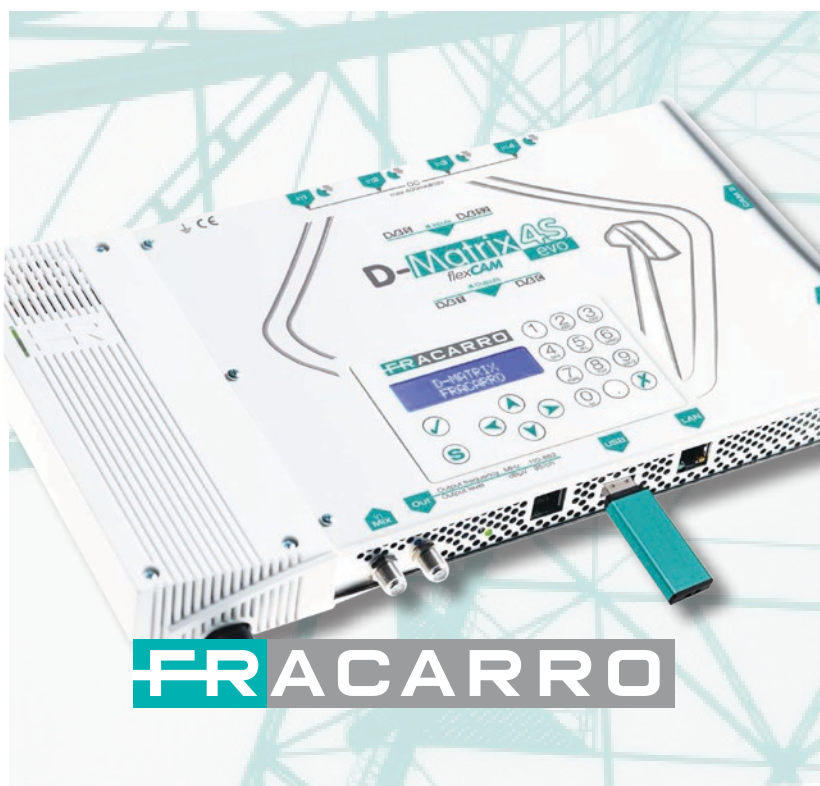# D-MATRIX-4S EVO
COMPLETE DVB-S2 TO DVB-T PROCESSOR
For services including VAST and more

Fracarro's new D-Matrix-4S EVO tunes up to 4 different satellite transponders from four separate inputs, decrypts multiple programs through Pro CAMs or FTA and outputs the programs in four 'customised' digital DVB-T or DVB-C multiplexes 'ad-hoc', allowing the installer to provide many HD or SD digital programs through a coaxial MATV network to many televisions.

New FlexCAM feature decrypts programs from different inputs through either universal Common Interface slot.

Improved web interface management makes the main device information screens available quickly.

The USB port allows for uploading or downloading of program set up parameters, firmware upgrade, or .ts file playback to crete your own in house channel for the purpose you desire.

D-MATRIX-4S EVO allows parameter management of all output muxes and the individual programs, including LCN, SID, PDSD, NIT, etc.

MAIN FEATURES:

- **Multi SAT Input:** 4 independent DVB-S2 SAT inputs, 4 DVB-T or DVB-C output muxes (two pairs of adjacent channel digital modulators), 2 Common Interface slots.

- **Optimised CAM Management:** the new D-MATRIX-4S EVO allows management of both CAM modules in two different operating modes:
  - FlexCAM mode: programs from any Sat input can be forwarded to either CAM module.
  - STANDARD mode: each CAM module can be linked to a particular Sat input in order to decrypt the programs coming from this input only.

- **Configure or Setup remotely** via web browser, or setup basic functions via built-in keyboard.

- **"Mux-ad-Hoc":** create muxes with programs you choose, tuned from up to 4 satellite transponders. Manage the descriptor parameters of each mux (ONID, TSID, NetID,…) and each program inside the mux (LCN, SID, PID, Program name..).

- **ARP 2.0 :** Automatic Recovery Procedure allows the installer to select the importance of programs to guarantee continuity of service in the unlikely event of bit rate overflow. Programs sequentially restore when the global bit rate returns to 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.

- **Play .ts Video and Audio content** from a USB flash drive to create an in house TV channel included in one of the Digital TV output channels.

- **DVB-T or DVB-C "agile output modulation"** is selectable so one product fits every coax network distribution.

- **High Output MER** simplifies distribution over big coax networks.

FRACARRO D-MATRIX-4S EVO

SPECIFICATIONS	
FRONT END	
Inputs	4
Input Frequency	950 to 2150 MHz
Input Level	50 to 80 dBµV
Input Step Tuning	1 MHz
LNB Control	0/14/18 VDC, 0/22 KHz or DiSEqC 1.0
Demodulation	DVB-S2 (8 PSK, QPSK) or DVB-S (QPSK)
FEC	1/2, 2/3, 3/4, 5/6, 7/8 or AUTO
Symbol Rate	DVB-S : 2 to 45 MS/sec DVB-S2 : 2 to 45 MS/sec
AFC Range	-5 to +5MHz

COFDM MODULATION		
No. Of Generated Mux	4 (2 pairs of adjacent digital channel multiplexes)	
Trasmission Standard	**DVB-T**	**DVB-C**
Bandwidth	6, 7 or 8 MHz	Depends on the output symbol rate selected
Carriers	2k or 8k	-
Modulation	QPSK, 16QAM or 64QAM	QPSK, 16 QAM, 32QAM, 64QAM, 128QAM or 256QAM
Guard Interval	1/4, 1/8, 1/16 or 1/32	--
FEC	1/2, 2/3, 3/4, 5/6 or 7/8	Reed Solomon (204, 188)
Symbol Rate	--	1000 to 6999 Msymb
Spectrum	Normal / Inverted	
Operating Mode	Normal / Single Carrier	

RF OUTPUT	
Output Frequency	140.5 to 816.5 MHz
Output Channels	5A-DT to 69-DT
Output Step Suning	250 KHz
Typical RF Output Level	95 dBµV
Max. Output Level	102 dBµV
Output Level Adjustment	0 to 20 dB
Flatness	± 1.5 dB
Typical Output MER	≥ 36 dB
Spurious Rejection	< -50 dBc

GENERAL FEATURES	
RF Mix Input	47 to 862 MHz
RF Insertion Loss	2.5 dB
Mains Supply	230 VAC, 50 or 60 Hz
Typical Power Consumption	42W (with two CAMs inserted)
Connectors	F female (RF), RJ45 (programming and remote monitoring), USB (firmware upgrade, TS video file playback)
Common Interface	2 x PCMCIA (Standard EN50221, TS10169), FlexCAM or STANDARD Mode
Dimensions (L×W×H)	360 x 230 x 54 (without CAM inserted), 385 x 230 x 54 (with CAM inserted)
Operating Temperature	-5 to +55 °C (without CAM)
Compliant	EN50083-EN60065