AMPLIFIERS • TRANSMITTERS • ANTENNAS • ACCESSORIES

ELETTRONIKA SRL

Environmental Management System UNI EN ISO 14001 N° IT-24436

Quality Certified Firm UNI EN ISO 9001 N° 5199/01

Rack 19"-20U (optional)

1000W OUTPUT POWER

LDMOS Technology TV Transmitter

TXUP1000LD

The **TXUP1000LD** is a transmitter operating in the IV-V Band for common amplification process of the Vision and Sound carriers.
The transmitter has been designed to offer to the customer high performances, high reliability and greater simplicity in its operation and maintenance procedures.
The amplifiers modules employ only solid state **LDMOS technology** in order to obtain high gain, wide-band performances, very good linearity, reliability and high efficiency.
The equipment design allows the soft degradation (RF power loss) for several transistor faults: in fact the output combiner uses RF power resistors for unbalancing power dissipation.

TV and FM Broadcasting

TECHNICAL SPECIFICATIONS

RF SECTION

Frequency range	470 - 860MHz
Output power	1000W PEP
Vision / Sound power ratio	10/1 single sound - 20/1/0.2 dual sound
Out stage technology	Solid State LDMOS
Vision / Sound amplification	Common
Standards	G, I, K, M
Sound transmission	FM single sound - Dual sound coding IRT - NICAM 728
Harmonics and spurious emission	In compliance with CCIR rec.
Intermodulation products from vision and sound	56dB
Frequency stability	2.5ppm (option 0.05ppm)

VISION SECTION

Video input	BNC 75 connector
Nominal input level	1Vpp ± 6dB
Return loss	30dB
DC Restoration	Clamped to the blanking level without affecting the burst
White limiter	At 90% picture signal without affecting the chrominance

Transmission characteristics

Sideband spectrum response	According to the standard
Amplitude-frequency response	According to the standard
Group delay variation without receiver pre-correction and TV demodulator in flat	± 35ns
Non-linearity distortion (10 to 75% mod.)	5%
Differential gain (10 to 75% mod.)	5%
Differential phase (10 to 75% mod.)	5°
Signal-to-random-noise ratio (weighed 0.2 to 5MHz)	60dB
Blanking level variation	2%
2T k factor	2%

SOUND SECTION

Nominal input level (± 50kHz dev.)	-10 to +8dBm
Input impedance	600 balanced
Pre-emphasis	50 s

Transmission characteristics

Amplitude-frequency response	40 to 15000Hz ± 0.5dB
Total harmonic distortion	0.5%
FM Signal-to-noise ratio (referred to ± 50kHz dev. f = 400Hz)	60dB (weighed)
AM Signal-to-noise ratio	50dB (referred to 100%)
AM Synchronous modulation	40dB (referred to 100%)

REMOTE CONTROL

Parallel interface	On/Off, Alarms, Interlock
Serial interface	RS232 (Full monitoring and management)

GENERAL

Power supply voltage	230VAC, ±10% (other on request)
Frequency	50-60Hz, ± 5%
Temperature operating range	0 to 45°C
Altitude	Up to 2,500 meters (2,500m with additional cooling system)
Power consumption (cooling system included)	3000kVA (black level)
Power factor	0.9
Cooling	Forced air
Dimensions	n. 1 Rack 19"-20U *(Optional)*

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