HOSPITALITY SOLUTIONS

Modular headends
Compact headends
Professional services

FRACARRO

TECHNOLOGY

Choosing **Fracarro hospitality solutions** means accessing cutting-edge technology to provide outstanding communication services for your guests.

All Fracarro headends utilise **advanced transmodulation techniques** to convert signals into the optimal format for any television regardless of its processing capabilities. These solutions are compatible with **all transmission vectors** including coaxial cable, IPTV and wide-band optical fibre networks.

FRACARRO HOSPITALITY SOLUTIONS

Fracarro can design the **ideal communication infrastructure tailored to the unique needs of any hospitality environment**, ensuring system compatibility while customising the customer experience for complete satisfaction.

The hospitality range includes **modular and compact headends**, capable of supporting systems of any scale whether small, medium or large in settings such as hotels, resorts, campsites, schools, university campuses, hospitals, prisons, ships and institutional buildings. This offering is further enhanced by additional services such as dedicated informational channels.
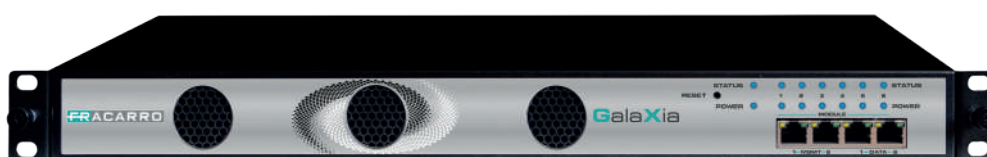
FRACARRO

GALAXIA
HIGH-DENSITY SOLUTIONS

NEW

GX-BOX-DP-SFP

GX-BOX-DP

Ideal for **medium to large hospitality installations**, where the demand for customised content can be more significant, the **Galaxia** solution enables the distribution of the widest range of satellite, digital terrestrial and CATV television services, sourced from terrestrial broadcasts, cable or HDMI inputs.
Galaxia can also manage **IPTV technology** programmes making it particularly suitable for high-efficiency **GPON** (Gigabit Passive Optical Network) fibre optic systems.

GALAXIA ADVANTAGES

Remote Management
The native full-IP web interface allows for configuration and monitoring both locally and remotely.

Content Sharing
All received programmes can be shared with other modules, enabling flexible and mixed configurations.

Service Continuity
Maximum reliability and uninterrupted programme distribution thanks to the built-in dual power supply.

IPTV Connectivity
Handles up to 120 IPTV multicast groups services both inbound and outbound, making it ideal for GPON networks.

External Content Distribution
Content from satellite decoders, laptops, media players, DVD players etc. can be easily added by using the HDMI input module, distributing them across the coaxial or IPTV infrastructure.

Content Decryption
Encrypted programmes can be decrypted using the appropriate PROCAM multi-decrypt module and professional smart cards or via dedicated modules with Common Interface slots.

FRACARRO 3

GALAXIA

NEW

GX-BOX-DP-SFP

GX-BOX-DP

The GALAXIA headends (287635, 287817) are equipped with six slots that can accommodate **various types of modules**, such as multi-input HDMI encoders, DVB-S/S2/S2X, DVB-T2/T or DVB-C receivers and DVB-T or DVB-C multi-modulator cards.

The closure of unused slots is achieved using the GX-Front Panel module (287643).

Satellite Receiver Free To Air GX-4S2FTA-BP-01 (287636)

- 4x independent SAT inputs (DVB-S/S2/S2X FTA)
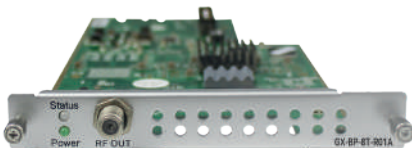- Independent LNB power supply for each RF input

Satellite Receiver Module with 2 Common Interface Slots GX-4S2CI-BP-01 (287637)

- 4x DVB-S/S2/S2X tuners (2 SAT tuners paired with each F connector)
- 2x PCMCIA Common Interface slots assignable to any tuner in the module
- Independent power supply for each SAT input connector (LNB1, LNB2)

Terrestrial Digital Receiver GX-4T2CI-BP-00 (287641)

- 1x RF coaxial input (F connector)
- Can tune up to 4x DVB-T/T2 digital terrestrial multiplexes
- 2x PCMCIA Common Interface slots assignable to any tuner in the module

Multi Digital Terrestrial Modulator GX-BP-8T-R01A (287638)

- 1x RF output coaxial connector (F connector)
- Outputs up to 8x DVB-T digital multiplexes

NEW

Multi Digital Modulator GX-BP-16T-16C (287818)

- 1x RF output coaxial connector (F connector)
- Up to 16x DVB-T or DVB-C digital multiplex output

FRACARRO

Advantages

- Up to six available slots in a standard 19" (1RU) chassis
- Four RJ45 GE ports on the front panel (two RJ45 ports for management and two RJ45 ports for IP streaming in/out)
- Two SFP ports for transceiver installation and fibre optic connection up to 20km (only on GX-BOX-DP-SFP)
- Supports **up to 120 IPTV input streams and 120 IPTV output streams** (SPTS/MPTS)
- Hot-swappable modules (can be inserted without powering down the system)
- Redundant power supply

Multi Digital Cable Modulator GX-BP-16C-R00 (287642)

- 1x RF coaxial output connector (F connector)
- Up to 16x DVB-C QAM digital multiplex outputs

Multi-input HDMI Encoder GX-4HDMI-BP-R01 (287639)

- 4x HDMI female inputs (HDMI 1.4)
- Encoding of sources in H.264 HD/SD

NEW

Additional 2x IPTV module GX-2IP-02 (287812)

- 2x RJ45 10/100/1000 ports
- Data 1: 128 streams in/out, Data 2: 120 streams in/out
- Max bit rate 700Mbps (total)

Common Interface PCMCIA Module GX-2CI-BP-00 (287640)

- 2x PCMCIA Common Interface slots that can be assigned to receivers

Receiver with 2 Common Interface Slots GX-4C2CI-BP-00 (287644)

- 1x RF coaxial input connector (F-female)
- Tunes up to 4 DVB-C multiplexes (Annex A/C)
- 2x PCMCIA Common Interface slots assignable to any tuner of the module

3DGFLEX
MODULAR AND EXPANDABLE SOLUTION

The **3DGFlex** solution manages a large number of satellite or digital terrestrial programmes as well as external analogue or HDMI sources.
It is ideal for **medium to large-scale hospitality installations**.

Easily expandable thanks to its **modular structure**, the headend is designed to accommodate up to six modules, allowing for a wide range of mixed configurations.

3DG-BOX (283156)
3DG-BOX chassis with natural ventilation, suitable for installation in a 4U rack or floor-mounted.
The front plexiglass panel is included in the package.

Satellite Transmodulators 3DG-4S2-4T (283162) & 3DG-4S2-BP (283163)
- 4x DVB-S2 inputs and 4x DVB-T/C outputs with remapping and remuxing
- The 3DG-4S2-BP quad receiver increases the satellite reception capacity of the headend by four transponders
- Sharing of tuned channels through the high-speed bidirectional back panel ("Smart & Pool")
- Management of free-to-air or encrypted channels (2x FlexCAM)
- Playback of external audio/video files stored on a USB flash drive (.TS file format)
- New firmware compatible with the **DiSEqC SCD2 (dCSS)** protocol in DVB-S/S2 modules

Terrestrial Transmodulators 3DG-4T2-4T (283165) & 3DG-4T2-BP (283166)
- 4x DVB-T2/C inputs and 4x DVB-T/C outputs with content remapping and remuxing or as a simple signal regenerator
- The 3DG-4T2-BP quad receiver increases the terrestrial reception capacity of the headend by four multiplexes
- Sharing of tuned channels through the high-speed bidirectional back panel ("Smart & Pool")
- Management of free-to-air or encrypted channels (2xFlexCAM)
- Playback of external audio/video files stored on a USB flash drive (.TS file format)

FRACARRO

3DGFLEX ADVANTAGES

Remote Management
The native web interface allows programming, monitoring and saving configurations both locally and remotely.

Smart and Pool Functionality
All modules share the list of tuned channels, professional CAMs and Smart Cards via the high-speed bidirectional back panel.

External Video Playback
Each satellite or Digital Terrestrial module features an integrated player, enabling the playback of external video files stored on a USB pendrive (.TS file format).

Auto Remapping Functionality
Content distribution can be changed in real time without requiring TV retuning.

Priority for Main Programmes
With ARP 2.0 functionality, priority programmes are always distributed without service interruptions.

Flexible CAM (FLEXCAM)
The use of professional CAMs and Smart Cards is maximised by associating them with all encrypted content from different inputs.

Power Redundancy
Thanks to the Backup Power Supply (3DG-PS-BU), the system ensures uninterrupted service at all times.

IPTV Streamer 3DG-BP-IP OUT (283164)
- Reception of programmes through the high-speed bidirectional back panel ("Smart & Pool")
- Up to 128 multicast IPTV programmes (UDP, RTP/UDP) managed by a single module
- Up to 1Gbit/s of effective bitrate for distributing UHD, HD, SD and Digital Radio content over an IP network with SAP and M3U service discovery functions
- Supports Single-Program and Multi-Program Transport Stream
- DRM (Digital Rights Management) integration ready

Auxiliary Power Supply Module 3DG-PS-BU (283168)
- Intelligently distributes power supply across the modules within the same chassis under normal operation, assisting the main power supply
- Takes over in case of a main power supply failure

Quad Transmodulator with ASI Inputs 3DG-4ASI-4T (283167)
- Transmodulation from ASI to 4x DVB-T/C outputs with remapping and remuxing
- Sharing of channels through the high-speed bidirectional back panel ("Smart & Pool")
- Playback of external audio/video files stored on a USB flash drive (.TS file format)
- Compatible with external analogue or HDMI sources via an encoder (see page 10)
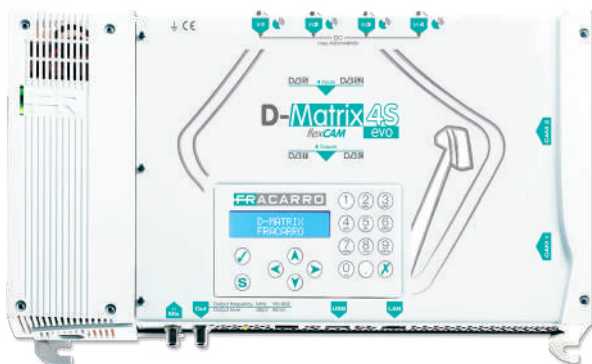
D-MATRIX Compact Solutions

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, such as those for tivùsat.

FEATURES

- **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.

MODEL	CODE	INPUTS	OUTPUTS
D-MATRIX-4S EVO	283132	DVB-S/S2	DVB-T/C
D-MATRIX-8S-FTA	283138	DVB-S2	DVB-T
D-MATRIX-8S-8T	283137	DVB-S2	DVB-T
D-MATRIX-8S-IP	283138	DVB-S2	DVB-IP

D-MATRIX-4S EVO
Code 283132

The D-Matrix-4S EVO compact headend can receive from 4 different independent satellite transponders the desired HD or SD programs (FREE or encoded) and output them back to the four available digital multiplexes (COFDM or QAM) across the TV band.

- Outputs up to 12 HD channels or 30 SD channels

FRACARRO

D-MATRIX-8S-FTA

Code 283138

Compact headend featuring **eight independent DVB-S/S2 FTA** (Free-To-Air) satellite tuners, equipped with SCD2 dCSS LNB control functions. The eight fully flexible onboard modulators generate **8x DVB-T multiplexes**, enabling the distribution of multiple TV channels.

- Outputs up to 25 HD channels or 60 SD channels

D-MATRIX-8S-8T

Code 283137

Compact headend with **eight independent DVB-S/S2 satellite tuners and two Common Interface slots** for signal decryption, equipped with SCD2 dCSS LNB control functions. The eight fully flexible onboard modulators generate **8x DVB-T multiplexes**, enabling the distribution of multiple TV programmes.

- Outputs up to 25 HD channels or 60 SD channels

D-MATRIX-8S-IP

Code 283139

Compact headend with **eight independent DVB-S/S2 satellite tuners and two Common Interface slots** for signal decryption, equipped with SCD2 dCSS LNB control functions. **Outputs up to 128 Multicast IPTV streams** for the distribution of multiple TV programmes over a LAN network.

- Outputs up to 128 Multicast IPTV streams channels

PROFESSIONAL ENCODERS

The **SIG series professional encoders** enable the management of various external analogue or HDMI sources, seamlessly integrating them into satellite or digital terrestrial programme distribution.
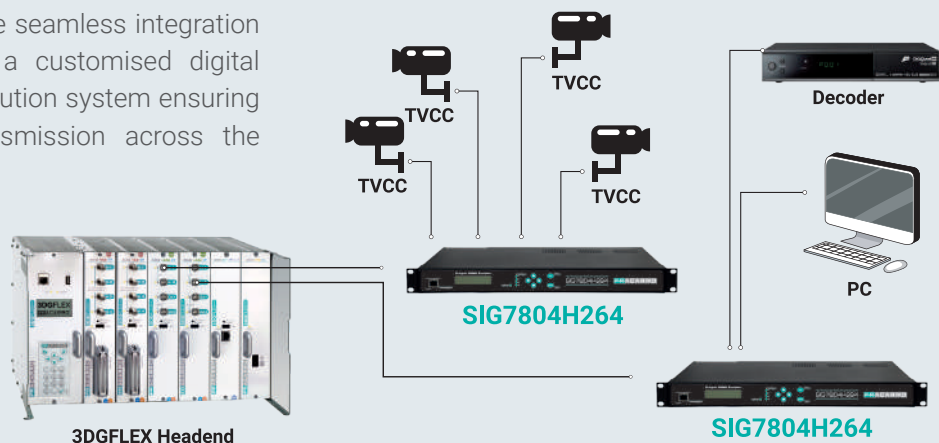
- SIG7404H: Supports up to 4 analogue sources with MPEG-2 encoding
- SIG7804H264 & SIG7804H264RFIP: Supports up to 4 HDMI sources with MPEG-4/H.264 encoding
- Configuration: Front-panel keyboard and integrated web interface for easy setup
- Design: Standard 1RU 19" rack-mountable chassis

MODEL	CODE	DESCRIPTION
SIG7404H	287348	Professional encoder for encoding up to 4 analogue A/V sources in MPEG-2. ASI output.
SIG7804H264	287430	Professional encoder for encoding up to 4 HDMI sources in H.264 format. ASI output.
SIG7804H264RFIP	287613	Professional encoder for encoding up to 4 HDMI sources in H.264 format. Simultaneous RF (DVB-T) and IPTV multicast output.

APPLICATION EXAMPLE

A typical example of remodulating external HDMI sources using the 3DGFlex headend.
This setup allows for the seamless integration of HDMI content into a customised digital terrestrial or IPTV distribution system ensuring high-quality signal transmission across the network..

FRACARRO PROFESSIONAL SERVICES

Choosing a Fracarro hospitality solution means having access to cutting-edge technologies **with a range of solutions** suitable for any type of installation. Fracarro also provides a series of important services to support installers.
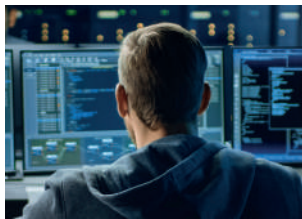

DESIGN SUPPORT
Our technical engineers are available to design the system layout complete with a materials list.

PHONE SUPPORT
Monday to Friday, from 8:30am to 5:30pm CEST, for any technical inquiries, product information or remote system programming.

REMOTE COMMISSIONING AND TESTING
For system commissioning, testing and headend setup etc, Fracarro can provide skilled technicians available for remote technical consulting.

Fracarro Radioindustrie SRL

viale delle Querce 9, 31033 Castelfranco Veneto, (TV) Italia
tel +39 0423 7361 - fax +39 0423 736220 - info@fracarro.com
www.fracarro.com

Fracarro (UK) - Ltd

Suite F11, Whiteleaf Business Centre, Little Balmer, Buckingham, MK18
1TF UK - Tel: +44(0)1908 571571 - Fax: +44(0)1908 571570