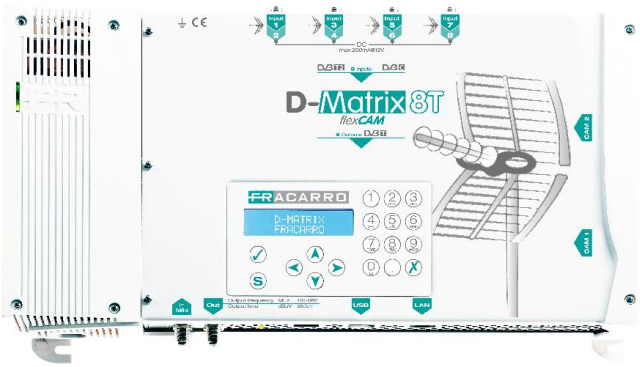
Octo DVB-T2 or DVB-C inputs – Octo DVB-T outputs with double slot C.I. “all in one” Compact Headend

D-MATRIX-8T

D-Matrix



The new **D-Matrix-8T** compact headend is a **unique innovation in the hospitality market** concerning the Digital Terrestrial signal management and processing.

By using the **D-Matrix-8T** is possible to receive the HD or SD programs coming from up to 8 digital terrestrial input multiplexes, decrypt the contents through the Professional CAMs and remodulate them on the 8 “customized” output DVB-T (2K) digital multiplexes .

The new **D-Matrix-8T** digital compact headend is suitable for the following applications:

1. ***Digital Terrestrial mux regeneration and recovery:*** it’s possible to tune and regenerate up to 8 input digital terrestrial multiplexes thereby increasing the quality of the digital signals in RF distribution.

2. ***Compact headend suitable for distribute the Pay TV terrestrial content on the collective enviroment:*** In addition to FTA terrestrial programs, the **D-Matrix-8T** is able to receive, decrypt and remux all the programs that the two professional CAMs modules can handle coming from any TV input tuner.

NEW ABSOLUTE FEATURE: thanks to the new **FlexCAM** operation mode feature, it’s possible to decrypt many programs coming from the different TV tuner inputs, by using the same CAM module (i.e. *Flexible CAM on the OUTPUT*). **D-Matrix-8T** is equipped with two universal slots Common Interface that can be both used **FlexCAM** operation mode.

THE WEB INTERFACE MANAGEMENT HAS BEEN IMPROVED: now the main informations are available quickly !!

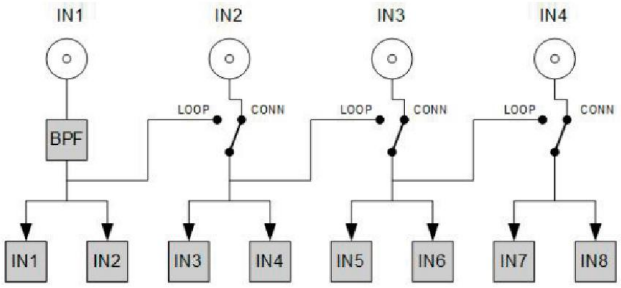
With the compact headend is always possibile to manage the external Audio/Video file playback stored in the pendrive (**TS** file format).

The possibility to create up to 8 “ad-hoc” digital output multiplexes, in addition to the new **FlexCAM** working mode, allow the installer to freely choose the Pay TV terrestrial programs coming from every input and avoid any strategic program’s reallocation issues caused by the terrestrial broadcaster and it allow to deploy many digital contents through the coaxial network.

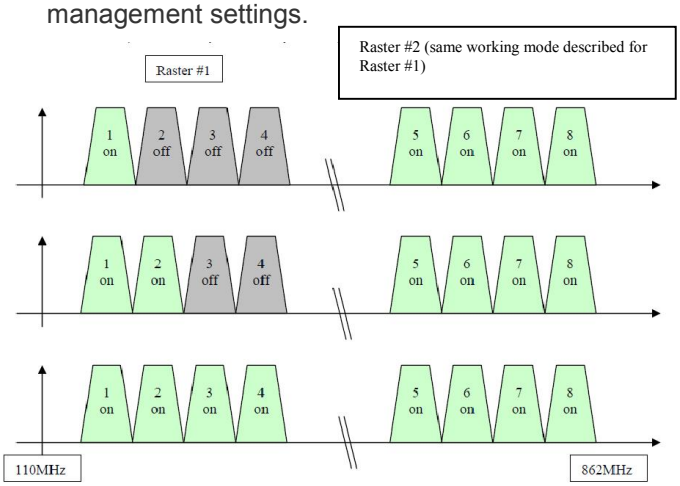
D-MATRIX-8T Fully manageable parameters for all the output muxes and for the individual programs (LCN, SID, PDSD, NIT, …).

Main Specifications (*)

- **Multi TV Input**: 8 TV input tuners (DVB-T2/T or DVB-C) that are connected in pair to the four coax input connectors, 8 DVB-T (2K) output mux (two raster of four adjacent digital modulators each one), 2 Common Interface slots.



- **8 DVB-T digital output modulators available:** each of two digital modulators groups can be set in three different working modes: *single, twin and quad*. This feature allow the maximum flexibility during the headend management settings.



- **"Mux-ad-Hoc":** you can create all the muxes with the choosen programs tuned from up to 8 TV multiplexes and manage all the descriptor parameters of each mux (ONID, TSID, NetID,…) and each program inside the mux (LCN, SID, PID, Program name..).

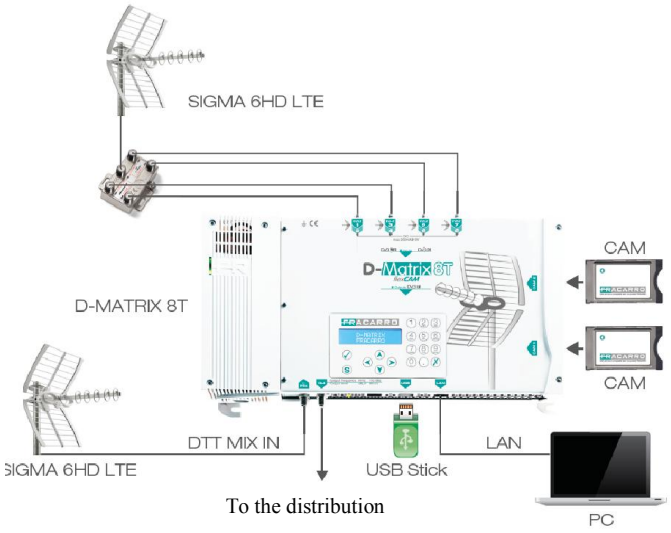
- **Optimized CAMs Management**: the new D-MATRIX-8T allows to manage both CAMs modules in two different operation modes:
  - **FlexCAM mode**: it can be forwarded to the same CAM module the programs coming from any TV input (i.e. Flexible CAM on the OUTPUT)
  - **STANDARD mode**: each CAM module can be associated with a TV input in order to decrypt the encoded programs coming only from this specific input.
- **WEB interface based headend: today is even more intuitive.** The headend setup, and configuration must be done by using the improved web interface built-in; basic setup available by on board keyboard.
- **ARP 2.0** = Automatic Recovery Procedure to save the higher priority programs and guarantee Continuity of Service when bit rate overflows occurr. All the program are sequentially restored when the global bit rate returns within the limits.
- **AUTO REMAPPING function**: you can change in real time the program inside the mux without rescanning all the TV set along the network.
- **USB Port** to upload/download pre-setted set up or for the firmware upgrade, video playback (**TS file** format).

		D-Matrix-8T (*)
Fracarro code		283133
Front-End		
N° input	N°	8 TV tuners (two tuners coupled to every F input connector)
Input frequency	MHz	110-862 (170-862 for the first coax input)
Input level (typical)	dBµV	55÷85
Impedence	Ohm	75
Remote power supply	Vdc, mA	12, 200 (max)
Demodulation		DVB-T2, DVB-T or DVB-C
Input step tuning	KHz	10
AFC Range	KHz	±400 (DVB-T2/T), ±100 (DVB-C)
Output Modulation		
N° of generated mux	N°	8 (two group of four adjacent digital modulator)
Trasmission standard		DVB-T
Bandwidth	MHz	6, 7, 8
Carriers		2k
Modulation		QPSK, 16-QAM, 64-QAM
Guard interval		1/4, 1/8, 1/16, 1/32
FEC		1/2, 2/3, 3/4, 5/6, 7/8
Spectrum		Normal/Inverted
Operating Mode		Normal, Single Carrier
RF Output		
Output frequency	MHz	110÷862
Output channels		S2÷E69
Output step tuning	KHz	250
Typical RF output level	dBµV	95
Output level adjustment	dB	0÷20
Flatness	dB	± 1.5
Typical Output MER	dB	36
Spurious rejection	dBc	< -50

		General features (*)
RF mix input	MHz	47÷862
RF insertion loss	dB	2.5
Mains Supply	Vac, Hz	230, 50/60
Typical Power Consumption	W	42 (with two CAMs inserted)
Connectors	Type	F female (RF), RJ45 (programming via web interface), USB (fw upgrade, **TS video file playback**)
Common Interface		2 x PCMCIA (Standard EN50221, TS10169) , **FlexCAM** or STANDARD mode
Dimensions (L.× W.× H)	mm	360x230x54 (without CAM inserted) – 385x230x54 (with CAM inserted)
Operating temperature	°C	-5 ÷ +55 (without CAM)
Compliant		EN50083-2, EN60065

(*)Definitive specifications may change without notice.

Installation Example



The new D-MATRIX-8T headend can tune up to eight different DVB-T multiplexes, decrypt the programs (through CAMs & Smart-Cards – ***NOT INCLUDED***) and generate up to 8 Digital Terrestrial multiplexes (DVB-T), 95dBµV each one.

Remote supply for TV mast amplifier is available (max 200mA@12V total).

All settings can easily be made using the integrated WEB INTERFACE.

The USB pendrive can be use for:

- USB video file playback **(TS file format only)**, for ex. INFOCHANNEL, etc.
- Firmware upgrade;
- Upload/download configuration.