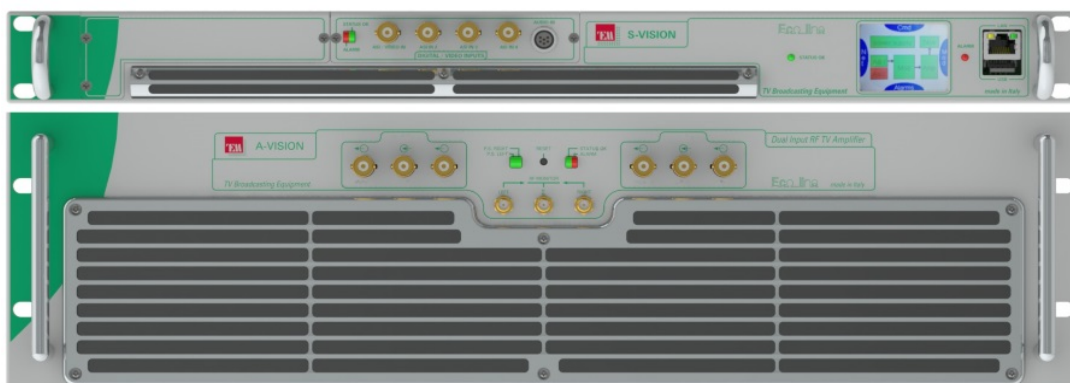


XL-VISION

High Efficiency Broadband Doherty



XL-VISION Series represents the state of the art of the worldwide TV transmitter technology. In a compact solution **3+1 Unit Rack**, it covers a power range up to 2000W rms / 2500W p.s. and supports DVB-T/H / T2, ISDB-T/Tb, DAB/DAB+/T-DMB, ATSC, PAL and NTSC modulations. Of course, Dual Cast analog and digital configuration is also supported.

XL-VISION is composed by 1 or 2 S-VISION exciter/s (1RU) and an RF amplifier A-VISION (3RU); it can be a medium/high power transmitter, a regenerative transmitter or even a transposer. It can be equipped and configured with different input interfaces (Audio/Video, Satellite Receiver, ASI, Gigabit Ethernet or RF).

A-VISION Amplifier embeds a built-in ASI and RF matrix in order to connect 2 S-VISION exciters and ensure a maximum level of redundancy.

XL-VISION offers adaptive pre-correction in both analog and digital configuration.

XL-VISION allows selection of transmission modes remotely using or SNMP commands or TCP/IP using the Web graphic interface. Functional interfaces are available for total remote control of the apparatus by means of serial protocols or TCP/IP ports.

Thanks to the internal Web server the apparatus can be easily monitored and configured and updated using a LAN connection and a standard Web browser. Moreover, the built-in SNMP agent allows full automated remote control.



MAIN FEATURES

- Compact 3+1U 19" Rack chassis
- Output Power up to 2000W rms in digital or up to 2500 W p.s. in analogue
- High efficiency wideband or broadband amplifier technology
- DVB-T/H/T2, ISDB-T/Tb, DAB/DAB+/T-DMB, ATSC, PAL, NTSC modulations fully supported
- Embedded Re-Multiplexer/Layer Combiner/TS to BTS (188 to 204 byte) converter for ISDB-Tb
- Adaptive pre-correction circuits
- Powerful echo canceller when OneCompact is used as an on-channel repeater
- On-board high stability GPS / GLONASS receiver with battery
- Flexible input interfaces:
 - 4 x ASI inputs (TS, BTS, T2MI, SMPTE-310M) + Analog input
 - 2 x ASI inputs and 2 x Gigabit Ethernet
 - 1 x DVB-S/S2 Satellite Receiver input
 - 1 x RF input
- SNMP, Web Interface and Touch Screen display



SPECIFICATIONS

SYSTEM

UHF digital output power:	from 800 W to 1500 W rms @ MER 38 dB typ. (DVB, ISDB)
	from 1200 W to 2000 W rms (ATSC)
UHF analogue output power:	2500 W p.s.
VHF digital output power:	from 900 W to 1300 W rms @ MER 37 dB typ. (DVB, ISDB)
	from 1300 W to 1600 W rms (ATSC)
VHF analogue output power:	2300 W or 2500 W p.s.
Configurations:	Single or dual driver
RF connector:	7/16 (f), 50 Ohm (A-VISION 800)
	7/8" (f), 50 Ohm (A-VISION 1200C and 1500C)
Frequency agility:	UHF Band IV and V or VHF Band III
Frequency resolution:	1 Hz
Pre-correction:	Adaptive
Exciter:	S-VISION Series

MODULATOR

DVB-T/H/-T2

Standard:	EN300744, EN302304, EN302755, TS101191, TS102773 (T2-MI), TS102034
Inputs:	4x ASI BNC (f), 75 Ohm or 2x ASI BNC (f), 75 Ohm and 2x RJ45 TS dP 10/100/1000
	Switch seamless between ASI inputs.
	Hierarchical and not hierarchical (DVB-T)
FFT:	1K (DVB-T2), 2K, 4K, 8K, 8K ext. (DVB-T2), 16K & 16K ext. (DVB-T2), 32K & 32K ext. (DVB-T2)
Code rate:	All modalities available according to the standard
	Block Short or Normal (DVB-T2)
	DVB-T: Reed-Solomon (204, 188)
	DVB-T2: BCH, LDPC
Guard interval:	1/32, 1/16, 1/8, 1/4, 19/256 (DVB-T2), 19/128 (DVB-T2), 1/128 (DVB-T2)
Constellation:	QPSK, 16QAM, 64QAM, 256QAM (DVB-T2). Rotated and non rotated (DVB-T2)
MISO processing:	Supported

ISDB-Tb

Standard:	ABNT NBR 15601, ABNT NBR 15603
Inputs:	4x ASI TS/BTS BNC (f), 75 Ohm or 2x ASI TS/BTS BNC (f), 75 Ohm and 2x RJ45 TS/BTS dP 10/100/1000
	Mode 1 (2K), Mode 2 (4K), Mode 3 (8K)
FFT:	1/2, 2/3, 3/4, 5/6, 7/8
Code rate:	1/4, 1/8, 1/16, 1/32
Guard interval:	Up to 3 layers
Hierarchical modulation:	
Constellation:	QPSK, 16QAM, 64QAM
Time interleaver:	Fully supported
Partial reception:	Supported

DAB/DAB+/T-DMB

Standard:	EN 300401, ETS 300 799
Inputs:	4x ETI (NI[G703], NA5376[G704] or NA5592[G704]) BNC (f), 75 Ohm
Transmission modes:	Mode I, II, III, IV
	(Automatically detected from the ETI stream, or user selectable)
Operation:	MFN or SFN operations

ATSC

Standard:	A/53, A/110
Inputs:	4x ASI / SMPTE-310M BNC (f), 75 Ohm or 2x ASI / SMPTE-310M BNC (f), 75 Ohm and 2x RJ45 TS dP 10/100/1000
Modulation:	8-VSB
Input bit rate:	19.39 Mbit/s
Bandwidth:	6 MHz
Max processing delay:	Up to 1 second (programmable)

Analogue

Standard:	B, G, D, K, M, N, I
Inputs:	Video BNC (f), 75 Ohm, audio Tini-Q6 "Mini XLR", 6 Pin (m), 600 Ohm
Color system:	PAL, NTSC

SATELLITE RECEIVER

Standard:	ETSI EN 300 421 (QPSK) (DVB-S) ETSI EN 302 307 (QPSK, 8PSK, 16APSK) (DVB-S2) ETSI EN 50083-9 (ASI) ETSI EN 50221 (Common Interface)
DVB-S2:	VC-M, CCM, Multi Stream and Single Stream, Normal & Short FEC frames
Symbol rate:	1 - 45 Msym/s (DVB-S) 2 - 45 Msym/s (DVB-S2)

Constellation:	DPSK, 8PSK, 16APSK
FEC:	Automatic, all modalities (204,188) Block Short or Normal DVB-S: Reed-Solomon DVB-S2: BCH, LDPC 0.2, 0.25, 0.35 F (f), 75 Ohm Hz, 0.25 A (overload protection)
Roll-Off:	L-band 930÷2250 MHz (attenuator)
Input connector:	Off, +13/18 Vdc, 22 k
Frequency:	40 ÷ 100 dB/μV (with
LNB control voltage:	BNC (f), 75 Ohm 72 Mbps)
RF input level:	188 bytes on Interface
Output connector:	80 Mbps (CAM limit: t
Modality:	PCMCIA DVB-C1 Combrdeto, Conax, BISS with Professional multiprogram
Max input bit rate:	Multicrypt, Simulcrypt to 24 Elementary Streams) Betacrypt, Cryptoworks,
CAM interface:	Mediaguard, Viaccess, dard consumer CAM
CA mode (Conditional Access):	CAM (descrambling of up to 4 services)
CAS support:	Nagravision with stan
	(descrambling of up to

GPS / GLONASS

Input connector:	N (f), 50 Ohm
Input/Monitor output 10 MHz:	BNC (f), 75 Ohm z
Input/Monitor output 1 PPS:	BNC (f), 75 Ohm Hz
Phase noise:	-140 dBc/Hz @ 10 kHz (planned OCXO) -150 dBc/Hz @ 100 kHz (optional 1 μs after 24 hours)
Stability:	1e-12 / 24 H with dis
Hold-over stability:	5 μs after 5 hours (op

MECHANICAL

Exciter	
Chassis:	1U rack 19"
Width:	482 mm
Height:	43.6 mm
Depth:	460.5 mm without fans
Weight:	7.5 kg
RF Amplifier	
Chassis:	3U rack 19"
Width:	482 mm 710 mm
Height:	132.5 mm
Depth:	558.5 mm
Weight:	26 kg

CONTROLS

TFT touchscreen
Web GUI
SNMP
GPIO

ENVIRONMENTAL

Operating temperature range:	-5°C ÷ 40°C m. optional)
Max. relative humidity:	90% non condensing
Max. operating altitude:	2500 m. a.s.l. (>2500

ELECTRICAL

	er supplies feeding one half
	tages each
Power supply:	2 hot swappable power V~ 50/60 Hz, IEC320 C14 Plug
	of the amplification 54 V~ 50/60 Hz, IEC320 C20 Plug
Exciter:	Single Phase 100÷240 digital (UHF models)
Amplifier:	Single Phase 185÷26
Efficiency:	Up to 40% efficiency

NOTES

For the suppression of out-of-band emissions (and required shoulder distance), the transmitter may

To comply with the applicable standards and limit values for in the case of digital standards, also for maintaining the re only be operated with suitable filters at the RF output.

Specifications are subject to change without notice.