FRACARRO

Digital Solutions

GPON & Networking
Hospitality
Fibre optic
RF

Italian innovation
SINCE 1933

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NETWORKING Solutions

With a **dedicated internal business unit**, **Fracarro** is the ideal partner for the implementation and configuration of data networks in business, hospitality, and residential environments.

The **Networking offering** includes all the necessary devices for building both conventional and fibre optic systems, from active to passive components, with a particular focus on **GPON (Gigabit Passive Optical Network) technology solutions**.

Relying on Fracarro means benefiting not only from over 20 years of experience in fibre signal processing, but also from a range of valuable **services for professionals**.

NETWORKING SERVICES

Design Support
A team of specialized technicians offers support during the **network development phase**, with a free service tailored to your needs: from specific consultations to complete turnkey system design, including service integration.

Telephone Assistance
Dedicated to professionals, **Fracarro's telephone support service** provides for a prompt response to any technical or system programming requests.

Network Configuration
Fracarro's networking services include logical **network design, network device configuration, and remote support** throughout the project, based on the installer's needs.

After-Sales Support
To manage any anomalies or changes to system configurations.

Training
Fracarro's networ clude a series of **training opportunities** for professionals, with in-person and webinar courses.
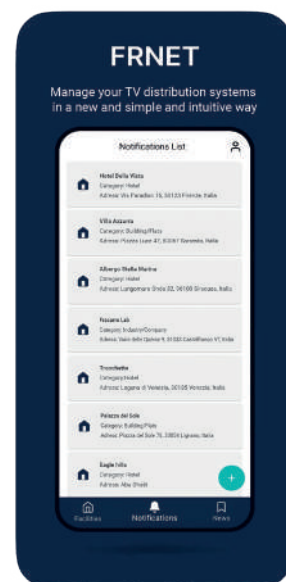
NETWORKING Monitoring

Fracarro's offering for conventional and GPON networks includes an **advanced monitoring service** that allows centralized control of **heterogeneous architectures**, composed of independent devices of various types. All network points, from televisions to cameras, from telephones to access points, from home automation to all IP services, are monitored so that any malfunctions can be resolved before the end user even notices the anomaly.

The system is monitored using the Fracarro **MNT-HW device** (code 287763), which features 5 network ports and a proxy system for connecting to the **cloud server**. The device allows monitoring of any changes within the network, reporting any status changes of connected devices.
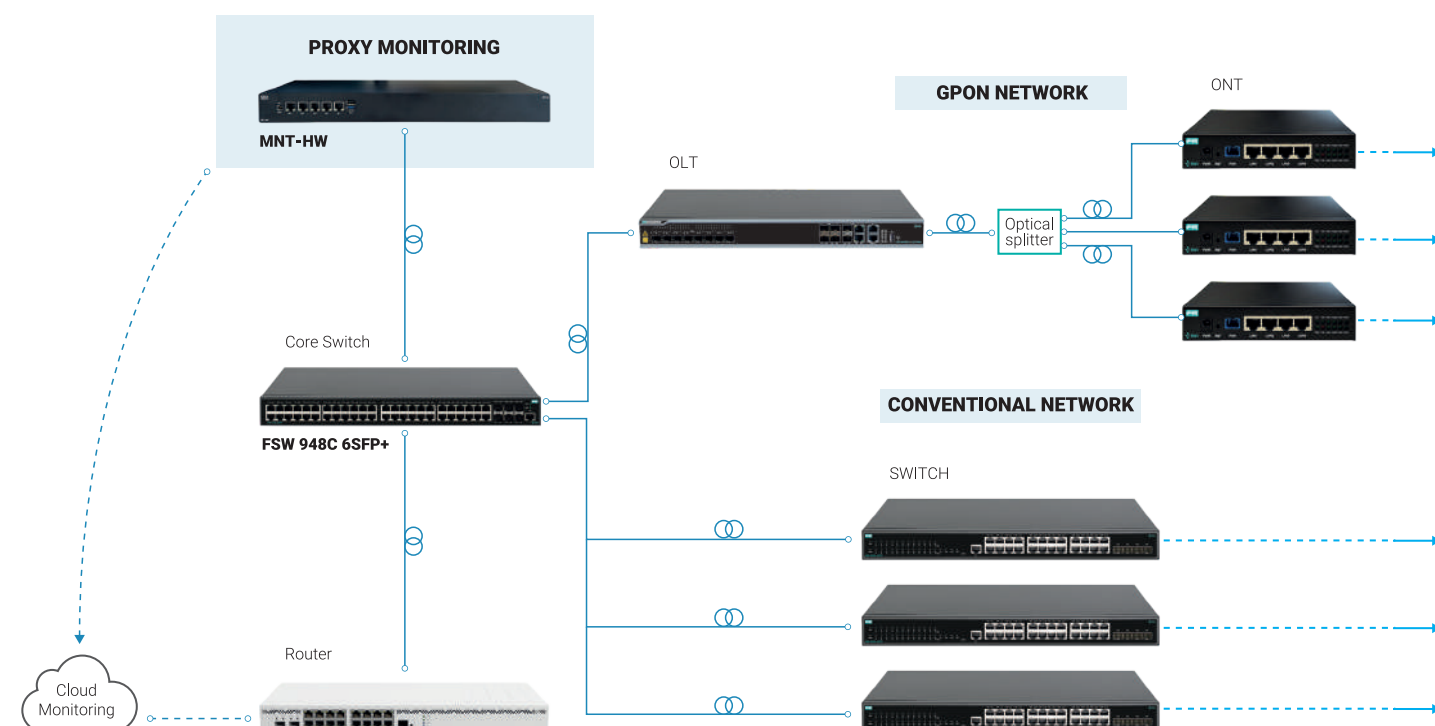
Monitoring can be controlled through the **FRNET application**, which provides basic information on which device is malfunctioning and what the problem may be.
Network specialists also have a convenient, comprehensive **web interface** available, useful for precisely analyzing all system parameters.

Benefits of the monitoring service

- Utilize **Fracarro CLOUD**
- **Push notifications** on the FRNET app for malfunctions alerts
- **Email notifications** for verification by system administrator
- **Single control center** for all IP devices connected to the network
- **Proactive problem resolution**
- Availability of remote **support services** with qualified personnel.

Monitoring infrastructure functional diagram

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WIFI solution

Fracarro Wi-Fi solutions enable the development of medium and high-density wireless systems for businesses, campuses, hospitals, hotels and more.

They are designed to support **802.11a/b/g/n/ac/wave2/ax protocols**, manage **high throughput** and ensure **strong concurrent access**. Thanks to access points equipped with integrated omnidirectional MIMO antennas, Fracarro Wi-Fi solutions provide maximum wireless coverage, enabling easy and balanced access to services.

Access point management is handled by a high-performance hardware controller, developed on a multi-core platform, ensuring the reliability of the Wi-Fi system. It allows for centralized access point control, automatic channel management, wireless radio frequency adjustment and seamless roaming.

Access points

High performance access points for indoor and outdoor applications.

WAP6-2GE-CM-HD

287773

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

WAP6-1GE-EXT-HD

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

287774

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

WCTRL-256-SFP+

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 2048 access points

OLT (Optical line terminal)

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-1P2G1SW

287858

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

- **1 x integrated PON (SFP C++ included)**, Uplink: 2 x GE, 1 x SFP+10GE, integrated power supply.

OLTG-2P2G1SW

287857

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

- **2 x PON (SFP C++ included)**, Uplink: 2 x GE, 1 x SFP+ 10GE, integrated power supply.

OLTG-4P4GC2S

287791

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

- 4 x PON, Uplink: 4 x GE/SFP combo, 2 x SFP+ 10GE, dual power supply integrated.

OLTG-8P4GC2S

287792

Optical Line Terminal (OLT) for data distribution in medium and large networks.

- 8 x PON, Uplink: 2 x GE, 2 x SFP, 4 x SFP+ 10GE, dual power supply integrated.

SFP Module

The Fracarro GPON range also includes the SFP C++ (Small Form Factor Pluggable) module, compact and hot-pluggable, required for managing data traffic on a single PON port

OLTG-SFP-C++

Item	Code	Description
OLTG-SFP-C++	287797	SFP Class C++ module suitable for OLTs GPON series

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ONT (Optical Network Terminals)

Each Fracarro ONT receiver has been designed to meet a variety of connectivity requirements depending on the type of environment: hotel rooms, common areas, offices and technical rooms.

GPON RX BASIC

287616

Optical Network Terminal (ONT) for data distribution over PON networks. Connects IP devices such as intercom systems, TVs, and PCs.
- 1 x 10/100/1000 GE

GPON RX TV ACT

287852

Active Optical Terminal for distributing RF TV signals over a Passive Optical Network (PON).
- Integrated WDM Diplexer
- PON Output: SC/UPC

ONTG-4G1FTW-H

287793

Optical Network Terminal (ONT) for data distribution over passive fibre infrastructure, equipped with 4 Gigabit Ethernet ports, 1 analogue telephone port, RF TV output, and dual-band access point.
- 4 x 10/100/1000 GE, 1 x FXS (RJ11), RF TV, WiFi 2.4/5GHz

ONTG-4GP-S

287788

Optical Network Terminal (ONT) for data distribution over passive fibre infrastructure, equipped with four ports supporting PoE/PoE+ (PoE budget: 60 W).
- 4 x 10/100/1000 GE PoE

ONTG-4GP2F-S

287831

Optical Network Terminal (ONT) for data distribution over passive fibre infrastructure, equipped with four ports supporting PoE/PoE+ (PoE budget: 60 W) and two FXS ports.
- 4 x 10/100/1000 GE PoE, 2 x FXS (RJ11)

ONTG-8GP-M

287794

Optical Network Terminal (ONT) for data distribution over passive fibre infrastructure, equipped with eight ports supporting PoE/PoE+ (PoE budget: 120 W).
- 8 x 10/100/1000 GE PoE

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NETWORKING ethernet switches

Flexible, scalable, and high-performance, **Fracarro ethernet switches** are ideal for connecting multiple services such as servers, controllers, etc., or for managing distributed data points. SFP ports allow stacking or uplinking with other switches in the same series. The range includes several families:

9 Series

These core switches are used as a **star center** to manage the connection of servers, controllers and IPTV headends.

FSW-924F-2XC

287856

Layer 3 core switch equipped with 24 SFP+ fibre ports, 2 x QSFP28 with 800 Gbps backplane. Multicast, stackable.

FSW-948C-6SFP+

287764

48-port 10/100/1000 GE Layer 3 core switch, 6 x SFP+ 10GE with 216 Gbps backplane. Multicast, stackable.

8 Series

The switches in this series enable connections in 10 Gigabit backbones for managing **medium-high traffic networks**.

FSW-824-4SFP+

287765

24-port 10/100/1000 GE Layer 2+ switch, 4 x 10GE SFP+ with 128 Gbps backplane, IGMP snooping, stackable allows you to manage distributed network points in common areas, offices, etc.

FSW-848-4SFP+

287766

48-port 10/100/1000 GE Layer 2+ switch, 4 x 10GE SFP+ with 216 Gbps backplane, IGMP snooping, stackable allows you to manage distributed network points in common areas, offices, etc.

FSW-824P-4SFP+

287767

24-port 10/100/1000 GE Layer 2+ switch, POE (370W PoE budget), 4 x 10GE SFP+ with 128 Gbps backplane, IGMP snooping, stackable capable of powering field devices such as CCTV IP cameras and WIFI access points.

FSW-848P-6SFP+

287768

48-port 10/100/1000 GE Layer 2+ switch, PoE (370W PoE budget), 6 x 10GE SFP+ with 216 Gbps backplane, IGMP snooping, stackable ideal for medium to large networks.

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NETWORKING ethernet switches

7 Series

The 7 Series switches enable 1Giga backbone connections for managing small networks.

FSW-708P-2SFP

287771

8 port 10/100/1000 GE (PoE budget 120W), 2 x SFP 1GE Layer 2 switch with 20Gbps backplane, IGMP snooping and ideal for small networks.

FSW-724-4SFP

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

287770

24 port 10/100/1000 GE, PoE (PoE budget 370W), 4 x SFP 1GE Layer 2 switch with 56Gbps backplane, IGMP snooping and ideal for small networks.

SFP Modules

SFP modules for fibre optic interconnections between switches, both within the same cabinet and between cabinets in different environments. They offer 1 Gbps or 10 Gbps RX/TX throughput, depending on the model, over distances up to 20 km.

SFP 1G LC SM

SFP 10G LC SM

Item	Code	Description
SFP 1G LC SM	287555	Uplink or trunk SFP 10/100/1000 (RJ45) module between network switches
SFP 10G LC SM	287761	10GE SFP+ (RJ45) uplink or trunk module between network switches

NETWORKING cables, plugs and keystone

Indoor shielded ethernet cables

Shielded F/UTP network cable, ideal for indoor use. Made of high-quality copper, wrapped in a 305-meter wooden reel. Perfect for Gigabit Ethernet (IEEE 802.3ab).

NEW

Item	Code	Description
CAT6 FU LSZH	287853	CAT6 indoor shielded network cable with LSZH sheath

Outdoor shielded ethernet cables

Shielded F/UTP network cable, ideal for outdoor use thanks to its double PVC+PE socketet. Made of high-quality copper, wound on a 305-meter wooden reel. Perfect for Gigabit Ethernet (IEEE 802.3ab).

NEW

Item	Code	Description
CAT6 FU PVC+PE	287854	CAT6 Outdoor Shielded Network Cable

Shielded RJ45 plugs

8-pin RJ45 STP PLUG plug for connecting rigid and flexible cables.

NEW

Item	Code	Description
PLUG6ST	287862	8-pin RJ45 CAT6 STP Standard Type plug
PLUG6SP	287863	8-pin RJ45 CAT6 STP Pass-Through plug

Shielded RJ45 KEYSTONE sockets

RJ45 STP Keystone sockets ideal for high-density installation solutions. High-quality zinc and nickel outer casing.

NEW

Item	Code	Description
KEY6S	287860	RJ45 CAT6 STP Keystone sockets

Keystone Box

Keystone Socket Enclosures.

Item	Code	Description	
RJB2IP	287785	**Wall-mounted** distribution box for **2x RJ45 Keystone sockets**, suitable for terminating CAT5E, CAT6 and CAT6A cables serving cameras, access points, etc.	CAT5E-6-6A Compatible / UTP Unshielded Twisted Pair
RJB24IR	287784	**1U distribution patch panel** for **24x RJ45 Keystone sockets**, for terminating CAT5E, CAT6 and CAT6A cables in 19" racks; equipped with a stainless steel rear panel and fixed rear bar for cable management.	CAT5E-6-6A Compatible / UTP Unshielded Twisted Pair / FTP Foiled Twisted Pair

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NETWORKING cables, plugs and tools

Indoor cables

Indoor network cable, supplied in 305 meter reels, composed of 4 balanced 100 Ohm pairs with AWG 24 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 indoor network cable (CPR Cca class certified)
CAT6A CCA	287783	CAT 6A indoor network cable (CPR Cca class certified)

Outdoor cables

Outdoor network cable, supplied in 500-meter reels, composed of 4 balanced 100 Ohm pairs with 24 AWG flexible twisted copper pairs, with black PVC + PE sheath. Suitable for Gigabit Ethernet applications (IEEE 802.3ab).

Item	Code	Description
CAT5E PVC+PE	287532	CAT 5E Outdoor Network Cable (PVC+PE sheath)
CAT6 PVC+PE	287533	CAT 6 Outdoor Network Cable (PVC+PE sheath)

RJ45 plugs

8-pin RJ45 U/UTP plug for connecting flexible cables to create ethernet patch cords.

NEW

CAT 5E PLUG UTP

Item	Code	Description
CAT5E PLUG Pass	287708	8-pin RJ45 plug, CAT 5E pass-through UTP
CAT6 PLUG Pass	287709	8-pin RJ45 plug, CAT 6 pass-through UTP
CAT5E PLUG UTP	287710	8-pin RJ45 CAT 5E UTP plug
CAT6 PLUG UTP	287711	8-pin RJ45 CAT 6 UTP plug
CAT6A PLUG UTP	287712	8-pin RJ45 CAT 6A UTP plug
PLUG6APCca	287861	8-pin RJ45 CAT6A UTP plug for Cca Class certified cables

RJ45 crimp tools

RJ45 crimping tools. Models suitable for terminal or pass-through plugs.

RJ45 PASS TOOL

Item	Code	Description
RJ45 PASS TOOL	287726	Crimping tool for RJ45 pass-through plug
RJ45 UTP TOOL	287725	Crimping tool for RJ45 terminal plug

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NETWORKING Keystones and patch cords

RJ45 Keystone Sockets

RJ45 UTP Keystone sockets ideal for high density installation solutions, suitable for the creation of data networks with performances up to 10 Gbit/s

CAT Keystone   CAT Key Nero

Item	Code	Description
CAT5E Keystone	287705	RJ45 CAT 5E UTP Keystone socket
CAT6 Keystone	287706	RJ45 CAT 6 UTP Keystone socket
CAT6A Keystone	287707	RJ45 CAT 6A UTP Keystone socket
CAT5E Key Nero	287809	Black Keystone U/UTP CAT 5E socket
CAT6 Key Nero	287810	Black Keystone U/UTP CAT 6 socket
CAT6A Key Nero	287811	Black Keystone U/UTP CAT 6A socket

Patch cord

RJ45 - RJ45 UTP patch cords, 4 balanced pairs, 100 Ohm, with 24 AWG flexible copper conductors and PVC sheath. Suitable for Gigabit Ethernet applications (IEEE 802.3ab).

NEW

Item	Code	Description	Category
CAT5E UTP 1/4m	287820	UTP 25 cm patch cord	5E
CAT5E UTP 1/2m	287713	UTP 50 cm patch cord	5E
CAT5E UTP 1m	287714	UTP 1 m patch cord	5E
CAT5E UTP 2m	287715	UTP 2 m patch cord	5E
CAT5E UTP 3m	287823	UTP 3 m patch cord	5E
CAT5E UTP 5m	287716	UTP 5 m patch cord	5E
CAT6 UTP 1/4m	287822	UTP 25 cm patch cord	6
CAT6 UTP 1/2m	287717	UTP 50 cm patch cord	6
CAT6 UTP 1m	287718	UTP 1 m patch cord	6
CAT6 UTP 2m	287719	UTP 2 m patch cord	6
CAT6 UTP 3m	287824	UTP 3 m patch cord	6
CAT6 UTP 5m	287720	UTP 5 m patch cord	6
CAT6A UTP 1/4m	287825	UTP 25 cm patch cord	6A
CAT6A UTP 1/2m	287721	UTP 50 cm patch cord	6A
CAT6A UTP 1m	287722	UTP 1 m patch cord	6A
CAT6A UTP 2m	287723	UTP 2 m patch cord	6A
CAT6A UTP 3m	287821	UTP 3 m patch cord	6A
CAT6A UTP 5m	287724	UTP 5 m patch cord	6A

Item	Code	Description	
CLIP BOX 100P	287829	Mixed color clips for cable identification (minimum batch 100 pieces)	**NEW**

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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

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.

NEW

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), 2x SFP
- 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-SFP	287817	1U rack 19" chassis with dual power supply input as standard and 6 available slots, SFP
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-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-Front panel	287643	Blank panel to cover empty slots
GX-2IP-02-R00	287812	Additional 2x IPTV module
GX-BP-16T-16C	287818	Multimodulator equipped with 16x DVB-T or DVB-C output modulators

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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 (.TS file format) 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 128 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

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, multistream)
- **SNMP protocol supported**

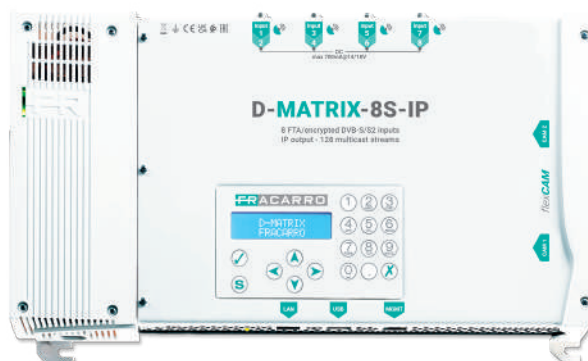| Item	Code	Description
XDG 8S2-8T	287649	Compact digital headend with 8 x DVB-S2/S2X inputs and 8 x DVBT/C outputs

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D-MATRIX compact headend

D-MATRIX compact headends can receive HD or SD satellite content from different and independent inputs, remodulating it into IP or customised digital terrestrial multiplexes.
Thanks to the universal Common Interface slots, D-MATRIX headends can decrypt selected programmes using the appropriate CAMs and professional Smart Cards.
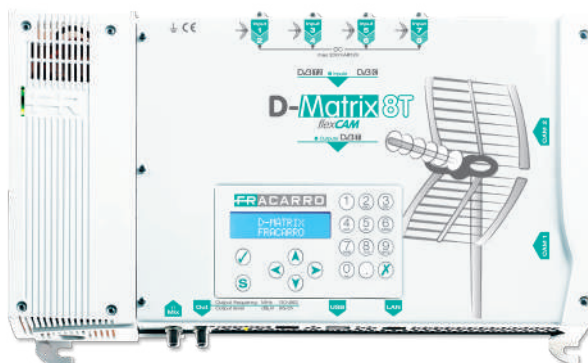
D-MATRIX-8S-FTA

NEW

D-MATRIX-8S-IP

D-MATRIX-8S-8T

D-MATRIX-8T

Key Points

- **Web Interface**: Intuitive configuration and easy monitoring of the headends, both locally and remotely.
- **Multifunction USB Port**: Enables distribution of video clips stored on an external USB flash drive (.TS file format) as well as loading/saving configurations and updating firmware.
- **Auto Remapping**: Allows real-time modification of the distributed channel list without requiring TV retuning.
- **"Ad Hoc" Mux**: Create customised multiplexes by selecting desired programmes from any input source.

- **ARP 2.0**: Assigns a priority level to each programme, ensuring service continuity in case of bit-rate overflow in a mux, preventing freezing issues. Programmes are automatically restored once the total bit rate returns to operational limits.
- **Full Parameter Management**: Complete control over all mux and individual programme settings (LCN, SID, PDSD, NIT) even remotely.

Item	Code	Description
D-MATRIX-8S-8T	283137	8 x DVB-S/S2 inputs, 8 x DVB-T outputs, 2 x C.I. slots
D-MATRIX-8S-FTA	283138	8 x DVB-S/S2 inputs, 8 x DVB-T outputs (FTA version)
D-MATRIX-8S-IP	283139	8 x DVB-S/S2/C inputs, 128xIPTV multicast outputs, 2 x C.I. slots
D-MATRIX-8T	283133	8 x DVB-T/T2/C inputs, 8 x DVB-T outputs, 2 x C.I. slots

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WIDE BAND Optical transmitters and receivers

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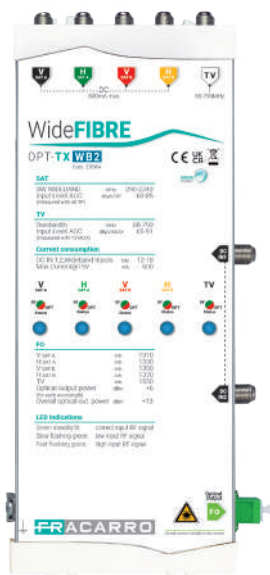
The number of coaxial cables connecting the satellite signals to the input of the optical transmitter is halved and enables distribution over large optical networks, without compromising the quality of the signals available from all optical receivers. Our range now includes solutions for distributing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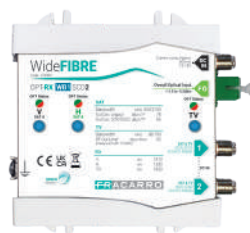
WIDEBAND optical receivers

- **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

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
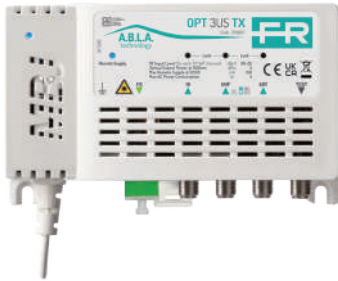* Low current consumption

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

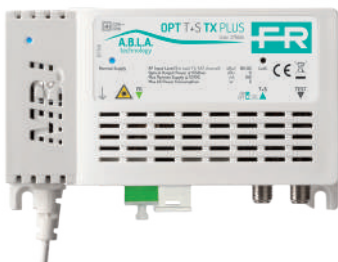# OPT MBJ Series Optical transmitters and receivers

The **OPT MBJ Series "Plug & Play" optical transmitters** and receivers are capable of mixing bands 3, UHF, and SAT (IF-IF) and distributing them via fibre optics via the **multiservice infrastructure**, even in small and medium-sized facilities. They feature **A.B.L.A. technology** in the transmitters and automatic gain control in the receivers to ensure the highest quality of the signals received.
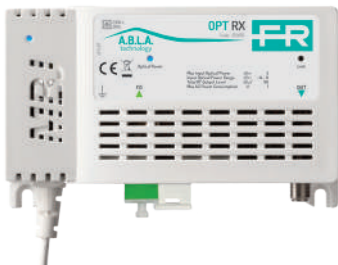
OPT 3US TX

270657

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

OPT T+S TX PLUS

270656

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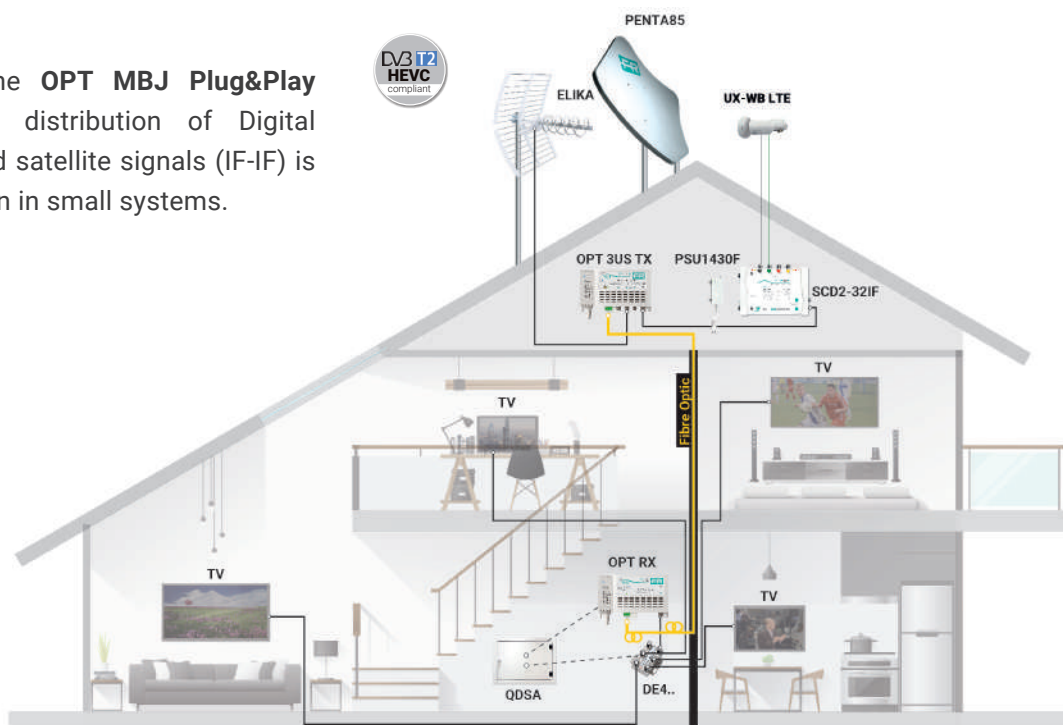- **Up to 64x splitting** when used with OPT-RX receiver

OPT RX

270655

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

Thanks to the **OPT MBJ Plug&Play solution**, the distribution of Digital Terrestrial and satellite signals (IF-IF) is simplified even in small systems.

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.
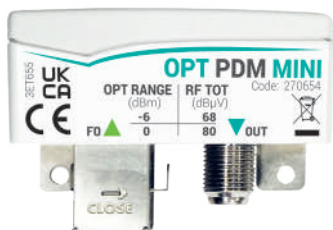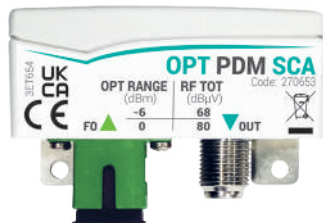

OPT-PDM key points

- **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)
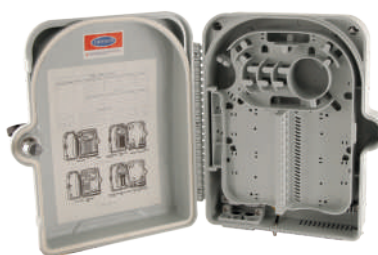
FTTH passive devices

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**.

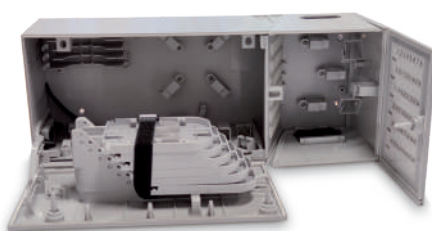TDT8   TDT12   TDT24   TDT48

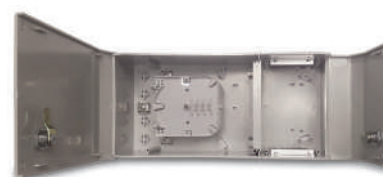| Item	Code	Dimensions mm	Capacity	Material
TDT8	287696	227 x 181 x 54.5	8 connectors	plastic
TDT12	287419	235 x 205 x 60	12 connectors	plastic
TDT24	287697	320 x 240 x 100	24 connectors	plastic
TDT48	287698	420 x 320 x 125	48 connectors	plastic

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..PFA

QDSA-54-P

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.
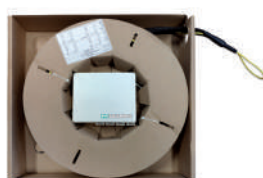
Fracarro STOA systems are equipped with class **Cca, s1a, d0, and a1** cables in accordance with the new CPR regulations.
STOA 4 with SC/APC connectors on both sides
STOA 4 LITE with SC/APC connectors on one side of the STOA

STOA 4 BOX

STOA 4 different sizes available

From Rev.1 it is possible to fix all Fracarro STOAs directly onto a DIN rail without the need for additional supports.

Item	Code	Lenght 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
STOA4C 10m LITE	287747	10
STOA4C 20m LITE	287748	20
STOA4C 30m LITE	287749	30
STOA4C 40m LITE	287750	40
STOA4C 50m LITE	287751	50
STOA4C 100m LIT	287752	100

FTTH passive devices

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.

BR4-AA

Connectors		Lenght m	Item	Code	PULL
SC/APC		1	**PIG TAIL SC/AP**	287426	-
SC/APC - SC/APC		0,5	**BR1/2-AA**	287832	-
		1	**BR1-AA**	287522	-
		2	**BR2-AA**	289360	-
		4	**BR4-AA**	289362	-
		5	**BR5-AA**	287690	-
		10	**BR10-AA-PS**	287689	●
		20	**BR20-AA-PS**	287645	●
SC/APC - SC/UPC		1	**BR1-PA**	287828	-
		2	**BR2-PA**	289359	-
		4	**BR4-PA**	289361	-
		5	**BR5-PA**	287688	-
		10	**BR10-PA-PS**	287687	●
		20	**BR20-PA-PS**	287686	●
SC/APC - FC/APC		1	**FC-SC/APC PATCH**	280011	-
		2	**BR2SCAPC-FCAPC**	287427	-
SC/APC - FC/PC		2	**BR2FC/PC-SC/AP**	287521	-
SC/UPC - SC/UPC		1	**BR1-PP**	287691	-
SC/APC - LC/UPC		1	**BR1E-SA-LU-D**	287695	-
		2	**BR2E-SA-LU-D**	287694	-
LC/UPC - LC/UPC		1	**BR1E-LU-LU-D**	287693	-
		2	**BR2E-LU-LU-D**	287692	-

FRACARRO

FTTH passive devices

Multi-core fibre

Single-mode multi-core fibre cables for indoor use, extra-flexible, and armored cables for outdoor use. The loose-tube structure provides greater protection against humidity and mechanical stress, while the 9/125 single-mode fibre ensure high performance and lower losses.

NEW

OPC4IN_CCA

OPC24MULTI457

OPC8ARM457

Indoor use

Fibre No.	CPR Class	Item	Code	Diameter mm	Sheath	Lenght m
4	CCA	**OPC4IN_CCA**	287736	3	single	250
8	CCA	**OPC8IN457CCA**	287795	3	single	457
4	B2CA	**OPC4IN_DG_B2CA**	287840	4	double	250
8	B2CA	**OPC8IN_DG_B2CA**	287841	4	double	457
24	B2CA	**OPC24MULTI457**	287819	8,5	single	457

Outdoor use

Fibre No.	CPR Class	Item	Code	Diameter mm	Sheath	Lenght m
4	FCA	**OPC4ARM457**	287814	6	single	457
8	FCA	**OPC8ARM457**	287815	6	single	457

Pre-terminated multi-core fibre cables

Pre-terminated 4-fibre cables with SC/APC connectors and PULL traction system. They offer greater robustness in critical situations thanks to the cable's double jacket.
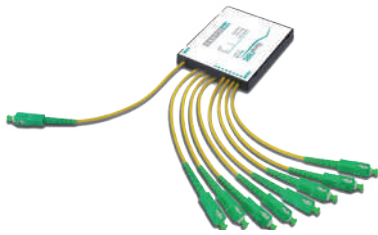
NEW

Fibre No.	CPR Class	Item	Code	Diameter mm	Sheath	Lenght m
4	B2CA	**BR4B30-AA-PS**	287846	4	double	30
4	B2CA	**BR4B40-AA-PS**	287847	4	double	40
4	B2CA	**BR4B50-AA-PS**	287848	4	double	50
4	B2CA	**BR4B70-AA-PS**	287849	4	double	70
4	B2CA	**BR4B100-AA-PS**	287850	4	double	100

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**.

NEW

PLC 1x4

PLC 1x2 MINI

PLC 2x8 MINI

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

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

Item	Code	Outputs
PLC 2x8 MINI*	287753	8 way
PLC 2x16 MINI*	287754	16 way
PLC 2x32 MINI*	287755	32 way

* 2-input models

Instruments

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 (cleaning kit)
287536

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

FRACARRO

Professional splicer

The technology used by the **FST-V6 professional splicer** significantly reduces splicing and heating times. Precision alignment on the 6-motor core and advanced contour inspection technology ensure accurate splicing and splice loss estimation.

All menus are accessible via a **5" LCD touchscreen**, and the splicing process is fully automated, optimizing system setup times.

Features

- **Automated splicing procedure** using a chipset that uses artificial intelligence to minimize optical fusion loss
- High-precision electrodes with a "Digital Analysis Core Alignment System" for **fusion arc control**
- Active 6-motor alignment on the CORE
- 5" high-resolution touchscreen display
- Many optical fibre types supported: **SM, MM, DS, NZDS**
- Simplified graphical user interface
- Optical zoom: fibre magnification up to **500x**
- Complete with a hard case and professional cleaver

FST-V6S

287008

Accessories included

- Battery
- Cleaver
- Cable stripper
- 3-hole fibre stripper
- Power adapter
- Replacement electrode pair
- Instruction manual
- Hard case
- Power supply

HDMI Indoor Modulator

High-quality indoor DVB-T "Home" digital modulator HMOD-TV with loopthrough on the HDMI output port.
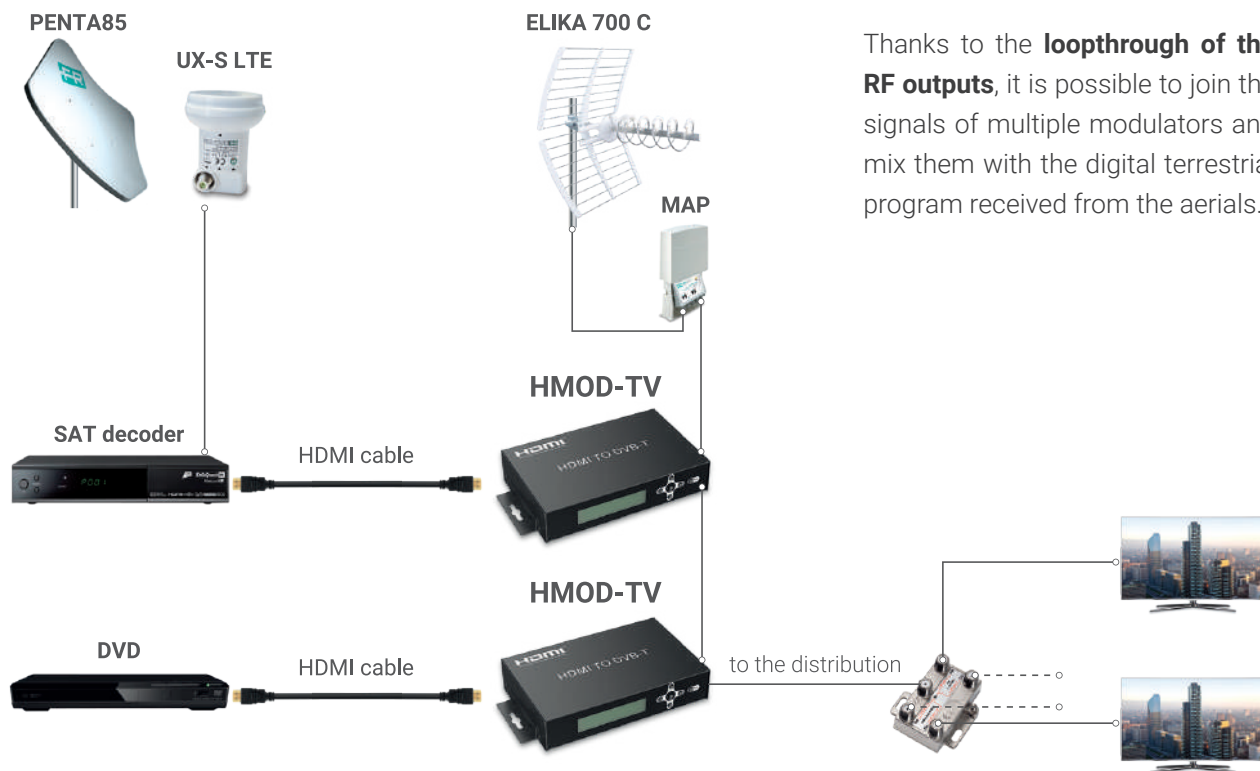Programming is possible via the keypad or display.

HMOD-TV

287813
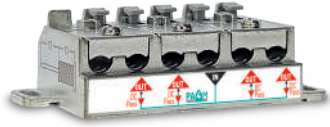
HDMI to DVB-T indoor modulator

Technical Features

- **Receives a signal from the HDMI input and converts it to DVB-T digital terrestrial** on the F output connector, which can be **mixed with the signal from the antenna or another modulator.**
- Ideal solution for distributing SD or HD digital signals received from any device (e.g., DVD player, decoder, or video camera) using DVB-T technology within an existing coaxial network.
- **Easy installation** with keypad and display programming.
- **MPEG-4 AVC / H.264** video encoding with **Full HD resolution up to 1080p@60Hz**.
- VHF and UHF output bandwidth with a **typical MER >35dB** on the UHF channel.
- Metal chassis for **high interference shielding** and excellent heat dissipation.

Thanks to the **loopthrough of the RF outputs**, it is possible to join the signals of multiple modulators and mix them with the digital terrestrial program received from the aerials.

PENTA85

UX-S LTE

ELIKA 700 C

MAP

HMOD-TV

SAT decoder

HDMI cable

HMOD-TV

DVD

HDMI cable

to the distribution

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

Connectors

Male F-type screw coaxial connectors with crimp cable retention; the products are color-coded to help you distinguish them and more easily match them to the correct cable diameter. The connectors are packaged in convenient plastic containers (100pcs).

CCF50B

287196

- **Color: Red**
- Compatible cable diameter: 4.9-5.0 mm
- Compatible Fracarro cables: PAS4025103, PAS4025202

CCF66B

287198

- **Color: Yellow**
- Compatible cable diameter: 6.5-6.6 mm
- Compatible Fracarro cables: PAS4016102, PAS4036104, PAS4017101, PAS4017251, PAS4007111, PAS4046100, PAS4037104, PAS4117101, PAS4136104

High selectivity TV compact headends

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**.

Technical Features

- **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

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 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.
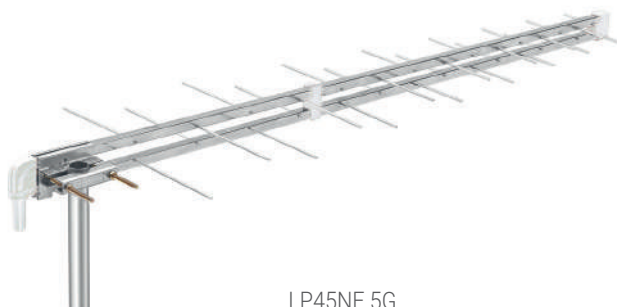
FRPRO LIGHT 5G

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**

FRACARRO

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.**
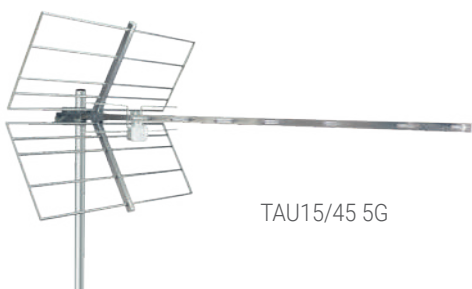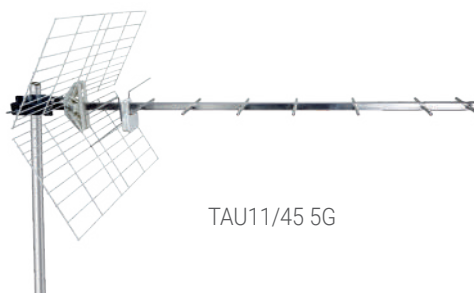
LP45NF 5G

Item	Code	Gain	Description	Multi packaging
		dBi		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	Description	Single/multi packaging
		dBi		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.
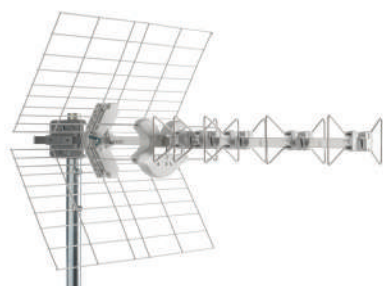
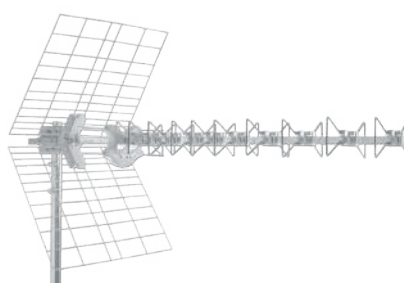ALPHA3EVO 5G   ALPHA5EVO 5G   ALPHA10EVO 5G

NEW

PATENTED
FRACARRO
PATENTED

Item	Code	Gain	Description	Single/multi packaging
		dBi		pcs.
ALPHA3EVO 5G	213237	12.5	UHF Loop Yagi aerial	Single tray/multipackage 12 pcs carton
ALPHA5EVO 5G	213238	13.5	UHF Loop Yagi aerial	Single tray/multipackage 12 pcs carton
ALPHA10EVO 5G	213242	15.5	UHF Loop Yagi aerial	Single carton/multipackage 8 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

5G LTE
700 MHz

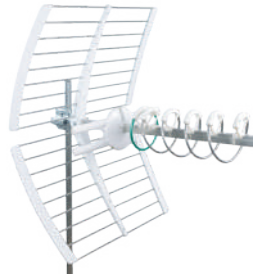| Item	Code	Gain	Description	Single/multi packaging
		dBi		pcs.
BLU5HD 5G	217914	13.5	High gain UHF aerial	Single tray/multipackage 10 pcs carton
BLU10HD 5G	217915	15.5	High gain UHF aerial	Single tray/multipackage 10 pcs carton
BLU22HD 5G	217916	18	Very High gain UHF aerial	Single carton

FRACARRO

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	Description	Single/multi packaging
		dBi		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	Selectivity 704MHz
		dB	dB
LTE FILTER 48	226715	<1.5	>30
MX Filter 700	226716	<1	>35

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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.

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.

FRACARRO

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.
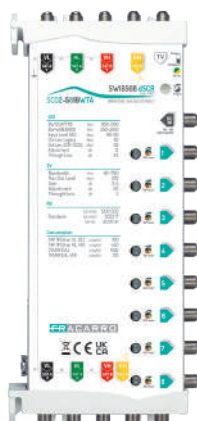
UX-WB LTE

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**

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) .

SWI8504 DSCR UK   SWI8508 DSCR UK

DSCR-502W   DSCR-508W

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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