 19" cabinets

Code	Material	Rack depth (mm)	Dimensions (mm)
50**SLM**	SPCC steel, cold-rolled, 1.5 mm	600	39x44x300
50**SLR**		800	39x44x500
50**SL**		900	39x44x600
50**SLS**		1000	39x44x700

- To reinforce the fixing of your equipment to the rack.
- Sold by unit.

Black RAL 9004

Load max. 30 kg

19" cabinet light panel

Code	Light fitting	Connection	Power supply	Material	Dimensions (mm)
31GT**PL**	T5 LED tube (with switch)	Three-pin cable with T5 adapter	220V 10A 50-60 Hz	SPCC steel, cold-rolled, 1.5 mm; PC plastic, aluminium, copper	465x25x36

IEC 60297-3-100

- 19" panel with led tube for cabinet.

1.9

ACCESSORIES

19" ventilation unit

Code	Height	Connec-tion	Power supply	No. of fans	Material	Dimensions (mm)
31GT**UV**	1 U	Three-pin	220V 10A 50-60 Hz	2	Metal, plastic, copper wiring	408x108x44
31GT**UV4**				4		480x216x44

IEC 60297-3-100

- Three-pin connection, IEC320-C14.
- Includes IEC-C13 cable to Schuko plug (male).
- Without thermostat.
- 19" mounting

31GT**UV** 31GT**UV4**

Black
RAL 9004

Ceiling fan for wall-mounted cabinet

Code	Input volt-age	Starting voltage	Frequency	Current	Life at 25º C	Material	Dimensions (mm)
31GT**VM**	220 V AC	120 V AC	50 Hz	0.1 A	30,000 hours	Metal, plastic, copper wiring	120x120x38

- Ceiling mount.
- Speed: 2550 rpm.
- Sound level of 46 dB.
- Air flow 83 cfm.
- Impedance protected.

Black
RAL 9004

-20º
80º

19" digital thermostats

Code	Height	Power supply	Con-sumption	Connection (output)	Fans	Material	Dimensions (mm)
31GT**TER**	1 U	220 V AC / 10 A	3 W	Three-pin C-13	0	Metal, plastic, phosphor bronze, copper	44x483x110
31GT**TERV**				No output	2		44x483x220

IEC 60297-3-100

- With internal temperature control settings.
- 2-digit display.

Black
RAL 9004

IP
65

-30º
75º

See how it works:
GTLAN Telecommunications Experts

Operation and installation of digital thermostat for Gtlan rack cabinet without ventilation unit

Operation of the digital thermostat for Gtlan rack cabinet with integrated ventilation

1.9

RACK CABINETS
ACCESSORIES

Analogue thermostat for DIN rail

Code	Input voltage	Max. Humidity	Fixing	Material	Dimensions (mm)
31T**ER**	250 V AC 10(2) A	90%	DIN rail	Plastic, phosphor bronze and copper	771x34x45

UNE-EN 55014-1, UNE-EN 55014-2, UNE-EN IEC 61000-3-2, UNE-EN 61000-3-3, DIN EN 50022, UL 94

- Works like a switch, closing when the selected temperature is reached.

White | IP 20 | -20º 80º

Cable guide rings for rack cabinets

Code	Fixing	Material	Dimensions (mm)
31GT**AG**	M6 screw and cage nut	Steel	50x75x20

- Can be directly attached to the front or rear vertical rack strip.
- Fixed with M6 screw and nut.

Black RAL 9004

Vertical cable guide for cable management

Code	Capacity	Fixing	Cable entry/exit	Material	Dimensions (mm)
31GT**PV**	42 U	Vertical	Back and side die-cut	SPCC steel, cold-rolled, 1.2 mm; and plastic	1880x91x82

- Vertical cable guide for 42 U high cabinet.
- For cabinets with a minimum width of 800 mm.
- Includes vertical protection cover.
- Rear and side die-cut for cable entry/exit.

Fine-grained powder coating | Black RAL 9004

1.9

RACK CABINETS
ACCESSORIES

KIT fixing screw, cage nut and plastic washer

Code	Nut type	Metric	Material	Screw dimensions (mm)	Nut dimensions (mm)
17TTA25	Cage	M6	Steel with plastic washer	15x20	10x12

• 25 units

Washer
Black
RAL 9004

Upper cable guide with brush

Code	Material	Dimensions (mm)
31GTTC	SPCC steel, cold-rolled, 1 mm; and plastic fibres	346x68x6

• For Gtlan wall-mounted cabinet.

Fine-grained powder coating

Black
RAL 9004

KIT 4 castors for floor cabinets

Code	Castor type	Fixing	Technique	Dimensions (mm)	Dimensions (mm)
31GTR	2 with brake 2 without brake	4 points	Anti-rotation mechanism	SPCC steel, cold-rolled, 1 mm; and plastic fibres	75x50x118

Fine-grained powder coating

Black
RAL 9004

KIT 4 levelling feet for floor-standing cabinets

Code	Metric	Material	Dimensions (mm)
31GTCPN	M10	Steel and rubber	0.33

• Option of independent height adjustment

Black
RAL 9004

1.9

RACK CABINETS
ACCESSORIES

Locks for cabinets

Code	Material	Finish	Dimensions (mm)	Comments
31GT**MC**	Metal (aluminium)	Chrome	25x25x31	Round with key for side door, for Global, Wall-mounted and Server series cabinets.
31GT**SC**	Metal (polyamide)	Black	115x30x23	Rectangular with handle and key for front door, for Global, Wall-mounted and Server series cabinets.
31GT**CFD**		Grey	119x37x29	Rectangular with handle and key for front and rear door, for Data series cabinets.
31GT**CLD**			92x34x29	Rectangular with handle and key for side door, for Data series cabinets.

31GT**MC** 31GT**SC** 31GT**CFD** 31GT**CLD**

Fixing for cabinet doors

Code	Material	Bolt dimensions, lower (mm)	Bolt dimensions, upper (mm)	Comments
31GT**CFP**	Steel and metal	26x9x7	82x19x6	Exclusive for Gtlan cabinets

Fixed bolt, lower (1pc)　　　Latch-type bolt, upper (1pc)

KIT 4 piece battery connector

Code	Metric	Series	Material	Dimensions (mm)
31GT**BGJ**	–	Global	Steel	31x22x21
31GT**BGJD**	M5	Data		51x15x15
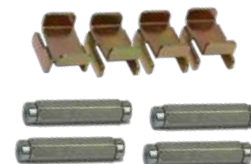
Earthing cable

Code	Cable type	Section	Material	Dimensions (mm)
31GT**CTT**	Monopolar	1.5 mm	Copper wire, metal and PVC	520x12x3

Unpopulated 1 U **19" Keystone panels**

Code	Height	Cable entry	No. of ports	Material	Dimensions (mm)	Comments
50P**16V**		90º or 180º	16	SPCC steel, cold-rolled, 1.5 mm	482x44x91.5	-
50P**24VB**	1 U	180º	24		482x44x91.5	Includes rear shelf
50P**F24VB**					482x44x91.5	Including rear shelf and 40 cm earthing cable

EIA/ECA-310-E, IEC 60297-3-100

- Adapter type **KEYSTONE.**
- Supplied without connectors.
  Recommended connectors:
  50KU6A (only for 16 ports)
  50KU6AHP (for 16 and 24 ports)

50P**16V**   50P**24VB**   50P**F24VB**

Black
RAL 9004

19" DIN panel for circuit breakers

Code	Height	Capacity	Material	Dimensions (mm)
50P**DM**	3 U	11 openings for circuit breakers	SPCC steel, cold-rolled, 1.5 mm	132x483x66

EIA/ECA-310-E, IEC 60297-3-100, IEC 60715

- For electrical protection.
- Removable front frame.

Black
RAL 9004

Unpopulated **19" panel** 7 slots 45x45

Code	Height	Capacity	Material	Dimensions (mm)
50P**H45**	1.5 U	9 modules of 45x45 mm	SPCC steel, cold-rolled, 1.5 mm	44x483x10

EIA/ECA-310-E, IEC 60297-3-100

- For installation of 45x45 mm elements

Black
RAL 9004

1.9

RACK CABINETS
ACCESSORIES

19" metal **blanking panels**

Code	Height	Material	Dimensions (mm)
50P**C1**	1 U	SPCC steel, cold-rolled 1.5 mm	44x483x10
50P**C2**	2 U		88x483x10
50P**C4**	4 U		176x483x10

EIA/ECA-310-E, IEC 60297-3-100

- 19" blanking panels.
- Available in 1U, 2U and 4U height.

● Black RAL 9004

50P**C1**   50P**C2**   50P**C4**

19" **power strips,** 8 Schuko sockets + switch

Code	Height	No. sockets	Type of sockets	Input voltage	Max. power	Overload protection	Surge protection	Connection cable	Material	Dimensions (mm)
50R**8C**	1 U	8 Schuko sockets + 1 IEC C13	16 A	230 V	3500 W	LED indicator	Circuit breaker	IEC cable 1.8 m	Aluminium	45x483x45
50R**8K**		8 Schukos				-	-	1.8 m IEC integrated cable		45x483x45

IEC 60297-3-100, DIN VDE 0620-2-1

- With main switch.

50R**8C**   50R**8K**

● Black RAL 9004

19" **power strips** 11 IEC C13 connectors

Code	Height	No. sockets	Type of sockets	Input voltage	Max. power	Protection	Connection cable	Material	Dimensions (mm)
50R**12IEC**	1 U	11 IEC C13 connectors	16 A	230 V	3500 W	Thermal	1.8 m IEC C13 integrated cable	Plastic and aluminium	45x483x45
50R**12IEC2**						-	1.8 m IEC C19 integrated cable		45x483x45

IEC 60297-3-100

- With main switch.

50R**12IEC**   50R**12IEC2**

● Black RAL 9004

1.9

RACK CABINETS
ACCESSORIES

19" cable guide panels

Code	Height	Panel type	No. of rings	Material	Ring material	Dimensions (mm)
50P4A	1 U	Cable guide	5	SPCC steel, cold-rolled, 1.5 mm; and plastic	Metal	44x483x76
50PPAK						44x483x85
50P4AP		Perforated cable guide			Plastic	44x483x63

EIA/ECA-310-E, IEC 60297-3-100

50P4A 50PPAK 50P4AP

Black RAL 9004

19" cable guide panels with protective cover

Code	Height	Material	Dimensions (mm)
50PPCT	1 U	SPCC steel, cold-rolled, 1.5 mm	44x483x50
50PPCT2	2 U		88x483x66

EIA/ECA-310-E, IEC 60297-3-100 50PPCT 50PPCT2

• Protective cover included.

Black RAL 9004

19" cable entry panel with brush strip

Code	Height	Material	Dimensions (mm)
50PPC	1 U	SPCC steel, cold-rolled, 1.5 mm; and plastic fibres	44x483x10

EIA/ECA-310-E, IEC 60297-3-100

• 19" brush strip for correct cable management.

Black RAL 9004

Rack tamper-protection actuator

Code	Fixing	Application	Material	Dimensions (mm)
31GTIAS	2 screws and 2 nuts M6	Inside the rack	Galvanised steel 1 mm	153x66x17

• Tamper protection for racks.

Black RAL 9005

2

COPPER TWISTED PAIR NETWORK

A structured cabling system includes the installation of twisted pair cables for the purpose of implementing a Local Area Network (LAN) to interconnect active equipment.

This active equipment integrates the various data, telephony, surveillance and control services which are supported by twisted pair cables.

The horizontal cabling system is defined by the EIA/TIA 568A standard as the portion of the telecoms cabling system that extends from the work area to the telecoms room or vice versa.

Therefore, the horizontal cabling system distributes and supports all horizontal cabling used to connect hardware, between the points where it leaves the work area and enters the telecoms room. This is typically twisted pair copper cabling for IEEE 802.3 type networks, although other options such as fibre optic cables are available.

 The EIA/TIA 568A standard makes the following recommendations for horizontal cabling topology:
·   Horizontal cabling must follow a star topology.
·   Each telecoms jack/connector in the work area must be connected to an interconnection in the telecoms room.

The maximum horizontal distance must not exceed 90 m. The distance is measured from the mechanical termination of the medium at the interconnection in the telecoms room to the telecoms socket/connector in the work area. In addition, 10 m lengths are recommended for work area cables and telecoms room cables (patch cables or equipment cables).
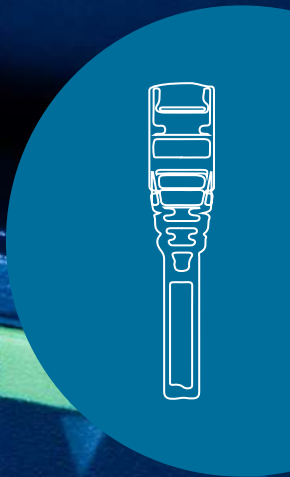
Speed according to the twisted pair cable network category:

- **Category 3:** Speed 10Mb. Phone technology.
- **Category 5e:** speed up to 1 Gb at a frequency of up to 100 MHz.
- **Category 6:** speed up to 1 Gb at a frequency of up to 250 MHz.
- **Category 6A:** speed up to 10 Gb at a frequency of up to 500 MHz.
- **Category 8:** speed up to 40 Gb at a frequency of up to 2000 MHz.

Other definitions:

- **Tool-less**: self-inserting connector, i.e. no insertion tool is required.

- **Crosstalk:** interference, noise in the cables.

Within these passive products that make up a network, we offer three different families of products. All successfully pass their respective certification tests and the whole range uses 100% copper.

- **Gtlan HP family:** All connection pins have a special 50-micron gold plating on the outside and a special design to prevent crosstalk and similar issues.

- **Standard family:** Special 50-micron gold plating on all connection pins, the insertion is usually 90°.

- **K-line family:** Special 3-micron gold plating on all connection pins, the insertion is usually 90°.

COMPLETE SOLUTION

COPPER TWISTED PAIR NETWORK

CABLES

Ask questions and learn on our channel:
GTLAN Telecommunications Experts

▶ https://www.youtube.com/@gtlanteleco-municaciones
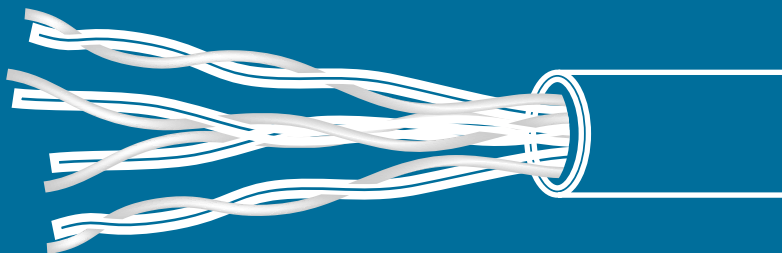
COPPER WIRING

One of the most important parts of the installation is the horizontal wiring. **Structured cabling** is used to **implement a local area network, to transmit information.**

By means of the physical medium, copper or fibre optic, **we can meet today's required speeds for voice, data and video transmission,** to provide service across a range of sectors and industries.

Due to the cost of the electronics, our devices are still connected by copper wiring. According to the performance required by the installation, the type of cable will be chosen depending on speed, bandwidth etc. Taking into account the installation conditions, the cable will be protected externally with shielding to avoid interference, or by protecting the jacket for external environments. **Cable performance can vary according to the internal specifications with which they are manufactured,** there are **different categories depending on** the **speed** we are trying to achieve.

The speed of the cable is as **important** as **avoiding interference and noise,** and providing protection from other environments. That **is why we shield cables and protect them** in data processing installations, to retain their capacity and good characteristics against electromagnetic radiation or in places where external agents prevent us from getting the maximum potential out of our copper cabling.

The **most common acronyms** for copper structured cabling are as follows:
U = Unshielded cable assembly.
F = Foiled, aluminium shielding of cable assembly.
S = Shielded, copper mesh shielding of cable assembly.
UTP = Unshielded twisted pair
FTP = Foiled twisted pair. Aluminium shielding of pair.

STP = Shielded twisted pair. Copper mesh shielding of pair.
The cables are **identified by means of** the **screen-printed code on the cable jacket.** The codes are divided into **two parts separated by** the **slash symbol (/).** The **first part** designates the external **shielding of the cable**, while the **code after the slash** (/) determines **the shielding of the internal wire pairs**.

A new development in recent years has been the regulation of the manufacture of external cable jackets for indoor use. The **CPR** (Construction Products Regulation) is a **new REGULATION** (No. 305/2011) **from the European Parliament which establishes harmonised conditions throughout the EU** for the sale of construction products, in order to regulate the fire resistance of materials and the hazardous substances they contain.

COPPER WIRING

The **performance requirements** that apply to cables and are **included in the CPR regulations** are:

- **Reaction to fire.**
- **Resistance to fire.**
- **Release of hazardous substances.**

This classification of construction products and construction elements according to their reaction to fire performance is represented in Euroclasses. (R.D. 842/2013)

The CPR provides for six new classes, designated **A to F**, where A implies the highest level of retardancy, i.e. a non-combustible product and F the lowest level of retardancy, i.e the product is easily flammable. Of this new classification, B, C, D and E will be the classes mainly used for cables.

The 5 Euroclasses applicable to data and communications cables are defined with the following **classification criteria**:

Classification	Security against fires	MANDATORY CLASSIFICATION CRITERIA					Additional classification (optional)
		Propagation of flames (EN 50399)	Total emission of heat	Maximum rate of issue of heat	Rate of growth of fire	Propagation of flames (EN 60332-1-2)	
B2ca		≤1.5 m	≤15 MJ	≤30 kW	≤150 Ws^{-1}	≤ 425 mm	Smoke production (s) Flaming drop (d) Acidity (a)
Cca		≤2.0 m	≤30 MJ	≤60 kW	≤300 Ws^{-1}		
Dca			≤70 MJ	≤400 kW	≤1300Ws^{-1}		
Eca		Minimum fire performance classification					
Fca		Not recommended for public places				> 425 mm	

COPPER TWISTED PAIR NETWORK

COPPER TWISTED PAIR NETWORK
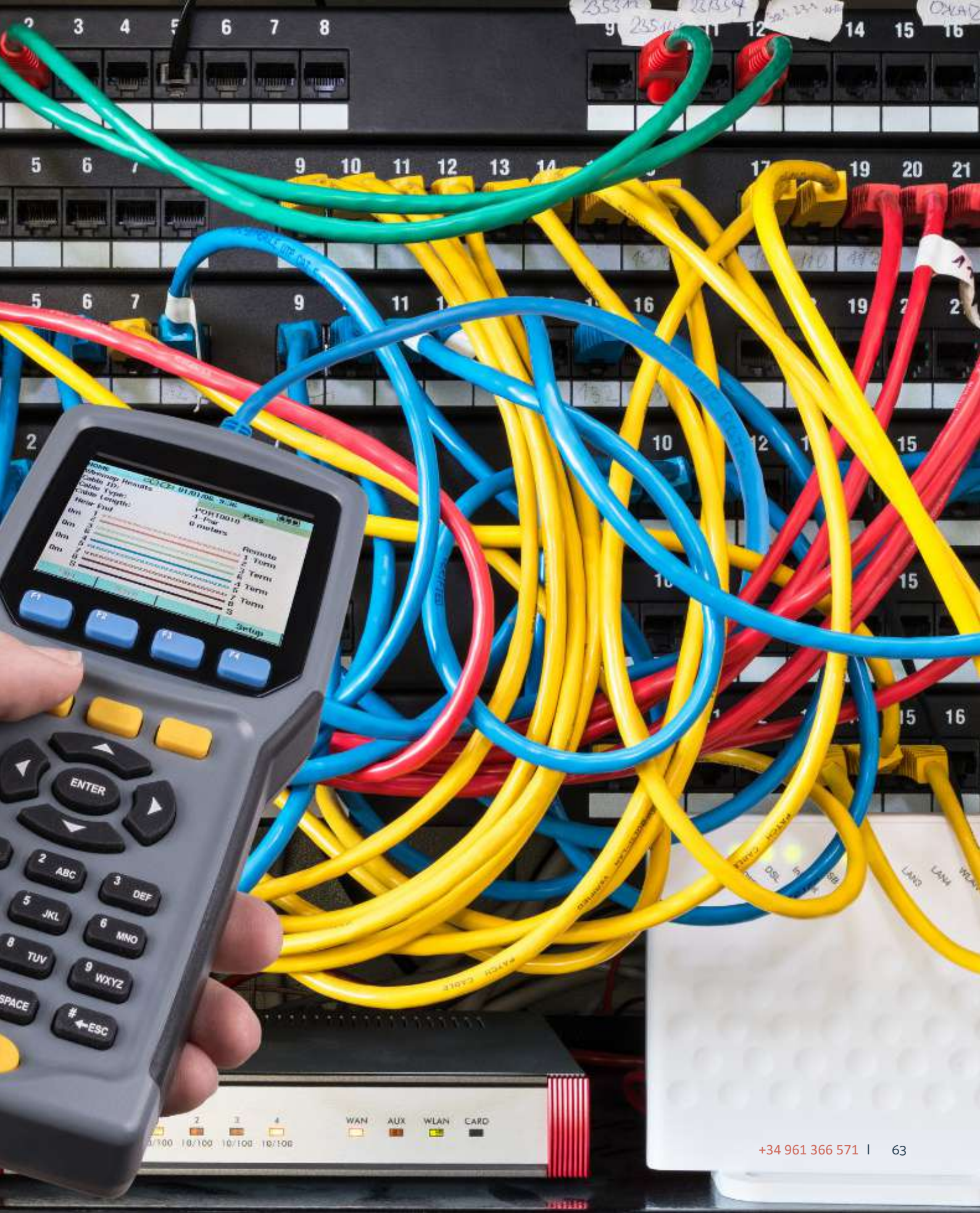
SUBFAMILIES

CATEGORY 8 FTP

2.1

This specification defines performance characteristics up to 2 GHz (four times higher than the 500 MHz of CAT6a). The ANSI/TIA-568-C.2-1 standard sets a limit on installations of up to 30m to support speeds of up to 25 Gbps / 40 Gbps. There are two standards for CAT8: 8.1 is compatible with the RJ45 connector footprint and 8.2 supports other types of connector.

CATEGORY 6A FTP

2.2

Also known as class Ea according to ISO/IEC 11801, its specification defines performance characteristics up to 500 MHz, setting a limit on installations of up to 100m to support speeds of up to 10 Gbps.
The main advantage of the FTP or shielding system is to minimise electromagnetic interference from electric motors, power lines, radio and radar stations, etc.

CATEGORY 6A UTP

2.3

Also known as class Ea according to ISO/IEC 11801, its specification defines performance characteristics up to 500 MHz, setting a limit on installations of up to 100m to support speeds of up to 10 Gbps.
The main advantage of the UTP or unshielded system is its low cost and ease of installation, as the cables are usually thinner, lighter and more flexible than those for FTP.

CATEGORY 6 FTP

2.4

Also known as Class E according to ISO/IEC 11801, its specification defines performance characteristics up to 250 MHz, setting a limit on installations of up to 55 m to support speeds up to 10 Gbps, or 100 m for speeds up to 1 Gbps.
The main advantage of the FTP or shielding system is to minimise electromagnetic interference from electric motors, power lines, radio and radar stations, etc.

CATEGORY 6 UTP

2.5

Known as Class E according to ISO/IEC 11801, its specification defines performance characteristics up to 250 MHz, setting a limit on installations of up to 55 m to support speeds up to 10 Gbps, or 100 m for speeds up to 1 Gbps.
The main advantage of the UTP or unshielded system is its low cost and ease of installation, as the cables are usually thinner, lighter and more flexible than those for FTP.
This category is specified in the ICT Regulation for access to telecoms services inside buildings.

CATEGORY 5E FTP

2.6 Also known as Class D according to ISO/IEC 11801, its specification defines performance characteristics up to 100 MHz, setting a limit on installations up to 100 m long to support speeds up to 1 Gbps.

The main advantage of the FTP or shielding system is to minimise electromagnetic interference from electric motors, power lines, radio and radar stations, etc.

CATEGORY 5E UTP

2.7 Also known as Class D according to ISO/IEC 11801, its specification defines performance characteristics up to 100 MHz, setting a limit on installations up to 100 m long to support speeds up to 1 Gbps.

The main advantage of the UTP or unshielded system is its low cost and ease of installation, as the cables are usually thinner, lighter and more flexible than those for FTP.

CATEGORY 3 UTP

2.8 Also known as class C according to ISO/IEC 11801, its specification defines performance characteristics up to 16 MHz, setting a limit on installations of up to 100 m to support speeds up to 10 Mbps.

Supports legacy analogue voice services, ISDN, alarm detectors etc.

WIRING ACCESSORIES

2.9 ### ALL CATEGORIES

In this section you'll find everything you need to complete the rack and organise all the wiring installed inside it.

INSTALLATION/VERIFICATION TOOLS

2.10 Thanks to the tools and measuring equipment, we can install correctly and subsequently check the installation to achieve the desired performance. We have a wide range of different insertion tools, as well as any pliers or cable strippers needed to prepare the cable for insertion into the connector.

2.1

CATEGORY 8 FTP

Category 8 is **designed to provide improved frequency characteristics**, **offering higher speeds for data transfer**. It supports a frequency of up to 2 GHz (2000 MHz) and is limited to a 2-connector channel with 30 metres distance between devices.
This translates into support for speeds of up to 25 Gbps / 40 Gbps.

According to ANSI/TIA-568-C.2-1, Category 8 cable is **limited to installations up to 30 metres in length**. The ANSI/TIA Category 8 solution uses an 8-pin modular connector (commonly known as RJ45) and was designed to be compatible with all lower categories.

Applications using Category 8 bandwidth can automatically negotiate **lower speeds**, **making it easier to incrementally upgrade switches and servers** in data centres in an efficient manner, rather than completely migrating racks and equipment.

2000 MHz

25/40 Gbps

RJ45
8-pin modular connector

ANSI / TIA
category 8

RJ45 C-8 **patch cables**

ANSI/TIA/EIA 568.2 Rev. E (Cat.8), ISO/IEC 11801-1 (Cat 8.1), IEC 60603-7-1, IEC 60512-99-002, IEC 60332-1-2, IEC 60332-3-24, IEEE/ISO/IEC 8802-3 (100 W), UL94-V0, UL94-V2

Yellow RAL 1021 | Jacket | LSZH | C-8 | S/FTP

	50F81**AM**	50F82**AM**	50F83**AM**	50F85**AM**
AWG	24			
Connector type	RJ45			
Outer jacket Ø	7.5 mm			
Cable type	S/FTP shielded twisted pair + outer mesh			
Connector material	Nickel + Phosphor bronze 100µ of gold			
Protection	Injection moulded cap with flange protector			
Durability	750 connections			
Length	1 m	2 m	3 m	5 m
Packaging	Single unit			

2.1

COPPER TWISTED PAIR NETWORK
CATEGORY 8 FTP

RJ45 C-8 **connectors**

ANSI/TIA/EIA 568.2 Rev. E (Cat.8), ISO/IEC 11801-1 (Cat 8.1), IEC 60603-7-81, IEC 60512-99-002,
IEEE/ISO/IEC 8802-3 (100 W), UL94-V0, UL94-V2, IEC 60529

Metallic | C-8 | FTP

MALE   50CF**R8**

Type of installation	Tool-less
Cable type	Rigid or flexible
Connector format	Keystone
Housing material	Polycarbonate
Contact material	Phosphor bronze
Coating	50µ gold
Section	AWG 22-24
Contacts	8
Durability	750 connections
Dimensions	14x12x23 mm
Packaging	Single unit

50CF**R8**
See the installation
instructions.

Specifications:
· For use with cables up to 7.3 mm diameter.

ANSI/TIA/EIA 568.2 Rev. E (Cat.8), ISO/IEC 11801-1 (Cat 8.1), IEC 60603-7-81, IEC 60512-99-002,
ISO/IEC TR 11801-9901, IEEE/ISO/IEC 8802-3 (100 W), UL94-V0, UL94-V2, UL1863

FEMALE   50KF**8HPTL**

Type of installation	Tool-less
Cable type	Rigid
Cable entry	180º
Connector format	Keystone
Housing material	Polycarbonate
Contact material	Phosphor bronze
Coating	50µ gold
Connection	110
Section	AWG 22-24
Contacts	8
Durability	750 connections
Dimensions	23x17x38 mm
Packaging	Single unit

Specifications:
· Labelled for T568A or T568B connection.

2.1

COPPER TWISTED PAIR NETWORK
CATEGORY 8 FTP

Unpopulated 19" panel 1U RJ45

EIA/ECA-310-E, IEC 60297-3-100

● Black RAL 9005 | C-8 | S/FTP

50PF24VB

Fixing	19"
Height	1 U
Cable entry	180º
Panel material	SPCC steel, high-quality, cold-rolled 1.5 mm
No. of ports	24
Dimensions	482x44x91.5 mm
Packaging	Single unit

Specifications:

- Including rear shelf and 40 cm earthing cable
- Supplied without connectors.
- Recommended connector: 50KU6AHP.
- Keystone adapters.
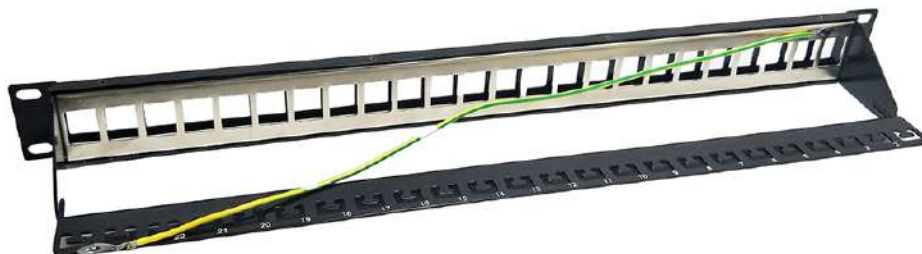
COPPER TWISTED PAIR NETWORK

2.1 COPPER TWISTED PAIR NETWORK
CATEGORY 8 FTP

Rigid Inner Cable C-8 S/FTP LSZH Eca

ANSI/TIA/EIA 568.2 Rev. E (Cat.8), IEC 61156-9 (Cat 8.1), ISO/IEC TR 11801-9901, IEC 60332-1-2, IEC 60332-3-24, IEC 60754-2, IEC 61034-2, IEEE/ISO/IEC 8802-3 (100 W), EN 50575 (CPR Eca)

cablelan | C-8 | S/FTP

50NSF**8L**

Conductor	AWG22 Ø 0.63 mm
Insulation material	PE
Insulation around conductor, ext. Ø	1.65 mm
Shielding	Copper mesh shielding of cable assembly / Aluminium shielding of pair
Outer jacket material	LSZH
Outer jacket colour	Yellow
Outer jacket thickness	0.75 mm
Outer jacket Ø	8.4 mm
Maximum frequency	2000 MHz
Working temperature	-20ºC to 70ºC
Weight	7 kg
Packaging	Spool 100 m
CPR Regulations	Eca

Specifications:

100% copper.
- Consisting of 4 twisted pairs (with aluminium shielding of each twisted pair + mesh shielding of the cable assembly) in the following colours:
  - Blue: White/Blue
  - Orange: White/Orange
  - Green: White/Green
  - Brown: White/Brown
- NVP = 74%

2.2

CATEGORY 6A FTP

Category 6A offers a **500 MHz operating limit** and its main advantage is the **ability** to **reach speeds of 10 Gbit/s**.

It is mainly used in data centres and backbone links between servers in horizontal subsystems and in vertical or backbone subsystems.
The most characteristic feature of this category is the specification that **avoids** phenomena such as **crosstalk or noise in the network**.

The standard defining this category is **ISO/IEC 11801 category 6A/class Ea**.

The cabling system is **available with and without shielding**. However, shielded products are more resistant to electromagnetic noise and have better exogenous crosstalk performance.

500 MHz   **10 Gb**   **Avoids crosstalk**   **ISO/IEC 11801**
category 6A/class Ea

RJ45 C-6A **patch cables**

ANSI/TIA/EIA 568.2 Rev. E (Cat.6a), ISO/IEC 11801-1 (Class Ea), IEC 60603-7-1,
IEC 60332-1-2, UL94-V2

Grey RAL 7035 | Jacket LSZH | C-6A | S/FTP

	50F6A**05GRL**	50F6A**1GRL**	50F6A**3GRL**
AWG	26		
Connector type	RJ45		
Outer jacket Ø	6.3 mm		
Cable type	S/FTP shielded twisted pair + outer mesh		
Connector material	Nickel + Phosphor Bronze 50µ of gold		
Protection	Injection moulded cap with flange protector		
Durability	750 connections		
Length	0.5 m	1 m	3 m
Packaging	Single unit		

2.2

COPPER TWISTED PAIR NETWORK
CATEGORY 6A FTP

RJ45 C-6A **connectors**

ANSI/TIA/EIA 568.2 Rev. E (Cat.6a), ISO/IEC 11801-1 (Class Ea), IEC 60603-7-51, IEEE/ISO/IEC 8802-3 (100 W), UL94-V2

Metallic | C-6A | **S/FTP**

MALE — 50CF**F6A**

Type of installation	Crimped
Cable type	Rigid or flexible
Thread guide	External
Housing material	Polycarbonate
Contact material	Phosphor bronze
Coating	50µ gold
Section	AWG 24-26
Contacts	8
Durability	2000 connections
Dimensions	14x12x23 mm
Packaging	50 units

Specifications:
· For use with 5.8 mm max. plastic outer jacket wiring.

ANSI/TIA/EIA 568.2 Rev. E (Cat.6a), ISO/IEC 11801-1 (Class Ea), IEC 60603-7-51, IEC 60512-99-001, IEC 60512-99-002, IEEE/ISO/IEC 8802-3 (100 W), UL94-HB, UL94-V2

FEMALE — 50KF6A**HP**

Type of installation	Tool-less
Cable type	Rigid
Cable entry	180º
Connector format	Keystone
Housing material	Polycarbonate
Contact material	Phosphor bronze
Coating	50µ gold
Connection	110
Section	AWG 22-26
Contacts	8
Durability	750 connections
Dimensions	22x17x38 mm
Packaging	50 units

Specifications:
· Labelled for T568A or T568B connection.

COPPER TWISTED PAIR NETWORK

2.2 CATEGORY 6A FTP

19" 1U RJ45 C-6A panels

EIA/ECA-310-E, IEC 60297-3-100, ANSI/TIA/EIA 568.2 Rev. E (Cat.6a), ISO/IEC 11801-1 (Class Ea), IEC 60603-7-51, IEC 60512-99-001, IEC 60512-99-002, IEEE/ISO/IEC 8802-3 (100 W), UL94-HB, UL94-V2

Metallic | **Black RAL 9005** | **C-6A** | **FTP**

50PF6AHP

Fixing	19"
Height	1 U
Type of installation	Tool-less
Cable type	Rigid
Cable entry	180º
Connector format	Keystone
Shielding	Yes (FTP)
Panel material	SPCC steel, high-quality, cold-rolled 1.5 mm
Contact material	Phosphor bronze
Coating	50µ gold
Connection	110
Section	AWG 22-26
No. of ports	24
Durability	750 connections
Dimensions	44x483x109 mm
Packaging	Single unit

Specifications:

- Rear shelf for cable management.
- Modular panel, allows connectors to be replaced one by one if necessary (connector 50KF6HP).

2.2

COPPER TWISTED PAIR NETWORK
CATEGORY 6A FTP

Rigid indoor cable C-6A U/FTP LSZH Dca

ANSI/TIA/EIA 568.2 Rev. E (Cat.6a), ISO/IEC 11801-1 (Class Ea), IEC 61156-5, IEC 60332-1-2, IEC 60754-2, EN 50399, IEEE/ISO/IEC 8802-3 (100 W), EN 50575 (CPR Dca-s2,d2,a1), YD/T 1019

cablelan | C-6A   U/FTP

50NF**6AL**

Conductor	AWG23 Ø 0.57 mm
Insulation material	PE
Insulation around conductor, ext. Ø	1.35 mm
Shielding	Unshielded cable assembly / Aluminium shielded twisted pair
Outer jacket material	LSZH
Outer jacket colour	Blue
Outer jacket thickness	0.55 mm
Outer jacket Ø	8 mm
Maximum frequency	500 MHz
Working temperature	-20º to 60ºC
Weight	28.5 kg
Packaging	Spool 305 m
CPR Regulations	Dca (s2, d2, a1)

Specifications:

100% copper.
- Consisting of 4 twisted pairs (each pair wrapped in aluminium foil) in the following colours:
  - Blue: White/Blue
  - Orange: White/Orange
  - Green: White/Green
  - Brown: White/Brown
- NVP = 77%

COPPER TWISTED PAIR NETWORK

Category 6A offers a **500 MHz operating limit** and its main advantage is the ability to **reach speeds of 10 Gbit/s.**

It is mainly used in data centres and for backbone links between servers.

The most characteristic feature of this category is the specification that **avoids** phenomena such as **crosstalk or noise in the network.**

The standard defining this category is **ISO/IEC 11801 category 6A/class Ea**.

500 MHz   **10 Gb**   **Avoids crosstalk**   **ISO/IEC 11801**
category 6A/class Ea
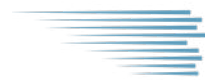
RJ45 C-6A **patch cables**

ANSI/TIA/EIA 568.2 Rev. E (Cat.6a), ISO/IEC 11801-1 (Class Ea), IEC 60603-7,
IEC 60332-1-2, UL94-V2

Grey RAL 7035 | Jacket LSZH | C-6A | UTP

	50U6A**05GRL**	50U6A**1GRL**	50U6A**2GRL**	50U6A**3GRL**
AWG	26			
Connector type	RJ45			
Outer jacket Ø	5.8 mm			
Cable type	UTP			
Connector material	Nickel + Phosphor Bronze 50µ of gold			
Protection	Injection moulded cap with flange protector			
Durability	750 connections			
Length	0.5 m	1 m	2 m	3 m
Packaging	Single unit			

COPPER TWISTED PAIR NETWORK

COPPER TWISTED PAIR NETWORK
CATEGORY 6A UTP

RJ45 C-6A **connectors**

ANSI/TIA/EIA 568.2 Rev. E (Cat.6a), ISO/IEC 11801-1 (Class Ea), IEC 60603-7-41, IEEE/ISO/IEC 8802-3 (100 W), UL94-V2, EN 50173-1

Transparent | C-6A | **UTP**

MALE

	50CU**F6A**	50CU**R6AF**
Type of installation	Crimped	Pass-through crimping
Cable type	Rigid or flexible	Rigid
Thread guide	External	
Shielding	No (UTP)	
Housing material	Polycarbonate	
Contact material	Phosphor bronze	
Coating	50μ gold	
Section	AWG 24-26	AWG 23-24
Contacts	8	
Durability	2000 connections	750 connections
Dimensions (mm)	14x12x23 mm	
Packaging	50 units	

50CU**R6AF**
See the installation instructions.

ANSI/TIA/EIA 568.2 Rev. E (Cat.6a), ISO/IEC 11801-1 (Class Ea), IEC 60603-7-41, IEC 60512-99-001, IEC 60512-99-002, IEEE/ISO/IEC 8802-3 (100W), UL94-V0, UL94-V2

Black RAL 9005 | C-6A | **UTP**

FEMALE

	50KU**6A**	50KU**6AHP**
Type of installation	Connection with tool	Tool-less
Cable type	Rigid	
Cable entry	90º	180º
Shielding	No (UTP)	
Connector format	Keystone	
Housing material	Polycarbonate	
Contact material	Phosphor bronze	
Coating	50μ gold	
Connection	110	
Section	AWG 23-26	
Contacts	8	
Durability	750 connections	
Dimensions	22x16x28 mm	22x17x38 mm
Packaging	50 units	
ACCESSORIES	Dust protection	

50KU**6A**

50KU**6AHP**

Specifications:
- Labelled for T568A or T568B connection.

COPPER TWISTED PAIR NETWORK

2.3

COPPER TWISTED PAIR NETWORK
CATEGORY 6A UTP

Unpopulated 19" panel 1U Keystone C-6A

EIA/ECA-310-E, IEC 60297-3-100

● Black RAL 9005 | C-6A | UTP

	50P16V	50P24VB
Fixing	19"	
Height	1 U	
Cable entry	90º or 180º	180º
Adapter format	Keystone	
Panel material	SPCC steel, high-quality, cold-rolled 1.5 mm	
No. of ports	16	24
Dimensions	44x83x10 mm	44x83x92 mm
Packaging	Single unit	

50P16V	50P24VB

Specifications:
· Supplied without connectors.
· Recommended connectors 50KU6A.

IEC 60297, RoHS 2011/65/EU and CE

Specifications:
· Rear shelf for cable management.
· Supplied without connectors.
· Recommended connectors 50KU6AHP.

UL 94V-0, RoHS 2011/65/EU and CE

COPPER TWISTED PAIR NETWORK
CATEGORY 6A UTP

Rigid indoor cable C-6A U/UTP LSZH Dca

ANSI/TIA/EIA 568.2 Rev. E (Cat.6a), ISO/IEC 11801-1 (Class Ea), IEC 61156-5, IEC 60332-1-2, IEC 60754-2, EN 50399, IEEE/ISO/IEC 8802-3 (100 W), EN 50575 (CPR Dca-s2,d2,a1), YD/T 1019, UL444, UL1666

cablelan | C-6A | U/UTP

50NU6A

Conductor	AWG23 Ø 0.57 mm
Insulation material	HDPE
Insulation around conductor, ext. Ø	1.02 mm
Shielding	Unshielded cable assembly / Unshielded twisted pair
Outer jacket material	LSZH
Outer jacket colour	Blue
Outer jacket thickness	0.65 mm
Outer jacket Ø	6.5 mm
Maximum frequency	500 MHz
Working temperature	-20º to 60ºC
Weight	14.1 kg
Packaging	Box 305 m
CPR Regulations	Dca (s2, d2, a1)

Specifications:

100% copper.

- Consisting of 4 twisted pairs with non-metallic cross separator, in the following colours:
  - Blue: White/Blue
  - Orange: White/Orange
  - Green: White/Green
  - Brown: White/Brown
- NVP = 77%

2.4
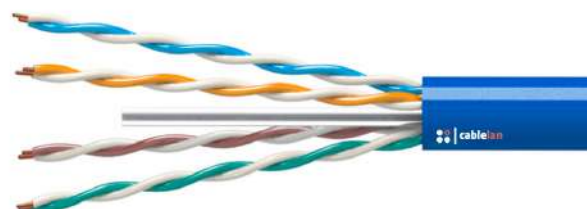
### COPPER TWISTED PAIR NETWORK
CATEGORY 6 FTP

Category 6 is capable of **speeds up to 1 Gbit/s** and the defining standard is **ISO/IEC 11801 category 6/class E**, operating **up to 250 MHz.**

The inclusion of an overall conductive shield for this type of cable protects its electrical properties. Typical shielding impedance is 120 ohm.

The acronym FTP stands for: Foiled Twisted Pair.

For optimum performance and operation of this type of system, a **connection to the installation's earth connection** is **necessary**.
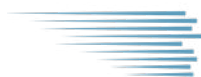
250 MHz   **1 GB**   **Connection**   **ISO/IEC 11801**
                                    earthing   category 6/class E

RJ45 C-6 **patch cables**

ANSI/TIA/EIA 568.2 Rev. E (Cat.6), ISO/IEC 11801-1 (Class E), IEC 60603-7-1,
IEC 60332-1-2, UL94-V2

Grey
RAL 7035   Jacket   LSZH   C-6   **S/FTP**

	50F6**05GRL**	50F6**1GRL**	50F6**2GRL**	50F6**3GRL**	50F6**5GRL**	50F6**10GRL**
AWG	26					
Connector type	RJ45					
Outer jacket Ø	6.3 mm					
Cable type	S/FTP shielded twisted pair + outer mesh					
Connector material	Nickel + Phosphor Bronze 50μ gold					
Protection	Injection moulded cap with flange protector					
Durability	750 connections					
Length	0.5 m	1 m	2 m	3 m	5 m	10 m
Packaging	Single unit					

COPPER TWISTED PAIR NETWORK

2.4

COPPER TWISTED PAIR NETWORK
CATEGORY 6 FTP

RJ45 C-6 **connectors**

ANSI/TIA/EIA 568.2 Rev. E (Cat.6), ISO/IEC 11801-1 (Class E), IEC 60603-7-5, UL94-V2

Metallic | C-6 | **FTP**

MALE

	50CF**FR6**
Type of installation	Crimped
Cable type	Rigid or flexible
Thread guide	External
Connector type	RJ45
Shielding	Yes (FTP)
Housing material	Polycarbonate
Contact material	Phosphor bronze
Coating	50µ gold
Section	AWG 24-26
Contacts	8
Durability	2000 connections
Dimensions	14x12x23 mm
Packaging	100 units

Specifications:
· For use with 5.8 mm max. plastic outer jacket wiring.

ANSI/TIA/EIA 568.2 Rev. E (Cat.6), ISO/IEC 11801-1 (Class E), IEC 60603-7-5, UL94-V0, UL94-V2, UL94-HB

FEMALE

50K**F6**

50K**F6HP**

	50K**F6**	50K**F6HP**
Type of installation	Connection with tool	
Cable type	Rigid	
Cable entry	90º	180º
Shielding	Yes (FTP)	
Connector format	Keystone	
Housing material	Polycarbonate	
Contact material	Phosphor bronze	
Coating	50µ gold	
Connection	110	
Section	AWG 22-26	
Contacts	8	
Durability	750 connections	
Dimensions	25x19x44 mm	25x19x38 mm
Packaging	50 units	
ACCESSORIES	Dust protection	

Specifications:
· Labelled for T568A or T568B connection.

COPPER TWISTED PAIR NETWORK

2.4

COPPER TWISTED PAIR NETWORK
CATEGORY 6 FTP

RJ45 C-6 female-to-female adapter

Metallic | C-6 | **FTP**

ANSI/TIA/EIA 568.2 Rev. E (Cat.6), ISO/IEC 11801-1 (Class E), IEC 60603-7-5, UL94-V0, UL94-V2, EN 50173-1

Female - Female

50**AF6**	
Fixing	Aerial/Panel Keystone
Shielding	Yes (FTP)
Housing material	Polycarbonate
Contact material	Phosphor bronze
Coating	50μ gold
Durability	750 connections
Dimensions	25x18x36 mm
Packaging	50 units

Specifications:
· For panel installation.

COPPER TWISTED PAIR NETWORK
CATEGORY 6 FTP

19" 1U RJ45 C-6 panels

EIA/ECA-310-E, IEC 60297-3-100, ANSI/TIA/EIA 568.2 Rev. E (Cat.6), ISO/IEC 11801-1 (Class E), IEC 60603-7-5, UL94-V0, UL94-V2

Metallic

Black RAL 9005

C-6A FTP

50PF6**HP**

Fixing	19"
Height	1 U
Type of installation	Connection with tool
Cable type	Rigid
Cable entry	180º
Connector format	Keystone
Shielding	Yes (FTP)
Panel material	SPCC steel, high-quality, cold-rolled, 1.5 mm
Contact material	Phosphor bronze
Coating	50µ gold
IDC material	Polycarbonate
Connection	110
Section	AWG 22-26
No. of ports	24
Durability	750 connections
Dimensions	44x483x92 mm
Packaging	Single unit

Specifications:

· Rear shelf for cable management.
· Modular panel, allows connectors to be replaced one by one if necessary (connector 50KF6HP)

COPPER TWISTED PAIR NETWORK

2.4

COPPER TWISTED PAIR NETWORK
CATEGORY 6 FTP

Rigid indoor cable C-6 U/FTP LSZH Dca

ANSI/TIA/EIA 568.2 Rev. E (Cat.6), ISO/IEC 11801-1 (Class E), IEC 61156-5, IEC 60332-1-2, IEC 60754-2, EN 50399, IEC 61034-1, IEC 61034-2, IEEE/ISO/IEC 8802-3 (100W), EN 50575 (CPR Dca-s2,d2,a1), EN 50173-1, EN 50288-5-1

OTHER BRANDS | C-6 **U/FTP**

15SF6L

Conductor	AWG23 Ø 0.56 mm
Insulation material	PE
Insulation around conductor, ext. Ø	1.35 mm
Shielding	Unshielded cable assembly / Aluminium shielded twisted pair
Outer jacket material	LSZH
Outer jacket colour	Blue
Outer jacket thickness	0.6 mm
Outer jacket Ø	6.5 mm
Maximum frequency	500 MHz
Working temperature	-20º to 60ºC
Weight	14.2 kg
Packaging	Box 305 m
CPR Regulations	Dca (s2, d2, a1)

Specifications:

100% copper.

· Consisting of 4 twisted pairs (each pair wrapped in aluminium foil) in the following colours:
  · Blue: White/Blue
  · Orange: White/Orange
  · Green: White/Green
  · Brown: White/Brown
· NVP = 72%

2.4

COPPER TWISTED PAIR NETWORK
CATEGORY 6 FTP

Rigid outdoor cable C-6 U/FTP PE Fca

ANSI/TIA/EIA 568.2 Rev. E (Cat.6), ISO/IEC 11801-1 (Class E), IEC 61156-5, EN 50575 (CPR Fca), EN 50173-1, EN 50288-10-1, EN 50288-10-2, EN50174-2 ©

OTHER BRANDS | C-6 | U/FTP

15C6EFTP

Conductor	AWG23 Ø 0.56 mm
Insulation material	PE
Insulation around conductor, ext. Ø	1.35 mm
Shielding	Unshielded cable assembly / Aluminium shielded twisted pair
Outer jacket material	PE
Outer jacket colour	Black
Outer jacket thickness	0.9 mm
Outer jacket Ø	8.6 mm
Maximum frequency	250 MHz
Working temperature	-20º to 60ºC
Weight	62 kg/km
Packaging	Box 305 m
CPR Regulations	Fca

Specifications:

100% copper.

· Consisting of 4 twisted pairs (each pair wrapped in aluminium foil) in the following colours:
  · Blue: White/Blue
  · Orange: White/Orange
  · Green: White/Green
  · Brown: White/Brown
· NVP = 72%

COPPER TWISTED PAIR NETWORK

2.5

COPPER TWISTED PAIR NETWORK
CATEGORY 6 UTP

Category 6 is the category that has seen the greatest growth in recent years and now has the highest volume of use in the market.

It is currently the **category specified in the ICT 2 regulation**, meaning it must be installed in the interior of newly built or refurbished homes from 2011 onwards.

It is capable of **speeds of 1 Gbit/s** and the defining standard is **ISO/IEC 11801 category 6/class E**, operating **up to 250 MHz**.
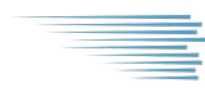
| 250 MHz | 1 GB | ICT2 <br> in-home | ISO/IEC 11801 <br> category 6/class E |

RJ45 C-6 LSZH **patch cables**

ANSI/TIA/EIA 568.2 Rev. E (Cat.6), ISO/IEC 11801-1 (Class E), IEC 60603-7,
IEC 60332-1-2, UL94-V2

Grey RAL 7035 | Jacket | LSZH | C-6 | UTP

	50U**6025GRL**	50U**605GRL**	50U**61GRL**	50U**62GRL**	50U**63GRL**	50U**65GRL**
AWG	24					
Connector type	RJ45					
Outer jacket Ø	6.1 mm					
Cable type	UTP twisted pair to reduce crosstalk					
Connector material	Nickel + Phosphor Bronze 50µ gold					
Protection	Injection moulded cap with flange protector					
Durability	750 connections					
Length	0.25 m	0.5 m	1 m	2 m	3 m	5 m
Packaging	Single unit					

COPPER TWISTED PAIR NETWORK

COPPER TWISTED PAIR NETWORK
CATEGORY 6 UTP

RJ45 C-6 PVC **patch cables**

ANSI/TIA/EIA 568.2 Rev. E (Cat.6), ISO/IEC 11801-1 (Class E), IEC 60603-7

Grey RAL 7035 | Jacket PVC | C-6 | **UTP**

	50U**605GRK**	50U**61GRK**	50U**62GRK**	50U**63GRK**	50U**65GRK**	50U**610GRK**
AWG	26					
Connector type	RJ45					
Outer jacket Ø	5.3 mm					
Cable type	UTP twisted pair to reduce crosstalk					
Connector material	Nickel + phosphor bronze 3µ gold					
Protection	Injection moulded cap					
Durability	750 connections					
Length	0.5 m	1 m	2 m	3 m	5 m	10 m
Packaging	Single unit					

COPPER TWISTED PAIR NETWORK

+34 961 366 571 | 85

2.5

COPPER TWISTED PAIR NETWORK
CATEGORY 6 UTP

RJ45 C-6 **connectors**

ANSI/TIA/EIA 568.2 Rev. E (Cat.6), ISO/IEC 11801-1 (Class E), IEC 60603-7-4, UL94-V2

Transparent | C-6 | **UTP**

MALE	50CU**FR6**	50CU**R6F**
Type of installation	Crimped	Pass-through crimping
Cable type	Rigid or flexible	Rigid
Thread guide	External	
Connector type	RJ45	
Shielding	No (UTP)	
Housing material	Polycarbonate	
Contact material	Phosphor bronze	
Coating	50µ gold	
Section	AWG 24-26	AWG 23-24
Contacts	8	
Durability	2000 connections	750 connections
Dimensions	14x12x23 mm	
Packaging	50 units	

Specifications:
· For use with 5.8 mm max. plastic outer jacket wiring.

50CU**R6F**
See the installation
instructions.

COPPER TWISTED PAIR NETWORK
CATEGORY 6 UTP

RJ45 C-6 **connectors**

ANSI/TIA/EIA 568.2 Rev. E (Cat.6), ISO/IEC 11801-1 (Class E), IEC 60603-7-4, UL94-V0, UL94-V2

C-6 | UTP

FEMALE	50KU**6HPTL**	50KU**180T**	50KU**6HP**	50KU**6**	50KU**6K**
Type of installation	Tool-less	Tool-less compact	Connection with tool		
Cable type	Rigid				
Cable entry	180º			90º	180º
Shielding	No (UTP)				
Connector format	Keystone				
Housing material	Polycarbonate				
Contact material	Phosphor bronze				
Coating	50µ gold				3µ gold
Connection	110				
Section	AWG 22-26				
Contacts	8				
Durability	750 connections				
Dimensions	25x19x40 mm	22x17x38 mm	24x20x31 mm	22x18x33 mm	22x16x33 mm
Packaging	Single unit				
ACCESSORIES	Dust protection				

Specifications:
- Labelled for T568A or T568B connection
- High performance and rapid connection.

50KU**6HPTL**

50KU**180T**

50KU**6HP**

50KU**6**

50KU**6K**

COPPER TWISTED PAIR NETWORK

2.5
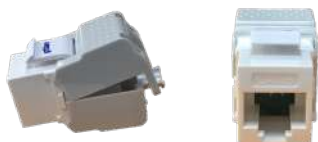
COPPER TWISTED PAIR NETWORK
CATEGORY 6 UTP

RJ45 C-6 female-to-female **adapter**

ANSI/TIA/EIA 568.2 Rev. E (Cat.6), ISO/IEC 11801-1 (Class E), UL94-V0, EN 50173-1

Black
RAL 9005 | C-6 | **UTP**

Female - Female

	50**AU6**
Fixing	Aerial/Panel Keystone
Shielding	No (UTP)
Housing material	Polycarbonate
Contact material	Phosphor bronze
Coating	50µ gold
Durability	750 connections
Dimensions	24x17x35 mm
Packaging	Single unit

Specifications:
· For panel or overhead installation.

C-6 **Aerial junction box**

ANSI/TIA/EIA 568.2 Rev. E (Cat.6), ISO/IEC 11801-1 (Class E), UL94-V0, EN 50173-1

White | C-6 | **UTP**

	50**EU6**
Shielding	No (UTP)
Housing material	Polycarbonate
Contact material	Phosphor bronze
Coating	50µ gold
Connection	110
Section	AWG 22-26
Durability	200 connections
Dimensions	24x34x62 mm
Packaging	Single unit

Specifications:
· For use with plastic outer jacket wiring of 5 mm max.

2.5

COPPER TWISTED PAIR NETWORK
CATEGORY 6 UTP

Surface mount connection boxes with RJ45 C-6 connectors

White | C-6 | **UTP**

ANSI/TIA/EIA 568.2 Rev. E (Cat.6), ISO/IEC 11801-1 (Class E), UL94-V0

	50RU**16**	50RU**26**	50RU**16K**	50RU**26K**
Installation	Surface			
Cable type	Rigid			
Cable entry	Side			
Shielding	No (UTP)			
Housing material	Polycarbonate		ABS	
Contact material	Phosphor bronze			
Coating	50µ gold		6µ gold	
Connection	110			
Section	AWG 23-26			
No. of outputs	1	2	1	2
Durability	750 connections			
Dimensions	30x39x54 mm	30x61x59 mm	25x49x66 mm	25x62x60 mm
Packaging	Single unit			

Specifications:
- With RJ-45 C-6 UTP connector(s) (included)
- Wall mounting with screws (included)

50RU1**6**

50RU2**6**

50RU1**6K**

50RU2**6K**

2.5

COPPER TWISTED PAIR NETWORK
CATEGORY 6 UTP

10" 1 U RJ45 C-6 panel

ANSI/TIA/EIA 568.2 Rev. D, ISO/IEC 11801-1, UL94-V0, UL94-V2

Black
RAL 9005 | C-6 | **UTP**

31GT12P**U6**

Fixing	10"
Height	1 U
Type of installation	Connection with tool
Cable type	Rigid
Cable entry	90º
Connector format	IDC
Shielding	No (UTP)
Panel material	SPCC steel, high-quality, cold-rolled, 1.5 mm
Contact material	Phosphor bronze
Coating	50µ gold
IDC material	PC
Connection	110
Section	AWG 22-26
No. of ports	12 (2 modules of 6)
Durability	750 connections
Dimensions	44x254x49 mm
Packaging	Single unit

2.5

COPPER TWISTED PAIR NETWORK
CATEGORY 6 UTP

19" 1 U RJ45 C-6 panels

EIA/ECA-310-E, IEC 60297-3-100, ANSI/TIA/EIA 568.2 Rev. E (Cat.6), ISO/IEC 11801-1 (Class E), IEC 60603-7-4, UL94-V0, UL94-V2

Black RAL 9005 | C-6 | UTP

	50PU**6HP**	50PU**6**	50PU**6K**
Fixing	19"		
Height	1 U		
Type of installation	Connection with tool		
Cable type	Rigid		
Cable entry	180º	90º	
Connector format	Keystone	IDC	
Shielding	No (UTP)		
Panel material	SPCC steel, high-quality, cold-rolled, 1.5 mm		
Contact material	Phosphor bronze		
Coating	50µ gold		3µ gold
IDC material	Polycarbonate		
Connection	110		
Section	AWG 22-26		
No. of ports	24		
Durability	750 connections		
Dimensions	44x483x92 mm	44x483x29 mm	44x483x85 mm
Packaging	Single unit		
REGULATIONS	ANSI/TIA/EIA 568.2 Rev D, UL94V-0, UL94V-2, RoHS 2011/65/EU, and CE	ANSI/TIA/EIA 568.2 Rev D, UL94V-0, UL94V-2, RoHS 2011/65/EU, and CE	EMC Directive 2004/108/EC, EN 61000-6-1, EN 61000-6-3, RoHS 2011/65/EU and CE

Specifications:

· The 50PU6K and 50PU6HP panels have rear elements for cable management.

COPPER TWISTED PAIR NETWORK

50PU**6HP**	50PU**6**	50PU**6K**

2.5

COPPER TWISTED PAIR NETWORK
CATEGORY 6 UTP

Rigid indoor cable C-6 U/UTP LSZH Dca/Cca

ANSI/TIA/EIA 568.2 Rev. E (Cat.6), ISO/IEC 11801-1 (Class E), IEC 61156-5, IEC 60332-1-2, IEC 60754-2, EN 50399, EN 50575 (CPR Dca-s2,d2,a1), YD/T 1019, UL444, UL1666

cablelan | C-6 | U/UTP

	50NU**6LD**	50NU**6LD1**	50NU**6LD5**	50NU**6LC**
Conductor	AWG23 Ø 0.54 mm			
Insulation material	HDPE			
Insulation around conductor, ext. Ø	0.95 mm			
Shielding	Unshielded cable assembly / Unshielded twisted pair			
Outer jacket material	LSZH			
Outer jacket colour	Grey			
Outer jacket thickness	0.55 mm			
Outer jacket Ø	6 mm			
Maximum frequency	250 MHz			
Working temperature	-20º to 60ºC			
Weight	12.6 kg	41.31 kg	22.30 kg	12.6 kg
Packaging	Box 305 m	Spool 1000 m	Spool 500 m	Box 305 m
CPR Regulations	Dca (s2, d2, a1)			Cca (s1, d0, a1)

Specifications:

100% copper.

- 100% copper.
- Consisting of 4 twisted pairs with non-metallic cross separator, in the following colours:
  - Blue: White/Blue
  - Orange: White/Orange
  - Green: White/Green
  - Brown: White/Brown
- NVP = 72%

2.5
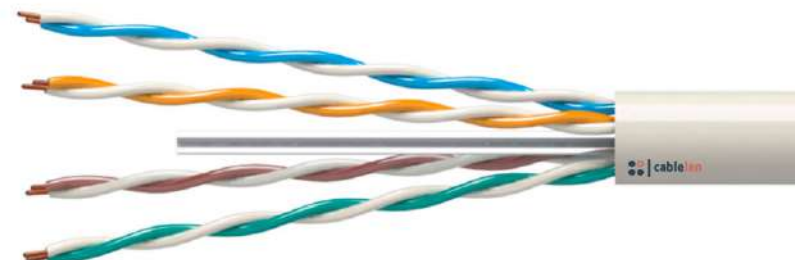
COPPER TWISTED PAIR NETWORK
CATEGORY 6 UTP

Rigid outdoor cable C-6 U/UTP PE Fca

ANSI/TIA/EIA 568.2 Rev. E (Cat.6), ISO/IEC 11801-1 (Class E), IEC 61156-5, EN 50575 (CPR Fca), YD/T 1019, UL444, UL1666

cablelan | C-6 | U/UTP

50NU6EXT

Conductor	AWG24 Ø 0.51 mm
Insulation material	HDPE
Insulation around conductor, ext. Ø	0.95 mm
Shielding	Unshielded cable assembly / Unshielded twisted pair
Outer jacket material	UV-resistant PE
Outer jacket colour	Black
Outer jacket thickness	0.55 mm
Outer jacket Ø	6.0 mm
Maximum frequency	250 MHz
Working temperature	-40ºC to 60ºC
Weight	14 kg
Packaging	Box 305 m
CPR Regulations	Fca

Specifications:

100% copper.

· Consisting of 4 twisted pairs in the following colours:
   · Blue: White/Blue
   · Orange: White/Orange
   · Green: White/Green
   · Brown: White/Brown
· NVP = 69%

2.6
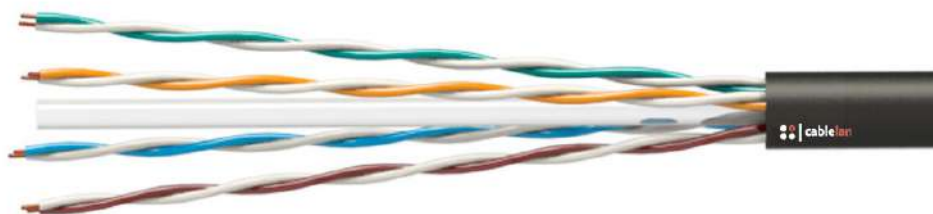
COPPER TWISTED PAIR NETWORK
CATEGORY 5E FTP

This category has its origin in the classic category 5, with a **frequency of 100 MHz**, which was capable of speeds of 100 Base-T, but thanks to this revision the **operating speed can be raised to 1000 Base-T while maintaining the 100 MHz frequency.** To this end, the limits of parameters such as return loss, attenuation and near-end crosstalk, among others, were revised in order to guarantee this extra speed. The defining standard is **EIA/TIA 568B.**

The inclusion of an overall cable assembly shield for this type of cable protects the electrical properties of the cable. Typical impedance is 120 ohm.
The acronym FTP stands for: Foiled Twisted Pair.

For optimum performance and operation of this type of system, **a connection to the installation's earth connection is necessary**.

100 MHz

1 GB

Connection
earthing

EIA/TIA 568B
category 5/ class E

RJ45 C-5E **patch cables**

ANSI/TIA/EIA 568.2 Rev. E (Cat.5e), ISO/IEC 11801-1 (Class D), IEC 60603-7-1, IEC 60332-1-2, UL94-V2

Grey RAL 7035 | Jacket | LSZH | C-5E | FTP

	50F5**05GRL**	50F5**1GRL**	50F5**2GRL**	50F5**3GRL**	50F5**5GRL**
AWG	26				
Connector type	RJ45				
Outer jacket Ø	5 mm				
Cable type	FTP twisted pair with general shielding				
Connector material	Nickel + Phosphor Bronze 50µ gold				
Protection	Injection moulded cap with flange protector				
Durability	750 connections				
Length	0.5 m	1 m	2 m	3 m	5 m
Packaging	Single unit				

2.6

COPPER TWISTED PAIR NETWORK
CATEGORY 5E FTP

RJ45 C-5E **connectors**

ANSI/TIA/EIA 568.2 Rev. E (Cat.5e), ISO/IEC 11801-1 (Class D), IEC 60603-7-3, UL94-V2, EN 50173-1

Metallic | C-5E | **FTP**

MALE

	50CF**R5**	50CF**F5**	50CF**F5F**
Type of installation	Crimped		Pass-through crimping
Cable type	Rigid	Flexible	
Thread guide	Internal	External	
Shielding	Yes (FTP)		
Housing material	Polycarbonate		
Contact material	Phosphor bronze		
Coating	50µ gold		
Section	AWG 22-26		AWG 24-26
Contacts	8		
Durability	400 connections	750 connections	
Dimensions	14x12x23 mm		
Packaging	50 units		
ACCESSORIES	Wire guide		

50CF**F5F**
See the installation instructions.

ANSI/TIA/EIA 568.2 Rev. E (Cat.5e), ISO/IEC 11801-1 (Class D), IEC 60603-7-3, UL94-HB

FEMALE

	50K**F5**
Type of installation	Connection with tool
Cable type	Rigid
Cable entry	90º
Connector format	Keystone
Shielding	Yes (FTP)
Housing material	Polycarbonate
Contact material	Phosphor bronze
Coating	50µ gold
Connection	110
Section	AWG 22-26
Contacts	8
Durability	750 connections
Dimensions	25x19x44 mm
Packaging	Single unit
ACCESSORIES	Dust protection

Specifications:
· Labelled for T568A or T568B connection.

COPPER TWISTED PAIR NETWORK

RJ45 C-5E female-to-female **adapter**

ANSI/TIA/EIA 568.2 Rev. E (Cat.5e), ISO/IEC 11801-1 (Class D), IEC 60603-7-3, UL94-V0, UL94-V2

Metallic | C-5E | **FTP**

Female - Female	50**AF5**
Fixing	Aerial/Panel Keystone
Shielding	Yes (FTP)
Housing material	Polycarbonate
Contact material	Phosphor bronze
Coating	50µ gold
Durability	750 connections
Dimensions	25x18x36 mm
Packaging	50 units

COPPER TWISTED PAIR NETWORK

2.6

COPPER TWISTED PAIR NETWORK
CATEGORY 5E FTP

19" 1U RJ45 C-5E panel

EIA/ECA-310-E, IEC 60297-3-100, ANSI/TIA/EIA 568.2 Rev. E (Cat.5e), ISO/IEC 11801-1 (Class D), IEC 60603-7-3, UL94-V0, UL94-V2, UL1863

Black
RAL 9005 | C-5E | FTP

50PF5

Fixing	19"
Height	1 U
Type of installation	Connection with tool
Cable type	Rigid
Cable entry	90º
Connector format	IDC
Shielding	Yes (FTP)
Panel material	SPCC steel, high-quality cold-rolled, 1.3 mm
Contact material	Phosphor bronze
Coating	50µ gold
IDC material	Polycarbonate
Connection	110
Section	AWG 22-26
No. of ports	24
Durability	750 connections
Dimensions	44x483x109 mm
Packaging	Single unit

Specifications:
· Rear shelf for cable management.

COPPER TWISTED PAIR NETWORK

2.6

COPPER TWISTED PAIR NETWORK
CATEGORY 5E FTP

Rigid indoor cable C-5E F/UTP LSZH Dca

ANSI/TIA/EIA 568.2 Rev. E (Cat.5e), ISO/IEC 11801-1 (Class D), IEC 61156-5, IEC 60332-1-2, IEC 60754-2, EN 50399, IEC 61034-1, IEC 61034-2, IEEE/ISO/IEC 8802-3 (30W), EN 50575 (CPR Dca-s2,d1,a1), EN 50173-1, EN 50288-2-1

OTHER BRANDS | C-5E F/UTP

15C5EFTP305

Conductor	AWG24 Ø 0.51 mm
Insulation material	PE
Insulation around conductor, ext. Ø	1.1 mm
Shielding	Aluminium shielded cable assembly / Unshielded twisted pair
Outer jacket material	LSZH
Outer jacket colour	Grey
Outer jacket thickness	0.5 mm
Outer jacket Ø	5.9 mm
Maximum frequency	100 MHz
Working temperature	-20º to 60ºC
Weight	11.6 kg
Packaging	Box 305 m
CPR Regulations	Dca (s2, d2, a1)

Specifications:

100% copper.

· Consisting of 4 twisted pairs in the following colours:
  · Blue: White/Blue
  · Orange: White/Orange
  · Green: White/Green
  · Brown: White/Brown
· NVP = 72%

COPPER TWISTED PAIR NETWORK

2.6

COPPER TWISTED PAIR NETWORK
CATEGORY 5E FTP

Rigid outdoor cable C-5E F/UTP PE Fca

ANSI/TIA/EIA 568.2 Rev. E (Cat.5e), ISO/IEC 11801-1 (Class D), IEC 61156-5, EN 50575 (CPR Fca), YD/T 1019, UL444, UL1666

cablelan | C-5E | F/UTP

	50NF5EXT	50NF5EXT5	50NF5EXTB
Conductor	AWG24 Ø 0.51 mm		
Insulation material	HDPE		
Insulation around conductor, ext. Ø	1.02 mm		
Shielding	Aluminium shielded cable assembly / Unshielded twisted pair		
Outer jacket material	PE		
Outer jacket colour	Black		White
Outer jacket thickness	0.55 mm		
Outer jacket Ø	6 mm		
Maximum frequency	100 MHz		
Working temperature	-20º to 60ºC		
Weight	12.21 kg	22.30 kg	12.21 kg
Packaging	Box 305 m	Spool 500 m	Box 305 m
CPR Regulations	Fca		

Specifications:

100% copper.
- Consisting of 4 twisted pairs in the following colours:
    - Blue: White/Blue
    - Orange: White/Orange
    - Green: White/Green
    - Brown: White/Brown
- NVP = 72%

50NF5EXT / 50NF5EXT5	50NF5EXTB
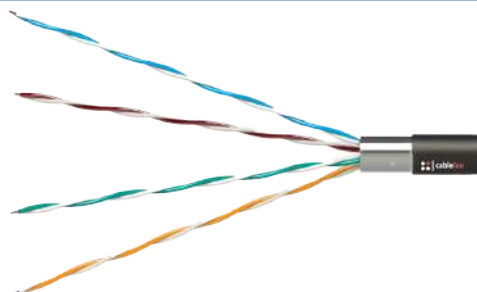
COPPER TWISTED PAIR NETWORK
CATEGORY 5E UTP

This category has its origin in the classic category 5, with a **frequency of 100 MHz**, which was capable of speeds of 100 Base-T, but thanks to this revision the **operating speed can be raised to 1000 Base-T while maintaining the 100 MHz frequency**.

To this end, the limits of parameters such as return loss, attenuation and near-end crosstalk, among others, were revised in order to guarantee this extra speed. The defining standard is **EIA/TIA 568B**.

100 MHz

1 GB

EIA/TIA 568B
category 5E/ class E

COPPER TWISTED PAIR NETWORK

RJ45 C-5E LSZH **patch cables**

ANSI/TIA/EIA 568.2 Rev. E (Cat.5e), ISO/IEC 11801-1 (Class D), IEC 60603-7, IEC 60332-1-2, UL94-V2

Grey RAL 7035 | Jacket | LSZH | C-5E | **UTP**

	50U**5025GRL**	50U**505GRL**	50U**51GRL**	50U**52GRL**	50U**53GRL**	50U**55GRL**
AWG	24					
Connector type	RJ45					
Outer jacket Ø	5.5 mm					
Cable type	UTP twisted pair					
Connector material	Nickel + Phosphor Bronze 50µ gold					
Protection	Injection moulded cap with flange protector					
Durability	750 connections					
Length	0.25 m	0.5 m	1 m	2 m	3 m	5 m
Packaging	Single unit					
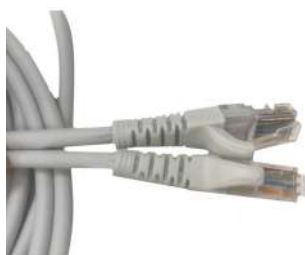
2.7 COPPER TWISTED PAIR NETWORK
CATEGORY 5E UTP

RJ45 C-5E PVC **patch cables**

ANSI/TIA/EIA 568.2 Rev. E (Cat.5e), ISO/IEC 11801-1 (Class D), IEC 60603-7

Grey RAL 7035 | PVC | C-5E | **UTP** | Jacket

	50U505GRK	50U51GRK	50U52GRK	50U53GRK
AWG	26			
Connector type	RJ45			
Outer jacket Ø	5.3 mm			
Cable type	UTP twisted pair			
Connector material	Nickel + phosphor bronze 3µ gold			
Protection	Injection moulded cap			
Durability	750 connections			
Length	0.5 m	1 m	2 m	3 m
Packaging	Single unit			

COPPER TWISTED PAIR NETWORK

RJ45 C-5E **connectors**

ANSI/TIA/EIA 568.2 Rev. E (Cat.5e), ISO/IEC 11801-1 (Class D), IEC 60603-7-2, UL94-V2, EN 50173-1

C-5E | UTP

MALE	50CU**R5**	50CU**R5K**	50CU**F5**	50CU**F5F**
Type of installation	Crimped			Pass-through crimping
Cable type	Rigid			Flexible
Thread guide	Internal			External
Shielding	No (UTP)			
Housing material	Polycarbonate			
Contact material	Phosphor bronze			
Coating	50µ gold	15µ gold	50µ gold	
Section	AWG 22-26			AWG 24-26
Contacts	8			
Durability	750 connections			
Dimensions	14x12x23 mm			
Packaging	50 units			
ACCESSORIES	Wire guide			

50CU**F5F**
See the installation instructions.

ANSI/TIA/EIA 568.2 Rev. E (Cat.5e), ISO/IEC 11801-1 (Class D), IEC 60603-7-2, UL94-HB, UL94-V0, UL94-V2

50KU**5**...

50MJ5**EUKS**

FEMALE	50KU**5HP**	50KU**50**	50KU**5K**	50MJ5**EUKS**
Type of installation	With tools			Tool-less
Cable type	Rigid			
Cable entry	180º	90º		180º
Connector format	Keystone			
Shielding	No (UTP)			
Housing material	Polycarbonate			
Contact material	Phosphor bronze			
Coating	50µ gold		3µ gold	50µ gold
Connection	110			
Section	AWG 22-26			
Contacts	8			
Durability	750 connections			
Dimensions	24x20x31 mm	22x18x33 mm	22x23x31 mm	25x19x40 mm
Packaging	Single unit			
ACCESSORIES	Dust protection			

2.7

CATEGORY 5E UTP

RJ45 C-5E female-to-female **adapter**

ANSI/TIA/EIA 568.2 Rev. E (Cat.5e), ISO/IEC 11801-1 (Class D), UL94-V0, UL94-HB

Black RAL 9005 | C-5E | **UTP**

Female - Female

08A4528CK

Fixing	Aerial/Panel Keystone
Shielding	No (UTP)
Housing material	Polycarbonate
Contact material	Phosphor bronze
Coating	50µ gold
Durability	750 connections
Dimensions	24x17x35 mm
Packaging	50 units

COPPER TWISTED PAIR NETWORK

2.7

COPPER TWISTED PAIR NETWORK
CATEGORY 5E UTP

COPPER TWISTED PAIR NETWORK

Surface mount connection boxes with RJ45 C-5E connectors

C-5E | UTP

ANSI/TIA/EIA 568.2 Rev. E (Cat.5e), ISO/IEC 11801-1 (Class D), UL94-V0, UL94-V2

	50RU**15**	50RU**25**
Category	C-5E	
Installation	Surface	
Cable type	Rigid	
Cable entry	Side	
Shielding	No (UTP)	
Housing material	Polycarbonate	
Contact material	Phosphor bronze	
Coating	50μ gold	
Connection	110	
Section	AWG 22-26	
No. of outputs	1	2
Durability	750 connections	
Dimensions	30x39x54 mm	30x61x59 mm
Packaging	Single unit	

Specifications:
- With RJ-45 C-5E UTP connector(s) (included)
- Wall mounting with screws (included)

50RU1**5**	50RU2**5**

Workstation **Duplicator/Converter**

C-5E UTP

ANSI/TIA/EIA 568.2 Rev. E (Cat.5e), ISO/IEC 11801-1 (Class D), UL94-V0, UL94-HB

	50A**11TC**	50A**11D1TC**	50 A**12 DC**
Cable length	150 mm (24 AWG)		
Shielding	No (UTP)		
Material	Polycarbonate		
Contact material	Phosphor bronze		
Coating	50µ gold		
Durability	750 connections		
Dimensions	22x68x162 mm		
Packaging	Single unit		

* See internal wiring diagram for selection of suitable adapter.

50A**11TC**

Specifications:
- Duplicator with RJ45 male patch cable to 2 RJ45 female telephone sockets (C1 and C2).
- Converts one C-5e structured wiring line into two individual analogue telephone jacks.
- Two units required for the conversion.
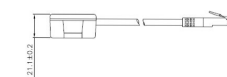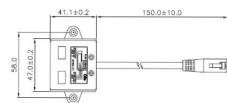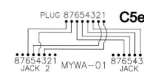
50A**11D1TC**

Specifications:
- Duplicator with RJ45 male patch cable to 1 RJ45 female data socket + 1 RJ45 telephone socket.
- Converts one C-5e structured wiring line into one C-5e data jack and one analogue telephone line.
- Suitable for 10/100 Mbps data lines.
- Two units required for the conversion.
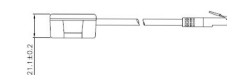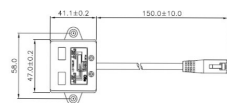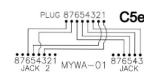
50A**12DC**

Specifications:
- Duplicator with RJ45 male patch cable to 2 RJ45 female data sockets.
- Converts one C-5e structured cabling line into two individualised C-5e data jacks.
- Suitable for 10/100 Mbps data lines.
- Two units required for the conversion.

COPPER TWISTED PAIR NETWORK

2.7
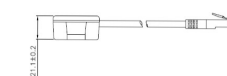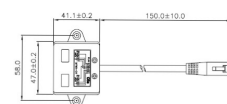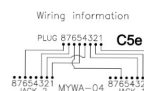
COPPER TWISTED PAIR NETWORK
CATEGORY 5E UTP

10" 1U RJ45 C-5E panel

ANSI/TIA/EIA 568.2 Rev. D, ISO/IEC 11801-1, UL94-V0, UL94-V2

Black
RAL 9005 | C-5E | UTP

31GT12PU5

Fixing	10"
Height	1 U
Type of installation	Connection with tool
Cable type	Rigid
Cable entry	90º
Connector format	IDC
Shielding	No (UTP)
Panel material	SPCC steel, high-quality, cold-rolled, 1.5 mm
Contact material	Phosphor bronze
Coating	50µ gold
IDC material	PC
Connection	110
Section	AWG 22-26
No. of ports	12 (two modules of 6)
Insertion force	900 g for 8 contacts
Holding force	7.7 kg
Durability	750 connections
Dimensions	44x254x49 mm
Packaging	Single unit

Specifications:
· Labelled for T568 and 568B connection.

COMMUNICATION CIRCUIT
ACCORDING TO

CAT.5E

2.7

COPPER TWISTED PAIR NETWORK
CATEGORY 5E UTP

19" 1U RJ45 C-5E panels

EIA/ECA-310-E, IEC 60297-3-100, ANSI/TIA/EIA 568.2 Rev. E (Cat.5e), ISO/IEC 11801-1 (Class D),
IEC 60603-7-2, UL94-HB, UL94-V0, UL94-V2, UL1863

Black
RAL 9005   **C-5E**   **UTP**

	50PU**5HP**	50PU**548**	50PU**5**	50PU**5K**
Fixing	19"			
Height	1 U			
Type of installation	Connection with tool			
Cable type	Rigid			
Cable entry	180º	90º		
Connector format	Keystone	IDC		
Shielding	No (UTP)			
Panel material	SPCC steel, high-quality, cold-rolled, 1.5 mm			
Contact material	Phosphor bronze			
Coating	50µ gold			3µ gold
IDC material	Polycarbonate			
Connection	110			
Section	AWG 22-26			
No. of ports	24	48	24	
Durability	750 connections			
Dimensions	44x483x92 mm	44x483x143 mm	44x483x46 mm	44x483x85 mm
Packaging	Single unit			
REGULATIONS	ANSI/TIA/EIA 568.2 Rev D, UL94V-0, UL94V-2, UL1863, RoHS 2011/65/EU and CE			EMC Directive 2004/108/EC, EN 61000-6-1, EN 61000-6-3, RoHS 2011/65/EU and CE

Specifications:
- The 50PU548 and 50PU5HP panels have rear elements for cable management.
- The 50PU5HP panel is modular, allowing the connectors to be replaced one by one if necessary (connector 50KU5HP).

2.7

COPPER TWISTED PAIR NETWORK
CATEGORY 5E UTP

50PU**5HP**

50PU**548**

50PU**5**

50PU**5K**

2.7 CATEGORY 5E UTP

Rigid indoor cable C-5E U/UTP LSZH Dca

ANSI/TIA/EIA 568.2 Rev. E (Cat.5e), ISO/IEC 11801-1 (Class D), IEC 60332-1-2, IEEE/ISO/IEC 8802-3 (60W), EN 50575 (CPR Dca-s2,d2,a1), IEC 61156-5, IEC 60754-1, IEC 60754-2, IEC 61034-2, EN 50173-1, EN 50174-2 (a)

OTHER BRANDS | C-5E | U/UTP

BD**1583ENH305**

Conductor	AWG24 Ø 4.9 mm
Insulation material	PE
Insulation around conductor, ext. Ø	0.9 mm
Shielding	Unshielded cable assembly / Unshielded twisted pair
Outer jacket material	LSZH
Outer jacket colour	Grey
Outer jacket thickness	0.4 mm
Outer jacket Ø	5 mm
Maximum frequency	100 MHz
Working temperature	-30ºC to 60ºC
Weight	28 kg
Packaging	Box 305 m
CPR Regulations	Dca (s2, d2, a1)

Specifications:

100% copper.
- Consisting of 4 twisted pairs in the following colours:
  - Blue: White/Blue
  - Orange: White/Orange
  - Green: White/Green
  - Brown: White/Brown
- NVP = 68%

2.7

COPPER TWISTED PAIR NETWORK
CATEGORY 5E UTP

Rigid outdoor cable C-5E U/UTP PE Fca

ANSI/TIA/EIA 568.2 Rev. E (Cat.5e), ISO/IEC 11801-1 (Class D), IEC 61156-5,
EN 50575 (CPR Fca), YD/T 1019, UL444, UL1666

cablelan | C-5E | U/UTP

	50NU**5EXT**	50NU**5EXTB**
Conductor	AWG24 Ø 0.51 mm	
Insulation material	HDPE	
Insulation around conductor, ext. Ø	1.02 mm	
Shielding	Unshielded cable assembly / Unshielded twisted pair	
Outer jacket material	UV-resistant PE	
Outer jacket colour	Black	White
Outer jacket thickness	0.55 mm	
Outer jacket Ø	5 mm	5.1 mm
Maximum frequency	100 MHz	
Working temperature	-40ºC to 60ºC	
Weight	14 kg	7.4 kg
Packaging	Box 305 m	
CPR Regulations	Fca	

Specifications:

100% copper.
- Consisting of 4 twisted pairs in the following colours:
  - Blue: White/Blue
  - Orange: White/Orange
  - Green: White/Green
  - Brown: White/Brown
- NVP = 72%

50NU5EXT	50NU5EXTB

2.8

COPPER TWISTED PAIR NETWORK
CATEGORY 3 UTP

Category 3 is capable of speeds of up to 10 Mbps and the standard that defines it is the ISO/IEC 11801 operating up to 16 MHz.
Supports legacy analogue voice services, ISDN, alarm detectors etc.

16 MHz

10 MB

ISDN
Integrated Services Digital Network

ISO/IEC 11801
category 5E/ class E

RJ11 C-3 connector

ANSI/TIA/EIA 568.2 Rev. E (Cat.3), ISO/IEC 11801-1 (Class C), UL94-V2

Transparent | C-3 | **UTP**

MALE   50C**114**

Type of installation	Crimped
Cable type	Flat
Thread guide	Internal
Connector type	RJ11
Shielding	No (UTP)
Housing material	Polycarbonate
Contact material	Phosphor bronze
Coating	3µ gold
Section	AWG 24-26
Contacts	4
Durability	750 connections
Dimensions	11x10x15 mm
Packaging	100 units

Specifications:
· High performance and rapid connection.

COPPER TWISTED PAIR NETWORK

COPPER TWISTED PAIR NETWORK
CATEGORY 3 UTP

RJ45 C-3 **connector**

ANSI/TIA/EIA 568.2 Rev. E (Cat.3), ISO/IEC 11801-1 (Class C), UL94-V2

Black
RAL 9005

C-3 **UTP**

FEMALE

50KU**3**

Type of installation	Tool-less
Cable type	Rigid
Cable entry	90º
Shielding	No (UTP)
Connector format	Keystone format connector
Housing material	Polycarbonate
Contact material	Phosphor bronze
Coating	3µ gold
Connection	110
Section	AWG 22-26
Contacts	6
Durability	750 connections
Dimensions	22x23x26 mm
Packaging	Single unit
ACCESSORIES	Dust protection

Specifications:
• High performance and rapid connection.

COPPER TWISTED PAIR NETWORK

19" 1U RJ45 C-3 panels

EIA/ECA-310-E, IEC 60297-3-100, ANSI/TIA/EIA 568.2 Rev. E (Cat.3), ISO/IEC 11801-1 (Class C), UL94-V0, UL94-V2

Black
RAL 9005 | C-3 | **UTP**

	50PU**3**	50PU**3K**
Fixing	19"	
Height	1 U	
Type of installation	Connection with tool	
Cable type	Rigid	
Cable entry	90º	
Connector format	IDC	
Shielding	No (UTP)	
Panel material	SPCC steel, high-quality, cold-rolled, 1.5 mm	
Contact material	Phosphor bronze	
Coating	50µ gold	3µ gold
IDC material	Polycarbonate	
Connection	110	
Section	AWG 22-26	
No. of ports	50	
Durability	750 connections	
Dimensions	44x483x130 mm	44x483x118 mm
Packaging	Single unit	
REGULATIONS	UL94 V-0, UL94 V-2, RoHS 2011/65/EU, and CE	EMC Directive 2004/108/EC, EN 61000-6-1, EN 61000-6-3, RoHS 2011/65/EU and CE

Specifications:

· It has rear elements for cable management.

COPPER TWISTED PAIR NETWORK

2.8

COPPER TWISTED PAIR NETWORK
CATEGORY 3 UTP

50PU**3**

50PU**3K**

2.9

COPPER TWISTED PAIR NETWORK

WIRING ACCESSORIES

ALL CATEGORIES

In this section you'll find everything you need to complete the rack and organise all the wiring installed inside it.

A correct finish is essential for efficient network maintenance, as (whether we like it or not) the needs of the installation change and with them the networks, which must be able to adapt to companies' requirements.

This is why a structured cabling installation is easier to maintain if the right elements are used to establish the right order.

WIRING ACCESSORIES ALL CATEGORIES

19" blanking **panels**

EIA/ECA-310-E, IEC 60297-3-100

Metallic | Black RAL 9005

	50P**C1**	50P**C2**	50P**C4**
Height	1 U	2 U	4 U
Panel material	SPCC steel, cold-rolled, 1.3 mm		
Dimensions	44x483x10 mm	88x483x10 mm	176x483x10 mm
Packaging	Single unit		

50PC1

50PC2

50PC4

19" power **strips**

IEC 60297-3-100, DIN VDE 0620-2-1

Metallic | Black RAL 9005
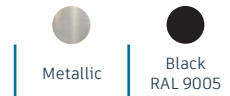
	50R**8C**	50R**8K**	50R**12IEC**	50R**12IEC2**
Height	1 U			
Material	Aluminium		Plastic and aluminium	
No. sockets	8 Schuko sockets + 1 IEC C13	8 Schukos	11 IEC C13 connectors	
Input voltage	230 V with switch		230 V without switch	
Maximum power	3500 W			
Type of sockets	16 A			
Protection	Thermal	-	-	-
Connecting cable	1.8 m IEC to Schuko cable	1.8 m Schuko integrated cable	1.8 m IEC C13 integrated cable	1.8 m IEC C19 integrated cable
Dimensions	45x483x45 mm			
Packaging	Single unit			

50R8C

50R8K

50R12IEC

50R12IEC2

COPPER TWISTED PAIR NETWORK

2.9 WIRING ACCESSORIES ALL CATEGORIES

Modular Keystone surface mount connection box

UL94-V0

White

	50RU**2**	50RU**6**	50RU**12**
Installation	Surface		
Cable entry	Side		Side or bottom
Housing material	ABS		
No. of outputs	2	6	6 or 12
Dimensions	29x50x50 mm	30x166x84 mm	38x172x120 mm
Packaging	Single unit		

Specifications:

- Modular surface mount connection box prepared to accommodate up to 12 Keystone connectors (without connectors).
- Modular to allow installed in telecoms distribution equipment.
- Keystone plates for these parts: 50RPC, 50RPBNC, 50RPF, 50RPSC, 50RPSCFC, 50RPSCST, 50RPST.

50RU**2**	50RU**6**	50RU**12**

Keystone plates for connection boxes

UL94-V0

White

	50RP**SC**	50RP**SCFC**	50RP**SCST**	50RP**C**	50RP**SCV**	50RP**BNC**	50RP**F**	50RP**ST**
Fixing	Keystone type							
Connector type	SC-UPC	SC-FC	SC-ST	Blanking plate	Without adapter	BNC	F	ST
Material	ABS, PVC, stainless steel, bronze			ABS		ABS, nickel, zinc, bronze		
Dimensions (mm)	22x18x34	22x18x32	22x18x33	22x18x19	22x18x18	22x18x34	22x18x27	22x18x33
Packaging	Single unit							

Specifications:

- A selection of Keystone connectors for installation in the unpopulated modular connection box (SC and ST for fibre optics, F and BNC for television).
- Compatible with the following connection boxes: 50RU2, 50RU6, 50RU12.

50RP**SC**

50RP**SCFC**

50RP**SCST**

50RP**C**

50RP**SCV**

50RP**BNC**

50RP**F**

50RP**ST**

COPPER TWISTED PAIR NETWORK
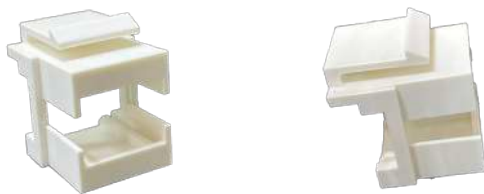
2.9 WIRING ACCESSORIES ALL CATEGORIES

BNC RG59-62 M Aerial Crimp **connector**

MIL-PRF-39012 Rev F

Metallic

MALE — 16C**59M**

Type of installation	Crimping / Soldering
Cable type	RG59 (75 ohm)
Connector type	Aerial
Housing material	Plastic, PTFE, Nickel, Gold, Copper
Contact material	Phosphor bronze
Dimensions	13x13x30 mm
Packaging	Single unit

Specifications:
- DIN Flex-5 male aerial connector for crimp 1.6/5.6

BNC female-female **aerial adapter**

MIL-PRF-39012 Rev F

Metallic

Female-Female — 16A**BNC**

Connector type	Aerial
Housing material	Plastic PTFE, nickel, gold
Contact material	Phosphor bronze
Dimensions	10x10x32 mm
Packaging	Single unit

WIRING ACCESSORIES ALL CATEGORIES

Protective cap for RJ45 UTP and FTP male connectors

UL94-V2

Grey
RAL 7035

50T**CGR**

Connector type	RJ45 UTP and FTP male
Fixing	Partial insertion into the connector
Material	Plastic
Max. diameter	6 mm
Dimensions	16x12x35 mm
Packaging	Single unit

Specifications:
- Special narrow design to allow convenient installation of the patch cables on panels or switches, without them touching each other.
- Not suitable for 50CFF6A and 50CFR8.

DIN rail bracket for RJ45 connector

IEC 60715

Metallic

19S**DINRJ**

Connector type	Keystone type
Fixing	DIN
Material	Metal, steel and aluminium
No. of connectors	1
Dimensions	51x23x51 mm
Packaging	Single unit

COPPER TWISTED PAIR NETWORK

COPPER TWISTED PAIR NETWORK

Passive Multiplexers 8 outputs and 1 input ICT2

ANSI/TIA/EIA 568.2 Rev. E (Cat.6), ISO/IEC 11801-1 (Class E)
ANSI/TIA/EIA 568.2 Rev. E (Cat.5e), ISO/IEC 11801-1 (Class D)

White

	39M**P8**	39M**P8K**
Installation	Surface	
Use	ICT2	Telephony
Housing material	ABS	
No. of outputs	8 + 1 RJ45 C6	8 + 1 RJ45 C5E
Dimensions	38x172x120 mm	32x70x53.5 mm
Packaging	Single unit	
ACCESSORIES	0.5 m RJ45 C6 patch cable	-

Specifications:
- Passive multiplexers with 8 outputs + 1 input.
- Model 39MP8 includes an input patch cable.
- For ICT2 use.

39M**P8**	39M**P8K**

Rigid indoor cable C-7 S/FTP LSZH Dca

OTHER BRANDS | C-7 | S/FTP

ANSI/TIA/EIA 568.2 Rev. E (Cat.7), ISO/IEC 11801-1 (Class F), IEC 60332-1-2, IEEE/ISO/
IEC 8802-3 (100W), EN 50575 (CPR Dca-s2,d1,a1), IEC 61156-5, IEC 60754-1, IEC 60754-2,
IEC 61034-2, EN 50173-1, EN 50174-2 (d)

BD**1885ENH500**

Conductor	AWG23 Ø 0.60 mm
Insulation material	PE
Insulation around conductor, ext. Ø	1.45 mm
Shielding	Copper mesh shielding of cable assembly / Aluminium shielding of pair
Outer jacket material	LSZH
Outer jacket colour	Grey
Outer jacket thickness	0.3 mm
Outer jacket Ø	8 mm
Maximum frequency	100 MHz
Working temperature	-20ºC to 60ºC
Weight	25 kg
Packaging	Spool 500 m
CPR Regulations	Dca (s2, d2, a1)

Specifications:

100% copper.
- Recommended for use with C-6A FTP or C-8 connectors.
- Consisting of 4 twisted pairs in the following colours:
  - Blue: White/Blue
  - Orange: White/Orange
  - Green: White/Green
  - Brown: White/Brown
- NVP = 68%

COPPER TWISTED PAIR NETWORK

2.10

COPPER TWISTED PAIR NETWORK

INSTALLATION AND VERIFICATION TOOLS

Thanks to the tools and measuring equipment, we can install correctly and subsequently check the installation to achieve the desired performance. We have a wide range of different insertion tools, as well as any pliers or cable strippers needed to prepare the cable for insertion into the connector.
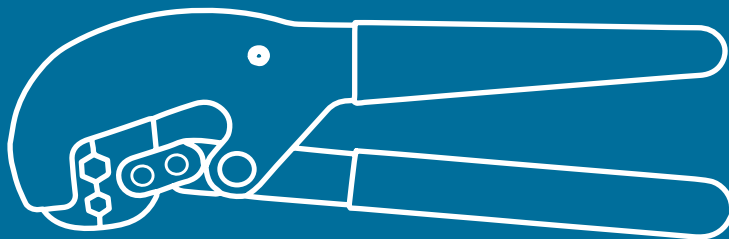
Find out about **calibration and maintenance services** for our equipment.

INSTALLATION
TOOLS

Inserters

ICT **combination tool**

Code	Material	Colour	Head	Accessories
34GTHT**314KR**	Plastic and metal	Grey	System 110 LSA (Krone type) with cutter	Cable extractors on the side

Comparison of type 110 and Krone inserting tools

Specifications:
- For Krone type IDC contacts.
- Suitable for Krone type dual terminal strips.
- Cut and insert the cable at the same time.

Insertion tool for type 110 IDC contacts

Code	Material	Colour	Head
34GTHT**324TB**	Polyacetal resin with glass fibre and metal	Grey	System 110 with/without blade

Comparison of type 110 and Krone inserting tools
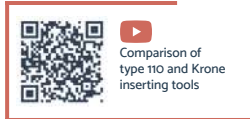
Insertion/cutting tool for type 110 IDC contacts

Code	Material	Colour	Head	Accessories
34GTHT**314TB**	Polyacetal resin with fibreglass, metal	Orange	System 110 with/without blade	Blade holder rear

Comparison of type 110 and Krone inserting tools

Specifications:
- Impact control.
- Reversible head (with or without blade)

Professional insertion/cutting tool for IDC contacts type 110

Code	Material	Colour	Head	Accessories
34GTHT**364BR**	Rubber, plastic and metal	Black / Yellow	System 110 with/without blade	Rear blade holder, cable extractors at the side

Comparison of type 110 and Krone inserting tools

Specifications:
- Impact control.
- Ergonomically designed handle.
- Reversible head (with or without blade)

COPPER TWISTED PAIR NETWORK

2.10

INSTALLATION
TOOLS

Pliers

Insertion pliers for 4 pairs of IDC contacts type 110

Code	Material	Colour	Head	Accessories
34GTTI4P	ABS+PC plastic, polycarbonate, SPCC metal 2 mm	Black	System 110 for Keystone 180° (4 pairs at once)	Transparent soft cover

Insertion pliers 110, the fastest way to insert 4 pairs at once, Gtlan.

Specifications:
- Insertion tool for 4 pairs of IDC contact type 110.
- Ergonomically designed handle.
- Enables you to terminate connectors up to 8 times faster.

Professional crimping pliers for crimping RJ45/11/12 connectors

Code	Material	Colour	Head	Accessories
34GTHT500R	Plastic and low-carbon steel	Black/Blue	Contact pressure insertion system (horizontal)	Cable strippers

Specifications:
- Cut and strip in one step.
- Cutter and stripper at the rear.
- Stripper for flat and round cable.
- Special handle with ergonomic grip.
- Incorporates ratchet for pressure control.

Professional crimping pliers for RJ45/11/12/9 connectors

Code	Material	Colour	Head
34GTHTN5684R	Plastic and low-carbon steel	Black/Blue	Contact pressure insertion system

Specifications:
- Cut and strip in one step.
- Cutter and stripper at the rear.
- Stripper for flat and round cable.
- Special handle with ergonomic grip.
- Incorporates ratchet for pressure control.

Professional crimping pliers for BNC RG 58/59/62

Code	Material	Colour	Head
34GTHT106D	Plastic and Metal	Black/Red	Pressure crimping system

Specifications:
- Crimping pliers for coaxial connectors (BNC).
- Suitable for RG 62/59/58 cables with 6.48 hexagonal crimping.

INSTALLATION
TOOLS

Professional crimping pliers for RJ45/11/12 M FAST connectors

Code	Material	Colour	Cable type	Stripping range	Application
34GT**TCMF**	Stainless steel and PVC handle	Black/Blue/Yellow	Flat, round	0.8 - 26 mm	Crimping for RJ11, RJ12, RJ45

The fastest crimping tool, RJ45 connector, Gtlan.
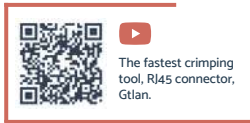
Specifications:
- Easy to use tool that can cut, press and strip the cable.
- • For fast (crimped pass-through) and normal connectors.
- • For stripping round and flat cables.

∘Cable strippers∘

Multi-purpose cable stripper for flat or twisted cables (FTP, UTP and FO)

Code	Material	Colour	Application
34GTHT**S501A**	Plastic and metal	Yellow	Stripping coaxial cables

Specifications:
- Plier style
- Strips the cables with a simple rotation.
- Includes blade for cutting the cables.
- Can be adjusted to cable diameter.

Certifier

C-5 UTP/FTP and C-6 **cabling certifier**

ANSI/TIA/EIA 568.x Rev. E, ISO/IEC 11801, IEEE/ISO/IEC 802-3 (1000BASE-T)

Code	Connections	Components	Functions
22GT**CRC6**	RJ45 UTP/FTP (C-3 class C, C-5E class D), RJ45 (C-6 class E), RJ11, USB for connection of USB memory stick	Main unit (with display) + remote	Mapping, TDR, Insertion loss, Attenuation, ACR, ELFEXT

Materials	Colour	Battery	Battery life	Charging time	Internal memory	Accessories
Plastic and metal	Grey / Blue	Lithium	3.5 hours	5 hours	For 100 certifications	Remote charging, Soft case, Data download software

Specifications:
- Valid for Cat. 3 (class C), Cat. 5e (class D) and Cat. 6 (class E).
- USB port for the connection of USB memory sticks.

Certifier for cables up to Cat.6 l 3-minute quick guide, Gtlan.

Pair identifier

Pair identifier with tone generator and probe for RJ11/45 cabling

Reference	Connections	Indicators	Functions
22GT**806B**	RJ11, RJ45 connectors banana/crocodile type	LED/tone	Locate cables, connection mapping of network cables

Materials	Colour	Power supply	Accessories	Comments
Plastic and metal	Red	9 V battery x 2	Soft case, RJ45 male adapter cable, headset, headphones	⚠ Do not use in active networks

Specifications:
- Tester for RJ11/45 wiring.
- Checks the mapping of UTP and FTP cables.
- Equipment includes tone generator and probe.

COPPER TWISTED PAIR NETWORK

2.10 TOOLS FOR VERIFICATION
Tester

RJ 11/12/45, BNC and USB **cable tester**

ANSI/TIA/EIA 568.A/B, IEEE/ISO/IEC 802-3 (10BASE2, 10BASE5)

Code	Connections	Indicators	Functions
22GT**4041**	RJ11/12/45-UTP/FTP, BNC, USB	LED	Network cable connection mapping (100 m max.)

Materials	Colour	Power supply	Accessories	Comments
Plastic and metal	Grey	9 V battery	Soft cover	⚠ Do not use in active networks

Specifications:
- For testing of coaxial cables.
- Identifies short circuits, open circuits, crossed pairs...
- Checks the mapping of UTP and FTP cabling.

RJ45 and BNC **cable tester**

ANSI/TIA/EIA 568.A/B, AT&T 258A, IEEE/ISO/IEC 802-3 (10BASE-T, 100BASE-TX, 1000BASE-TX)

Code	Connections	Indicators	Functions
22GT**ST248**	RJ45 UTP/FTP, BNC	LED	Network cable connection mapping (100 m max.)

Materials	Colour	Power supply	Accessories	Comments
Plastic and metal	Grey	9 V battery	-	⚠ Do not use in active networks

Specifications:
- For testing of coaxial cables.
- Identifies short circuits, open circuits, crossed pairs...
- Checks the mapping of UTP and FTP cabling.

COPPER TWISTED PAIR NETWORK

3

FIBRE OPTICS

This section describes our range of connection, storage and distribution products and all the accessories that are needed to interconnect the passive part of the installation with the electronics.
In today's most common installations, we find ST connectors (multimode, LAN, instrumentation, industrial control, CCTV), SC connectors (multimode and single-mode FTTH, LAN, telecoms networks, CATV) and LC connectors (FTTH, LAN, telecoms networks, CATV).

The trend is to focus on the SC connector for shelves, enclosures and fibre fixings, and LC for the connection with electronics. The finishes of these connectors will depend on their intended use. In multimode, the usual connector polishing is PC (convex polishing, beige in colour). In single-mode, we see both UPC flat polishing (ultra-polished, blue in colour) and APC polishing (convex and angular polishing, green in colour), which is used for FTTH.

The fibre sector is constantly expanding. With the optoelectronics sector becoming cheaper and fibre being introduced into homes, this increase in production has lowered product costs, which invites its use in a wide range of installations, not only over long distances as before, but even in small backbones. That is why we continue to offer a product with good performance, but also work to reduce installation times for initial connection. We continue to innovate and expand our product range. There are different configurations to suit the customer's needs, for example SC mechanical connectors, (an assembly that is easy to connect with practically no tools) or pre-connectorised boxes with pigtail, adapter and cable (very common in FTTH installations). Solutions for data centres, backbones, indoor or outdoor cabling, buildings or communities, offices etc. We are able to design and produce unique elements and adapt them to the specific demands of our customers by transforming our standard product into customised products.

Other definitions to note:
- Type of polishing: Connectors are differentiated by their external shape, but very importantly by the finish of their ferrule end. The connector is manufactured with a specific polish according to its intended use. Polished PC, for multimode installations (beige), Polished UPC, single-mode (blue), Polished APC single-mode and mandatory in FTTH installations (green).
- FTTH (Fibre To The Home): Bringing fibre optics to homes. FTTH is one of the FTTx technologies, all of which provide us with the famous triple-play, where telephony, internet and television are transmitted through the same medium.
- ICT 2: The common telecoms infrastructure was reformed in 2011, with the aim that by 2020 all Europeans should have speeds above 30 Mbps and 50% above 100Mbps.
- Fast connectors: A method in which only a precision cutting tool is used. The optical fibre is cut, then inserted into the connector. Thanks to silicone inside the connector, no polishing is necessary.
- Splicing: A pigtail and the installation's wiring are stripped and cut with a precision cutter. A fusion splicer is then used to splice them by means of a high-voltage electric arc that melts and joins the two fibres.
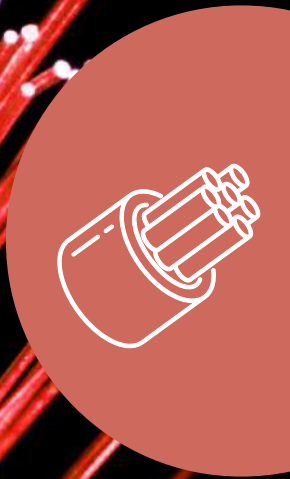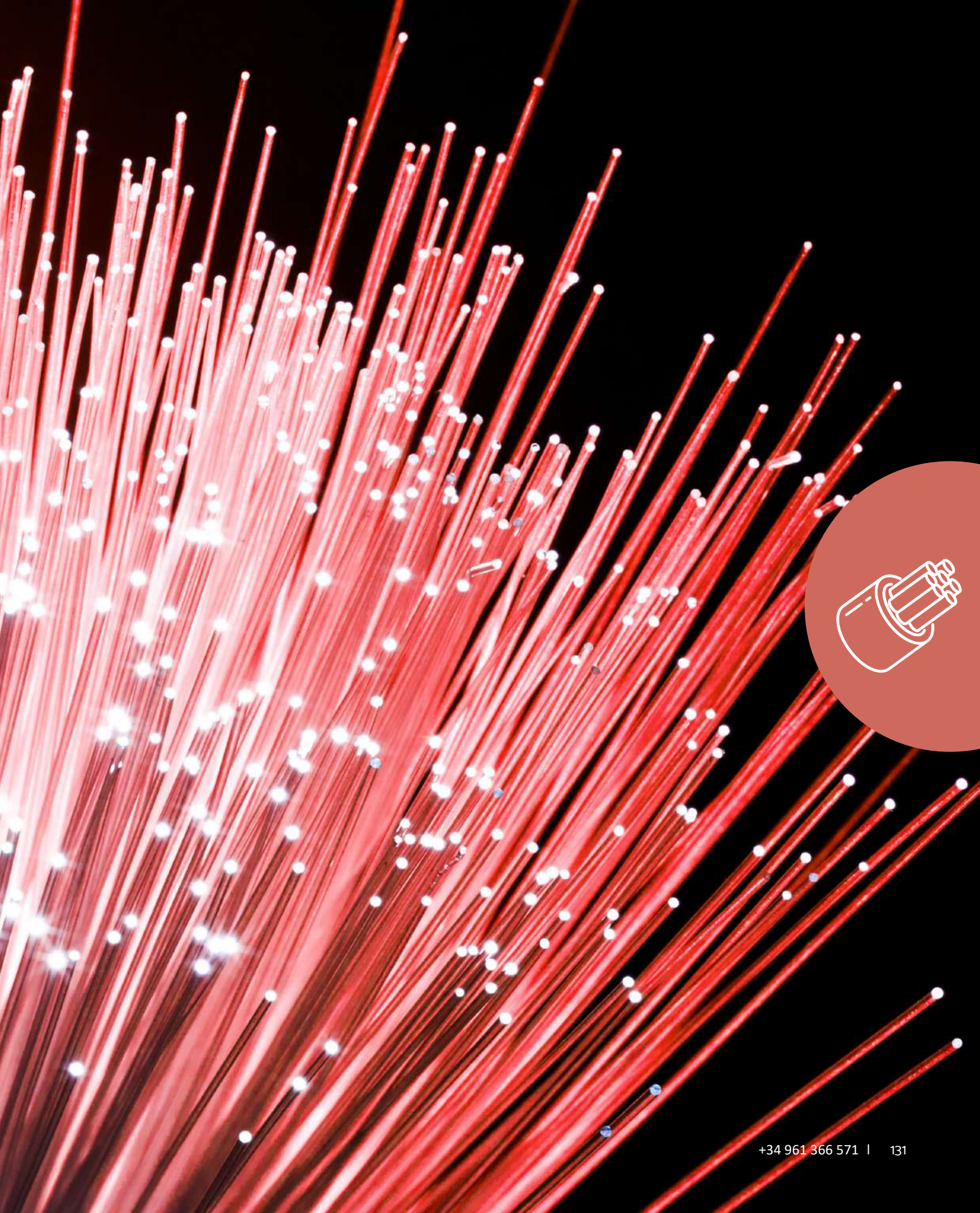
gtlan

FIBRE OPTICS

CABLES
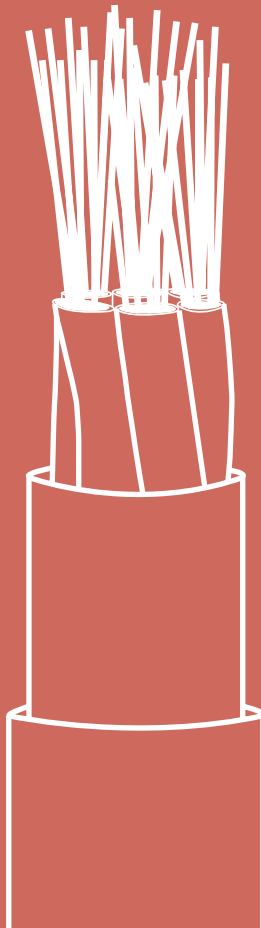
Ask questions and learn on our channel:
GTLAN Telecommunications Experts
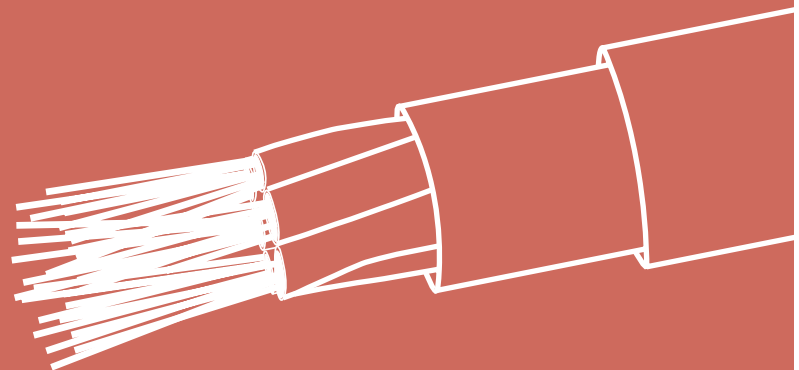
https://www.youtube.com/channel/UCLZY-
woG5fQXHRb112F2sFtQ/channels

FO CABLING

Over time, the requirements for communication networks have become more demanding. This is why research has been carried out to find a means of physical propagation
that achieves increased transmission capacities in a secure and low-interference manner.
This option is **FIBRE OPTICS.**

Optical fibres are **rigid or flexible glass (silica) conduits**, which are **capable of conducting a beam of light** injected at one end by successive reflections that keep it inside until it finally exits at the other end. That is, it is a **light waveguide**. The **applications** are very diverse, ranging **from
data transmission to conducting sunlight**, or to use where conventional lighting could be dangerous due to the presence of explosive gases, or use in medicine to transmit images from inside the human body.

There are different **types of fibre** depending on the size of the fibre core, and whether they are **Multimode (MM) or Single-mode (SM)**. And we also need to consider the protection we want externally.

In Multimode **(MM)** we have **two core sizes, 50 μm and 62.5 μm**, which is generally protected with a 125 μm cladding. Because of the thickness of the interior, light travels by bouncing off the sides of the core.

There are five **types of multimode fibre cables: in 62.5 μm OM1 and in 50 μm OM2, OM3, OM4 and OM5.**
All models have specific features. OM1 and OM2 fibres are designed to support networks up to 1 Gb. OM3 and OM4 fibres are designed to support 10 Gb, 40 Gb and 100 Gb networks.
In Single Mode **(SM)** we have only **one core size,**

9 μm, OS2 type, with the same 125 μm cladding. Inside it, light travels in the centre of the
core. It can be said that there is no limit.

Optical fibres have a **lower attenuation** (loss) in certain portions of the light spectrum,
which are called windows and correspond to the following wavelengths, expressed in nanometres.
First window: **850 nm** (LED, short distances in multimode).
Second window: **1310 nm** (Laser, multimode/single-mode, medium distances).
Third window: 1550 nm (Laser, long distances in single-mode).

There are currently two types of market that are very
differentiated in terms of product **application**. The traditional one works **both in multimode
and single-mode**. It is used **to link data centres, racks, offices, industry, schools**...
The multimode part operates at 850 nm and 1300 nm, the single-mode part at 1310 nm and 1550 nm. And **FTTH**, currently all new construction or refurbishment work must comply with the ICT2 regulations. They must be single-mode and operate at 1310 nm, 1490 nm and 1550 nm.

Optical fibre consists of a core and a cladding, but has no tensile strength properties. **To protect fibres**, identify them and provide long-term performance, we must manufacture-in sufficient **protection for each type of installation** in any environment. The **first protection** is the **secondary coating which can be loose or tight fitting.**

FIBRE OPTICS

FIBRE OPTIC CABLES

The **loose tube** cable consists of one **tube (monotube)** or **several tubes (multi-tube)**, **surrounding a central reinforcement member, surrounded by a protective sheath. Each tube**, two to three millimetres in diameter, **has several optical fibres** resting loosely in it. **The tubes may be filled with a water-resistant gel that prevents water from entering the fibre**. The **loose tube insulates the fibre** from external mechanical forces exerted on the cable.

The **tight buffered** cable **contains several fibres with secondary protection surrounding a central tensile member**, all of which is **covered** by an **outer** sheath. Secondary fibre protection: A 900 μm diameter plastic sheath provides additional protection as well as physical support. It allows the fibre to be directly connected. It is **more sensitive to stretching or tensile loads** and may see increased losses due to macro bending. A tight buffered cable is **more flexible and** has a **smaller diameter** than a loose buffered cable.

Special mention should be made of the specific cabling used in **FTTH (Fiber-To-The-Home)**. We need to be very careful about the requirements established in the regulations, such as the bend radius (G.657 A2 or G652). They are **designed to allow the fibres to bend without affecting their performance**. This is achieved through an optical trench that reflects the light away from the core, rather than being lost in the cladding, thus enabling a higher bending of the fibre.

G.657 is currently the **most recent standard for FTTH** applications and,**together with G.652, is the most typically used in state-of-the-art fibre networks**. In addition, colour, design and manufacturing characteristics should be taken into account.

REMEMBER that choosing the right fibre for your network application is a very important decision.

MAXIMUM ETHERNET RANGES BY PROTOCOL										
Protocol	MM 62.5/125 OM1		MM 50/125 OM2		MM 50/125 OM3		MM 50/125 OM4		SM OS2	
Wavelength	850 nm	1300 nm	850 nm	1300 nm	850 nm	1300 nm	850 nm	1300 nm	1300 nm	1550 nm
Fast Ethernet 100 Mbps	300 m	2000 m	300 m	2000 m	300 m	2000 m	300 m	2000 m	2000 m	N/A
Gigabit Ethernet 1 Gbps	330 m	550 m	550 m	550 m	900 m	550 m	1040 m	550 m	5000 m	N/A
10 Gigabit Ethernet	35 m	300 m (*)	86 m	300 m (*)	300 m	300 m (*)	550 m	300 m (*)	10 km	40 km

(*) Deployments made with WWDM and 10GBASE-LX4

SUBFAMILIES
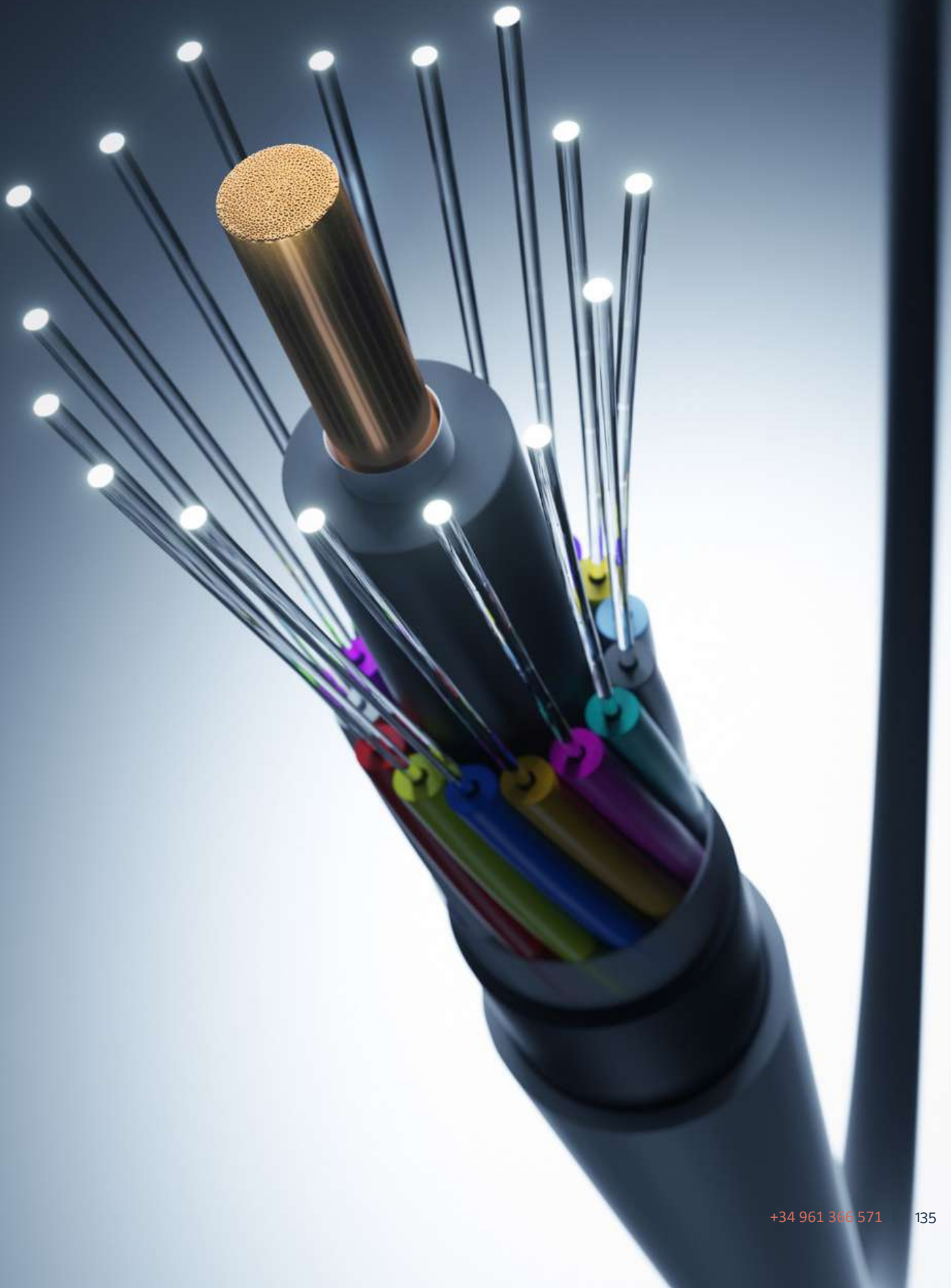
OM1 Multimode 62.5/125 µm

3.1

OM1 fibre is usually identified by the orange colour of its jacket and has a core size of 62.5 µm. It supports 10GbE (10 Gigabit Ethernet) over distances up to 33 metres. This is the most widespread option for Fast Ethernet (FE, 100Mbps) applications. An LED (light emitting diode) light source is often used to transmit over this type of fibre.

OM2 Multimode 50/125 µm

3.2

The OM2 fibre is also identified by an orange colour on its jacket and uses an LED light source, but its core is 50µm. It supports 10GbE over distances of up to 82 metres. This is the most widespread option for 1GbE applications.

OM3 Multimode 50/125 µm

3.3

OM3 fibre is usually identified by the aquamarine colour of its outer jacket and has a core size of 50 µm. This fibre is optimised for use with VCSEL (Vertical Cavity Surface Emitting Laser) laser transmission equipment. It supports 10 GbE over distances up to 300 metres, 40GbE up to 100 metres and 100GbE at 70 m. This is the most common option for 10GbE applications.

OM4 Multimode 50/125 µm

3.4

OM4 fibre is also often identified by the aquamarine or violet colour of its outer jacket and also has a core size of 50 µm. It is fully compatible with OM3 fibre. This fibre can be considered as an evolution of OM3 for specific use with VCSEL lasers, improving the distances achieved at different transmission rates.

OS2 Single-mode 9/125 µm

3.5

Single-mode fibre is usually identified by the yellow or white colour of its outer jacket, and has a core size of 9 µm. Typically using wavelengths between 1310 nm and 1550 nm, single-mode fibre optic cable suffers less signal attenuation and achieves higher transmission speeds than any other fibre cable, making it the best choice for data transmission over kilometre distances.

FTTH Single-mode 9/125 μm

3.6 Referring to the acronym for Fibre To The Home (FTTH) technologies, our passive products are designed for use in fibre optic cabling and optical distribution systems for the provision of voice, data and video in homes, businesses and enterprises.

DISTRIBUTION

3.7 Passive elements for the construction of fibre optic distribution networks. Used to provide cable interconnections between communication installations, they can integrate fibre splicing, fibre termination, adapters and connectors, and cable connections into a single unit. These elements protect fibre optic connections from damage caused by adverse external events.

INSTALLATION/VERIFICATION TOOLS

3.8 Using professional tools for the installation and handling of fibre optic networks optimises the time spent on these tasks. The subsequent certification or verification of fibre optic cabling in the field is the only guarantee that the installed fibre cabling meets industry-defined performance standards and relevant international standards.

FIBRE OPTICS

3.1

OM1 Multimode 62.5/125 μm

SC Fast mechanical quick-fit fibre connector

IEC 61754-4, IEC 61753-1, UL94

Grey
RAL 7032

Black
RAL 9005

35GTS**C9MF**

Application	FO pigtail/FO patch cable
Fibre optic Ø	62.5/125 μm
FO Type	Multimode
Insertion loss	≤ 0.3 dB (1310 nm & 1550 nm)
Return loss	≥ -60 dB
Max. stress	> 50 N
Material	Plastic
Dimensions	62x9x9 mm
Packaging	10 units

Specifications:
- Compatible with 9/125-50/125 or 62.5/125 fibres.
- Easy assembly without FO polishing.
- Without connectorisation kit.
- **Reusable.**

See the assembly instructions:
GTLAN Telecommunications Experts

▶ Fibre optic quick connector, without splicing tool, Gtlan

3.1

OM1 Multimode 62.5/125 µm

FO pigtails

IEC 60793, IEC 61754-2, IEC 61754-4, IEC 61754-20, Telcordia GR-409, IEC 60332, IEC 60754, IEC 61034

Orange

	35GTPM**ST1M**	35GTPM**SC1M**	35GTPM**LC1M**
No. of connectors	1		
Connector type	ST - UPC	SC - UPC	LC - UPC
FO Type	OM1 Multimode 62.5/125 µm		
Use	Indoor		
Insertion loss	≤ 0.25 dB		
Return loss	> 55 dB		
Durability	1000 connections		
Radius of curvature (static)	30 mm		
Attenuation	≤ 3.2 / ≤ 0.8 (850/1300 nm (dB/km))		
Ferrule material	Zirconia ceramic		
Outer jacket material	LSZH		
Outer cable Ø	0.9 mm		
Length	1 m		
Packaging	Single unit		

35GTPM**ST1M**	35GTPM**SC1M**	35GTPM**LC1M**

FIBRE OPTICS

3.1

OM1 Multimode 62.5/125 µm

FO adapters female-female

IEC 61754-2, IEC 61754-4, IEC 61754-20, IEC 61753-1, UL94

	35GT**AST**	35GT**ASC**	35GT**ASCD**	35GT**ALCD**
Adapter type	ST simplex	SC simplex	SC duplex	LC duplex
FO Type	Multimode and Single-mode	Multimode		
Insertion loss	< 0.2 dB			
Durability	1000 connections			
Material	Metal	Polycarbonate		
Ferrule material	Zirconia ceramic			
Dust cover	Black/Red/Yellow	Black		White
Fixing	With nut	Tab (optional screw)		
Pins	-	Metal		
Packaging	Single unit			

35GT**AST**	35GT**ASC**	35GT**ASCD**	35GT**ALCD**

FIBRE OPTICS

3.1

OM1 Multimode 62.5/125 µm

gtlan

Hybrid **FO adapter**

IEC 61754-4, IEC 61754-2, IEC 61753-1

Beige

35GT**ASTSC**

Adapter type	ST/SC duplex
FO Type	Multimode
Insertion loss	< 0.2 dB
Durability	1000 connections
Material	Polycarbonate
Ferrule material	Zirconia ceramic
Dust cover	Red
Fixing	Tab (optional screw)
Pins	Metal
Packaging	Single unit

FIBRE OPTICS

+34 961 366 571

FO **patch cable**

IEC 60793, IEC 61754-2, IEC 61754-4, IEC 61754-20, Telcordia GR-409, IEC 60332, IEC 60754, IEC 61034

Orange

	35GT**2ST2M**	35GT**2STSC2M**	35GT**2STLC2M**	35GT**2SC2M**	35GT**2SCLC2M**	35GT**2LC2M**
Patch cable type	Duplex					
FO Type	OM1 Multimode 62.5/125 µm					
Connector type 1	ST - UPC	ST - UPC	ST - UPC	SC - UPC	SC - UPC	LC - UPC
Connector type 2	ST - UPC	SC - UPC	LC - UPC	SC - UPC	LC - UPC	LC - UPC
Insertion loss	≤ 0.25 dB					
Return loss	≥ 45 dB					
Durability	1000 connections					
Radius of curvature (static)	45 mm					
Wavelength	850/1300 nm					
Attenuation	≤ 3.2 / ≤ 0.8 (850/1300 nm (dB/km))					
Ferrule material	Zirconia ceramic					
Outer jacket material	LSZH					
Outer cable Ø	3 mm					
Length	2 m					
Packaging	Single unit					

FIBRE OPTICS

3.1

FIBRE OPTICS

OM1 Multimode 62.5/125 µm

35GT2SC2M

35GT2ST2M

35GT2STSC2M

35GT2SCLC2M

35GT2STLC2M

35GT2LC2M

FIBRE OPTICS

FIBRE OPTICS
OM1 Multimode 62.5/125 μm

3.1

Indoor/outdoor **FO cable**

ANSI/TIA/EIA 568.3 Rev. E; EN 60332-1-2; IEC 60793-1; IEC 60793-2; IEC 60794-1-1; IEC 60794-1-2;
IEC 60794-1-21; IEC 60794-1-22

:: | cable**lan**

Anti-rodent

35GTFO862U

Use	Indoor/Outdoor
No. fibres.	8
No. of tubes	1
Fibre type	OM1 Multimode 62.5/125 μm
Loose tube Ø	2.8 mm
Outer jacket Ø	5.8 mm
Outer jacket material	LSZH
Outer jacket colour	Orange/Blue
Internal reinforcement	Fibreglass
Attenuation	850 nm ≤ 3.2 dB/km 1300 nm ≤ 1.0 dB/km
Packaging	Spool 2000 m
CPR Regulations	Eca

Fibre colour code
(DIN VDE 0888)

1. Red
2. Green
3. Blue
4. Yellow
5. White
6. Grey
7. Brown
8. Violet

Tube colour code

1. Green

:: | cable**lan**

3.2

FIBRE OPTICS

OM2 Multimode 50/125 µm

SC Fast mechanical quick-fit fibre connector

IEC 61754-4, IEC 61753-1, UL94

Grey
RAL 7032

Black
RAL 9005

35GTSC9LF

Application	FO pigtail/FO patch cable
Fibre optic Ø	50/125 µm
FO Type	Multimode
Insertion loss	≤0.3 dB (1310 nm & 1550 nm)
Return loss	≥ -60 dB
Max. stress	> 50 N
Material	Plastic
Dimensions	62x9x9 mm
Packaging	10 units

Specifications:

· Compatible with 9/125-50/125 or 62.5/125 fibres.
· Easy assembly without FO polishing.
· Without connectorisation kit.
· **Reusable.**

3.2

FIBRE OPTICS
OM2 Multimode 50/125 µm

FO pigtails

IEC 60793, IEC 61754-2, IEC 61754-4, IEC 61754-20, Telcordia GR-409, IEC 60332, IEC 60754, IEC 61034

Orange

	35GTPMST1L	35GTPMSC1L	35GTPMLC1L
No. of connectors	1		
Connector type	ST - UPC	SC - UPC	LC - UPC
FO Type	OM2 Multimode 50/125 µm		
Use	Indoor		
Insertion loss	≤ 0.25 dB		
Return loss	> 65 dB		
Durability	1000 connections		
Radius of curvature (static)	30 mm		
Attenuation	≤ 3.2 / ≤ 0.8 (850/1300 nm (dB/km))		
Ferrule material	Zirconia ceramic		
Outer jacket material	LSZH		
Outer cable Ø	0.9 mm		
Length	1 m		
Packaging	Single unit		

35GTPMST1L

35GTPMSC1L

35GTPMLC1L

FIBRE OPTICS

3.2

FIBRE OPTICS
OM2 Multimode 50/125 µm

FO adapters female-female

IEC 61754-2, IEC 61754-4, IEC 61754-20, IEC 61753-1, UL94

	35GT**AST**	35GT**ASC**	35GT**ASCD**	35GT**ALCD**
Adapter type	ST simplex	SC simplex	SC duplex	LC duplex
FO Type	Multimode and Single-mode	Multimode		
Insertion loss	< 0.2 dB			
Durability	1000 connections			
Material	Metal	Polycarbonate		
Ferrule material	Zirconia ceramic			
Dust cover	Black/Red/Yellow	Black		White
Fixing	With nut	Tab (optional screw)		
Pins	-	Metal		
Packaging	Single unit			

35GT**AST**	35GT**ASC**	35GT**ASCD**	35GT**ALCD**

3.2

OM2 Multimode 50/125 µm

Hybrid **FO adapter**

IEC 61754-4, IEC 61754-2, IEC 61753-1

Beige

35GT**ASTSC**

Adapter type	ST/SC duplex
FO Type	Multimode
Insertion loss	< 0.2 dB
Durability	1000 connections
Material	Polycarbonate
Ferrule material	Zirconia ceramic
Dust cover	Red
Fixing	Tab (optional screw)
Pins	Metal
Packaging	Single unit

3.2

OM2 Multimode 50/125 µm

FO **patch cable**

IEC 60793, IEC 61754-2, IEC 61754-4, IEC 61754-20, Telcordia GR-409, IEC 60332, IEC 60754, IEC 61034

Orange

	35GT**2ST2L**	35GT**2STSC2L**	35GT**2STLC2L**	35GT**2SC2L**	35GT**2SCLC2L**	35GT**2LC2L**
Patch cable type	Duplex					
FO Type	OM2 Multimode 50/125 µm					
Connector type 1	ST - UPC	ST - UPC	ST - UPC	SC - UPC	SC - UPC	LC - UPC
Connector type 2	ST - UPC	SC - UPC	LC - UPC	SC - UPC	LC - UPC	LC - UPC
Insertion loss	≤ 0.25 dB					
Return loss	≥ 45 dB					
Durability	1000 connections					
Radius of curvature (static)	45 mm					
Wavelength	850/1300 nm					
Attenuation	≤ 3.2 / ≤ 0.8 (850/1300 nm (dB/km))					
Ferrule material	Zirconia ceramic					
Outer jacket material	LSZH					
Outer cable Ø	3 mm					
Length	2 m					
Packaging	Single unit					

FIBRE OPTICS

3.2

FIBRE OPTICS

OM2 Multimode 50/125 µm

35GT**2SC2L**
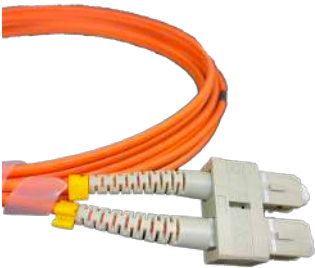
35GT**2ST2L**

35GT**2STSC2L**
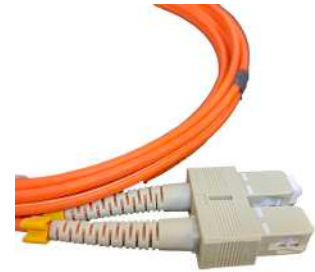
35GT**2SCLC2L**

35GT**2STLC2L**

35GT**2LC2L**

3.2

OM2 Multimode 50/125 μm

Indoor/outdoor **FO cable**

ANSI/TIA/EIA 568.3 Rev. E; EN 60332-1-2; IEC 60793-1; IEC 60793-2; IEC 60794-1-1;
IEC 60794-1-2; IEC 60794-1-21; IEC 60794-1-22

cablelan

Anti-rodent

35GTFO**850U**

Use	Indoor/Outdoor
No. fibres.	8
No. of tubes	1
Fibre type	OM2 Multimode 50/125 μm
Loose tube Ø	2.8 mm
Outer jacket Ø	5.8 mm
Outer jacket material	LSZH
Outer jacket colour	Orange/Blue
Internal reinforcement	Fibreglass
Attenuation	850 nm ≤ 2.3 dB/km 1300 nm ≤ 0.5 dB/km
Packaging	Spool 2000 m
CPR Regulations	Eca

Fibre colour code
(DIN VDE 0888)

1. Red
2. Green
3. Blue
4. Yellow
5. White
6. Grey
7. Brown
8. Violet

Tube colour code

1. Green

FIBRE OPTICS

FIBRE OPTICS
OM2 Multimode 50/125 µm

3.2

Indoor/outdoor FO cable Dca

ANSI/TIA/EIA 568.3 Rev. E, ISO 11801-1, EN 50173-1, IEC 60794-1, EN 50575, IEC 60332-1-2, IEC 60332-3-24, IEC 60754-1, IEC 60754-2, IEC 61034-2; EN 50399 (CPR Dca-s2,d1,a1)

OTHER BRANDS

Anti-rodent

35FO850DU

Use	Indoor/Outdoor
No. fibres.	8
No. of tubes	1
Fibre type	OM2 Multimode 50/125 µm
Loose tube Ø	2.8 mm
Outer jacket Ø	5.8 mm
Outer jacket material	LSZH
Outer jacket colour	Orange/Blue
Internal reinforcement	Fibreglass
Attenuation	850 nm ≤ 2.3 dB/km 1300 nm ≤ 0.5 dB/km
Packaging	Spool 2000 m
CPR Regulations	Dca (s2, d1, a1)

Fibre colour code (DIN VDE 0888)

1. Red
2. Green
3. Blue
4. Yellow
5. White
6. Grey
7. Brown
8. Violet

Tube colour code

1. Green

FIBRE OPTICS

FIBRE OPTICS

3.2 OM2 Multimode 50/125 µm

Outdoor FO cable with metal reinforcing

ANSI/TIA/EIA 568.3 Rev. E; EN 60332-1-2; IEC 60793-1; IEC 60793-2; IEC 60794-1-2; IEC 60794-1-21; IEC 60794-1-22

cablelan

Anti-rodent

35GTFO850E

Use	Outdoor
No. fibres.	8
No. of tubes	1
Fibre type	OM2 Multimode 50/125 µm
Loose tube Ø	2.8 mm
Outer jacket Ø	8.5 mm
Outer jacket material	PE
Outer jacket colour	Black
Internal reinforcement	Fibreglass
Attenuation	850 nm ≤ 2.7 dB/km 1300 nm ≤ 0.8 dB/km
Packaging	Spool 2000 m
CPR Regulations	Fca

Fibre colour code (DIN VDE 0888)

1. Red
2. Green
3. Blue
4. Yellow
5. White
6. Grey
7. Brown
8. Violet

Tube colour code

1. Green

FIBRE OPTICS

gtlan

SC Fast mechanical quick-fit fibre connector

IEC 61754-4, IEC 61753-1, UL94

Grey RAL 7032	Black RAL 9005

35GTS**C9OM3F**

Application	FO pigtail/FO patch cable
Fibre optic Ø	50/125 µm
FO Type	Multimode
Insertion loss	≤0.3 dB (1310 nm & 1550 nm)
Return loss	≥ -60 dB
Max. stress	> 50 N
Material	Plastic
Dimensions	62x9x9 mm
Packaging	10 units

Specifications:
· Easy assembly without FO polishing.
· Without connectorisation kit.
· **Reusable.**

See the assembly instructions:
GTLAN Telecommunications Experts

▶ Fibre optic quick connector, without splicing tool, Gtlan

FIBRE OPTICS

3.3

FIBRE OPTICS

OM3 Multimode 50/125 µm

FO **pigtails**

IEC 60793, IEC 61754-4, IEC 61754-20, Telcordia GR-409

● Aqua

	35GTPS**SC1OM3**	35GTPS**LC1OM3**
No. of connectors	1	
Connector type	SC - UPC	LC - UPC
FO Type	OM3 Multimode 50/125 µm	
Use	Indoor	
Insertion loss	≤ 0.25 dB	
Return loss	> 45 dB	
Durability	1000 connections	
Radius of curvature (static)	30 mm	
Attenuation	≤ 3.2 / ≤ 0.8 (850/1300 nm (dB/km))	
Ferrule material	Zirconia ceramic	
Outer jacket material	LSZH	
Outer cable Ø	0.9 mm	
Length	1 m	
Packaging	Single unit	

35GTPS**SC1OM3**

35GTPS**LC1OM3**

FIBRE OPTICS

3.3

OM3 Multimode 50/125 µm

FO adapters female-female

IEC 61754-4, IEC 61754-20, IEC 61753-1, UL94

Aqua

	35GT**ASCOM3**	35GT**ASCDOM3**	35GT**ALCDOM3**
Adapter type	SC simplex	SC duplex	LC duplex
FO Type	Multimode		
Insertion loss	< 0.2 dB		
Durability	1000 connections		
Material	Polycarbonate		
Ferrule material	Zirconia ceramic		
Dust cover	Black		White
Fixing	Tab (optional screw)		
Pins	Metal		
Packaging	Single unit		

35GT**ASCOM3**

35GT**ASCDOM3**
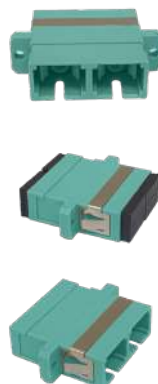
35GT**ALCDOM3**

FIBRE OPTICS

3.3

OM3 Multimode 50/125 µm

FO **patch cable**

IEC 60793, IEC 61754-4, IEC 61754-20, Telcordia GR-409

Aqua

	35GT**2SC2OM3**	35GT**2SCLC2OM3**	35GT**2LC2OM3**
Patch cable type	Duplex		
FO Type	OM3 Multimode 50/125 µm		
Connector type 1	SC - UPC	SC - UPC	LC - UPC
Connector type 2	SC - UPC	LC - UPC	LC - UPC
Insertion loss	≤ 0.20 dB		
Return loss	≥ 20 dB		
Durability	1000 connections		
Radius of curvature (static)	45 mm		
Wavelength	850/1300 nm		
Attenuation	≤ 3.2 / ≤ 0.8 (850/1300 nm (dB/km))		
Ferrule material	Zirconia ceramic		
Outer jacket material	LSZH		
Outer cable Ø	3 mm		
Length	2 m		
Packaging	Single unit		

35GT**2SC2OM3**	35GT**2SCLC2OM3**	35GT**2LC2OM3**

FIBRE OPTICS

OM3 Multimode 50/125 μm

Indoor/outdoor **FO cable**

ANSI/TIA/EIA 568.3 Rev. E; EN 60332-1-2; IEC 60793-1; IEC 60793-2; IEC 60794-1-1;
IEC 60794-1-2; IEC 60794-1-21; IEC 60794-1-22

Anti-rodent

35GTFO850M3

Use	Indoor/Outdoor	
No. fibres.	8	
No. of tubes	1	
Fibre type	OM3 Multimode 50/125 μm	
Loose tube Ø	2.8 mm	
Outer jacket Ø	5.8 mm	
Outer jacket material	LSZH	
Outer jacket colour	Orange/Blue	
Internal reinforcement	Fibreglass	
Attenuation	850 nm 1300 nm	≤ 2.3 dB/km ≤ 0.5 dB/km
Packaging	Spool 2000 m	
CPR Regulations	Eca	

Fibre colour code
(DIN VDE 0888)

1. Red
2. Green
3. Blue
4. Yellow
5. White
6. Grey
7. Brown
8. Violet

Tube colour code

1. Green

FIBRE OPTICS
OM3 Multimode 50/125 µm

Indoor/outdoor **FO cable Dca**

ANSI/TIA/EIA 568.3 Rev. E, ISO 11801-1, EN 50173-1, IEC 60794-1, EN 50575, IEC 60332-1-2, IEC 60332-3-24, IEC 60754-1, IEC 60754-2, IEC 61034-2; EN 50399 (CPR Dca-s2,d1,a1)

OTHER BRANDS

Anti-rodent

35FO**850DOM3**

Use	Indoor/Outdoor
No. fibres.	8
No. of tubes	1
Fibre type	OM3 Multimode 50/125 µm
Loose tube Ø	2.8 mm
Outer jacket Ø	5.8 mm
Outer jacket material	LSZH
Outer jacket colour	Orange/Blue
Internal reinforcement	Fibreglass
Attenuation	850 nm ≤ 2.3 dB/km 1300 nm ≤ 0.5 dB/km
Packaging	Spool 2000 m
CPR Regulations	Dca (s2, d1, a1)

Fibre colour code
(DIN VDE 0888)

1. Red
2. Green
3. Blue
4. Yellow
5. White
6. Grey
7. Brown
8. Violet

Tube colour code

1. Green

FIBRE OPTICS

3.3

FIBRE OPTICS
OM3 Multimode 50/125 µm

Outdoor FO cable with metal reinforcing

ANSI/TIA/EIA 568.3 Rev. E; EN 60332-1-2; IEC 60793-1; IEC 60793-2; IEC 60794-1-2; IEC 60794-1-21; IEC 60794-1-22

OTHER BRANDS

Anti-rodent

35GTFO850EOM3

Use	Outdoor
No. fibres.	8
No. of tubes	1
Fibre type	OM3 Multimode 50/125 µm
Loose tube Ø	2.8 mm
Outer jacket Ø	8.5 mm
Outer jacket material	PE
Outer jacket colour	Black
Internal reinforcement	Fibreglass
Attenuation	850 nm ≤ 2.7 dB/km 1300 nm ≤ 0.8 dB/km
Packaging	Spool 2000 m
CPR Regulations	Fca

Fibre colour code (DIN VDE 0888)

1. Red
2. Green
3. Blue
4. Yellow
5. White
6. Grey
7. Brown
8. Violet

Tube colour code

1. Green

FIBRE OPTICS
OM4 Multimode 50/125 µm

SC Fast mechanical quick-fit fibre connector

IEC 61754-4, IEC 61753-1, UL94

Grey
RAL 7032

Black
RAL 9005

35GTSC9OM4F

Application	FO pigtail/FO patch cable
Fibre optic Ø	50/125 µm
FO Type	Multimode
Insertion loss	≤0.3 dB (1310 nm & 1550 nm)
Return loss	≥ -60 dB
Max. stress	> 50 N
Material	Plastic
Dimensions	62x9x9 mm
Packaging	10 units

Specifications:

· Compatible with 9/125-50/125 or 62.5/125 fibres.
· Easy assembly without FO polishing.
· Without connectorisation kit.
· **Reusable.**

See the assembly instructions:
GTLAN Telecommunications Experts

▶ Fibre optic quick connector, without splicing tool, Gtlan.

FIBRE OPTICS

FO **pigtails**

IEC 60793, IEC 61754-4, IEC 61754-20, Telcordia GR-409, IEC 60332, IEC 60754, IEC 61034

Orange

	35GTPM**SC1OM4**	35GTPM**LC1OM4**
No. of connectors	1	
Connector type	SC - UPC	LC - UPC
FO Type	OM4 Multimode 50/125 µm	
Use	Indoor	
Insertion loss	≤ 0.25 dB	
Return loss	> 65 dB	
Durability	1000 connections	
Radius of curvature (static)	30 mm	
Attenuation	≤ 3.2 / ≤ 0.8 (850/1300 nm (dB/km))	
Ferrule material	Zirconia ceramic	
Outer jacket material	LSZH, UL-94 V0	
Outer cable Ø	0.9 mm	
Length	1 m	
Packaging	Single unit	

35GTPM**SC1OM4**

35GTPM**LC1OM4**

FIBRE OPTICS

3.4

FIBRE OPTICS

OM4 Multimode 50/125 µm

FO adapters female-female

IEC 61754-4, IEC 61754-20, IEC 61753-1, UL94

Violet

	35GT**ASCOM4**	35GT**ASCDOM4**	35GT**ALCDOM4**
Adapter type	SC simplex	SC duplex	LC duplex
FO Type	Multimode		
Insertion loss	< 0.2 dB		
Durability	1000 connections		
Material	Polycarbonate		
Ferrule material	Zirconia ceramic		
Dust cover	Black		White
Fixing	Tab (optional screw)		
Pins	Metal		
Packaging	Single unit		

35GT**ASCOM4**

35GT**ASCDOM4**

35GT**ALCDOM4**

FIBRE OPTICS

3.4

FIBRE OPTICS
OM4 Multimode 50/125 µm

FO **patch cable**

IEC 60793, IEC 61754-4, IEC 61754-20 ,Telcordia GR-409, IEC 60332, IEC 60754, IEC 61034

Aqua

	35GT**2SC2OM4**	35GT**2LC2OM4**
Patch cable type	Duplex	
FO Type	OM4 Multimode 50/125 µm	
Connector type 1	SC - UPC	LC - UPC
Connector type 2	SC - UPC	LC - UPC
Insertion loss	≤ 0.20 dB	
Return loss	≥ 20 dB	
Durability	1000 connections	
Radius of curvature (static)	45 mm	
Wavelength	850/1300 nm	
Attenuation	≤ 3.2 / ≤ 0.8 (850/1300 nm (dB/km))	
Ferrule material	Zirconia ceramic	
Outer jacket material	LSZH	
Outer cable Ø	3 mm	
Length	2 m	
Packaging	Single unit	

35GT**2SC2OM4**

35GT**2LC2OM4**

FIBRE OPTICS

Indoor/outdoor **FO cable Dca**

ANSI/TIA/EIA 568.3 Rev. E, ISO 11801-1, EN 50173-1, IEC 60794-1, EN 50575, IEC 60332-1-2, IEC 60332-3-24, IEC 60754-1, IEC 60754-2, IEC 61034-2; EN 50399 (CPR Dca-s2,d1,a1)

OTHER BRANDS

Anti-rodent

35FO**850DOM4**

Use	Indoor/Outdoor	
No. fibres.	8	
No. of tubes	1	
Fibre type	OM4 Multimode 50/125 µm	
Loose tube Ø	2.8 mm	
Outer jacket Ø	5.8 mm	
Outer jacket material	LSZH	
Outer jacket colour	Orange/Blue	
Internal reinforcement	Fibreglass	
Attenuation	850 nm 1300 nm	≤ 2.3 dB/km ≤ 0.5 dB/km
Packaging	Spool 2000 m	
CPR Regulations	Dca (s2, d1, a1)	

Fibre colour code
(DIN VDE 0888)

1. Red
2. Green
3. Blue
4. Yellow
5. White
6. Grey
7. Brown
8. Violet

Tube colour code

1. Green

FIBRE OPTICS

FIBRE OPTICS
OM4 Multimode 50/125 µm

3.4

Outdoor FO cable with metal reinforcing

ANSI/TIA/EIA 568.3 Rev. E; EN 60332-1-2; IEC 60793-1; IEC 60793-2; IEC 60794-1-2; IEC 60794-1-21; IEC 60794-1-22

OTHER BRANDS

Anti-rodent

35GTFO850EOM4

Use	Outdoor
No. fibres.	8
No. of tubes	1
Fibre type	OM4 Multimode 50/125 µm
Loose tube Ø	2.8 mm
Outer jacket Ø	8.5 mm
Outer jacket material	PE
Outer jacket colour	Black
Internal reinforcement	Fibreglass
Attenuation	850 nm ≤ 2.7 dB/km 1300 nm ≤ 0.8 dB/km
Packaging	Spool 2000 m
CPR Regulations	Fca

Fibre colour code
(DIN VDE 0888)

1. Red
2. Green
3. Blue
4. Yellow
5. White
6. Grey
7. Brown
8. Violet

Tube colour code

1. Green

3.5

FIBRE OPTICS

OS2 Single-mode 9/125 µm

SC Fast mechanical quick-fit fibre connector

IEC 61754-4, IEC 61753-1, UL94

Blue

Black
RAL 9005

35GTSC9F

Application	FO pigtail/FO patch cable
Fibre optic Ø	9/125 µm
FO Type	Single-mode
Insertion loss	≤ 0.3 dB (1310 nm & 1550 nm)
Return loss	≥ -60 dB
Max. stress	> 50 N
Material	Plastic
Dimensions	62x9x9 mm
Packaging	10 units

Specifications:

- Compatible with 9/125-50/125 or 62.5/125 fibres.
- Easy assembly without FO polishing.
- Without connectorisation kit.
- **Reusable.**

See the assembly instructions:
GTLAN Telecommunications Experts
▶ Fibre optic quick connector, without splicing tool, Gtlan

FIBRE OPTICS

3.5

FIBRE OPTICS
OS2 Single-mode 9/125 µm

FO **pigtails**

IEC 60793, IEC 61754-2, IEC 61754-4, IEC 61754-20, Telcordia GR-409, Telcordia GR-326, IEC 60332, IEC 60754, IEC 61034

Yellow

	35GTPS**ST1M**	35GTPS**SC1M**	35GTPS**LC1M**
No. of connectors	1		
Connector type	ST - UPC	SC - UPC	LC - UPC
FO Type	Single-mode 9/125 µm		
Use	Indoor		
Insertion loss	≤ 0.25 dB		
Return loss	> 60 dB		
Durability	1000 connections		
Radius of curvature (static)	30 mm		
Attenuation	≤ 0.4 / ≤ 0.4 / ≤ 0.4 (1310/1282/1550 nm (dB/km))		
Ferrule material	Zirconia ceramic		
Outer jacket material	LSZH		
Outer cable Ø	0.9 mm		
Length	1 m		
Packaging	Single unit		

35GTPS**ST1M**	35GTPS**SC1M**	35GTPS**LC1M**

FIBRE OPTICS

3.5 OS2 Single-mode 9/125 µm

FO adapters female-female

IEC 61754-4, IEC 61754-20, IEC 61753-1, UL94

● Blue

	35GT**ASSC**	35GT**ASSCD**	35GT**ASLCD**
Adapter type	SC simplex	SC duplex	LC duplex
FO Type	Single-mode		
Insertion loss	< 0.15 dB		
Durability	1000 connections		
Material	Polycarbonate		
Ferrule material	Zirconia ceramic		
Dust cover	Black		
Fixing	Tab (optional screw)		
Pins	Metal		
Packaging	Single unit		
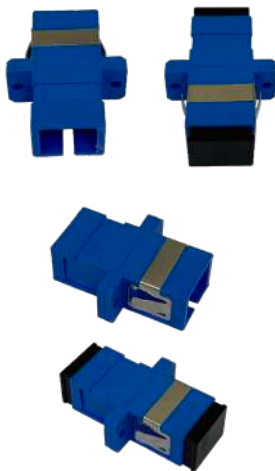
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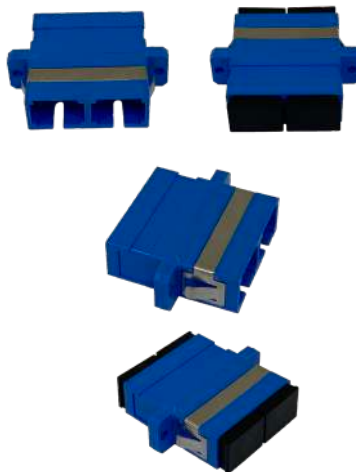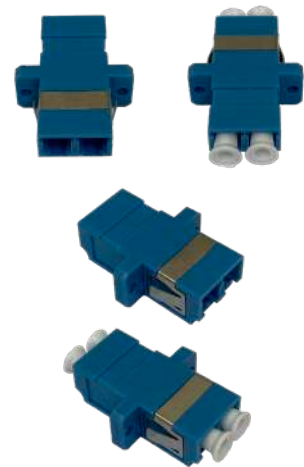
FIBRE OPTICS

FO attenuators male-female

Telcordia GR-910, Telcordia GR-326, Telcordia GR-1221

Metallic

35GTATFOSC

Adapter type	SC - UPC simplex
FO Type	Single-mode
Return loss	< 50 dB
Durability	1000 connections
Wavelength	1310/1550 nm
Attenuation range	1~30 dB
Attenuation tolerance	≤+/-0.5 (1-9 dB) or ≤+/-1.0 (10-19 dB) or ≤+/-2.0 (20-30 dB)
Material	Metal
Ferrule material	Zirconia ceramic
Dust cover	Black
Packaging	Single unit

	35ATSCAPC2	35ATSCAPC4	35ATSCAPC6	35ATSCAPC8
Adapter type	SC - APC simplex			
FO Type	Single-mode			
Return loss	< 65 dB			
Durability	1000 connections			
Wavelength	1200/1600 nm			
Attenuation	2 dB	4 dB	6 dB	8 dB
Attenuation tolerance	≤+/-0.5			
Material	Metal			
Ferrule material	Zirconia ceramic			
Dust cover	Green			
Packaging	Single unit			

3.5 OS2 Single-mode 9/125 µm

FO patch cable

IEC 60793, IEC 61754-2, IEC 61754-4, IEC 61754-20, Telcordia GR-409, Telcordia GR-326, IEC 60332, IEC 60754, IEC 61034

Yellow

	35GT**2ST2S**	35GT**2STSC2S**	35GT**2STLC2S**	35GT**2SC2S**	35GT**2SCLC2S**	35GT**2LC2S**
Patch cable type	Duplex					
FO Type	Single-mode 9/125 µm					
Connector type 1	ST - UPC	ST - UPC	ST - UPC	SC - UPC	SC - UPC	LC - UPC
Connector type 2	ST - UPC	SC - UPC	LC - UPC	SC - UPC	LC - UPC	LC - UPC
Insertion loss	≤ 0.25 dB					
Return loss	≥ 60 dB					
Durability	1000 connections					
Radius of curvature (static)	45 mm					
Wavelength	1310/1383/1550 nm					
Attenuation	≤ 0.4 / ≤ 0.4 / ≤ 0.4 (1310/1383/1550 nm (dB/km))					
Ferrule material	Zirconia ceramic					
Outer jacket material	LSZH					
Outer cable Ø	3 mm					
Length	2 m					
Packaging	Single unit					

FIBRE OPTICS

3.5

OS2 Single-mode 9/125 µm

35GT**2SC2S**

35GT**2ST2S**

35GT**2STSC2S**
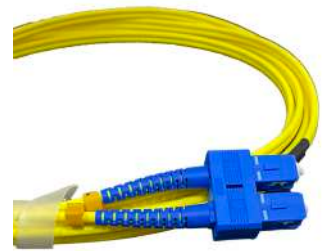
35GT**2SCLC2S**
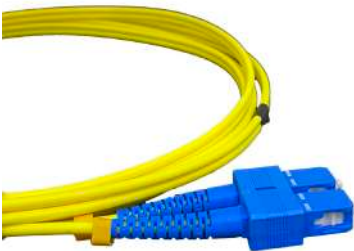
35GT**2STLC2S**

35GT**2LC2S**

3.5

OS2 Single-mode 9/125 μm

Indoor/outdoor **FO cable**

ANSI/TIA/EIA 568.3 Rev. E; EN 60332-1-2; IEC 60793-1; IEC 60793-2; IEC 60794-1-1;
IEC 60794-1-2; IEC 60794-1-21; IEC 60794-1-22; CE; RoHS

cablelan

Anti-rodent

35GTFO89S

Use	Indoor/Outdoor
No. fibres.	8
No. of tubes	1
Fibre type	OS2 single-mode G.657.A1
Loose tube Ø	2.8 mm
Outer jacket Ø	5.8 mm
Outer jacket material	LSZH
Outer jacket colour	Orange/Blue
Internal reinforcement	Fibreglass
Attenuation	1310 - 1625 nm ≤ 0.39 dB/km 1550 nm ≤ 0.25 dB/km
Packaging	Spool 2000 m
CPR Regulations	Eca

Fibre colour code (DIN VDE 0888)

1. Red
2. Green
3. Blue
4. Yellow
5. White
6. Grey
7. Brown
8. Violet

Tube colour code

1. Green

FIBRE OPTICS

3.5

OS2 Single-mode 9/125 µm

Indoor/outdoor FO cable Dca

ANSI/TIA/EIA 568.3 Rev. E, ISO 11801-1, EN 50173-1, IEC 60794-1, EN 50575, IEC 60332-1-2, IEC 60332-3-24,
IEC 60754-1, IEC 60754-2, IEC 61034-2; EN 50399 (CPR Dca-s2,d1,a1)

OTHER BRANDS

Anti-rodent

35FO89DS

Use	Indoor/Outdoor
No. fibres.	8
No. of tubes	1
Fibre type	OS2 single-mode G.657.A1
Loose tube Ø	2.8 mm
Outer jacket Ø	5.8 mm
Outer jacket material	LSZH
Outer jacket colour	Yellow
Internal reinforcement	Fibreglass
Attenuation	850 nm ≤ 2.3 dB/km 1300 nm ≤ 0.5 dB/km
Packaging	Spool 2000 m
CPR Regulations	Dca (s2, d1, a1)

Fibre colour code
(DIN VDE 0888)

1. Red
2. Green
3. Blue
4. Yellow
5. White
6. Grey
7. Brown
8. Violet

Tube colour code

1. Green

FIBRE OPTICS

3.5

OS2 Single-mode 9/125 μm

Outdoor FO cable with metal reinforcing

ANSI/TIA/EIA 568.3 Rev. E; EN 60332-1-2; IEC 60793-1; IEC 60793-2; IEC 60794-1-1; IEC 60794-1-2; IEC 60794-1-21; IEC 60794-1-22; CE; RoHS

Anti-rodent

35GTFO89E

Use	Outdoor	
No. fibres.	8	
No. of tubes	1	
Fibre type	OS2 Single-mode G.652.D	
Loose tube Ø	2.8 mm	
Outer jacket Ø	8.5 mm	
Outer jacket material	PE	
Outer jacket colour	Black	
Internal reinforcement	Fibreglass	
Attenuation	1310 -1625 nm	≤ 0.39 dB/km
	1550 nm	≤ 0.25 dB/km
Packaging	Spool 2000 m	
CPR Regulations	Fca	

Fibre colour code (DIN VDE 0888)
1. Red
2. Green
3. Blue
4. Yellow
5. White
6. Grey
7. Brown
8. Violet

Tube colour code
1. Green

3.5

FIBRE OPTICS
OS2 Single-mode 9/125 µm

Dielectric **outdoor FO cables**

cablelan

ANSI/TIA/EIA 568.3 Rev. E; EN 60332-1-2; IEC 60793-1; IEC 60793-2; IEC 60794-1-1; IEC 60794-1-2; IEC 60794-1-21; IEC 60794-1-22; CE; RoHS

Anti-rodent

	35GTFO**12G652DE**	35GTFO**24G652DEM**	35GTFO**48G652DEM**
Use	Outdoor		
No. fibres.	1 x 12 fibres	6 x 4 fibres (24 fibres)	6 x 8 fibres (48 fibres)
No. of tubes	1	6	
Fibre type	OS2 Single-mode G.652.D 9/125 µm		
Loose tube Ø	2.8 mm	2.3 mm	
Outer jacket Ø	6.7 ± 0.2 mm	10.4 ± 0.3 mm	
Loose tube material	-	PBT	
Outer jacket material	PE		
Outer jacket colour	Black		
Central reinforcement	Fibreglass 2.5 mm FRP		
Internal reinforcement	Fibreglass		
Attenuation	1310 nm ≤ 0.36 dB/km 1550 nm ≤ 0.23 dB/km	1310 nm ≤ 0.35 dB/km 1550 nm ≤ 0.21 dB/km	
Packaging	Spool 2000 m		
CPR Regulations	Fca		

35GTFO**12G652DE**

12-fibre dielectric cable SM G652D.
Maximum span for overhead installation: 50 m

Tube colour code

◯ 1. White

35GTFO**24G652DEM**

24-fibre dielectric cable SM G652D, distributed in 6 tubes of 4 fibres.
Maximum span for overhead installation: 80 m.

Tube colour code
(TIA 598-C)

- 🔵 1. Blue
- 🔴 2. Orange
- 🟢 3. Green
- 🟤 4. Brown
- ⚪ 5. Grey
- ◯ 6. White

35GTFO**48G652DEM**

Dielectric cable with 48 SM G652D fibres distributed in 6 tubes of 8 fibres.
Maximum span for overhead installation: 80 m.

Tube colour code
(TIA 598-C)

- 🔵 1. Blue
- 🔴 2. Orange
- 🟢 3. Green
- 🟤 4. Brown
- ⚪ 5. Grey
- ◯ 6. White

Fibre colour code
(TIA 598-C)

- 🔵 1. Blue
- 🔴 2. Orange
- 🟢 3. Green
- 🟤 4. Brown
- ⚪ 5. Grey
- ◯ 6. White
- 🔴 7. Red
- ⚫ 8. Black
- 🟡 9. Yellow
- 🟣 10. Violet
- 🩷 11. Pink
- 🟢 12. Turquoise

FIBRE OPTICS

gtlan

SC Fast mechanical quick-fit fibre connector

IEC 61754-4, IEC 61753-1, UL94

Black RAL 9005 | Green

35GTSC9AF

Application	FO pigtail/FO patch cable
Fibre optic Ø	9/125 µm (657.A1 - 657.A2) APC
FO Type	Single-mode
Insertion loss	≤0.3 dB (1310 nm & 1550 nm)
Return loss	≥ -60 dB
Max. stress	> 50 N
Material	Plastic
Dimensions	60x9x9 mm
Packaging	Single unit

Specifications:
- Compatible with 9/125 fibres.
- Without connectorisation kit.
- Easy assembly without FO polishing
- **Reusable.**

See the assembly instructions:
GTLAN Telecommunications Experts
Fibre optic quick connector, without splicing tool, Gtlan

SC Fast Mechanical connector for Holder 22GTHFSC

IEC 61754-4, IEC 61753-1, UL94

Black RAL 9005 | Green

35GTSC9AFB

Application	Holder 22GTHFSC
Fibre optic Ø	9/125 µm (657.A1 - 657.A2) APC
FO Type	Single-mode
Insertion loss	≤ 0.3 dB
Return loss	≥ 50 dB
Max. stress	> 30 N
Material	Plastic
Dimensions	60x9x9 mm
Packaging	Single unit

Specifications:
- Compatible with 9/125 fibres.
- Without connectorisation kit.
- Easy assembly without FO polishing.
- **Reusable.**

See the assembly instructions:
GTLAN Telecommunications Experts
Fibre optic quick connector, without splicing tool, Gtlan

FIBRE OPTICS

3.6

FTTH Single-mode 9/125 μm

FO **pigtails**

IEC 60793, IEC 61754-4, Telcordia GR-409, Telcordia GR-326

● Red | ● Green

Pair of pigtails (2 units)
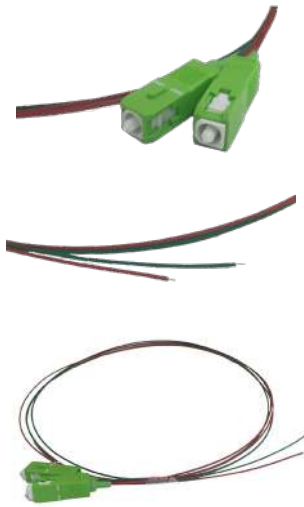
35GTP**PSCAPC1S**

No. of connectors	2
Connector type 1	SC - APC
Connector type 2	SC - APC
FO Type	Single-mode 9/125 G.657.A2
Use	Indoor
Insertion loss	≤ 0.25 dB
Return loss	> 60 dB
Durability	500 connections
Radius of curvature (static)	10 mm
Attenuation	< 0.25 dB
Ferrule material	Zirconia ceramic
Outer jacket material	LSZH
Length	1 m
Outer cable Ø	0.9 mm
Packaging	Single unit

● Yellow

IEC 60793, IEC 61754-4, Telcordia GR-409, Telcordia GR-326
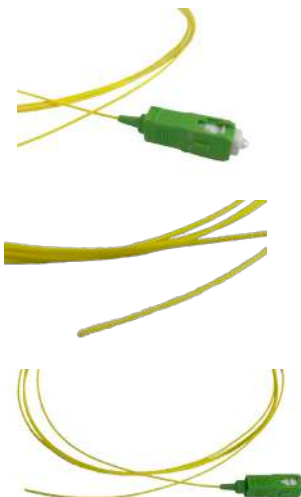
35GTP**SSC15M**

No. of connectors	1
Connector type	SC - APC
FO Type	Single-mode 9/125 G.657.A2
Use	Indoor
Insertion loss	≤ 0.25 dB
Return loss	> 60 dB
Durability	500 connections
Radius of curvature (static)	10 mm
Attenuation	< 0.25 dB
Ferrule material	Zirconia ceramic
Outer jacket material	LSZH
Length	1.5 m
Outer cable Ø	0.9 mm
Packaging	Single unit

FIBRE OPTICS

FIBRE OPTICS
FTTH Single-mode 9/125 µm

3.6

FO adapters female-female

UL94-V0, IEC 61754-4, Telcordia GR-326

Green

	35GT**ASSCAPCT**	35GT**ASSCAPCS**	35GT**ASSCAPCN**	35GT**ASSCAPCTD**	35GT**ASSCAPCND**
Adapter type	SC - APC simplex			SC - APC duplex	
FO Type	Single-mode				
Insertion loss	< 0.2 dB				
Durability	1000 connections - Loss: < 0.20 dB				
Material	Polycarbonate				
Ferrule material	Zirconia ceramic				
Dust cover	Spring-loaded	Black	Transparent	Spring-loaded	Transparent
Fixing	Tab (optional screw)	Tab (SLIM)	Tab (optional screw)		
Pins	Metal				
Packaging	Single unit				

35GT**ASSCAPCT**

35GT**ASSCAPCS**

35GT**ASSCAPCN**

35GT**ASSCAPCTD**

35GT**ASSCAPCND**

FIBRE OPTICS

3.6
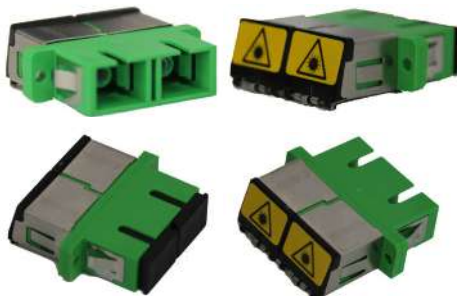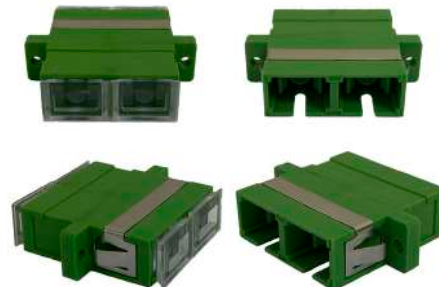
FTTH Single-mode 9/125 µm

FO adapter male-female

Telcordia GR-910, Telcordia GR-326, Telcordia GR-1221

Metallic

35GT**ATFOSCAPC**

Adapter type	SC - APC simplex
FO Type	Single-mode
Return loss	< 60 dB
Durability	1000 connections
Wavelength	1310/1550 nm
Attenuation range	1~30 dB
Attenuation tolerance	≤+/-0.5 (1-9 dB) or ≤+/-1.0 (10-19 dB) or ≤+/-2.0 (20-30 dB)
Material	Metal
Ferrule material	Zirconia ceramic
Dust cover	Green
Packaging	Single unit

FIBRE OPTICS

3.6 FTTH Single-mode 9/125 μm

FO **patch cable**

IEC 60793, IEC 61754-4, Telcordia GR-409, Telcordia GR-326, IEC 60332, IEC 60754, IEC 61034

Yellow

	35GT**1SCAPC10S**	35GT**1SCAPC15MS**	35GT**1SCAPC20S**
Patch cable type	Simplex		
FO Type	Single-mode 9/125 G657A2		
Connector type 1	SC - APC		
Connector type 2	SC - APC		
Insertion loss	≤ 0.30 dB		
Return loss	≥ 60 dB		
Durability	500 connections		
Radius of curvature (static)	10 mm		
Attenuation	< 0.25 dB		
Wavelength	1310/1550 nm		
Ferrule material	Zirconia ceramic		
Outer jacket material	LSZH		
Outer cable Ø	3 mm		
Length	10 m	15 m	20 m
Packaging	Single unit		
CPR Regulations	Dca (s1a, d0, a1)		
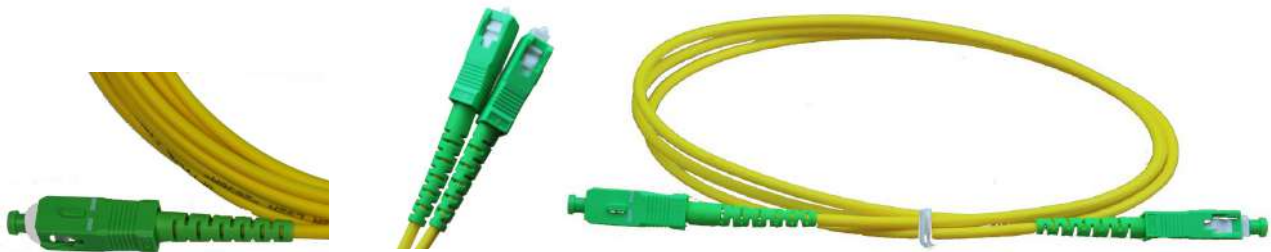
FIBRE OPTICS

FIBRE OPTICS
FTTH Single-mode 9/125 µm

Cascade **FO patch cables**

IEC 60793, IEC 61754-4, Telcordia GR-409, Telcordia GR-326

Yellow

	35GT**2SCAPC15CA**	35GT**2SCAPC20CA**
Patch cable type	Duplex	
FO Type	Single-mode 9/125 G657A2	
Connector type 1	SC - APC	
Connector type 2	SC - APC	
Insertion loss	≤ 0.30 dB	
Return loss	≥ 60 dB	
Durability	500 connections	
Radius of curvature (static)	10 mm	
Durability	500 connections	
Wavelength	1310/1550 nm	
Attenuation	< 0.25 dB	
Ferrule material	Zirconia ceramic	
Outer jacket material	LSZH	
Outer cable Ø	3 mm	
Length	15 m	20 m
Packaging	Single unit	
CPR Regulations	Dca	

Specifications:
- Cascading single-ended termination
- CPR CABLE: Dca
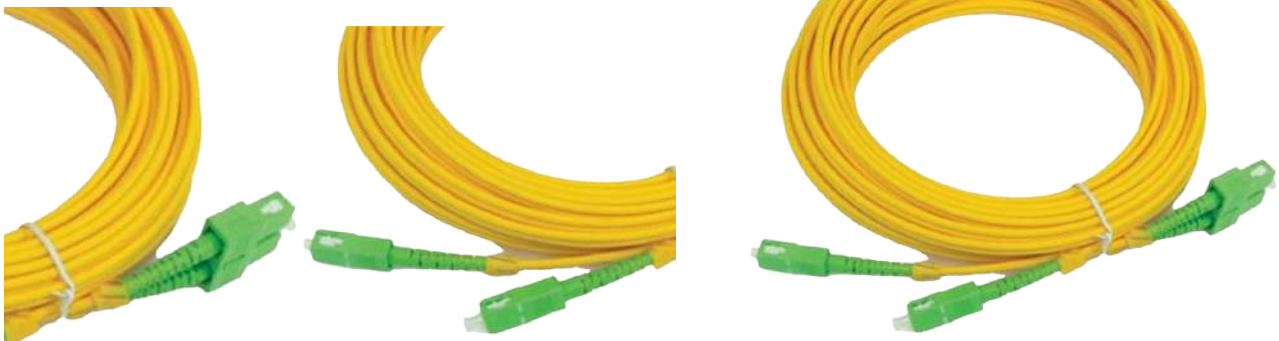
FIBRE OPTICS

FO **patch cable**

IEC 60793, IEC 61754-4, IEC 61754-20, Telcordia GR-409, Telcordia GR-326, IEC 60332, IEC 60754, IEC 61034

Yellow

	35GT**2SCSPC2S**	35GT**2SCPCAPC2S**	35GT**2SCAPCLC2S**
Patch cable type	Duplex		
FO Type	Single-mode 9/125 µm		
Connector type 1	SC - APC		
Connector type 2	SC - APC	SC - UPC	LC - UPC
Insertion loss	APC ≤ 0.20dB / UPC ≤ 0.25 dB	≤ 0.25 dB	APC ≤ 0.20dB / UPC ≤ 0.25 dB
Return loss	≥ 20 dB	≥ 60 dB	≥ 20 dB
Durability	500 connections		
Radius of curvature (static)	10 mm		
Attenuation	< 0.25 dB		
Wavelength	1310/1490/1550 nm		
Ferrule material	Zirconia ceramic		
Outer jacket material	LSZH, UL-94 V0		
Outer cable Ø	3 mm		
Length	2 m		
Packaging	Single unit		

35GT**2SCSPC2S**

35GT**2SCPCAPC2S** / 35GT**2SCAPCLC2S**

FIBRE OPTICS

3.6
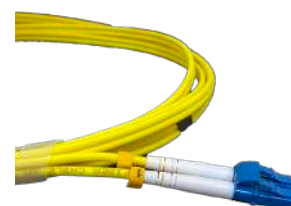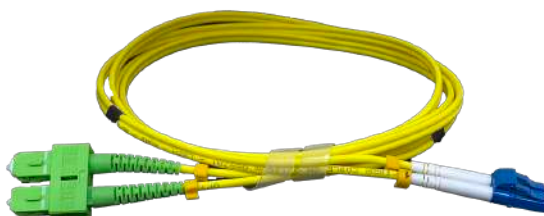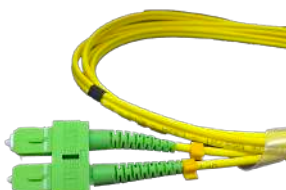
FIBRE OPTICS
FTTH Single-mode 9/125 μm

FO surface mount connection box for 2 fibres

UL94-V0, IEC 60068-2-2, IEC 60529, EN 50102, IEC 61300-2

White

35GTCS2SC

Cable entry	Rear
Fixing	Surface
Compatibility	SC simplex or LC duplex (up to 2 fibres)
Material	ABS plastic
Dimensions	86x86x24 mm
Packaging	Single unit

Specifications:
- Easy-open box.
- Adapter not included.

FO surface mount connection box for 4 fibres

UL94-V0, IEC 60068-2-2, IEC 60529, EN 50102, IEC 61300-2

White

35GTCS4SC

Cable entry	Bottom
Fixing	Surface
Compatibility	4 SC slim ports
Material	ABS plastic
Dimensions	100x82x28 mm
Packaging	Single unit

Specifications:
- Compatible with SC adapters.
- Easy-open box.
- Incorporates cassette
- Adapter not included.

FIBRE OPTICS

FO surface mount connection box with SC-APC pigtail and adapter

UL94-V0, IEC 61754-4, Telcordia GR-409, Telcordia GR-326, IEC 60793, IEC 60068-2-2, IEC 60529, EN 50102, IEC 61300-2

White

### Box specifications

35GTCS2SCP

Cable entry	Bottom
Fixing	Surface
Compatibility	SC female-to-female simplex with dust cap
No. of adapters	2
Material	ABS plastic
Dimensions	100x80x25.4 mm
Packaging	Single unit

Pigtail specifications

Nº Pigtails	2
Thickness	0.9 mm
Length	1 cm
Insertion loss	≤ 0.2 dB
Return loss	≥ 60 dB
Fibre type	Single-mode 9/125 G.657.A2
Connector type	SC - APC

Adapter specifications

No. of adapters	2
Insertion loss	≤ 0.3 dB
Return loss	≥ 60 dB
Durability	1000 connections

Specifications:

- Easy-open box.

FIBRE OPTICS

Surface mount FO boxes pre-connectorised duplex patch cable 1 end

White   Yellow

UL94-V0, IEC 61754-4, Telcordia GR-409, Telcordia GR-326, IEC 60793, IEC 60068-2-2, IEC 60529, EN 50102, IEC 61300-2

	35GTCS1SCDP15	35GTCS1SCDP25	35GTCS1SCDP40	35GTCS1SCDP50	35GTCS1SCDP70
Cable entry	Bottom				
Fixing	Surface				
Adapters	SC - APC x2				
Connectors	SC - APC				
FO Type	Single-mode G.657.A2				
Patch cable type	Duplex				
Insertion loss	≤ 0.2 dB				
Return loss	≥ 60 dB				
Cable Ø	3 mm				
Outer jacket material	LSZH				
Material	ABS plastic				
Connection box dimensions	135x75x25 mm				
Length	15 m	25 m	40 m	50 m	70 m
Packaging	Single unit				
CPR Regulations	Dca (sa, d0, a1)				

Specifications:
- Easy-open box.
- Good durability.

ICT 2
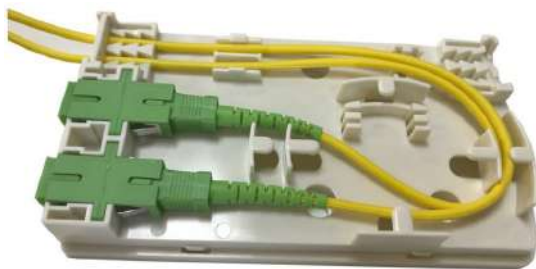
FIBRE OPTICS
3.6 FTTH Single-mode 9/125 µm

Surface mount FO boxes pre-connectorised duplex patch cables

White

UL94-V0, IEC 61754-4, Telcordia GR-409, Telcordia GR-326, IEC 60793, IEC 60068-2-2, IEC 60529, EN 50102, IEC 61300-2

	35GTCS**1SC...HP**	35GTCS**2SC...HP**
PATCH CABLE SPECIFICATIONS		
FO cable type	Bi-fibre, with aramid and moisture-blocking elements	
Outer jacket material	LSZH	
Cable Ø	4 mm	
Connectors	1 end SC - APC	2 ends SC - APC
Insertion loss	typical ≤ 0.5 dB. maximum ≤ 0.30 dB	
Return loss	≥ 60 dB	
Fibre type	G657A2	
No. of fibres	2	
Compression strength (N/100 mm)	Long term 400 - Short term 800	
Tensile strength	Long term 250 N - Short term 450 N	
BOX SPECIFICATIONS		
Cable entry	Bottom (top, side, rear)	
Fixing	Surface	
Adapters	SC - APC x2	
Material	ABS plastic	
Dimensions	125x80x25 mm	
Packaging	Single unit	

- Easy-to-open, pre-connectorised FO surface mount box, with connectors at one or both ends depending on the product code:

  35GTCS1SCDP15HP: Connector 1 end 15 m
  35GTCS1SCDP25HP: Connector 1 end 25 m
  35GTCS1SCDP50HP: Connector 1 end 50 m
  35GTCS2SCDP25HP: Connector 2 ends 25 m
  35GTCS2SCDP50HP: Connector 2 ends 50 m

- The connectors at the pointed end are fitted with a traction mesh to simplify installation.

35GTCS1SCD..HP
TERMINACIÓN FUERA DE LA CAJA, SIN CONECTOR
TERMINACIÓN INSTALADA EN LA CAJA CON CONECTORES SC/APC

35GTCS2SCD..HP
TERMINACIÓN FUERA DE LA CAJA, PULLING EYE
TERMINACIÓN INSTALADA EN LA CAJA CON CONECTORES SC/APC

Surface mount FO boxes pre-connectorised duplex cascade patch cables 2 ends

UL94-V0, IEC 61754-4, Telcordia GR-409, Telcordia GR-326, IEC 60793, IEC 60068-2-2, IEC 60529, EN 50102, IEC 61300-2

White — Yellow

35GTCS2SCDP...	...15	...20	...25	...30	...35	...40	...45	...50	...70
Cable entry	Bottom								
Fixing	Surface								
Adapters	SC - APC x2								
Connectors	SC/APC x2 + 2 (cascaded)								
FO Type	Single-mode G.657.A2								
Patch cable type	Duplex								
Insertion loss	≤ 0.2 dB								
Return loss	≥ 60 dB								
Cable Ø	3 mm								
Outer jacket material	LSZH								
Material	ABS plastic								
Connection box dimensions	135x75x25 mm								
Length	15 m	20 m	25 m	30 m	35 m	40 m	45 m	50 m	70 m
Packaging	Single unit								
CPR Regulations	Dca (sa, d0, a1)								

Specifications:
- Cascade termination
- Easy-open box.
- Good durability.
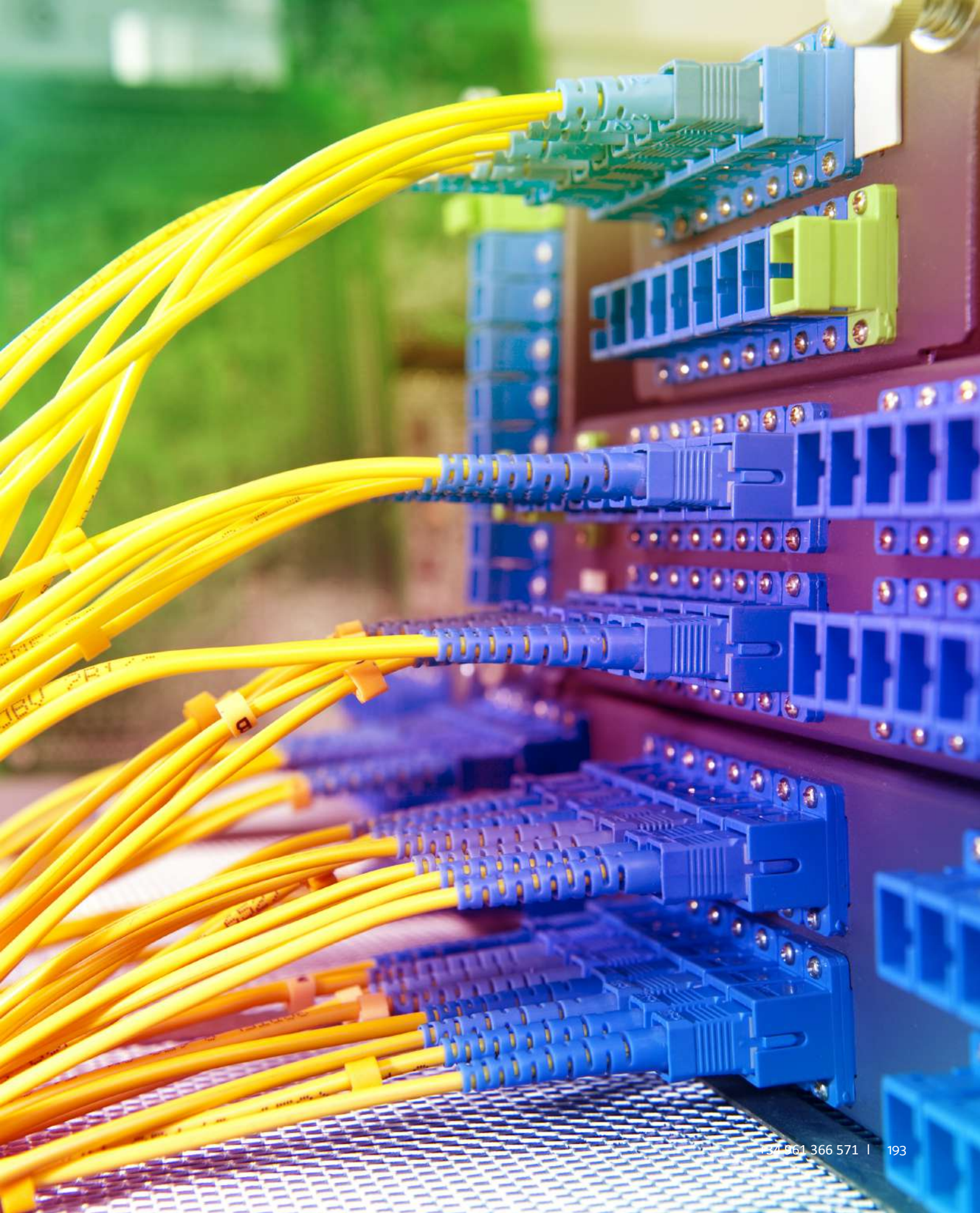
FIBRE OPTICS

FO junction box

UNE-EN 60529, EN 50102, IEC 60068-2-2, IEC 60529, IEC 61300-2

White
RAL 9003

35C**DRV**

IP Grade	55
Cable entry	Bottom / Top
Fixing	Surface
Use	Indoor
Compatibility	4 SC ports
Material	ABS plastic
Dimensions	130x180x30.4 mm
Packaging	Single unit

Specifications:

- Distribution/segregation box for 4 simplex SC.
- Suitable to provide service to the floor where it is located and continuity to the fibre optic cable to the upper floors of the installation.
- Adapters not included.
- Includes cassette.

FO indoor multi-operator box

UNE-EN 60529, EN 50102, IEC 60068-2-2, IEC 60529, IEC 61300-2

Grey
RAL 7035

35C**MOP**

IP Grade	30
Shelves	4x4 connections
Capacity	48 SC - APC connectors
Lock type	Triangular key
Material	ABS plastic
Dimensions	450x180x150 mm
Packaging	Single unit

Specifications:

- Gtlan multi-operator indoor wall box for interconnection between the FO networks deployed inside a building and the operator's power/distribution network.
- Up to 4 independent units can be stacked horizontally for use by multiple operators.

FIBRE OPTICS

FO splitters Steel Tube

IEC 61754-4, Telcordia GR-1209 & GR-1221

White | Green

	35GTSP**T2TB**	35GTSP**T4TB**	35GTSP**T8TB**	35GTSP**T16TB**
Splitter type	Cassette 1 x 2	Cassette 1 x 4	Cassette 1 x 8	Cassette 1 x 16
FO type	Single-mode 9/125 G.657.A2			
Connector type	SC - APC			
Insertion loss	≤ 4.2 dB	≤ 7.5 dB	≤ 11 dB	≤ 14 dB
Return loss	≤ 55 dB			
Polarity loss	≤ 0.2 dB			≤0.3 dB
Uniformity loss	≤ 0.6 dB	≤ 0.6 dB	≤ 0.8 dB	≤ 1.2 dB
Wavelength	1260 ~ 1650 nm			
Applications	FTTH - GPON - CATV - Optical Signal Distribution			
Outer jacket material	LSZH			
Length	1 m			
Packaging	Single unit			

Specifications:
· For distribution networks
· Low insertion loss and polarity.
· Compact design and good channel-to-channel uniformity.
· High reliability and stability.

3.6

FIBRE OPTICS

FTTH Single-mode 9/125 μm

Indoor **FO cables Dca**

cablelan

ANSI/TIA/EIA 568.3 Rev. E; EN 50399; EN 60332-1-2; IEC 60793-1; IEC 60793-2; IEC 60794-1-2; IEC 61034-2;
IEC 60754-2; IEC 60794-1-21; IEC 60794-1-22

Anti-rodent

	35FO2G657A2	35FO249FTTH	35FO489FTTH
Use	Indoor		
No. fibres.	1 x 2 fibres	3 x 8 fibres (24 fibres)	6 x 8 fibres (48 fibres)
No. of tubes	1	3	6
Fibre type	Single-mode 9/125 μm G.657.A2		
Loose tube Ø	0.5 mm		
Outer jacket Ø	3.7 mm	6 mm	7.2 mm
Outer jacket material	LSZH		
Outer jacket colour	Ivory		
Internal reinforcement	Aramid + Fibreglass	Aramid	
Attenuation	1310 nm 1550 nm	≤ 0.33 dB/km ≤ 0.19 dB/km	
Packaging	Spool 2000 m		
CPR Regulations	Dca (s2,d2,a1)		

Fibre colour code (SIDECOR)

1. Green
2. Red
3. Blue
4. Yellow
5. Grey
6. Violet
7. Brown
8. Orange

Tube colour code (SIDECOR)

1. Green
2. Red
3. Blue
4. White
5. Grey
6. Violet

35FO2G657A2	35FO249FTTH	35FO489FTTH

FIBRE OPTICS

3.6

FTTH Single-mode 9/125 µm

Dielectric outdoor **FO cables**

cablelan

ANSI/TIA/EIA 568.3 Rev. E; EN 60332-1-2; IEC 60793-1; IEC 60793-2; IEC 60794-1-2; IEC 60794-1-21; IEC 60794-1-22

Anti-rodent

35GTFO**2G657A2E**

Use	Outdoor	
No. fibres.	2	
No. of tubes	1	
Fibre type	Single-mode 9/125 µm G.657.A2	
Loose tube Ø	0.9 mm	
Outer jacket Ø	4.9 mm	
Outer jacket material	LSZH	
Outer jacket colour	Black	
Internal reinforcement	Aramid	
Attenuation	1310 nm	≤ 0.33 dB/km
	1550 nm	≤ 0.20 dB/km
Packaging	Spool 2000 m	
CPR Regulations	Fca	

Fibre colour code (SIDECOR)
● 1. Green
● 2. Red

Tube colour code (SIDECOR)
● 1. Green
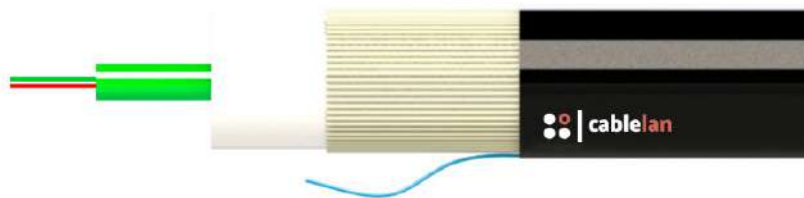
cablelan

K-line 19" telescopic shelf for 24 SC simplex

EIA/ECA-310-E, IEC 60297-3-100

Black
RAL 9005

35GTBT24SCK

Connector type	SC simplex
Height	1 U
Number of connections	24
Cover	Telescopic front
Material	SPCC steel, high-quality, cold-rolled
Dimensions	44x220x485 mm
Packaging	Single unit

Specifications:
- With two plastic fixings for easy removal.
- Includes cassettes for the management of pigtails fused inside the shelves.
- FO adapters not included.

19" telescopic shelf for 24 SC/ST simplex

EIA/ECA-310-E, IEC 60297-3-100

Black
RAL 9005

	35GTBT24SC	35GTBT24ST
Connector type	SC simplex	ST simplex
Number of connections	24	
Height	1 U	
Cover	Telescopic front	
Material	SPCC steel, high-quality, cold-rolled	
Dimensions	44x220x485 mm	
Packaging	Single unit	
ACCESSORIES	x2 cable glands, x1 fixing kit, x2 open rings, x48 heat shrink tubing, x4 flanges	

Specifications:
- With two plastic fixings for easy removal.
- Includes cassettes for the management of pigtails fused inside the shelves.
- FO adapters not included.

3.7

DISTRIBUTION

19" shelves for connectors

EIA/ECA-310-E, IEC 60297-3-100

Black
RAL 9005

	35GTBT**12SCD**	35GTBT**24SCD**	35GTBT**24LCD**	35GTBT**48SCD**
Connector type	SC duplex		LC duplex	SC duplex
Number of connections	12	24		48
Height	1 U			2 U
Cover	Telescopic front			
Material	SPCC steel, high-quality, cold-rolled			
Dimensions	44x220x485 mm			88x230x488 mm
Packaging	Single unit			
ACCESSORIES	x2 cable glands, x1 fixing kit, x2 open rings, x48 heat shrink tubing, x4 flanges			

Specifications:

- With two plastic fixings for easy removal.
- Includes cassettes for the management of pigtails fused inside the shelves.
- FO adapters not included.
- *ALL SHELVES INCLUDE CASSETTE AND ACCESSORIES.

35GTBT**12SCD**	35GTBT**24SCD**	35GTBT**24LCD**	35GTBT**48SCD**

gtlan

Unpopulated shelf for FO distribution

EIA/ECA-310-E, IEC 60297-3-100

Grey
RAL 7032

35B**FOHD**

Use	Indoor
Applications	FTTH, LAN/WAN, CATV
Capacity	72 fibres (6 cassettes x 12 fibres each)
Height	5U
Compatibility	4 SC ports
Material	Metal and ABS plastic
Dimensions	185x430x295 mm
Packaging	Single unit

Specifications:

· With capacity for 6 removable cassettes.
· Adapters and cassettes not included.

12 FO cassette for high density shelves

White
RAL 9003

-25º
55º

35CB**FOHD**

Connector type	SC and LC duplex
Capacity	12 fibres
Material	ABS plastic
Dimensions	200x320x27 mm
Packaging	Single unit

Specifications:

· Easy to remove.
· Inclined adapters.
· Adapters not included.

FIBRE OPTICS

gtlan

Surface mount FO boxes for 8/12 metal connectors

EN 50102, IEC 60529

Black
RAL 9005

	35GTCS8ST	35GTCS8SC
Compatibility	8 ST simplex connectors	8 SC simplex or LC duplex connectors
Adapters	Not included	
Fixing	Surface	
Material	SPCC steel, high-quality, cold-rolled	
Dimensions	37x120x249 mm	36x120x250 mm
Packaging	Single unit	

Specifications:
- For a maximum of 8 connectors.
- Includes management for cabling and splices.

	35GTCS12ST	35GTCS12SC
Compatibility	12 ST simplex connectors	12 SC simplex or LC duplex connectors
Adapters	Not included	
Fixing	Surface	
Material	SPCC steel, high-quality, cold-rolled	
Dimensions	45x138x267 mm	50x133x267 mm
Packaging	Single unit	

Specifications:
- For a maximum of 12 connectors.
- Includes cassette for cabling and splices.

FIBRE OPTICS

Horizontal FO torpedo, watertight
UNE-EN 60529, EN 50102

IP 68 — Black RAL 9005

	35TFO12	35TFO48	35TFO96	35GTPRUFOE
Input/output ports	6			2/4
No. of connection shelves	1	2	4	-
Connections per shelf	12 (max.12)	24 (max. 48)	24 (max. 96)	-
Max. no. connections	12	48	96	4
Cable Ø	7 - 16 mm			3-4 mm
Dimensions	210x390x120 mm			17x160x45 mm
Packaging	Single unit			
ACCESSORIES	x1 sealing tape, x1 earth wire, x2 hooks, x1 insulating tape, x1 sandpaper, x1 label, x1 template, x1 set of tools			x2 flanges + splice comb with 3M fixing

35TFO12 / 35TFO48 / 35TFO96

35GTPRUFOE

Specifications:
- Watertight junction box with capacity for up to 96 connections.
- Surface, wall or overhead installation.
- The boxes are fitted with the necessary accessories to facilitate installation and correct positioning.

Specifications:
- Polycarbonate+ABS, moisture-proof, waterproof, dustproof, anti-aging, protection rating up to IP65.
- Suitable for indoor and outdoor installation.
- Wall-mounted.

FIBRE OPTICS

3.7

DISTRIBUTION

Wall-mounted, metal FO distribution unit up to 24/48 adapters

EN 50102

● Black RAL 9005

	35GTRM**24SC**	35GTRM**48SC**
Type of adapters	SC	
No. of adapters	24	48
Shelves	2	4
Cable organiser	2	4
Lock type	Triangular (mini)	
Material	SPCC steel, high-quality cold-rolled, 1 mm	
Dimensions	81.5x350x370 mm	11.2x350x370 mm
Packaging	Single unit	

Specifications:
- Opening through two independent doors to protect the splices.
- Compatible with simplex adapters.

35GTRM**24SC**

35GTRM**48SC**
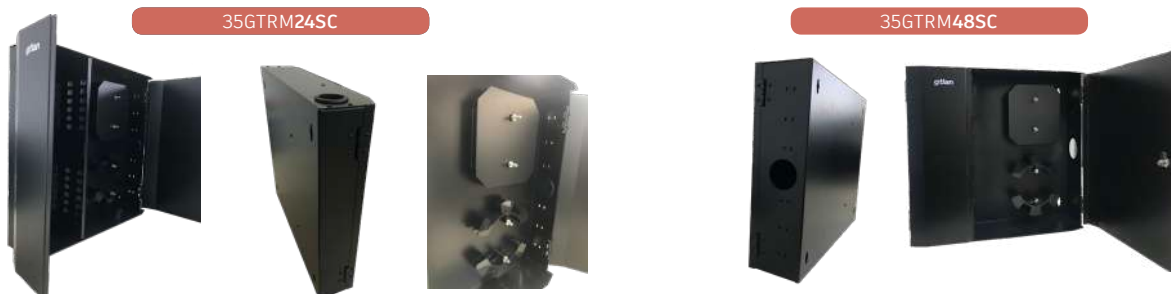
Splice **cassette**

○ Beige (CSF)   ● Black RAL 9005 (CSFA)

	35GT**CSF**	35GT**CSFA**
No. of FO cables	12	12/24
Material	Aluminium 1 mm	ABS plastic
Dimensions	11x127x142 mm	18x113x180 mm
Packaging	Single unit	

Specifications:
- Suitable for adding as an accessory to any box or panel.

35GT**CSF**

35GT**CSFA**

Bundle: **12 splices and cable management**

35GT**BFO**	
Includes	x24 shrink sleeves, x8 rings, x1 cable gland, x1 holder for 12 splices

Plastic plug to fill holes

Black
RAL 9005

	35GT**TPH**	35GT**TPH1**	35GT**TPH2**
Type of hole	ST	SC simplex	SC duplex
Material	ABS plastic		
Dimensions	12x12x10 mm	10x20x12 mm	10x34x12 mm
Packaging	Single unit		

35GT**TPH**	35GT**TPH1**	35GT**TPH2**

RITI 500x1000x2000 ICT **cabinet**

UNE-EN 60529, EN 50102, IEC 60068-2-2, IEC 61300-2

IP

55

Grey
RAL 7032

39RITIO521	
Material	SPCC steel, high-quality, cold-rolled, 2 mm
Dimensions	500x1000x2000 mm
Packaging	Single unit

Specifications:
- Cabinet for use as the telecoms enclosure to house a local (floor, unit, apartment) distribution point, the main distribution point for a whole building or complex, or a single combined distribution point.
- It has 4 anchor-points at the top for easy transport.

FIBRE OPTICS

Watertight **FO distribution box**

UNE-EN 60529, EN 50102, IEC 60068-2-2, IEC 61300-2

White | Grey RAL 7032

	35GTCE**8SC**	35GTCE**16SC**	35GTCE**24SC**	35GTCE**24SCK**	35GTCE**48SC**
IP Grade	66		54		66
FO input	No fibre cut			With fibre cut	
Fixing	Surface				
Cover	Hinged lid				
Distribution type	Via adapter (not included) + cassette				
Total connection capacity	8	16	24	24	48
Material	PC + ABS				
Dimensions	225x220x55 mm	325x275x95 mm	320x240x100 mm	225x220x55 mm	225x220x55 mm
Packaging	Single unit				
ACCESSORIES	Flanges, clamps, transport tube (cable gland), fastening screws, dowels, lock				

Specifications:

- Fibre splicing, fixing, storage and distribution in one box, with an interior that facilitates easy and convenient fibre handling.
- Accessories for pole or wall mounting not included.

35GTCE**8SC**

35GTCE**16SC**

35GTCE**24SC**

35GTCE**24SCK**

35GTCE**48SC**

FIBRE OPTICS

3.7
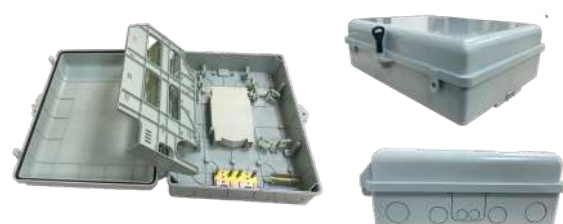
FIBRE OPTICS

DISTRIBUTION

FO box for DIN rail

IEC 60715, UNE-EN 60529, EN 50102

White

35GTC**FOD6SC**

IP Grade	31
Fixing	DIN rail
Applications	FTTH, LAN/WAN, CATV
Cable gland	2
No. of adapters	8
Type of adapters	SC simplex
Cable guide shelf	Cassette
Material	PC + ABS + Sheet metal
Dimensions	130x125x35 mm
Packaging	Single unit

Specifications:

- Prepared for the distribution and connection of various types of fibre optic system.
- It is used for the distribution of mini-network terminals, to which pigtails or patch cables are connected.
- Adapters not included.
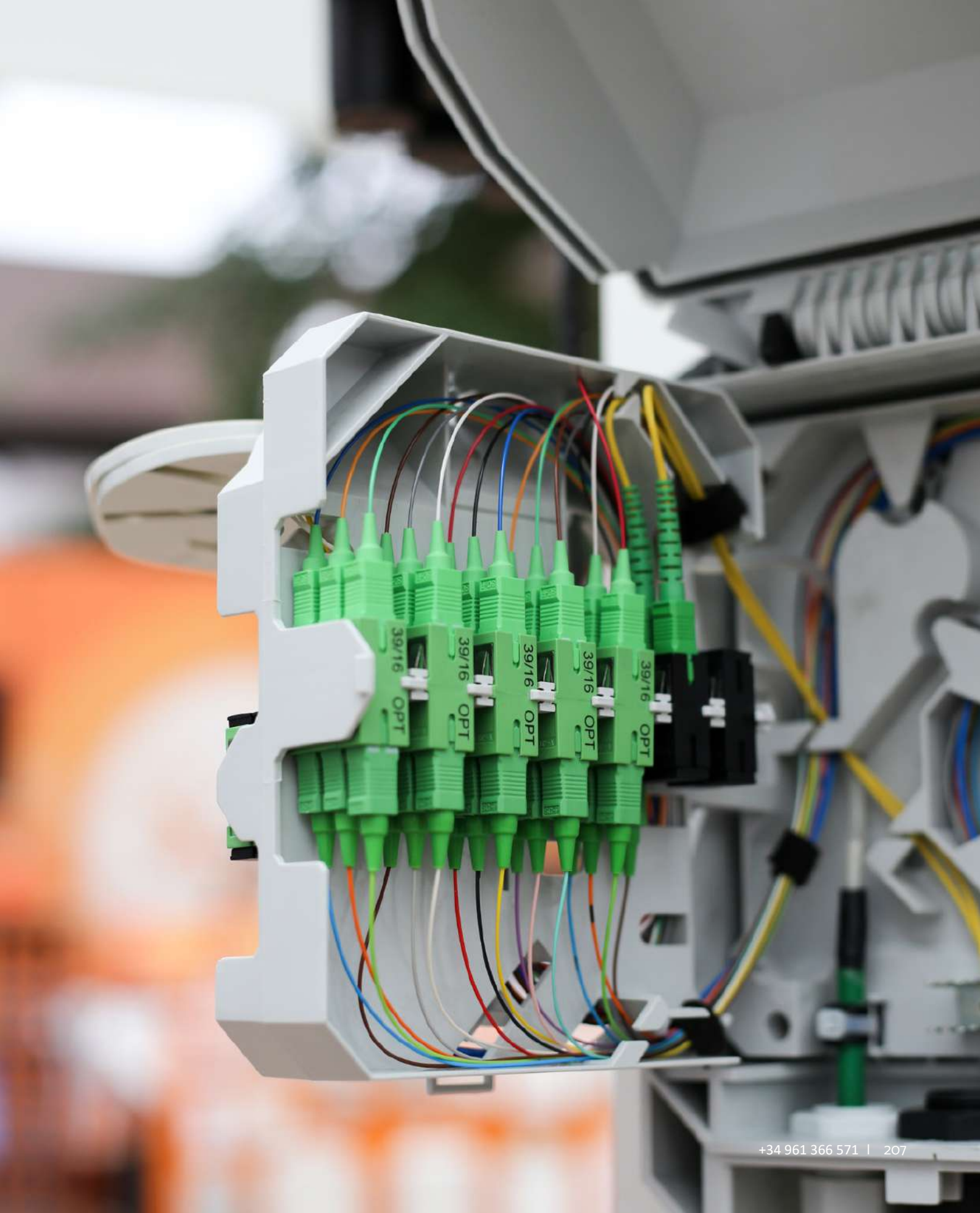
3.8

FIBRE OPTICS

INSTALLATION AND VERIFICATION TOOLS

Thanks to the tools and measuring equipment, we can install correctly and subsequently check the installation to achieve the desired performance. We have a wide range of different insertion tools, as well as any pliers or cable strippers needed to prepare the cable for insertion into the connector.

Ask questions and learn on our channel:
GTLAN Telecommunications Experts

https://www.youtube.com/channel/UCLZY-woG5fQXHRb112F2sFtQ/channels
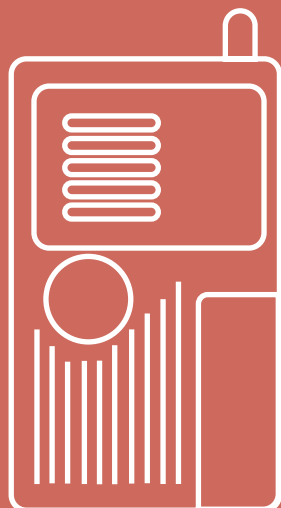
Find out about **calibration and maintenance services** for our equipment.

Automatic **FO fusion splicer**

EN 55032, EN 61000-3-2, EN 61000-3-3, EN 55024, EN 61000-4-2, EN 61000-4-3, EN 61000-4-4, EN 61000-4-5, EN 61000-4-6, EN 61000-4-8, EN 61000-4-11, IEC 60950-1

1 año GARANTÍA

	20A**OFS**
Fibre type	SM, mm, NZ-DS, EDF, Pigtail Cable
Fusion loss	0.02 dB (SM). 0.01 dB (MM). 0.04 dB (NZ-DS). 0.04 dB (EDF)
Return loss	60 dB
Stress test	2.0 (200 gf) standard
Fusion time	10 seconds
Alignment	By core
Oven time	30 seconds
Fusion programmes	50 groups
Heat shrink sleeves	20 mm, 40 mm and 60 mm
Conditions of use	Temp between -10ºC and 50ºC, humidity 0-95%, altitude between 0 and 5000 m
Power supply	Adapter included, input 220 V, 50-60 Hz and output 12 V
Battery	11.1 V , 6 Ah
Screen	5-inch high-resolution colour LCD
Memory	Stores up to 6000 results of splices performed
Dimensions	145x152x155 mm
Weight	2.21 + 0.37 (battery) = 2.58 kg
Packaging	Single unit
ACCESSORIES	Automatic fusion splicer, FO precision cutter, Power adapter (charger), FO stripper, Battery, Spare electrodes, Cooling tray for after oven use, CD with instructions, Quick Reference Guide, Cable Stripping Tool, Carrying Case

Specifications:

- The lithium battery supports up to 180 full fusions in continuous operation after a full charge.
- X-axis or Y-axis view possible. 360x zoom for X-axis and Y-axis separately. 300x zoom for both axes together.
- New patented fibre core alignment technology improves fusion splice strength and resilience.
- Different fusion modes: automatic, manual. Very practical.
- New design of the fibre optic cutting tool.
- USB port.

See how it works::
GTLAN Telecommunications Experts
OTDR optical time-domain reflectometer, Gtlan measurements.

Lithium battery for FO fusion splicer

20BFSA	
Battery life	Battery life for up to 180 splices, after a full charge cycle
Packaging	Single unit

Specifications:
- Lithium battery
- Replacement battery for 20AOFS fusion splicer

Midspan access shaver tool for FO cables

34GTSFO	
Cable possible Ø	1.9 / 2.4 / 2.9 / 3.3 mm
Material	Plastic
Dimensions	50x50x20 mm
Packaging	Single unit

Specifications:
- Efficient and essential tool for the termination of fibre optic cables.
- The PVC cable sheath is cut into two halves, making it easier to work with.
- There are 4 guide rails for tubes of different diameters.
- The metal blade is of high quality, ensuring high durability.
- The rail design is precision engineered to ensure fibre integrity.

Automatic cleaning pencil for FO male connectors.

	22GT161	34GTLFOLC
Suitable for	All polished	
Connector format	SC, FC and ST	LC
No. of uses	> 800 uses	
Dimensions	180x20x20 mm	180x20x20 mm
Packaging	Single unit	

Specifications:
- Fast and convenient system: one click is all it takes to clean FO connectors and female/female adapters.

22GT161	34GTLFOLC

FIBRE OPTICS

FO **precision cutter**

34GTCPFO

FO Type	SM, mm, DS, NZ-DS, EDDF, 125 UM od
Fibre Ø	Ø 0.25 ~ 0.9 mm
Jacket Ø	100 ~ 1000 µm
Cutting angle	90º ± 0.5º
No. of uses	≥ 40,000 cuts
Dimensions	63x76x63 mm
Packaging	Single unit
ACCESSORIES	Protective case

Specifications:

- · Economical, high-precision fibre cutter.
- · Its compact and lightweight design makes it easy to handle on any hand-held or tabletop surface.
- · Easy adjustment and replacement of blades.

See how it works::
GTLAN Telecommunications Experts
▶ Maintenance and adjustment of the fibre optic cutter, Gtlan.

FO **launch lead**

IEC 61754-4, IEC 60793

Red / Blue

-33º
90º

35GTFOLSCAPC1K

Insertion loss	< 0.25 dB
Return loss	< -60 dB
Connector type	SC-APC (other connector possibilities on request)
Length	1 m
Material	ABS and aluminium
Dimensions	Ø 110x50 mm
Packaging	Single unit

Specifications:

- · Fibre optic launch lead for reflectometry.
- · Launch lead for testing, certification and maintenance of fibre optic networks.
- · The length of the external connectorised cables can be easily adjusted by the user.

FIBRE OPTICS

3.8 TOOLS FOR INSTALLATION/VERIFICATION

PRO 250 microns **FO stripper**

Black / Yellow

34GT**HTS144H**

Suitable for stripping	3 mm outer jacket 900 micron fibre 250 micron fibre
Material	Plastic and stainless steel
Dimensions	162x60x18 mm
Packaging	Single unit

Specifications:

- Optical fibre strippers for three different diameters.
- Ergonomically designed handle for easy grip and handling.

See how it works::
GTLAN Telecommunications Experts
▶ OTDR optical time-domain reflectometer, Gtlan measurements.

FO **aramid scissors**

Black

34GT**HTC151**

Blade	Special for cutting fibre
Blade material	Stainless steel 2.5 mm
Handle	Ergonomic for easy grip
Handle material	Plastic
Length	147 mm
Packaging	Single unit

Specifications:

- Special scissors for cutting kevlar/aramid.
- Right-handed use.

See how it works::
GTLAN Telecommunications Experts
▶ OTDR optical time-domain reflectometer, Gtlan measurements.

FIBRE OPTICS

3.8 TOOLS FOR INSTALLATION/VERIFICATION

Empty pressure bottle for FO cleaning

34GT**BPFO**

Auto-dispenser	Under pressure
Material	Plastic
Capacity	250 ml
Packaging	Single unit

Specifications:

· Plastic bottle for isopropyl alcohol

35FSF10007
Isopropyl alcohol for FO cleaning

1000 ml

3.8 TOOLS FOR INSTALLATION/VERIFICATION

Hand-held **FO OTDR**

EN 55011, EN 61000-6-1

	22GT**OTDR**	22GT**OTDRSM**	22GT**OTDRFTTH**	22GT**OTDRMM**
Fibre type	SM/MM	SM		MM
Wavelength	850/1310/1550 nm	1310/1550 nm	1310/1490/1550 nm	850/1310 nm
Dynamic range	21/30/28 dB	32/30 38/36 40/38 dB	35/32/33 dB	21/19 dB
Blind zone	≤ 1.8 m			
Accuracy in distance measurement	±(1 m + 5 x10^{-5} x distance + sample interval)			
Accuracy in attenuation measurement	± 0.05 dB/dB			
Range	0.3 to 180 km			
Storage	Up to 800 SD CARD records (4G)			
Power supply	Lithium battery with battery life of up to 8 hours continuous operation			
Connectors	FC - SC			
Battery life	Up to 8h in operation. Up to 20h standby			
Shielding	5.6' TFT - LCD TOUCH SCREEN			
Dimensions	220x110x70 mm			
Packaging	Single unit			

Specifications:

- Quick switch-on (5 seconds).
- Fast, portable and lightweight format, with carrying case.
- Option for integrated VFL (visual fault locator) (650nm).
- Storage capacity up to 800 records.
- Launch lead must be used (35GTFOLSCAPC1K).

See how it works::
GTLAN Telecommunications Experts
▶ OTDR optical time-domain reflectometer, Gtlan measurements.

FIBRE OPTICS

FO **LED light source**

EN 61326-1, EN 61010-1, EN 60825-1

	22GTF**MM**	22GTF**FTTH**
Suitable for	Multimode	FTTH
Wavelength	850-1300 nm	1310-1490-1550 nm
Precision	± 0.5 dB / 1 hour ± 0.1 dB / 8 hours	
Power by wave-length	> 10 dBm	> 6 dBm
Modulation	270 Hz, 1 kHz, 2 kHz	
Adapter type	FC - PC	
Battery	AA x2	
Dimensions	160x75x32 mm	
Weight	0.180 kg	
Packaging	Single unit	
ACCESSORIES	Hinged protective cover - Protective case	

Specifications:

- Automatic power-off function after 10 min of inactivity.
- **Device language:** ENGLISH.

See how it works::
GTLAN Telecommunications Experts
How to measure losses in a fibre optic installation "power meter" and "laser emitter", Gtlan.

FIBRE OPTICS

Universal FO **power meter**

EN 61326-1, EN 61010-1

FIBRE OPTICS

22GT**MPU**	
Suitable for	Multimode and single-mode
Measuring range	-70 to +10 dBm
Wavelength	850/1300/1310/1490/1550/1625 nm
Accuracy in attenu-ation measurement	± 0.2 dB
Resolution loss	0.01 dB
Adapter	SC/PC & 2.5 mm universal
Reference value storage	YES
Battery	AA x2
Dimensions	160x75x32 mm
Weight	0.180 kg
Packaging	Single unit
ACCESSORIES	Hinged protective cover - Protective case

Specifications:
· Automatic power-off function after 10 min of inactivity.
· **Device language:** ENGLISH.

See how it works::
GTLAN Telecommunications Experts
▶ How to measure losses in a fibre optic installation "power meter" and "laser emitter", Gtlan.

FO Power meter GPON

EN 61326-1, EN 61010-1

1 año GARANTÍA

22GT**MGPONPRO**	
Suitable for	Single-mode
Wavelength	1310/1490/1550 nm
Accuracy in attenuation measurement	± 0.5 dB
Power by wavelength	15 dBm (1310/1490 nm) 25 dBm (1550 nm)
Modulation	270 Hz, 1 kHz, 2 kHz
Adapter	Universal interchangeable
Storage	1000 measurements
Battery	1.5 V x 3
Dimensions	160x75x32 mm
Weight	0.425 kg
Packaging	Single unit
ACCESSORIES	Protective case

Specifications:

- Power meter capable of testing and calculating voice, data and video signals.
- The USB communication port allows data transfer to a PC. Saved to the GPON power meter or computer for data review.
- Three status LEDs display the optical signal conditions of Pass, Warm and Fail respectively.
- Automatic power-off function after 10 min of inactivity.
- Optical and VFL power meter with one port.
- With visual fault locator.
- **Device language:** ENGLISH.

See how it works::
GTLAN Telecommunications Experts
▶ How to measure GPON network, and signal strength on the fibre optic network of our operator, Gtlan.

FIBRE OPTICS

Visual FO **fault locator laser**

EN 61010-1, EN 60825-1

	22GT**LFO**
Wavelength	650 nm ± 20 nm
Power output	1 mW
Dynamic distance	5 km
Frequency	2 Hz
Connector	2.5 mm or 1.25 mm (universal connector)
Battery	AA 1.5 V x2
Dimensions	175x26x26 mm
Packaging	Single unit
ACCESSORIES	Protective case

Specifications:
- Fault locator pen or fibre identifier.
- Suitable for checking if the fibre optic cable is cut or to identify the required fibre at the other end of high fibre count cables.
- Do not expose to the naked eye.

Audible FO **fault locator probe**

	22GT**LFFO**
Wavelength	800-1700 nm
Detector type	Ø 1 mm In GaAs 2 pcs
Adapter type	Ø 0.25 (for bare fibre) Ø 0.9 (for cable Ø 0.9 mm) Ø 2.0 (for cable Ø 2.0 mm) Ø 3.0 (for cable Ø 3.0 mm)
Signal frequency	270, 1k, 2k Hz
Insertion loss 1310 nm	0.8 dB
Insertion loss 1550 nm	2.5 dB
Power supply	9 V
Dimensions	196x30.5x27 mm
Packaging	Single unit
ACCESSORIES	Protective case, x4 adapters for different fibre thicknesses

See how it works::
GTLAN Telecommunications Experts
Fibre optic fault locator, finds the fault without needing to disconnect anything for testing, Gtlan.

FIBRE OPTICS

3.8

TOOLS FOR
INSTALLATION/VERIFICATION

Microscope for FO

	34GT**FOM**	22GT**MICFO4**
Optical magnification	200x magnification	400x magnification
Adapter	2.5 mm	
Battery	AA x2	AAA x3
Dimensions	148x46x25 mm	250x105x65 mm
Packaging	Single unit	
ACCESSORIES	-	Protective case

Specifications:

- Suitable for checking the cleanliness and finish of your male connectors.
- Suitable for almost all connectors (ST, SC, FC...)

34GT**FOM**	22GT**MICFO4**

FIBRE OPTICS

Fast mechanical splicer for SM and mm fibres

IEC 61073

	35GTE**FAST**	35GTE**TOOL**
Compatibility	Fibres of 9/125,50/125 and 62.5/125	-
Insertion loss	≤ 0.2 dB	-
Return loss	≥ 55 dB	-
Tensile strength	Max. 400 g	-
Dimensions	40x4.4x4 mm	200x60x24.9 mm
Packaging	12 units	Single unit

Specifications:
- Both the splicer and the workstation are equipped with V-Groove technology which streamlines, facilitates and stabilises the connection of fibres.
- **Reusable.**

See how it works::
GTLAN Telecommunications Experts
▶ How to join optical fibre without fusion, manual splicing, Gtlan.

35GTEFAST

35GTE**TOOL**
35GTEFAST Mechanical splice workstation

FIBRE OPTICS

Heat-shrink sleeves for fusion splice protection

IEC 61073

	35GT**TF40**	35GT**TF60**
Optical fibre Ø	250-900 µm	
Outer tube Ø	3 mm	
Inner tube Ø	1.5 mm	
Radial shrinkage (%)	≥ 50%	
Axial shrinkage (%)	≤ 10%	
Warm-up time	50-90 seconds	
Shrinkage temperature	110ºC to 130ºC	
Minimum operating temperature	Safe down to -55º for 4 hours	
Operating temperature	-55ºC to 135ºC	
Humidity	≤ 95%	
Tensile strength	20 Mpa	
Material	Plastic and metal	
Length	40 mm	60 mm
Packaging	100 units	

FIBRE OPTICS

O4
ELECTRONICS

Equipment that is capable of managing, administering, enabling and distributing the flow of information in accordance with the way our intranet is designed.

Switches are used to link all the structured cabling together. They connect several devices in the same network. In a properly designed network, LAN switches are responsible for controlling the flow of data at the access layer and directing it to the networked resources.

Our switches are self-configuring and do not require any additional setup to become operational. However, we have a wide range of options to vary, modify and extend the characteristics of this equipment. They can be manually configured to better meet the needs of the network. This includes adjusting the speed, bandwidth and security requirements of some or all of the ports. The number of copper or fibre optic ports can be varied.

SOHO models are available for small companies, and 19" models for medium or large companies. Before purchasing or bidding for equipment, we must consider what speed we want to transmit data at. Nowadays, everything is at 1000 Mbps, but 10/100 Mbps equipment might still be appropriate for small networks.
Power over Ethernet (PoE), a technology that adds electric power to a standard LAN infrastructure, is regulated by the IEEE 802.3af standard.
As the diversity of network applications increases, together with the implementation of converged networks, more sophisticated switches are required. We have to ask what the network administrator wants to do, because the switches can be Layer 2, Layer 3 etc.
Layer 2 switches provide direct data transfer between two devices within a LAN. Layer 3 switches use IP addresses.
In addition, switches can be managed locally or remotely.

We also offer equipment which helps to extend networks and reach where copper cabling cannot: external and internal fibre optic converters. These enable us to link areas or places where copper limits us in terms of speed, bandwidth or distance.
Other important equipment is indoor and outdoor wireless equipment, so necessary in our daily lives and at work (meeting rooms, premises, industrial buildings, hotels...)
With all these options, Gtlan can offer you the right electronic equipment to carry out any type of installation.

gtlan

SUBFAMILIES

ELECTRONICS

4.1 Conventional electronic devices to complement and enhance telecoms networks.

DESKTOP SWITCH 10/100 BASE T

4.2 Desktop switches supporting 100 Base-T, standard for FastEthernet (100Mbps) LANs over twisted-pair copper cable of category 5 or higher. 100 Base-T was approved by IEEE 802.3 in 1995. It uses two pairs of cables to transmit simultaneously in both directions on each pair.

19" SWITCH 10/100 BASE T

4.3 19" rack mountable switches supporting 100 Base-T, standard for FastEthernet (100Mbps) LANs over category 5 or higher twisted-pair copper cable. 100 Base-T was approved by IEEE 802.3 in 1995. It uses two pairs of cables to transmit simultaneously in both directions on each pair.

19" SWITCH 1000 BASE T

4.4 19" rack mountable switches supporting 1000 Base-T, standard for Gigabit Ethernet (1 Gbps) LANs over twisted-pair copper cable of category 5E or higher. 1000 Base-T was approved by IEEE 802.3 in 1999. It uses all four pairs of wires in the cable to transmit simultaneously in both directions on each pair.

INDUSTRIAL

4.5 Conventional electronic devices to complement and enhance telecoms networks. Designed to withstand the demanding conditions of industrial environments (extended operating temperature ranges, ruggedised enclosures, enhanced IP, etc.)

WIRELESS OUTDOOR

4.6 Devices for wireless communication, capable of communicating between two or more entities without the use of wires. The use of radio frequency (RF) signals in airborne transmission facilitates the exchange of information in today's networks, even when entities are on the move. These devices for installation in outdoor environments have optimal quality and security features for these networks.

WIRELESS INDOOR

4.7 Devices for wireless communication, capable of communicating between two or more entities without the use of wires. The use of radio frequency (RF) signals in airborne transmission facilitates the exchange of information in today's networks, even when entities are on the move. These devices for installation in indoor environments have the standard quality characteristics for these networks.

FO CONVERTERS

4.8 Media converters are used to connect fibre cables to different types of devices, cables or networks. Fibre/copper conversion is the most common application for converting signals in the optical domain to signals in the electrical domain that can be handled and processed by most devices. At the same time, copper/fibre conversion makes it possible to extend the transmission distance of data within a telecoms network.

ELECTRONICS

4.1

12V/7AH compact size UPS

VDE-AR-N 4105, UL 1778

● Black

RPSAI850

Capacity	850 V AC / 480 W
Input voltage	220-230-240 V AC
Frequency	50-60 Hz
Battery life	Up to 6 min
Float voltage	13.7 V DC
Battery	12 V / 9 Ah x 1
Battery charging time	recovers 90% of capacity after 4-6 hours
Full protection	Short-circuit, battery discharge and overload, surge protection
Connections	2 x Schuko sockets (female)
Noise level	< 40 dB
Material	Plastic
Dimensions	142x101x279 mm
Packaging	Single unit

Specifications:

· Compact size and ergonomic design.
· High reliability, microprocessor control.
· Incorporates Automatic Voltage Regulator (AVR).
· Cold start and charging in shutdown mode.
· LED status indicators.
· Audible alarm.

ELECTRONICS

PoE injector for electrical power transmission over Ethernet

ANSI/TIA/EIA 568.2 Rev. E (Cat.6), ISO/IEC 11801-1 (Class E), IEEE/ISO/IEC 802-3 (10BASE-T, 100BASE-TX, 1000BASE-T), IEEE/ISO/IEC 8802-3 (30W)

Black

RPPOE	
Power supply	100-240 V AC
Output voltage	48 V DC
Speed	Data entry port: 1 x RJ-45 UTP PoE output port: 1x RJ-45 UTP Power adapter: 48V DC, 220V AC
Interface	10/100/1000 Mbps
Network types	10 Base-T: 2 pairs UTP Cat. 3, 4, 5 up to 100 m 100 Base-TX: 2 pairs UTP Cat. 3, 4, 5 up to 100 m 1000 Base-T: 2 pairs UTP Cat. 5, 5E, 6 up to 100 m EIA/TIA- 568 100-ohm STP (100 m)
Power	30 W (maximum)
PoE	IEEE 802.3at Power over Ethernet Plus /PSE
PoE voltage	53 V DC (maximum)
PoE configuration	Midspan
Pins used	1/2 (+), 3/6(-)
Material	Plastic
Dimensions	70x40x39 mm
Packaging	Single unit

Specifications:
- Compact size with internal power supply.
- Plug & play, no configuration required.

4.1

IP temperature sensor (configurable)

Ethernet (WEB, XML, WAP, HTTP GET, HTTP POST, E-mail, SNMP, ASCII, MODBUS TCP, SPINEL), IEC 60529 (IP67 probe / IP30 electronics), IEEE/ISO/IEC 802-3 (10BASE-T, 100BASE-T), IEC 60715

	31T**ME**	31T**MH2E**
Temperature measurement range	-55ºC to 125ºC	
Threshold settings	Temperature	Temperature, humidity and dew point
Power supply	5V DC	5 to 30 V DC
Fixing	DIN rail mounting bracket	
Sensor material	Aluminium	
Sensor dimensions	54x33x24 mm	72x41x25 mm
Sensor IP rating	IP 30	
Probe material	Stainless steel	
Probe dimensions	Ø 5.7x60 mm	40x16x10 mm
Probe IP rating	IP 68	
Cable material	Silicone	
Cable length	3 m	
Packaging	Single unit	

Specifications:

- The temperature can be transmitted via TCP/IP in ASCII format (in: ºC, ºF, K, without need for conversion).
- Automatic e-mail alerts.
- Configurable via the web.

31T**ME**	31T**MH2E**
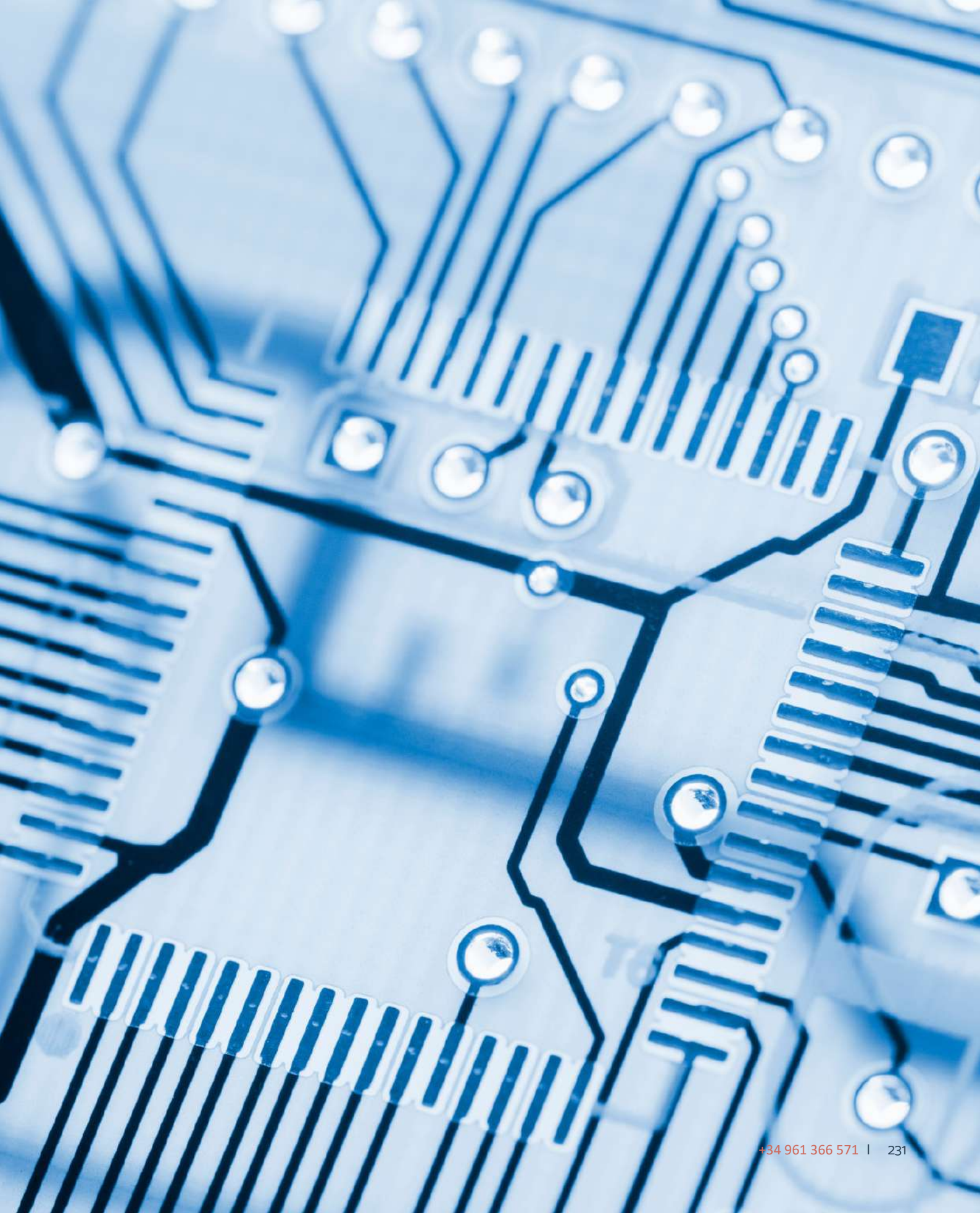
ELECTRONICS

4.2 DESKTOP SWITCH 10/100 BASE T

Desktop **switch**

IEEE/ISO/IEC 802-3 (10BASE-T, 100BASE-TX), ANSI/TIA/EIA 568.A/B (Auto MDI/MDIX), IEEE 802.3x (Flow Control), CSMA/CD, Store & Forward , Jumbo Frame (2KB), IEEE 802.3az, IEEE/ISO/IEC 8802-3 (15,4W)

Black

	RPS**W8**	RPS**W16S**	RPS**WSPOE**
Power supply	5 V / 800 mA	9 V DC / 500 mA	100-240 V AC / 50-60 Hz
No. of RJ45 ports	8	16	8
Speed	10/100 Mbps		
LED	PWR / 1-8	PWR / 1X-16X	PWR / 1-8 POE / 1-8 100M
Bandwidth	1.6 Gbps	3.2 Gbps	1.6 Gbps
MAC address table	2 K	8 K	1 K
Plug & Play	No configuration required		
Type of installation	Tabletop		
PoE	-	-	48 V / 2.8 A
Consumption (PoE)	-	-	15.4 W (Max. each port) 124 W (Max. all ports)
Material	Plastic		Metal
Dimensions	57x130x26 mm	57x97x21 mm	173x280x40 mm
Packaging	Single unit		

RPS**W8**

RPS**W16S**

RPS**WSPOE**

ELECTRONICS
4.3 19" SWITCH 10/100 BASE T

19" switch

IEEE/ISO/IEC 802-3 (10BASE-T, 100BASE-TX), ANSI/TIA/EIA 568.A/B (Auto MDI/MDIX), IEEE 802.3x (Flow Control), CSMA/CD, Store & Forward , Jumbo Frame (2KB), IEEE 802.3az

● Black

	RPS**W16**	RPS**W24**
Power supply	100-240 V AC / 50-60 Hz	
No. of RJ45 ports	16	24
Speed	10/100 Mbps	
LED	PWR, LINK/ACT	
Bandwidth	3.2 Gbps	4.8 Gbps
MAC address table	8 K	
Plug & Play	No configuration required	
Type of installation	19"	
Material	Aluminium housing (IP40)	
Dimensions	200x432x44 mm	
Packaging	Single unit	

RPS**W16**

RPS**W24**

ELECTRONICS

ELECTRONICS
4.4 19" SWITCH 1000 BASE T

Desktop **switch**

IEEE/ISO/IEC 802-3 (10BASE-T, 100BASE-TX, 1000BASE-T), ANSI/TIA/EIA 568.A/B (Auto MDI/MDIX),
IEEE 802.3x (Flow Control), CSMA/CD, Store & Forward

Black
RAL 9005

0º
40º

	RPS**W5G**	RPS**W8G**
Power supply	9 V DC / 500 mA (Output)	
No. of RJ45 ports	5	8
Speed	10/100/1000 Mbps	
LED	PWR, LAN1-LAN5	PWR, LAN1-LAN 8
Bandwidth	10 Gbps	16 Gbps
MAC address table	2 K	
Plug & Play	No configuration required	
Type of installation	Tabletop	
Material	Plastic	
Dimensions	70x130x26 mm	
Packaging	Single unit	

RPS**W5G**
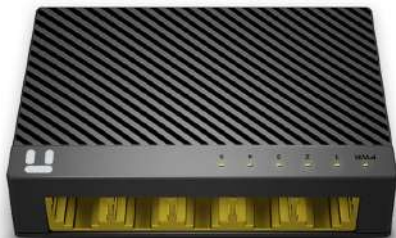
RPS**W8G**
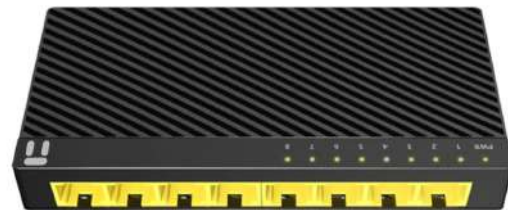
ELECTRONICS

4.4

ELECTRONICS
19" SWITCH 1000 BASE T

19" switch

IEEE/ISO/IEC 802-3 (10BASE-T, 100BASE-TX, 1000BASE-T), ANSI/TIA/EIA 568.A/B (Auto MDI/MDIX), IEEE 802.3x (Flow Control), CSMA/CD, Store & Forward, Jumbo Frame (9KB), IEEE 802.3az

Black
RAL 9005

0º
40º

	RPS**W16G**	RPS**W24G**
Power supply	100-240 V AC / 50-60 Hz	
No. of RJ45 ports	16	24
Speed	10/100/1000 Mbps	
LED	PWR, LINK/ACT, SPEED	
Bandwidth	32 Gbps	48 Gbps
MAC address table	8 K	
Plug & Play	No configuration required	
Type of installation	19"	
Material	Aluminium housing (IP40)	
Dimensions	200x432x44 mm	
Packaging	Single unit	

RPS**W16G**

RPS**W24G**

ELECTRONICS

ELECTRONICS
19" SWITCH 1000 BASE T

4.4

19" switch

IEEE/ISO/IEC 802-3 (10BASE-T, 100BASE-TX, 1000BASE-T), IEEE 802.3x (Flow Control), IEEE 802.3z (1000BASE-LX/SX), IEEE 802.3ad (LACP), IEEE 802.1p, IEEE 802.1q (VLAN), IEEE 802.1d (STP), IEEE 802.1w (RSTP), IEEE 802.1s (MSTP), IEEE 802.1x, Store & Forward, Ethernet (Telnet, WEB, SNMP, SSH)

Black
RAL 9005

0º
40º

	RPS**W8GC**	RPS**W24GC**
Power supply	100-240 V AC / 50-60 Hz	
No. of RJ45 ports	8	24
Combined ports	2 SFP	4 SFP
Speed	10/100/1000 Mbps	
LED	PWR, LINK/ACT, SPEED	PWR, DIAGNOSTIC, LINK/ACT, SPEED
Bandwidth	20 Gbps	52 Gbps
MAC address table	8 K	
Plug & Play	No configuration required	
Type of installation	Tabletop / 19"	19"
Material	Aluminium housing (IP40)	
Dimensions	173x280x44 mm	250x432x44 mm
Packaging	Single unit	

Software specifications:
- STP, Multicast, VLAN, Flow Control, QoS, DHCP, Web Management...

RPS**W8GC**

RPS**W24GC**

4.4 19" SWITCH 1000 BASE T

Tabletop/19" switch 4+4 rj45 10/100/1000 BT POE

IEEE/ISO/IEC 802-3 (10BASE-T, 100BASE-TX, 1000BASE-T), ANSI/TIA/EIA 568.A/B (Auto MDI/MDIX), IEEE 802.3x (Flow Control), CSMA/CD, Store & Forward , IEEE/ISO/IEC 8802-3 (30W)

Black RAL 9005

0º 40º

RPS**WSPOE4G**

Power supply	100-240 V AC / 50-60 Hz
No. of RJ45 ports	8
Speed	10/100/1000 Mbps with PoE
LED	PWR / MAX, 1-4 PoE, 1-8 1000 M, 1-8 LINK/ACT
Bandwidth	16 Gbps
MAC address table	4 K
Plug & Play	No configuration required
Type of installation	Tabletop
PoE	8x48 V / 2.8 A
Consumption (PoE)	802.at/af (120 W)
Material	Aluminium housing
Dimensions	280x173x43 mm
Packaging	Single unit

4.5

Industrial switch and FO converter.

IEEE/ISO/IEC 802-3 (10BASE-T, 100BASE-T, 1000BASE-T), IEEE 802.3z (1000BASE-LX/SX, 100BASE-FX), ANSI/TIA/EIA 568.A/B (Auto MDI/MDIX), IEEE 802.3x (Flow Control), Store & Forward, Jumbo Frame (9 KB), IEEE 802.3az, IEEE 802.1p, IEC 60529 (IP30), IEC 60068-2-31, IEC 60068-2-27, IEC 60068-2-6, IEC 60715

Black

	RPSWI5G	RPSWI8G	RPSWI4G2SFP	RPSWI8G2SFP	RPCISFPG
Power supply	10-58 V DC		12-48 V DC		10-58 V DC
No. of RJ45 ports	5	8	4	8	1
Combined ports	No		2 SFP		1 SFP
Speed	10/100/1000 Mbps				
LED	PWR, LINK/ACT				
Bandwidth	10 Gbps	20 Gbps	12 Gbps	20 Gbps	10 Gbps
MAC address table	8 K	16 K	8 K	16 K	8 K
Plug & Play	No configuration required				
Type of installation	Din rail				
PoE	No (option available on request)				
Material	Aluminium housing (IP40)				
Dimensions	95x128x33 mm	115x153x47 mm	130x94x36 mm	158x118x38 mm	115x128x33 mm
Packaging	Single unit				

Specifications:

- RJ45 ports accept Auto MDI/MDI-X.
- Auto-negotiation for full-duplex and half-duplex modes.
- PoE available on request.
- Compatible with modules RPMGBICMM and RPMGBICSM.
- Source not included.

RPSWI4G2SFP

RPSWI5G

RPSWI8G2SFP

RPSWI8G

RPCISFPG

Industrial switch and FO converter.

IEEE/ISO/IEC 802-3 (10BASE-T, 100BASE-T, 1000BASE-T), IEEE 802.3z (1000BASE-LX/SX, 100BASE-FX), ANSI/TIA/EIA 568.A/B (Auto MDI/MDIX), IEEE 802.3x (Flow Control), Store & Forward, Jumbo Frame (9 KB), IEEE 802.3az, IEEE 802.1p, IEC 60529 (IP30), IEC 60068-2-31, IEC 60068-2-27, IEC 60068-2-6, IEC 60715

● Black

RPCIMMSC	
Power supply	12-48 V DC
Wavelength	850 nm
Maximum distance	62.5 µm: 224 50 µm: 550
Connector type	RJ45 / SC duplex connector
Transmitter type	Multimode
Speed	1 Gbps
LED	TP Act, FDX, TPG, 1000, Power, FX Act.
Type of installation	Tabletop/DIN-rail
Material	Metal
Dimensions	94x130x35 mm
Packaging	Single unit

Specifications:

- Industrial converter from RJ45 10/100/1000 to SC fibre optic.
- Incorporates operation and diagnostic indicator LEDs.
- Multimode fibre: 50/125. 62.5/125 µm.
- Compact size and easy to install.

ELECTRONICS

4.6

ELECTRONICS
WIRELESS OUTDOOR

Outdoor wireless access point

IEEE/ISO/IEC 802-3 (10BASE-T, 100BASE-TX), IEEE 802.11(n/a/ac)

White

RP**AP58EA**

Power supply	24 V DC / 0.5 A passive PoE - 12 V DC / 1 A
Speed	5 GHz up to 450 Mbps
Frequency	4.900 - 5.850 GHz
Power	21 - 29 dBm
Directional antenna	14 dBi dual polarity
Reception sensitivity	-90 dBM
Range	Up to 2 km
Configurations	802.11n / 802.11a
Mode of operation	Access Point Slave, P2P P2MP
Security	WPA-PSK, WPA2-PSK
Interface	2 x 10/100 Mbps RJ45 Bridge Gateway Adapting Network Interface
LED	Signal, Ethernet, Power
PoE	Passive (with its own passive injector)
Material	Protective plastic housing (IP65)
Dimensions	188x188x33 mm
Packaging	Single unit

4.7

ELECTRONICS
WIRELESS INDOOR

Indoor wireless access point

IEEE/ISO/IEC 802-3 (10BASE-T, 100BASE-TX, 1000BASE-T), ANSI/TIA/EIA 568.A/B (Auto MDI/MDIX), IEEE 802.11(b/g/n/a/ac) / IEEE 802.11(b/g/n/ac/ax) / EEE 802.11(b/g/n)

White | Black RAL 9005

	RPAP300	RPAPABG	RPAPPRO
Power supply	9 V DC	12 V DC	
Speed	Up to 300 Mbps	Up to 300 Mbps; 433 Mbps	Up to 300 Mbps; 900 Mbps
Frequency	2.4 - 2.4835 GHz	2.4 - 2.4835 GHz; 5.180 - 5.825 GHz	
Power	20 dBm		
Configurations	802.11 b/g/n	802.11 ac/b/g/n	
Mode of operation	AP, Repeater, AP+WDS, Client, Multi - SSID		
Antenna	3x5 dBi		4x5 dBi
Buttons	WPS, Default		
Security	64/128-bit, WEP, WPA-PSK/WPA2-PSK (TKIP/AES), SSID Broadcast Enable/Disable, Wireless MAC Filtering		WEP/WPA-PSK/WPA2-PSK Encryption Wireless MAC filtering
Interface	1 x 10/100 Mbps Auto MDI/MDIX RJ45 WLAN port, 4 x10/100 Mbps Auto MDI/MDIX RJ45 LAN port		1 x 10/100/1000 Mbps Auto MDI/MDIX RJ45 WLAN port, 4 x 10/100/1000 Mbps Auto MDI/MDIX RJ45 LAN port, 1 x USB 2.0 port
LED	PWR, LAN4, LAN3, LAN2, LAN1, WLAN, WPS, WAN	PWR, WPS, SYS, 2.4G, 5G, LAN1, LAN2, LAN3, LAN4, WAN	SYS, USB, WPS, 5G, 2.4G, WAN, LAN1, LAN2, LAN3, LAN4
Multi SSID	Up to 3 wireless networks	Up to 6 wireless networks	
Dimensions	144.5x90x26.5 mm	90x145x19 mm	145x155x35 mm
Packaging	Single unit		

Specifications:
- Ideal for faster downloads, internet calls and HD video streaming.
- Quick setup with integrated multilingual administration page.

RPAP300

RPAPABG

RPAPPRO

Wireless Repeater

IEEE/ISO/IEC 802-3 (10BASE-T, 100BASE-TX), IEEE 802.11(b/g/n/a/ac)

White

RP**RPW**

Power supply	100-240 V AC
Speed	Up to 300 Mbps
Frequency	2.4 - 2.4835 GHz
Power	20 dBm
Configurations	802.11 b/g/n
Mode of operation	Range extender, router
Antenna	2 (internal)
Buttons	WPS Range Extender mode: WPS/Default function Router mode: Normal Power/High Power/Default function
Security	64/128-bit, WEP, WPA-PSK/WPA2-PSK (TKIP/AES), SSID Broadcast Enable/Disable, Wireless MAC Filtering
Interface	1 x 10/100 Mbps Ethernet port
Dimensions	60x85x60 mm
Packaging	Single unit

Specifications:

- Wi-Fi network repeater with excellent wireless speed.
- Range extender mode extends your existing wireless coverage to eliminate "dead zones" of wireless access.
- WPS button for quick extension set-up by connecting to the main router in seconds.
- Ethernet port providing additional connection for wired internet connection devices.

ELECTRONICS

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ELECTRONICS
WIRELESS INDOOR

Indoor wireless access point (ceiling)

IEEE/ISO/IEC 802-3 (10BASE-T, 100BASE-TX), ANSI/TIA/EIA 568.A/B (Auto MDI/MDIX), IEEE 802.11(b/g/n),
IEEE/ISO/IEC 8802-3 (30W)

White

	RPAPTPOE
Power supply	24 V DC
Speed	Up to 300 Mbps
Frequency	2.4 - 2.4835 GHz
Power	20 dBm
Configurations	802.11 b/g/n
Mode of operation	AP, Repeater, AP+WDS, Client, Multi - SSID
Antenna	2 (internal) x 3 dBi
Buttons	Reset
Security	64/128-bit WEP WPA, WPA-PSK/WPA2-PSK (TKIP/AES), SSID Broadcast Enable/Disable, Wireless MAC Filtering
Interface	2 x 10/100 Mbps Lan ports
LED	Wi-Fi system
Dimensions	330x254x760 mm
Packaging	Single unit

Specifications:

· Ceiling access point with excellent wireless speed.
· Low cost, high performance, easy installation in a wide range of environments.
· **802.3af PoE**, DOES NOT INCLUDE INJECTOR.

ELECTRONICS

RJ45/FO converters 10/100/1000 mm SC/ST

Black

IEEE/ISO/IEC 802-3 (10BASE-T, 100BASE-TX, 1000BASE-T), IEEE 802.3z (1000BASE-LX/SX, 100BASE-FX), ANSI/TIA/EIA 568.A/B (Auto MDI/MDIX), IEEE 802.3x (Flow Control), Store & Forward, Jumbo Frame (9KB), IEC 61754-4, ISO/IEC 11801-1 (OM1, OM2, OM3, OM4)

	RPC**MMSC**	RPC**MMST**
Power supply	220V AC 50 Hz	
Connector type	RJ45/SC connector	RJ45/ST connector
Transmitter type	Multimode	
Wavelength	850 nm	1300 nm
Maximum distance	62.5 µm: 224 m 50 µm: 550 m	50 µm: 2000 m
Sensitivity	-18 dBm	
Link Budget	7 dBm	
LED	TP Act, FDX, TPG, 1000, Power, FX Act.	
Material	Metal	
Dimensions	94x70x26 mm	
Packaging	Single unit	

Software specifications:

- Media converter from RJ45 10/100/1000 to SC/ST fibre optic.
- Incorporates indicator LEDs for operation and diagnostics.
- Multimode fibre: 50/125 62.5/125 µm
- Compact size and easy to install.

RPC**MMSC**	RPC**MMST**

RJ45/FO converter 10/100/1000 mm P/MINI G-BIC

IEEE/ISO/IEC 802-3 (10BASE-T, 100BASE-TX, 1000BASE-T), IEEE 802.3z (1000BASE-LX/SX, 100BASE-FX), ANSI/TIA/EIA 568.A/B (Auto MDI/MDIX), IEEE 802.3x (Flow Control), Store & Forward, Jumbo Frame (9KB)

Black

	RPC**SMGBIC**
Power supply	220V AC 50 Hz
Connector type	RJ45/SFP
Transmitter type	Single-mode/Multimode
Wavelength	Single-mode: 1310 nm Multimode: 850 nm
Maximum distance	Single-mode: 1000 m Multimode: 62.5 µm: 224 m 50 µm: 550 m
Sensitivity	Single-mode: -21 dBm Multimode: -18 dBm
Link Budget	Single-mode: 9 dBm Multimode: 7 dBm
LED	TP Act, FDX, TPG, 1000, Power, FX Act.
Material	Metal
Dimensions	93x70x26 mm
Packaging	Single unit

Software specifications:

- Media converter from RJ45 10/100/1000 to SFP fibre optic.
- Incorporates indicator LEDs for operation and diagnostics.
- Multimode fibre: 50/125 62.5/125 µm.
- Single-mode fibre: 9/125 µm.
- Compact size and easy to install.

| | gtlan

MINI G-BIC 1.25 SX/LX DUAL modules

INF-8074 (SFP MSA), SFF-8472

Metallic

	RPM**GBICMM**	RPM**GBICSM**
Power supply	3.3 V DC	
Bandwidth	1.25 Gbps	
Range	550 m	20,000 m
Transmitter type	Multimode	Single-mode
Average transmitter output power	Minimum:-9.5 dBm Maximum: -3 dBm	Minimum: -9 dBm Maximum: -3 dBm
Transmitter wavelength	Minimum: 830 nm Typical: 850 nm Maximum: 860 nm	Minimum: 1260 nm Typical: 1310 nm Maximum: 1360 nm
Receiver wavelength	Minimum: 770 nm Maximum: 860 nm	Minimum: 1260 nm Maximum: 1580 nm
Sensitivity	-18 dBm	-23 dBm
Material	Metal, plastic and rubber	
Dimensions	57x10x8.5 mm	
Packaging	Single unit	

Software specifications:

- Metal chassis reduces electromagnetic interference and increases durability.
- Fast connection.
- Available in industrial version (price on request).

RPM**GBICMM**	RPM**GBICSM**

ELECTRONICS

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FO CONVERTERS

19" chassis (2U) for 14 CONVERTERS with FA

IEC 60297-3-100

● Black

RPC**HCONV**

Capacity	14 converters
Height	2 U
Input voltage	100 AC - 260V / 50-60 Hz
Output voltage	5V DC - 12 A
Material	Metal
Dimensions	270x485x88 mm
Packaging	Single unit

Software specifications:
- Designed for continuous operation and equipped with dual cooling fans.
- Its plug-and-play and hot-swap functions allow you to install or remove the converter unit without having to power down the chassis.
- With LED indicators.

ELECTRONICS

CONDITIONS OF SALE

1. CONSIDERATIONS

Gote S.A. sales shall be governed, with the exception of sales to consumers and users, by the rules described in these sales conditions of GOTE S.A. In the event of an exception, both parties shall agree on the revised conditions prior to the sale and in writing.

The conditions of sale of Gote S.A. are considered to be accepted from the moment at which the customer signs up, accepting the conditions of Gote S.A. with this signature.

The provisions of Title IV of Book II of Royal Decree 1/2007, of 16 November 2007, which approves the revised text of the General Law for the Defence of Consumers and Users and other complementary laws, shall apply to sales made to consumers and users.

2. CONDITIONS OF SUPPLY

The buyer must issue a written purchase order, in which the products to be purchased are clearly specified, together with the delivery address.

The characteristics of the products communicated in the product data sheets, website, catalogues (such as weights, dimensions, technical specifications) are merely indicative and non-binding, with the exception of special requirements for agreed projects, which will be made in writing at the time of the purchase request and the subsequent quotation issued by Gote S.A.

Delivery time is dependent on the method of transport and the time agreed at the time of placing the order (see point 3.). The delivery time shall be agreed by both parties, with no cost to Gote S.A. in the event of non-compliance unless a special contract is signed for the operation or project in question.

Any change in the agreed delivery date due to any factor attributable to the customer shall not be considered a delay in delivery. These causes can be very varied, for example, a change in the order, modification of the materials, delay in submitting any necessary extra documentation...

Gote S.A. will not be responsible for any delay in the delivery date that is the responsibility of the agency or directly of the customer or person in charge of receiving the shipment.

It is the customer's obligation to inspect all the material sent, which might include requesting the presence of the agency driver who manages the delivery. You will have 24 hours to make any relevant claim, in which you will indicate the damage caused to the goods by the transport, attaching any required documentation such as photos, etc. After this period, the customer shall be responsible or liable for any damage caused by the transport of the goods. This also includes delays in the delivery of material.

The maximum limit for a return is 30 days, after which no returns will be accepted. In any case, within the stipulated period, the material must be in perfect condition, unused and with the packaging in perfect condition. If the above terms are not complied with, no refund will be made.

No returns of materials manufactured specifically for projects will be accepted. The return delivery charges will always be paid by the customer. Gote S.A. reserves the right to inspect the goods at its premises before issuing the corresponding credit note.

3. PRICES

The delivered prices can be net prices or PVP (pending the application of agreed discounts) excluding VAT and any other taxes, such as Ecotasa. Subsequent to the sale, these taxes, which are additional to the sale and not attributable to Gote S.A., will be shown on the invoice. On request, it is also possible to find out the amount of these taxes in advance.

The prices quoted do not include delivery costs for the shipment of goods, except in the following cases:

a.   Offers are valid for one month from the date of the offer, and there may be price changes in products where the raw material is copper, as well as discontinuation without prior notice from the factory, including during the period from acceptance of the offer to the delivery of the products.

b.   The prices indicated in the offer are for the usual methods of payment, the method of payment will be agreed upon   in writing when a customer opens an account with Gote S.A.

c.   After the acceptance of an order, prices cannot be changed, unless otherwise agreed   b e t w e e n the seller and the buyer, any reason attributable to the buyer or set out in paragraph b.

d.   The exchange of information shall be considered private between the two parties, not disclosing any kind of   data to third parties and the use of the information for any other purpose is not permitted.

4. FORMS OF PAYMENT AND CREDIT

The methods of payment are agreed when the customer opens an account with Gote S.A. These conditions may be modified at any time, subject to agreement between both parties, and will not be valid for orders that have already been processed and are pending payment.

All our business transactions with customers will be subject to the approval of the contracted credit line insurer.

5. WARRANTY

Gote S.A. gives commercial warranty for defects in materials or workmanship in its products. The warranty begins with the date of delivery of the material. This period ranges from 2 to 3 years depending on the type of product. For further details about the warranty period, please refer to the relevant section of this catalogue.

For lighting products, the warranty period is based on a maximum of 4,000 hours/year, with on/off cycles established in the IEC standard.

The customer or purchaser is obliged to comply without exception with the conditions detailed herein. The warranty will be void if the product is not used under normal conditions as determined by Gote S.A.

Any product that does not function properly shall be dealt with as follows:

- Immediately inform the distributor from whom the product was purchased, in writing, of the issue that the product presents.

This communication must always be accompanied by the purchase invoice, clearly showing the malfunctioning product and its date of issue.

- Subsequently, Gote S.A. will send the RMA (Return Merchandise Authorisation) documentation to open the incident and manage the subsequent repair or replacement of the product. This documentation must be returned to Gote S.A. fully completed. Gote S.A. will then return the completed documentation with the RMA number and with the acceptance for the customer to proceed with the shipment of the product to Gote S.A.

The shipping cost of the product shall be borne by the customer or distributor.

- Once the product has been returned to Gote S.A. its operation will be analysed. If it is not functioning correctly, it will be exchanged or repaired and returned to the customer, postage paid by Gote S.A.

If the product is not in the product portfolio at that time, Gote S.A. reserves the right to exchange the product for an equivalent or superior product, but is not obliged to make any refund payment.
If the product does not malfunction when it is inspected, it will be returned to the customer (carriage paid by the customer) or collected by the customer from our premises.

Any products that present any type of external damage or damage caused by the environment that surrounded the equipment in its original installation shall be exempt from warranty. Such possible damage includes:

- Physical damage, resulting from products being dropped, hit, broken, subject to improper use, installation/ exposure in unsuitable environments, ...

- Electrical damage, products that do not receive the appropriate power or voltage for their correct operation, including excessive harmonics, electrical noise, poor choice of power supply wiring...

- Improper handling of the product or handling not carried out by Gote S.A. personnel, such as repairs by the customer, or modifications to the product.

- Environmental damage, any type of damage caused to products by the environment (storms, natural disasters, floods, leaks, ...) etc.

The warranty will only cover the value, by way of exchange or replacement, of the products purchased from Gote S.A. Under no circumstances will it cover the costs of installation or de-installation, or the cost of transporting the products.

Similarly excluded is any financial compensation for incorrect operation of the products supplied by Gote S.A., either due to damage caused or due to lack of service in the installation. Given the range of issues that can exist in these situations, Gote S.A. excludes any liability or right to any possible situation not mentioned in these warranty conditions.

The agreement to honour a warranty and the subsequent repair of the product does not indicate that the warranty starts again from that date. Gote S.A. will always take the date of purchase of the product as the start date of the warranty.

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* Gtlan reserves the right to modify the data published in this catalogue (consumption, dimensions, ...) without prior notice, due to changes in the products for whatever reason. Please consult our technical data sheets on the web, where you will find the latest updated information. These invalidate previous versions.

* In some cases, the published photographs show the product with accessories. Unless explicitly stated otherwise, these accessories are not included and must be ordered separately.

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We offer a complete solution whatever network technology you use.

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