

TX04-102C

TX04-301D



1kW UHF DUAL CAST TRANSMITTER
300 W TV (DVB-T/T2) DIGITAL TRANSMITTER
Air Cooled

UHF TV TRANSMITTER

The series TX04-xxx belongs to the Low Power product family of TV Transmitters fully solid state technology, air cooled.

The family is available for the UHF Band, is designed for a wide range of TV broadcast standards, as well Analog and Digital emission.

These include analog TV standards (B/G, D/K, M/N, I), color coding standards (SECAM, PAL, NTSC), (FM mono, IRT dual-sound/stereo and NICAM), digital TV standards (DVB-T, DVB-T2, ATSC).

Transmitter Model	Band	Output Power Capability		
		Analogue	DVB-T-T2-H	ATSC
TX04-301D	UHF		300 Wrms	500 Wrms
TX04-102C	UHF	1kW peak sync +100 W mono sound or 50+20W dual sound		

Key Features

- **Broadband** frequency synthesizer, without any other tuning or alignment.
- **Analog** emission according to the standards
- **Digital TV standard** available DVB-T, DVB-T2, DVB-H, ATSC
- **SFN** capability Suitable for single-frequency networks (SFN) and multi frequency networks (MFN)
- **Digital Adaptive Precorrector** allows high performances and stability without any alignment or manual intervention during maintenance routine
- **Seamless** input switching
- **Output Filter** built-in
- **LDMOS** technology to obtain , reliability , and high linearity
- **Passive Reserve 1+1 ; N+1** Redundancy configuration capability
- **High Tolerance** mains voltage ($\pm 20\%$) is accepted by the transmitter
- **Mains Protection System** by means of Surge Arrester System
- **Remote Operation** compliant to IEC 864-1 rule
- **Remote transmitter monitoring** and control via HTTP interface (Option)
- **Compact design** 24 units 19" rack ; 800 mm depth.
- **Air cooling system** fully integrated

Technical Specifications (DTV)

RF

Frequency range	470 to 862 MHz
Output power	300W rms
Modulation	COFDM
Standard	DVB-T, DVB-T2, DVB-H
Carrier Modulation	QPSK, 16QAM, 64QAM, 256QAM (normal or rotated)
Transmission Mode	1k, 2k, 4k, 8k, 8k Extended, 16k, 16k Extended, 32k, 32k Extended
Harmonics emission	≤ 60 dB without exceed 20 mW
Spurious emission	≤ 1 mW
Frequency stability	± 200 Hz / 6 months ± 0.2 Hz / day with
GPS receiver (option)	
External drive frequency	10 MHz, 1V /50Ω, BNC 1 PPS , BNC

Input Signals

Inputs	4 DVB-ASI
Data format	188 bytes (RS decoder) Packets Mode
GPS	RF signal for receiver (option)

Transmission Characteristics

Standard	coding and modulation according to EN300744, EN 302755,TS102 831, T2MI
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Quality Data

SNR	> 37 dB
MER	> 35 dB
Shoulder attenuation	> 38 dB (typ 40dB)
Out of band emission	compliant with spectral mask to ETS 300 744

REMOTE CONTROL

Parallel interface start, stop, standby, alarms,	IEC standard 864-1
Serial interface	status, interlock other on request (Full control and management)

GENERAL

Voltage power supply	3 x 380 V AC ± 15 % 3 x 400 V AC ± 15 % 50 - 60 Hz ± 5 %
Power consumption (cooling system included)	≤ 3.5 kW
Power factor	≥ 0.9

Cooling	forced air
Acoustic noise	≤ 65 dBA
Dimensions	602 x 1500 H x 820 mm
Weight	290 kg approx.
Temperature operating range	0 to 45 °C
Altitude	up to 2.500 meters (≥ 2.500 m with additional cooling system)

Technical Specifications (ATV)

RF

Output power	1kW peak sync
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	B, G, K, I, M, N
Modulation class	C3F, F3E (Analog)
Sound transmission	FM single-sound
NICAM 728 (option)	
Harmonics emission	≤ 1 mW
Spurious emission	≤ 1 mW
Intermodulation products from vision and sound	≤ 60 dB

VISION

Video input	BNC 75 Ω connector
Nominal input level	1 Vpp ± 6 dB

SOUND

Nominal input level (± 50kHz dev.)	-10 to + 6 dBm
Input impedance	600 Ω balanced (or ≥ 5 kΩ)
Pre-emphasis	50 μs (75 μs on request)

Transmission characteristics

Sideband spectrum response	according to the standard
Amplitude-frequency response	according to the standard

How to Order (others version on request):

UHF TX04-xxxC – *x.x kW Analogue TV (see the Table)*
TX04-xxxD – *x.x kWrms Digital TV (see the Table)*

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