FRACARRO

Fracarro Solutions

GPON
Networking
Hospitality
Fibre optic
RF

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FRACARRO Solutions

Since 1933, **Fracarro** has been designing and manufacturing **solutions for the reception and distribution of audio, video, and data signals** in individual, communal and hospitality installations, using coaxial, fibre optic and IP technology.

We specialise in end to end processing of signals on **GPON** (Gigabit Passive Optical Network), **IP and coaxial networks, managing all digital technologies**: TV (DVB-T2), SAT (DVB-S2), cable (DVB-C) and IP (DVB-IP).

GPON (Gigabit Passive Optical Network)

GPON fibre optic solutions to integrate distribution of IP services in multi-user systems, for example the hospitality sector.

Fibre Optic

Distribution of TV, satellite and data services in digital systems using fibre optic products to distribute high quality signals over long distances with minimal signal degradation e.g. FTTH (Fibre To The Home).

Satellite TV Systems

With over 90 years of experience, Fracarro offers the most comprehensive range of solutions for the creation of SMATV and IRS systems using a wide range of technology.
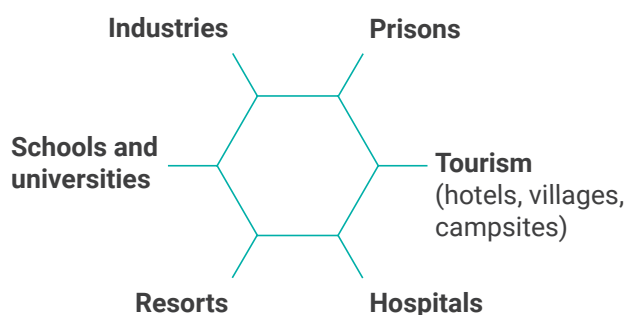
GPON solutions

With a **dedicated business team** and over twenty years of experience in the creation of fibre optic systems worldwide, Fracarro has always been the **ideal partner for the distribution of IP services in multi-user networks**.
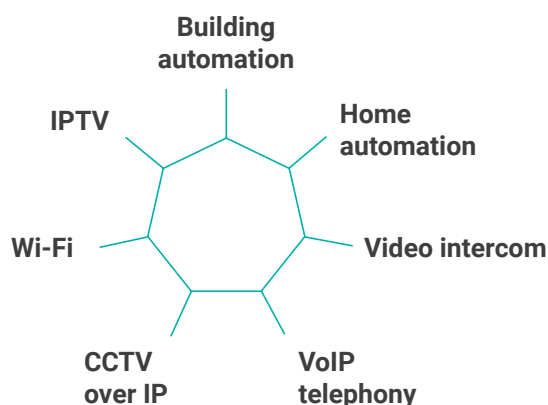
In addition to our **comprehensive range** of high-tech products, **Fracarro** offers **in-depth technical knowledge** to make complex systems operational: an opportunity that enables engineering companies to be increasingly independent in the development of advanced solutions which, until a few years ago, would have required major investments and/or subcontracts to system integrators.

Fracarro's GPON services enables support of the entire passive infrastructure installation due to the Project Management activity, and also the ability to interact with technical representatives for planning the IP-PLAN. Fracarro is also involved in logic programming of networks for routers, L3 star centre switches and L2 secondary PoE and non PoE, OLT, ONT, routers, etc. integrating multiple services in a reliable and efficient way.

SECTION

Industries   Prisons

Schools and
universities   Tourism
(hotels, villages,
campsites)

Resorts   Hospitals

DISTRIBUTION

Building
automation

IPTV   Home
automation

Wi-Fi   Video intercom

CCTV
over IP   VoIP
telephony

Advantages of GPON

- **Simplification** of the system
- Saving of space, materials and time required for installation
- Reduction of plant costs
- Ease of maintenance
- **System open to future technological evolutions**
- Scalable and suitable for any type of installation
- Greater performance, reliability and **safety in data management** (256-bit encrypted traffic)
- **Passive optical network**
- Link distance of up to 20km

Fracarro services for GPON Systems

Fracarro provides **specific consultancy services for GPON projects** to compliment our high quality professional products.

Our experts can also be involved, if required, in the **design and support of the architecture**, including planning the system and producing the installation diagram and list of materials needed.

Technicians can be available when the system is ready to be commissioned including **programming and testing the system**.

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GPON

For every requirement, **Fracarro** can **supply all the necessary devices** to fulfill the needs of **different types of GPON networks**, such as FTTR (Fibre to the Room) or FTTD (Fibre to the Desk), for the distribution of heterogeneous services.

Designed to manage networks with up to a 20km reach, each GPON control unit is supplied to respond to individual project requests, both in terms of size and reliability: from exchanges with 1, 4 or 8 PON ports for the smallest instances, to modules that are able to manage an increasing number of ONTs (Optical Network Terminals).

OLTG-1P2G1S

NEW

287787

Optical Line Terminal (OLT) for data distribution in small networks.

- 1 x integrated PON, Uplink: 2 x GE, 1 x SFP+10GE, integrated power supply.

DATA GPON 4 TX

287558

Optical Line Terminal (OLT) for data distribution over a fibre optic network.

- 4 x PON, Uplink: 4 x GE, 2 x SFP+ 10GE, dual slots for power supplies.

DATA GPON 8 TX

287559

Optical Line Terminal (OLT) for data distribution over a fibre optic network.

- 8 x PON, Uplink: 4 x GE, 2 x SFP 1GE, 2 x SFP+ 10GE, dual slots for power supplies.

SFP Modules

The Fracarro GPON range also includes modules for connecting the GPON network to the main core switch, where the servers and controllers are connected.

DATA SFP C++

Item	Code	Description
DATA SFP C++	287560	SFP Class C++ module suitable for DATA GPON series OLTs

GPON

Fracarro ONT receivers have been designed to meet **different connectivity** needs depending on the type of installation e.g. hotel rooms, common areas, offices, technical rooms.
ONT receivers are available with:

- 2.4Gb ethernet ports
- 4 or 8Gb ethernet PoE ports, connecting devices to be powered remotely, e.g. access points and IP cameras
- Pots connections, to manage analogue telephones
- Embedded Wi-Fi, to manage wireless connectivity in small to medium installations

GPON-RX WAC-P

287561

Optical Network Terminal (ONT) for receiving data through fibre optic. Ideal for broadband access, WiFi connectivity (ac) and analogue telephones.

- 2 x GE, 1 x FXS (RJ11 analogue phone), 11ac WiFi 2.4/5GHz

GPON-RX WAC 4GE

287615

Optical Network Terminal (ONT) for data distribution through a passive fibre optic infrastructure, equipped with 4 x GE ports, 1 x analogue phone port and dual band access points.

- 4 x GE, 1 x FXS (RJ11 analogue phone), 11ac WiFi 2.4/5GHz

ONTG-4GP-S

NEW

287788

Optical Network Terminal (ONT) for data distribution through a passive fibre optic infrastructure, equipped with 4 x PoE ports.

- 4 x GE (Giga Ethernet, 1000Mbit/s) PoE

ONTG-8GP-M

NEW

287794

Optical Network Terminal (ONT) for data distribution through a passive fibre optic infrastructure, equipped with 8 x PoE ports.

- 8 x GE (Giga Ethernet, 1000Mbit/s) PoE

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ONT with RF output

The Fracarro ONT range is extended with solutions for distributing the RF television signal over a single fibre.

Item	Code	Description
GPON-RX W-TV-P	287562	1 x GE, 1 x FE, 1 x FXS, 2 x CATV, WIFI
GPON RX LITE TV	287557	1 x GE, 1 x CATV
GPON RX PASS TV	287556	Passive ONT with 1 x CATV output and integrated WDM diplexer

NETWORKING ethernet switches

FSW-9 Layer 3, FSW-8 Layer 2+ and FSW-7 Layer 2 switches capable of providing flexibility, performance and scalability. Ideal for connecting multiple services such as servers, controllers etc. or for managing distributed data points.

The SFP+ 10GE ports allow stacking or uplink connection with other switches of the same series.

FSW-948C-6SFP+

NEW

287764

48 port 10/100/1000 GE, 6 x SFP+ 10GE Layer 3 switch with 216Gbps backplane, multicast, stackable and ideal as a star centre switch.

FSW-48GE4SFP2AC

287625

48 port 10/100/1000 GE Layer 3 switch with 336Gbps backplane, multicast, stackable and ideal as a star centre switch.

FSW-24GE4SFPPOE

287626

24 port 10/100/1000 GE PoE Layer 3 switch with 128Gbps backplane, enables you to power remote devices such as IP video surveillance cameras and access points.

FSW-24GE4SFP

287627

24 port 10/100/1000 GE Layer 3 switch with 128Gbps backplane, enables you to manage network points distributed in common areas, offices, etc.

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NETWORKING ethernet switches

FSW-848P-4SFP+

NEW

287768

48 port 10/100/1000 GE, PoE, 6 x SFP+ 10GE Layer 2+ switch with 216Gbps backplane, IGMP snooping, stackable and ideal for medium to large networks.

FSW-708-2SFP

NEW

287771

8 port 10/100/1000 GE, 2 x SFP 1GE Layer 2 switch with 20Gbps backplane, IGMP snooping and ideal for small networks.

FSW-724-4SFP

NEW

287769

24 port 10/100/1000 GE, 4 x SFP 1GE Layer 2 switch with 56Gbps backplane, IGMP snooping and ideal for small networks.

FSW-724P-4SFP

NEW

287770

24 port 10/100/1000 GE, PoE, 4 x SFP 1GE Layer 2 switch with 56Gbps backplane, IGMP snooping and ideal for small networks.

SFP Modules

Modules for fibre optic interconnection between switches.

DATA SFP GE

Item	Code	Description
DATA SFP GE	287555	Uplink or trunk SFP 10/100/1000 (RJ45) module between network switches
DATA SFP 10 GE	287761	10GE SFP+ (RJ45) uplink or trunk module between network switches

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WIFI solution

The **FRACARRO WIFI6 controller based solution** is ideal for **creating and distributing WiFi connectivity** in medium and large installations such as hotels, campsites, tourist villages and offices.

Access points

High performance access points for indoor and outdoor applications.

WAP6-2GE-CM-HD

NEW

287773

Indoor, 2 Port 10/100/1000 GE, up to 128 users per band, WiFi 6, 1775Mbits maximum bitrate.

WAP6-1GE-EXT-HD

NEW

287786

Outdoor, 1 Port 10/100/1000 GE, up to 128 users per band, 3000Mbits maximum bitrate.

Controllers

Professional controllers for setup and management of WiFi connectivity.

WCTRL-128-SFP

NEW

287774

8 Port 10/100/1000 GE, 2 x combo GE/SFP 1GE able to manage up to 128 access points.

WCTRL-256-SFP+

NEW

287775

8 port 10/100/1000 GE, 2 x SFP+ 10GE able to manage 256 access points. Adding licences allows the controller to reach a maximum capacity of 1024 access points

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NETWORKING cabinets

Floor standing

19" floor standing cabinets designed for installation in server rooms and other communications areas. Easy to disassemble and reassemble making them ideal if access to the installation point is restricted. Supplied fully assembled.

RK42U 810S · RK42U 68S · RK36U 68P

Item	Code	Height	Dimensions mm (H x W x D)	Internal uprights	Front door
RK42U 810S	287676	42U	2000 x 800 x 1000	4	grill
RK42U 88S	287677	42U	2000 x 800 x 800	4	grill
RK42U 68P	287683	42U	2000 x 600 x 800	4	tempered glass
RK36U 68P	287678	36U	1735 x 600 x 800	2	tempered glass
RK36U 66P	287679	36U	1735 x 600 x 600	2	tempered glass
RK24U 68P	287681	24U	1200 x 600 x 800	2	tempered glass
RK24U 66P	287680	24U	1200 x 600 x 600	2	tempered glass

Wall mounted

19" wall mounted cabinets designed for smaller rooms. Provide excellent access for equipment installation and maintenance. The ventilated top allows fans to be installed. Cable gland slot and wall bracket included.

Item	Code	Height	Dimensions mm (H x W x D)	Internal uprights	Front door
RK12U 64PW	287682	12U	615 x 600 x 450	fixed	tempered glass
RK9U 64PW	287684	9U	485 x 600 x 450	fixed	tempered glass

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NETWORKING accessories

Rack accessories

The Fracarro range includes accessories for supporting and managing copper and fibre cables for equipment not designed for 19" rack mounting. View the complete list on the website.
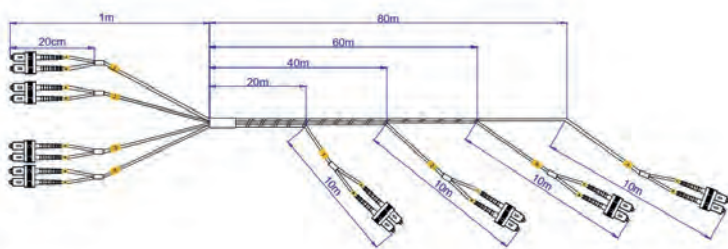

OPB24IR

RKA CCV 842U

RKA RR1000

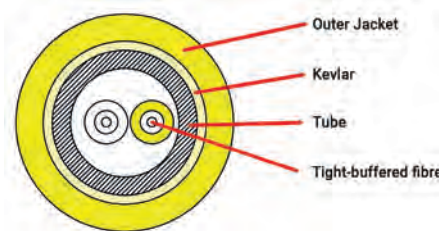| Item	Code	Description	
OPB24IR	289404	19" rack mounted optical splitter tray. Capacity for up to 24 x SC/APC optical connections	
OPB48IR	287757	19" rack mounted optical splitter tray. Capacity for up to 48 x SC/APC optical connections	NEW
RKA CCV 842U	287659	Pair of vertical panels for organising copper and fibre cables in 42U rack cabinets with 800mm width	
RKA PPO19A	287665	Horizontal slotted cable entry panel. 1U for installation in 19" rack cabinet including 4 fixed rings	
RKA PPO19C	287685	Cable management panel. 1U with 5 fixed rings, for 19" rack cabinet	
RKA PS1U	287662	Panel with brush. 1U for installation in 19" rack cabinet	
RKA RR1000	287669	Adjustable shelf for rack cabinets up to 1000mm deep, with fixings to the 4 uprights	
RKA RR800	287672	Adjustable shelf for rack cabinets up to 800mm deep, with fixings to the 4 uprights	
RKA RE800	287670	Adjustable pull out shelf for rack cabinets up to 800mm deep, with fixings to the 4 uprights	
RKA RF350	287671	Fixed shelf 350mm deep for 19" rack cabinets, with fixings on 2 uprights	

Pre-terminated fibre cables

Indoor, **preconnected SC/APC multi-core cables** with **10m breakouts every 20m**, ideal for installing fibre in risers and **carrying services with 1 or 2 fibres to multiple floors**. Meet the requirements of class **Cca** according to **CPR EN 50575**.

OPC8I90C-SA-DP

duplex

Item	Code	Total length m	Fibre no.	Breakouts no.	Optical connector
OPC4I90C-SA-P	287701	90	4	4	SC-APC simplex
OPC8I90C-SA-DP	287702	90	8	4	SC-APC duplex
OPC8I170C-SA-P	287703	170	8	8	SC-APC simplex
OPC16I170C-SADP	287704	170	16	8	SC-APC duplex

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NETWORKING cables and patch cords

Indoor cables

Indoor network cables, supplied in 305m coils, made up of 4 balanced 100 Ohm AWG24 flexible twisted copper pairs. Suitable for Gigabit Ethernet applications (IEEE 802.3ab).

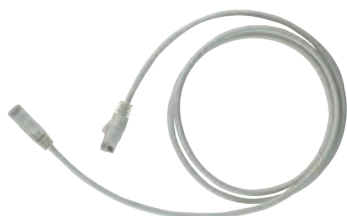| Item	Code	Description
CAT5E PVC	287527	CAT 5E indoor network cable with PVC sheath
CAT5E LSZH	287528	CAT 5E indoor network cable with LSZH sheath
CAT6 PVC	287529	CAT 6 indoor network cable with PVC sheath
CAT6 LSZH	287530	CAT 6 indoor network cable with LSZH sheath
CAT6 CCA	287782	CAT 6 Cca indoor network cable
CAT6A CCA	287783	CAT 6A Cca indoor network cable

NEW

Outdoor cables

Outdoor network cables, supplied in 500m coils, made up of 4 balanced 100 Ohm AWG24 flexible twisted copper pairs, with black PVC + PE sheath. Suitable for Gigabit Ethernet (IEEE 802.3ab) applications.

Item	Code	Description
CAT5E PE	287532	CAT 5E outdoor network cable with PE sheath
CAT6 PE	287533	CAT 6 outdoor network cable with PE sheath

Patch cords

RJ45-RJ45 UTP patch cords, made up of 4 balanced 100 Ohm AWG26 flexible twisted copper pairs with copper conductors and PVC sheath. Suitable for Gigabit Ethernet (IEEE 802.3ab) applications.

Item	Code	Description	Category
CAT5E UTP 1/2m	287713	UTP patch cord (0.5m)	5E
CAT5E UTP 1m	287714	UTP patch cord (1m)	5E
CAT5E UTP 2m	287715	UTP patch cord (2m)	5E
CAT5E UTP 5m	287716	UTP patch cord (5m)	5E
CAT6 UTP 1/2m	287717	UTP patch cord (0.5m)	6
CAT6 UTP 1m	287718	UTP patch cord (1m)	6
CAT6 UTP 2m	287719	UTP patch cord (2m)	6
CAT6 UTP 5m	287720	UTP patch cord (5m)	6
CAT6A UTP 1/2m	287721	UTP patch cord (0.5m)	6A
CAT6A UTP 1m	287722	UTP patch cord (1m)	6A
CAT6A UTP 2m	287723	UTP patch cord (2m)	6A
CAT6A UTP 5m	287724	UTP patch cord (5m)	6A

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NETWORKING RJ45 connectors

RJ45 Keystone sockets

Unshielded RJ45 Keystone sockets for high density installation requirements. Suitable for PoE/PoE+/PoE++ connections.

CAT Keystone

Item	Code	Description
CAT5E Keystone	287705	RJ45 category 5E Keystone socket (UTP)
CAT6 Keystone	287706	RJ45 category 6 Keystone socket (UTP)
CAT6A Keystone	287707	RJ45 category 6A Keystone socket (UTP)

RJ45 plugs

Unshielded RJ45 8 pin plug for terminating cables to create patch cords.

CAT5E PLUG Pass

CAT 5E PLUG UTP

Item	Code	Description
CAT5E PLUG Pass	287708	8 pin RJ45 category 5E pass-through plug (UTP)
CAT6 PLUG Pass	287709	8 pin RJ45 category 6 pass-through plug (UTP)
CAT 5E PLUG UTP	287710	8 pin RJ45 category 5E plug (UTP)
CAT 6 PLUG UTP	287711	8 pin RJ45 category 6 plug (UTP)
CAT 6A PLUG UTP	287712	8 pin RJ45 category 6A plug (UTP)

RJ45 crimp tools

Crimp tools for RJ45 plug

RJ45 PASS TOOL

Item	Code	Description
RJ45 PASS TOOL	287726	Crimp tool for RJ45 pass plug
RJ45 UTP TOOL	287725	Crimp tool for RJ45 plug

NEW

RJ45 UTP TOOL

HOSPITALITY solutions

High performance

Fracarro solutions for the distribution of television programs in **hotels** enable the planning of the communication infrastructure best suited to the needs of the hotel, respecting the constraints of the system and the preferences of the customer, using **high performance professional products**.

The headends are able to receive content from **different sources** (SAT, DTT, IPTV, external) and distribute them through **any type of infrastructure**, including COAX, IP and fibre optic.

Maximum reliability

Fracarro hospitality solutions provide headends with a **redundant power supply** to provide stability to the system, limiting disruptions as much as possible.

Application fields

- Nursing homes
- Hotels
- Sheltered accommodation
- Resorts
- Commercial buildings
- Holiday parks
- Institutional buildings
- Schools
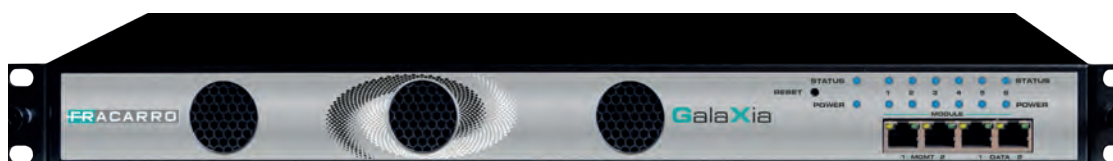- Prisons
- Campuses
- Hospitals

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GALAXIA modular headend

GALAXIA is Fracarro's **professional high density solution** suitable for multi-user systems. Modular and flexible, the GALAXIA headend meets all the distribution requirements of **satellite, digital terrestrial or content coming from external sources**. Numerous applications include: hospitality (hotels, villages, campsites, resorts) educational (schools, university campuses), health (hospitals, nursing homes), prisons, ships, institutional buildings and all multi-user facilities in general.

GALAXIA enables you to manage not only the contents received from satellite or digital terrestrial antennas, but also those coming from an IPTV system and then make them available again for coaxial or IPTV multicast distribution. **Ideal for distributing IPTV programs through a GPON infrastructure**, the headend features many advantages.

Key Points

- **Mechanics 1RU** standard 19" rack
- **Dual power supply** as standard
- Forced ventilation
- 6 "**hot-swappable**" slots available on rear panel
- **4 x RJ45 GE ports** on the front panel (2 ports for management, 2 ports for streaming IP in/IP out)
- Supports up to **120 IPTV inputs and 120 IPTV output streams (SPTS / MPTS)**
- Different modules available to manage different input sources (**i.e. DVB-S2 / S2X, DVB-T2, DVB-C, HDMI, descrambling, etc**).

- **WEB interface based headend**: user friendly HTML web interface to set every parameter
- **Advanced parameters configuration**: all the descriptor parameters of each mux (ONID, TSID, NetID) and each program inside the RF mux (LCN, SID, PID, program name).
- Ideal for distributing **IPTV content through GPON** infrastructure
- **SNMP & HTTP protocols supported**

Item	Code	Description
GX-BOX-DP	287635	1U rack 19" chassis with dual power supply input as standard and 6 available slots
GX-4C2CI-BP-00	287644	Receiver module with 4 x DVB-C tuners (Annex A/C) and 2 x C.I. slots
GX-4S2FTA-BP-01	287636	Satellite receiver module equipped with 4 x independent DVB-S2/S2X (FTA) inputs
GX-4S2CI-BP-01	287637	Satellite receiver module equipped with 4 x DVB-S2/S2X tuners and 2 x C.I. slots
GX-BP-8T-R01A	287638	Multi-modulator equipped with 8 x DVB-T output modulators
GX-4HDMI-BP-R01	287639	HDMI multi-input module (4 x independent HDMI H264 inputs)
GX-2CI-BP-00	287640	Descrambling module (2 x C.I. slots)
GX-4T2CI-BP-00	287641	Digital terrestrial receiver module equipped with 4 x DVB-T/T2 tuners and 2 x C.I. slots
GX-BP-16C-R00	287642	Multi-modulator equipped with 16 x DVB-C output modulators (annex A/C)
GX-Front panel	287643	Blank panel to cover empty slots

3DGFLEX modular headend

Fracarro's 3DGFLEX is a modular headend designed to process various digital signals to be distributed over a centralised system such as large apartment buildings or hospitality environments. **By using a combination of different quad modules** it's possible to perform a **re-multiplexing of different content** (satellite or DTT programs, ASI sources) and distribute them through the coaxial network. The 3DGFlex platform is based on the latest FPGA state-of-the-art technology.

Key Points

- **Smart & pool functionality**: content exchanging to all the modules inserted on the same 3DGBOX
- Multifunction USB port to upload/download configurations and update the firmware. In the new EVO modules video clips saved on an external pendrive (supported file format: TS) can be distributed.
- **Auto Remapping Function**: Programs within the mux can be changed in real time without needing to retune the TV sets in the system.

- **ARP 2.0**: Automatic Recovery Procedure to guarantee continuity of service
- **Web based interface** for local and remote management of parameters

Item	Code	Description
3DG-BOX	283156	Chassis with control unit, power supply and 6 available slots
3DG-4S2-4T	283162	Satellite module equipped with 4 x independent DVB-S/S2 input, 4 x DVB-T/C outputs and 2 x C.I. slots
3DG-4S2-BP	283163	Satellite receiver module equipped with 4 x independent DVB-S/S2 inputs and 2 x C.I. slots
3DG-4T2-4T	283165	Terrestrial module equipped with 4 x independent DVB-T/T2/C inputs, 4 x DVB-T/C outputs and 2 C.I. slots
3DG-4T2-BP	283166	Terrestrial receiver module equipped with 4 x independent DVB-T/T2/C inputs and 2 x C.I. slots
3DG-BP-IP OUT	283164	IPTV output module to distribute up to 64 x IPTV multicast programs. Input from backplane
3DG-PS-BU	283168	Backup power supply module
3DG-4ASI-4T	283167	ASI module equipped with 2 x independent ASI inputs, 2 x independent ASI out and 4 x DVB-T/C outputs
3DG-Frontpanel	283158	Blank panel to cover any empty slots

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XDG 8S2–8T compact headend

XDG 8S2-8T is the **high performance Fracarro digital compact headend** dedicated to the management of medium sized multi-user systems.

It enables you to receive both **encoded programs** and the main international **free-to-air programs** from **8 satellite transponders**.

The headend is capable of transmodulating the programs received in the **8 x DVB-T or DVB-C digital terrestrial multiplexes** it is supplied with, to make them available for coaxial distribution.

The embedded web interface allows programming of even the most advanced parameters and allows local and remote configurations to be saved.

Key Points

- Compact "all in one" headend
- Up to **8 x DVB-S/S2/S2X independent inputs**
- **8 x DVB-T or 8 x DVB-C** output multiplexes (selectable output modulation during configuration)
- **3 independent Common Interface slots** to insert ProCAMs and professional smart-cards (not included)
- **Dual installation mode**: can be installed in a 19" rack (**1RU standard**) or for **wall installation**

- Forced ventilation
- **Web interface embedded** for the management of all parameters
- Management of the advanced parameters of each individual program (PID filtering, SID, NIT, LCN, ONID, etc.)
- **SNMP protocol supported**

Item	Code	Description
XDG 8S2-8T	287649	Compact digital headend with 8 x DVB-S2/S2X inputs and 8 x DVBT/C outputs

D-MATRIX compact headend

The **D-Matrix compact headend** is able to receive **satellite or digital terrestrial content**, in HD or SD, coming from different and independent inputs and remodulate them onto "customised" RF output multiplexes.

The **universal CAM slots** allow the D-MATRIX compact headend to **decrypt any required encrypted programs** by using the correct CAM and viewing card.
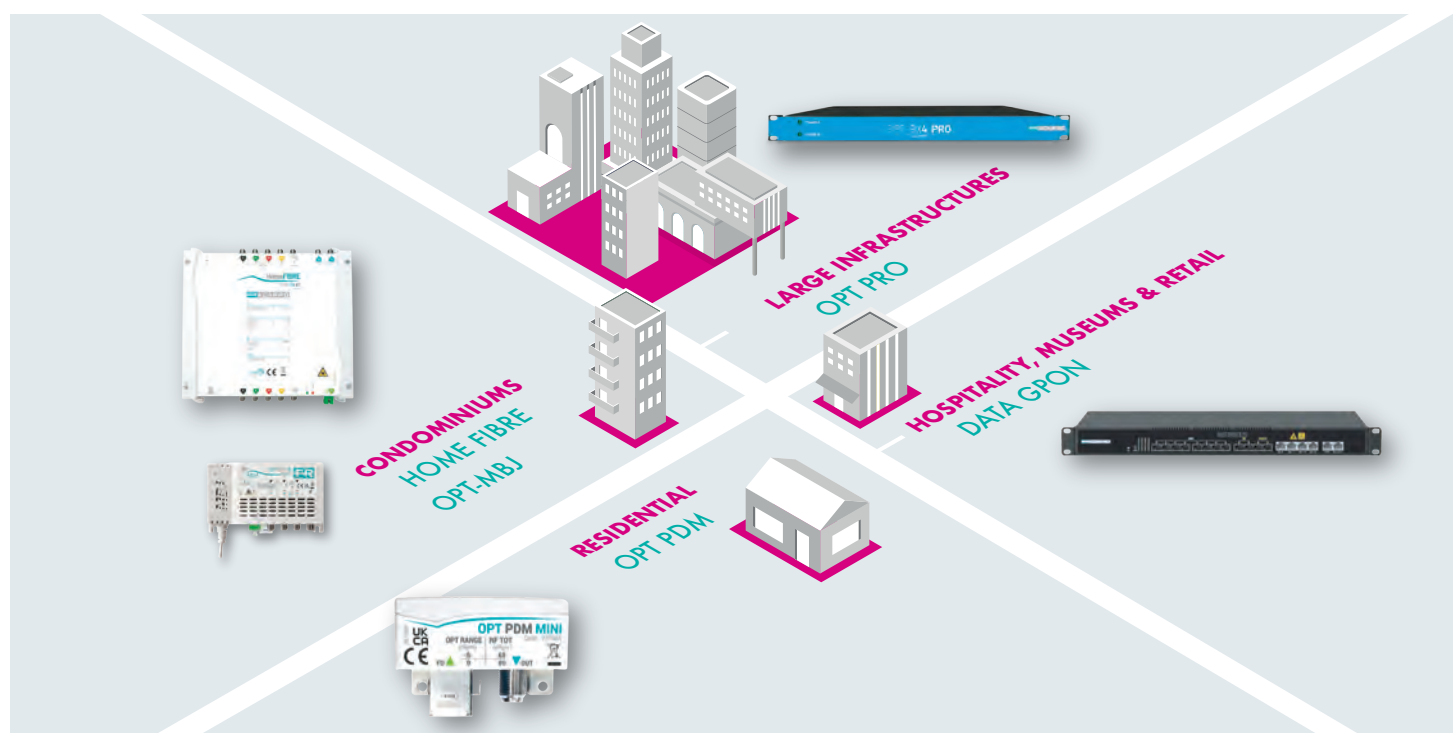
Key Points

- **"Ad hoc" mux**: possibility to create your own mux by choosing the programs required from any input
- **Fully manageable parameters** for all muxes and individual programs (LCN, SID, PDSD, NIT).
- **ARP 2.0**: Automatic Recovery Procedure to guarantee continuity of service
- **Multifunction USB port** to upload/download configurations and update the firmware. Video clips saved on an external pendrive (supported file format: TS) can be distributed.
- **Web based interface** for local and remote management of parameters

Item	Code	Description
D-MATRIX-4S EVO	283132	4 x DVB-S/S2 inputs, 4 x DVB-T/C outputs and 2 x C.I. slots compact digital headend
D-MATRIX-4S FTA	283135	4 x DVB-S/S2 inputs, 4 x DVB-T/C outputs compact digital headend (FTA Version)
D-MATRIX-8T	283133	8 x DVB-T/T2/C inputs, 8 x DVB-T outputs and 2 x C.I. slots compact digital headend

FRACARRO

FIBRE OPTIC solutions

Fibre optic solutions for every situation

The use of fibre optic technology for the distribution of satellite TV signals and data within buildings has developed over the last twenty years. From the first exclusively commercial networks - **Fracarro created, in Italy, the first system for the RAI offices in 2001** - to domestic solutions, made possible due to the latest technological innovations.

The **advantages** of using this type of system are well known, starting with the possibility to create **efficient ultra-broadband systems**, open to technological evolution.

In this field, Fracarro offers a wide range of solutions capable of adapting to the different needs of the situation, taking into account the type of structure and the services required.

Plant	Technology	FRACARRO Solution
Large infrastructures	Multiple fibre optic networks with passive PON architecture (Passive Optical Network)	OPT-PRO high end series optical transmitters and receivers. High quality professional products enable the correct distribution of signals in large infrastructures.
Hospitality	Multiservice infrastructure fibre optic GPON (Gigabit Passive Optical Network)	Complete range of solutions including all passive equipment, with which the optical distribution infrastructure is created, to the DATA GPON series optical line terminals which manage the signal in order to make it usable at the terminal points.
Condominiums	Multiservice infrastructure fibre optic	Fracarro's Wide Fibre and Home Fibre ranges are the ideal products to manage these types of systems because they are expandable, modular and enable the creation of broadband systems, distributing SAT and DTV signals and a broadband data network using a single fibre cable.
Small to medium installations	Single FTTH installations	OPT-PDM passive miniature receivers (no external power supply) enable you to bring all the benefits of fibre optics even in the smallest systems, distributing the signal to TV outlets in the house without using traditional optical receivers.

WIDE BAND Optical transmitters and receivers

WIDE FIBRE is our latest range of **optical transmitters and receivers**, exclusively designed and manufactured by Fracarro, capable of managing satellite and terrestrial signals, utilising **WIDEBAND technology.**
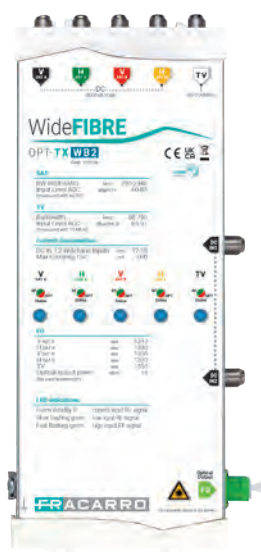
The number of coaxial cables connecting the satellite signals to the input of the optical transmitter is halved and enables distribution over large optical networks, without compromising the quality of the signals available from all optical receivers. Our range now includes solutions for distributing **one or two full satellite positions** plus terrestrial signals at the same time.

WIDEBAND optical transmitters

- Dual DC in connector for **redundant power supply**: continuity of service
- **AGC on all coaxial inputs**: maximum operating stability
- **Dedicated lasers** for each H, V and TV: maximum signal quality
- **Status LEDs for each input**: quick visual diagnostics WIDEBAND optical receivers key points
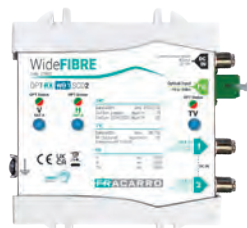
WIDEBAND optical receivers

- **Extremely compact**
- **Integrated AGC**: maximum stability of the RF output signal
- **Multi-standard receiver** (dSCR/SKY Q/Legacy): maximum flexibility
- **Status LEDs for each output**: quick visual diagnostics
- **Extended optical budget** (-5dBm to -16dBm): enables up to 1 x 64 optical split
- Dedicated optical wavelength for each SAT polarity and TV band: maximum RF signal quality

OPT-RX WB1 SCD2

OPT-RX WB1 HV

OPT-TX WB2

OPT-TX WB1

OPT-RX WB2 SCD2

OPT-RX WB2 HV

NEW 2SAT

Item	Code	Description
OPT-TX WB1	270901	Wideband optical transmitter for 1 satellite + TV
OPT-RX WB1 SCD2	270902	Wideband optical receiver for 1 satellite. 2 x SCR/dCSS/dSCR/Legacy + TV outputs
OPT-RX WB1 HV	270903	Wideband optical receiver for 1 satellite. Vertical, Horizontal wideband outputs + independent TV
OPT-TX WB2	270904	Wideband optical transmitter for **2 satellites** + TV
OPT-RX WB2 SCD2	270906	Wideband optical receiver for **2 satellites**. 2 x SCR/dCSS/dSCR/Legacy + TV outputs
OPT-RX WB2 HV	270905	Wideband optical receiver for **2 satellites**. Vertical, Horizontal wideband outputs for each SAT + independent TV

FRACARRO

HOME FIBRE Optical transmitters and receivers

The **HOME Fibre range** of optical transmitters convert all satellite polarities and digital terrestrial TV signals received from the aerial.

OPT-TX DT

OPT-TX RP

OPT-TX 15..

The Fracarro OPT MICRO range of optical receivers convert the optical signals into RF:

- **Compact size** for easy installation
- **Multicolour LED for receiver diagnostics**
- Ideal for **managing TV/SAT signals** in fibre optic systems
- Compatible with dSCR systems (SKY UK) OPT RX 4 MICRO

OPTRX 4 MICRO

OPTRX QD MICRO

OPT-RX dSCR UK

OPT−TX DT

270694

- **5 separate independent inputs (VL, VH, HL, HH and TV)**
- Output power 7dBm @ 1310nm
- SC/APC optical connector

OPT−TX RP

270652

- **5 separate independent inputs (VL, VH, HL, HH and TV)**
- **F connector for remote power supply**
- Wavelength 1310nm
- Recommended power supply PSU1430F/UK (code 287647) or PSU1430F (code 287614)

OPT−TX 15.. Series

OPT-TX 1510 (code 270667) wavelength 1510nm
OPT-TX 1530 (code 270668) wavelength 1530nm
OPT-TX 1550 (code 270669) wavelength 1550nm
OPT-TX 1570 (code 270670) wavelength 1570nm

OPTRX 4 MICRO

270662

- **SC/APC optical input (level -8dBm to -14dBm)**
- Multifunction LEDs
- Low current consumption

OPTRX QD MICRO

270661

- **SC/APC optical input (level -8dBm to -14dBm)**
- Auxiliary input for external power supply
- Low current consumption

OPT−RX dSCR UK

270658

- **SC/APC optical input (level -8dBm to -14dBm)**
- **2 DSCR + TV outputs and 2 Legacy + TV outputs**
- Low current consumption

OPT MBJ Series Optical transmitters and receivers

The **OPT MBJ Series** optical transmitters and receivers are able to mix bands 3, UHF and SAT (IF-IF) and distribute them over fibre optic cable through the infrastructure, in small and medium sized installations. Equipped with **A.B.L.A technology** in the transmitters and automatic gain control in the receivers this ensures maximum signal quality.
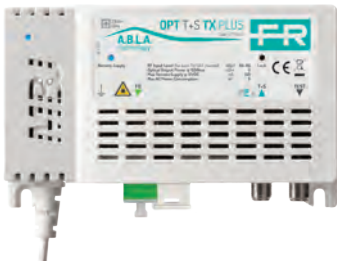
OPT-PDM compatible

OPT 3US TX

270657

- 3 separate independent inputs: VHF, UHF and SAT (IF-IF)
- **Optical power 5dBm @ 1550nm (SC/APC)**
- Up to 1 x 32 optical splits when used with OPT-RX receiver
- Ideal with passive optical receivers (OPT-PDM)

OPT T+S TX PLUS

270656

- 1 mixed TV/SAT (IF-IF) input
- **Optical power 9dBm @ 1550nm (SC/APC)**
- Up to 1 x 64 optical splits when used with OPT-RX receiver
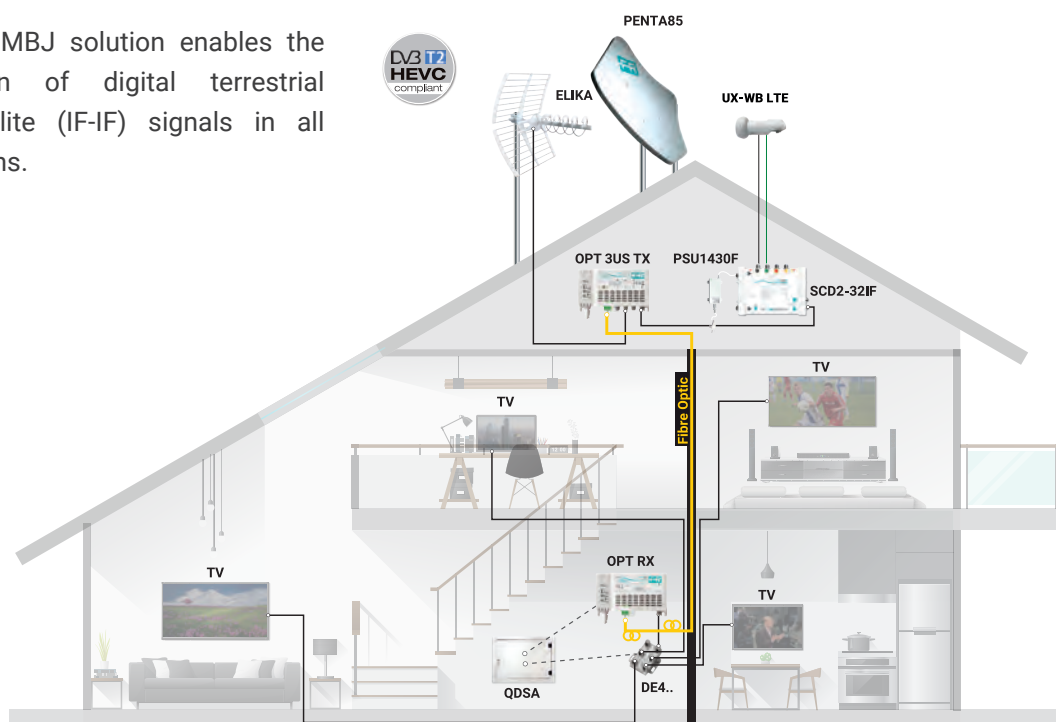
OPT RX

270655

- **SC/APC optical input with extended range (0dBm to -14dBm)**
- Automatic gain control for TV/SAT signals
- Diagnostic LED for the optical and RF signals

The OPT MBJ solution enables the distribution of digital terrestrial and satellite (IF-IF) signals in all installations.

FRACARRO

OPT-PDM miniaturised passive optical receivers

Fracarro's **OPT-PDM series** miniaturised passive receivers revolutionises **FTTH (Fibre To The Home) systems**. Ideal for single dwelling or small installations, their miniature size enables them to be installed directly behind the TV set.
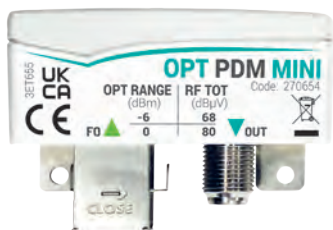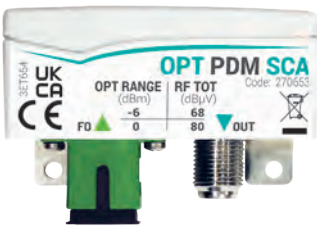
OPT-PDM key points

- **Extremely small**: 55 x 18 x 38mm
- **Passive**: no power supply required
- **Fullband**: distribution of TV and SAT signals (IF-IF)
- **Electrostatic protection**: electrically isolated from the distribution network.

Fibre optic advantages

- Allows for technological evolution
- **LTE free**: immune to 5G
- F.O. vs coax plant longevity

OPT-PDM-MINI

OPT-PDM-SCA

Item	Code	Optical connector	Wavelength nm	Output RF MHz	Dimensions mm	Package pcs
OPT-PDM-MINI	270654	1 MINI	1270 - 1610	88 - 2350	55 x 18 x 38	4
OPT-PDM-SCA	270653	1 SC/APC	1270 - 1610	88 - 2350	55 x 18 x 38	4

K OPT-PDM-MINI

270700

The kit contains:

- 1 x optical transmitter OPT 3US TX (270657)
- 1 x miniaturised VOV4 splitter (287211)
- 5 x MINI 10m optical patch cords (287221)
- 1 x MINI-SC/APC PR ADAPT adaptor (287226)
- 4 x OPT-PDM-MINI miniaturised passive optical receivers (270654)

FTTH passive devices

Break Out Boxes

Plastic optical distribution enclosure set up for different SC/APC configurations. They are used in **FTTH infrastructures** for connecting optical backbones and can be installed both inside and outside buildings, due to the **IP66 degree of protection**.

TDT8	TDT12	TDT24	TDT48

Item	Code	Dimensions mm	Capacity	Material
TDT8	287696	227 x 181 x 54.5	8 connectors	plastic
TDT12	287419	235 x 205 x 60	12 connectors	plastic
TDT24	287697	320 x 240 x 100	24 connectors	plastic
TDT48	287698	420 x 320 x 125	48 connectors	plastic

Optical Distribution Cabinet

Optical distribution cabinet made of plastic or metal, available in different sizes, suitable for use as a central **optical distribution cabinet** or an optical splitter cabinet for telecom operators. They are used as an access point to all services in **FTTH systems**. The cabinets protect the optical connections in the system and manage the fibres to each apartment.

CSOE 2U	CSOE_P	CSOE_MINI_P

Item	Code	Dimensions mm	Material
CSOE 2U	287418	454 x 152 x 180	metal
CSOE_P	287567	450 x 180 x 150	plastic, with optical organiser included
CSOE_MINI_P	287566	332 x 155 x 105	plastic, with optical organiser included

FRACARRO

FTTH passive devices

Housing cabinets for apartment signal distribution

Optical distribution boxes made of plastic or metal, available in different sizes, suitable for use as an apartment signal distribution box to organise the fibre optic cables coming from the main building optical network. The cabinet can be used to organise the apartment's optical connections and any active and/or passive equipment.

QDSA   QDSA54P   QDSA-F   QDSA MINI F

Item	Code	Dimensions mm	Capacity	Material
QDSA	287472	610 x 455 x 136	54 built-in modules	plastic
QDSA36P	287758	430 x 410 x 80	36 built-in modules	plastic
QDSA54P	287759	618 x 430 x 80	54 built-in modules	plastic
QDSA-F	287565	577 x 407 x 100	54 built-in modules	metal
QDSA MINI F	287517	392 x 307 x 100	36 built-in modules	metal

Apartment optical termination box

Plastic optical distribution box equipped with 4 x SC/APC connectors with bulkhead adaptors, suitable for use as an **apartment optical termination** box and available with pre terminated 3mm cable G657 A2 of different lengths.

The **Fracarro STOA (rev. 1)** are equipped with Cca, s1a, d0, a1 class cables according to the new CPR regulation. With the new design, the apartment optical termination box can also be installed on a **DIN rail**.

STOA 4 with SC/APC connectors on both sides
STOA 4 LITE with SC/APC connectors only on the STOA side

STOA 4 BOX   STOA - 4 different sizes available

Item	Code	Length m
STOA 4 (box only)	287420	–
STOA 4C 10m	287738	10
STOA 4C 20m	287739	20
STOA 4C 30m	287740	30
STOA 4C 40m	287741	40
STOA 4C 50m	287742	50
STOA 4C 60m	287743	60
STOA 4C 70m	287744	70
STOA 4C 80m	287745	80
STOA 4C 90m	287746	90
STOA 4C 100m	287727	100
STOA 4C 10m LITE	287747	10
STOA 4C 20m LITE	287748	20
STOA 4C 30m LITE	287749	30
STOA 4C 40m LITE	287750	40
STOA 4C 50m LITE	287751	50
STOA 4C 100m LITE	287752	100

FRACARRO

Optical patch cords

Singlemode, semi-loose tube, **single fibre** optical patch cords with **SC/APC, SC/UPC, FC/APC or FC/PC** connectors and yellow **LSZH** outer sheath and with **G657 A1** bending radius; some models are also available with **PULL** traction system.

| BR1AA | BR10-PA-PS | BR2SCAPC-FCAPC | BR1-PP |

Item	Code	Length m	Connectors	Attenuation for each connector dB	PULL
BR1AA	287522	1	SC/APC - SC/APC	<0.25	-
BR2-AA	289360	2	SC/APC - SC/APC	<0.25	-
BR4-AA	289362	4	SC/APC - SC/APC	<0.25	-
BR5-AA	287690	5	SC/APC - SC/APC	<0.25	-
BR10-AA-PS	287689	10	SC/APC - SC/APC	<0.25	●
BR-20AA-PS	287645	20	SC/APC - SC/APC	<0.25	●
BR10-PA-PS	287687	10	SC/APC - SC/UPC	<0.25	●
BR20-PA-PS	287686	20	SC/APC - SC/UPC	<0.25	●
FC-SC/APC	280011	1	SC/APC - FC/APC	<0.25	-
BR2SCAPC-FCAPC	287427	2	SC/APC - FC/APC	<0.25	-
BR2FC/PC-SC/AP	287521	2	SC/APC - FC/PC	<0.25	-
BR2-PA	289359	2	SC/APC - SC/PC	<0.25	-
BR4-PA	289361	4	SC/APC - SC/PC	<0.25	-
BR5-PA	287688	5	SC/APC - SC/UPC	<0.25	-
BR1-PP	287691	1	SC/UPC - SC/UPC	<0.25	-

Singlemode, semi-loose tube, double fibre optical patch cords with **SC/APC and LC/UPC DUPLEX** connectors, yellow LSZH outer sheath, with G657 A1 bending radius.
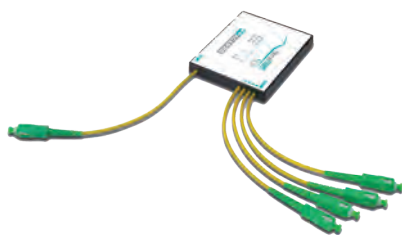

| BR1E-LU-LU-D | BR2E-SA-LU-D |

Item	Code	Length m	Connectors	dB attenuation for each connector
BR1E-LU-LU-D	287693	1	LC/UPC - LC/UPC	<0.25
BR2E-LU-LU-D	287692	2	LC/UPC - LC/UPC	<0.25
BR1E-SA-LU-D	287695	1	SC/APC -LC/UPC	<0.25
BR2E-SA-LU-D	287694	2	SC/APC -LC/UPC	<0.25

FRACARRO

FTTH passive devices

PLC Splitters

The **PLC splitters** are based on planar waveguide technology which gives **low insertion losses**. Suitable for high performance optical distribution in many types of installations and are also available in **miniaturised form**.

PLC 1x4

PLC 1x2 MINI

Item	Code	Description
PLC 1x2	287573	2 way splitter
PLC 1x4	287455	4 way splitter
PLC 1x8	287407	8 way splitter
PLC 1x12	287574	12 way splitter
PLC 1x16	287408	16 way splitter
PLC 1x24	287575	24 way splitter
PLC 1x32	287409	32 way splitter
PLC 1x64	287410	64 way splitter

Item	Code	Description
PLC 1x2 MINI	287576	2 way mini splitter
PLC 1x4 MINI	287577	4 way mini splitter
PLC 1x8 MINI	287578	8 way mini splitter
PLC 1x12 MINI	287579	12 way mini splitter
PLC 1x16 MINI	287580	16 way mini splitter
PLC 1x24 MINI	287581	24 way mini splitter
PLC 1x32 MINI	287582	32 way mini splitter
PLC 1x64 MINI	287583	64 way mini splitter

Fibre optic cables for indoor and outdoor use

Flexible LSZH sheath multifibre cables for indoor use and armored cables for outdoor use. Loose tube, 9/125 singlemode fibre cable.

Indoor cables Cca, s1a, d0, a1 class according to the CPR regulation.
The **outdoor cables** are armored with aramid yarns.

OPC4IN_CCA

OPC 4 ARM

Item	Code	Application	Fibre no.	Coil length m
OPC4IN_CCA	287736	Indoor (G657 A2) CCa	4	250
OPC8IN_CCA	287737	Indoor (G657 A2) CCa	8	500
OPC 4 ARM	287344	Outdoor (G657 D)	4	500
OPC 8 ARM	287346	Outdoor (G657 D)	8	500

WDM diplexers

Singlemode optical diplexers with different wavelengths to mix or demix up to 5 wavelengths within the same fibre optic cable. SC/APC connectors and **LSZH** cable with **G657 A1** bending radius.

WDM2

CWDM5

Item	Code	Wavelength nm	Flatness dB	Insertion loss dB
WDM2	287343	1310 - 1490, 1550	<0.5	<0.5
CWDM5	287342	1310 - 1490, 1510, 1530, 1550, 1570	<0.5	<1.5

Tools and instruments

FST−V6S

287008

Professional 6 motor fusion splicer with core alignment, high contrast and resolution 5" LCD touch screen and 500 x zoom. The splicer is provided complete with cleaver, replacement electrodes, 5200mAh battery, power supply, fibre stripper and robust transport case.

OPTmet+RJ45test

287568

Portable multifunction optical power meter with integrated visual fault locator and electrical continuity testing functionality for RJ45 cables.

OPT METER

287537

Optical power meter for different wavelengths, with integrated visual fault locator for checking multi-service systems and fibre optic distribution systems.

KIT PULIZIA

287536

Optical **cleaning kit** including cleaning solution, various wipes and cleaning sticks.

FRACARRO

Clamp fastening products for coaxial distribution

Splitters and taps for both TV and satellite bands (5-2400MHz) which simplify installation due to the unique retaining clip and clamp (no F connector) in a compact design. These products also have **excellent shielding from 4G and 5G LTE interference**.
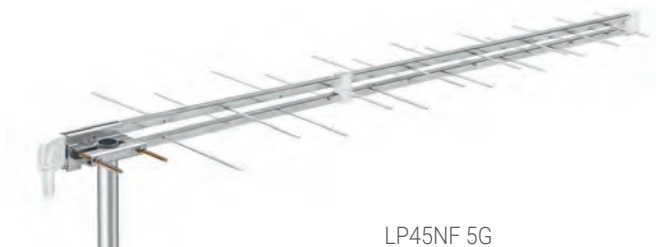
PA4M

BOM

PA2ME

Item	Code	Description
PA2M	287456	2 way splitter
PA3M	287457	3 way splitter
PA4M	287458	4 way splitter
PA5M	287459	5 way splitter
DE110M	287460	1 way tap. 10dB tap loss
DE114M	287461	1 way tap. 14dB tap loss
DE118M	287462	1 way tap. 18dB tap loss
DE122M	287463	1 way tap. 22dB tap loss
DE210M	287464	2 way tap. 10dB tap loss
DE214M	287465	2 way tap. 14dB tap loss
DE218M	287466	2 way tap. 18dB tap loss
DE222M	287467	2 way tap. 22dB tap loss
DE412M	287468	4 way tap. 10dB tap loss
DE414M	287469	4 way tap. 14dB tap loss
DE418M	287470	4 way tap. 18dB tap loss
DE422M	287471	4 way tap. 22dB tap loss
PA2ME	287619	2 way splitter (pole mounting)
PA4ME	287620	4 way splitter (pole mounting)
BOM	287621	Empty box for tap and splitter pole mounting

Aerials

LOG Periodic Aerials

Preassembled log periodic aerials, that are easy to install due to the F connector positioned near the mounting bracket. The mast clamp has been designed so that these aerials **can be installed in a horizontal or vertical polarisation without the need for additional bracketry**. Geometrical dipole distribution has been redesigned in order to obtain **excellent 5G filtering.**
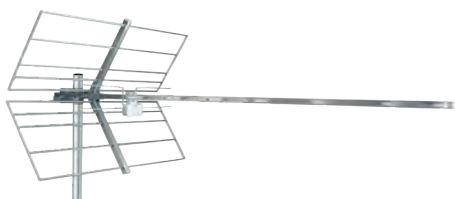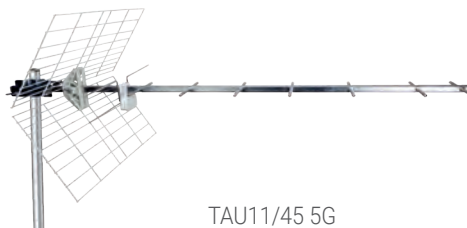
LP45NF 5G

Item	Code	Gain dBi	Description	Multi packaging pcs.
LP45F 5G	216258	12.5	UHF log periodic antenna	15
LP45NF 5G	216252	11.5	UHF log periodic antenna	30
LP45F700MINI	216256	9	UHF log periodic antenna	30

TAU UHF band Yagi Aerials

UHF band Yagi aerials complete with F connector and grid or tube reflectors. Geometrical dipole distribution has been redesigned in order to obtain **excellent 5G filtering**. Good **mechanical strength** due to 8mm extruded aluminium tubes.
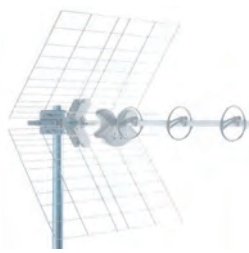
TAU15/45 5G

TAU11/45 5G

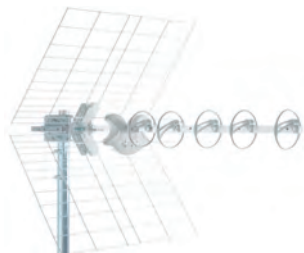| Item	Code	Gain dBi	Description	Single/multi packaging pcs.
TAU15/45 5G	213107	15	UHF aerial, tube reflector	Single plastic bag/multipackage 8 pcs carton
TAU11/45 5G	213108	14.5	UHF aerial, grid reflector	Single plastic bag/multipackage 10 pcs carton

FRACARRO

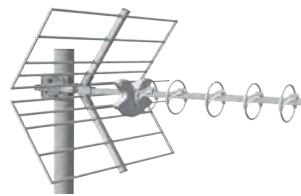# Aerials

ALPHA UHF band Loop Yagi Aerials

UHF band Loop Yagi aerials complete with F connector. No tools required for mounting the ALPHA series due to pre-installed elements, quick coupling dipole, reflectors and mast bracket with elevation adjustment and wingnut. **5G filter inserted** in the dipole. **Excellent gain, impedance and directivity**. Exclusive design patented by Fracarro.
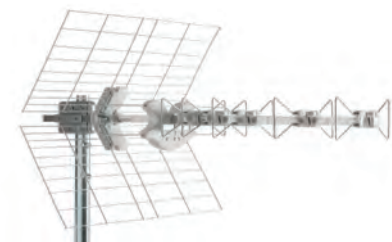
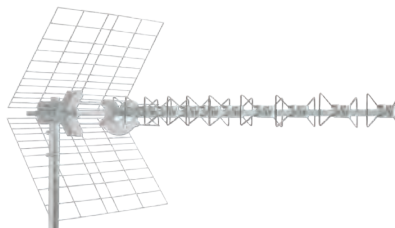ALPHA 3 HD 700   ALPHA 5 HD 700   ALPHA5+ LTE700

Item	Code	Gain dBi	Description	Single/multi packaging pcs.
ALPHA 3 HD 700	213239	13	UHF Loop Yagi aerial	Single tray/multipackage 10 pcs carton
ALPHA 5 HD 700	213240	14	UHF Loop Yagi aerial	Single tray/multipackage 10 pcs carton
ALPHA5+ LTE700	213225	14.2	UHF Loop Yagi aerial	Single carton/multipackage 12 pcs carton

BLU UHF band Aerials

UHF band biconical aerials complete with F connector and grid reflectors. No tools required for mounting the BLU series due to pre-installed elements, quick coupling dipole, reflectors and mast bracket with elevation adjustment and wingnut. **5G filter inserted in the dipole**. High gain, optimum impedance adaptation and **excellent directivity**.

BLU5HD 5G   BLU10HD 5G

Item	Code	Gain dBi	Description	Single/multi packaging pcs.
BLU5HD 5G	217914	13.5	High gain UHF aerial	Single tray/multipackage 10 pcs carton
BLU10HD 5G	217915	15.5	High gain UHF aerial	Single tray/multipackage 10 pcs carton
BLU22HD 5G	217916	18	Very High gain UHF aerial	Single carton

Aerials

ELIKA UHF band Aerials

ELIKA UHF band aerials with F connector, **high gain**, **extraordinary directivity** and virtually no lateral lobes.
Exclusive Elika design patented by Fracarro. Pre-installed elements, quick coupling dipole and mast attachment with elevation adjustment as standard with large wingnut to **complete assembly without the need for tools**. 5G filter inserted into the dipole. ELIKA PRO is an active helical UHF band aerial complete with F connector, LED alignment system and automatic gain control (AGC).

ELIKA 700 P/C

ELIKA PRO 700 C

Item	Code	Gain dBi	Description	Single/multi packaging pcs.
ELIKA 700 P	213228	17	Loop Yagi UHF antenna	Single plastic bag/multipackage 10 pcs carton
ELIKA 700 C	213229	17	Loop Yagi UHF antenna	Single carton/multipackage 6 pcs carton
ELIKA PRO 700 C	213231	47	Loop Yagi UHF active antenna	Single carton/multipackage 6 pcs carton

FILTERS

LTE and FM

Indoor and outdoor LTE and FM filters to limit any interference due to 4G and 5G LTE or FM signals with IP66 weather protection rating.

LTE FILTER 48

MX Filter 700

Item	Code	Insertion loss dB	Selectivity 704MHz dB
LTE FILTER 48	226715	<1.5	>30
MX Filter 700	226716	<1	>35

FRACARRO

High selectivity TV compact headends

Range of programmable FRPRO headends designed with high selectively filtering, to convert and amplify DVB-T and DVB-T2 digital terrestrial channels in the VHF and UHF bands. The headends are equipped with automatic control of the input power with a high dynamic range and LTE filter self-adapting for each UHF input. The configuration is done quickly from the keyboard and display, while the security code ensures maximum protection against tampering.

The FRPRO series headends, ideal for equalising channels in areas where the signals are received from different directions with different levels between them, comprises of models that integrate new features:

Self Equalising: the product scans the signals received at the inputs and amplifies them automatically according to the detected channels, equalising them at the output.

Repeated Mux Conversion: in case of channels present on multiple inputs, you can choose whether to keep only the higher power channel, or convert the lower power channel to free 5G and 4G LTE frequencies (694 - 862MHz).

FR PRO LIGHT HD

287523

- **4 inputs**: FM, VHF + DAB, UHF 1 and UHF 2
- **Output level 108dBµV** for each filter (120dBµV total)
- **15 filters**, from 1 to 6 channels, each with 3 levels of selectivity

FR PRO EVO HD

287434

- **5 inputs**: FM and 4 flexible VHF/UHF
- **Output level 118dBµV** for each filter (>130dBµV total)
- **32 filters**, from 1 to 6 channels, each with 8 levels of selectivity
- **Reduces the noise when a channel is switched off** by a broadcaster, so as not to affect adjacent channels
- SD slot for saving/uploading configurations
- **Self equalising** and **Repeated Mux Conversion** functions available from Rev. 03.

High selectivity TV compact headends

FRPRO LIGHT 5G

287629

Indoor programmable headend with **separate power supply**. High selectively filtering to convert and amplify DVB-T and DVB-T2 digital terrestrial channels in the VHF and UHF bands. The **self equaliser function** starts when the product is powered up and after a power failure lasting more than a few seconds. The headend unit is complete with **F type power supply with F connectors** included.

- **3 flexible VHF/UHF** broadband inputs with **selectable remote power supply**
- **Self Equalising and Repeated Mux Conversion functions** that can be activated from the keyboard
- Output level **108dBµV** for each filter (120dBµV total) with ACG
- **32 filters**, from 1 to 6 channels, each with 8 levels of selectivity
- Integrated 5G filter, analyses muxes E05 – E48 in band 174 – 694MHz
- Real-time reading of input signal strength

eMAP3 5G

223777

Self programming mast amplifier for small and medium sized systems. The mast amplifier does not need to be programmed as the channel scan starts when the product is powered up and after a power failure lasting more than a few seconds. The mast amplifier is complete with F type power supply with F connectors included.

- **3 flexible VHF/UHF broadband inputs**
- **Repeated Mux Conversion function** that can be activated with **dip switches**
- Output level **90dBµV** for each filter (102dBµV total) with ACG (Automatic Gain Control)
- Integrated 5G filter, analyses E05 - E48 muxes in the 174 - 694MHz band

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Dishes and LNBs

PENTA DIGIT Series

DIGIT RAL 7035 white (code 211101)
DIGIT-G RAL 7011 gray (code 211102)
DIGIT-R RAL 8012 red (code 211103)

- Gain equivalent to a **68cm dish**
- Aluminum reflector
- Reinforced steel bracket included
- **Patented by Fracarro**
- Single packaging

PENTA 85 Series

PENTA 85 RAL 7035 white (code 211201)
PENTA85G RAL 7011 gray (code211202)
PENTA85R RAL 8012 red (code 211203)

- Gain equivalent to a **85cm dish**
- Aluminum reflector
- Reinforced steel bracket included
- **Patented by Fracarro**
- Single packaging

PO85AS

287411

85cm dish.
- Aluminum reflector
- Reinforced steel bracket included
- Single packaging.

P80APN

211316

80cm dish.
- Steel reflector
- Steel bracket included
- Single packaging.

UX−WB LTE

287541

Wideband LNB equipped with 2 outputs with separate H and V polarities.
- It enables the user to distribute the content of one satellite using only 2 cables
- **Compatible with SCD2-5..16W series multiswitches**

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SCD2 Solutions (dCSS-dSCR)

LNB and multiswitches with SCD2 technology (dCSS/dSCR). Each output can supply up to 4 x SCR SAT decoders and also offer the 12 x SCD2 frequencies necessary for the operation of the SKY decoder. **The multiswitches are all equipped with AGC to keep the output level constant.**

SWI8504 DSCR UK

SWI8508 DSCR UK

DSCR-502W

DSCR-508W

SCD2-16LNB

287421

dSCR LNB with one output. It starts in IF-IF static mode with the 24 main transponders available on Hotbird 13°E.

SWI8504 dSCR UK

271178

dSCR cascadable switch with 4 x satellite inputs/outputs and 1 x TV input/output, **4 x subscriber connections** and 16 x SCD2 dSCR tuners simultaneously for each output. Compatible with both conventional LNB (UX-QT LTE) and **wideband LNB** (UX-WB LTE). Universal standard: compatible both with **EN50494/EN50607** used by SKY Italia and with SkyUK standards.

SWI8508 dSCR UK

271177

dSCR cascadable switch with 4 x satellite inputs/outputs and 1 x TV input/output, **8 x subscriber connections** and 16 x SCD2 dSCR tuners simultaneously for each output. Compatible with both conventional LNB (UX-QT LTE) and **wideband LNB** (UX-WB LTE). Universal standard: compatible both with **EN50494/EN50607** used by SKY Italia and with SkyUK standards.

SCD2-5...W Series

dSCR cascadable switches with 5 inputs/outputs: QUATTRO or WIDEBAND mode selectable, passive TV input and SCD2, dSCR, SCR or Legacy outputs; flexible powering due to the innovative FVM system (Flexible Voltage Management) .

Item	Code	Description
SCD2-5216W	271184	dSCR-502W: 5 inputs and 2 user outputs SCD2, dSCR, SCR or Legacy
SCD2-5416W	271180	dSCR-504W: 5 inputs and 4 user outputs SCD2, dSCR, SCR or Legacy
SCD2-5616W	271183	dSCR-506W: 5 inputs and 6 user outputs SCD2, dSCR, SCR or Legacy
SCD2-5816W	271179	dSCR-508W: 5 inputs and 8 user outputs SCD2, dSCR, SCR or Legacy

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