

ETL Series TV UHF / VHF

5 kW and 10 kW Field Channel Programmable
TV Transmitters / Translators



- Available as Transmitters or as Translators
- 2 Video & 2 Audio inputs with auto default switchover
- Stereo/dual sound compatible
- Group delay pre-correction
- Available for offset configuration
- High Efficiency, Switch-Mode Power Supply
- Microprocessor controlled measuring and protection
- Built-in redundancy on power supplies & output modules
- Alphanumeric LCD readout displays throughout
- RS-485 Serial Data In/Out
- Dual Forced Air Cooling on Power Amplifier Modules
- Available in all TV Standards Worldwide
- Meets or exceeds all FCC & CCIR requirements

VIDEO TRANSMISSION CHARACTERISTICS

Amplitude frequency response	±0.4 dB within visual bandwidth
Group delay	< than or equal to 30 ns
Chroma/Luminance Nonlinearity	< than or equal to 2%
Static non linearity	< than or = to 5% up to 90% mod.
Differential gain	< than or = to 3%
Differential phase	< than or = to 3°
2TK factor	< than or equal to 1.5%
50 Hz square view distortion	< than or equal to 1.5%
S/N ratio (unweighted)	< than or equal to -57 dB
S/N ratio (weighted)	< than or equal to -64 dB
Sync pulse compression	< than or equal to 5%
ICPM	< than or = to 5%
	Forced air

COOLING:

SOUND TRANSMISSION CHARACTERISTICS

Amplitude frequency response	± 0.4 dB 30 Hz to 15KHz
Total harmonic distortion	< than or equal to 0.3%
S/N (weighted)	> than or equal to 62 dB
Stereo cross-talk	> than or equal to 40 dB
Dual sound channel separation	> than or equal to 70 dB

RF OUTPUT CHARACTERISTICS

Intermodulation	< than or equal to -60 dBc
Spurious & harmonic emissions meet or exceed all FCC & CCIR req	
RF Output / Impedance:	1- 5/8" EIA Flange / 50 Ohm

CARRIER FREQUENCIES:

Precision offset frequency capability with external reference	
Frequency offset	up to ±30 KHz, 25 Hz steps
Internal reference stability	<1PPM, 3 months

EXT. REFERENCE FREQUENCY INPUT

Level / Frequency	0.5V rms - 1V rms / 5 MHz
-------------------	---------------------------

DATA OUTPUT

Serial data output standard / Baud rate:	RS485 / 9600
Data available:	FWD peak power, FWD average power, RFL peak power, RFL average power, Volt & Current Power supplies, Heat sink temperatures, Inlet air temperature, Temperature warning, Temperature alarm, VSWR, Excessive power alarm

Alarms & Protections: Overvoltage, Overcurrent, Overpower, Overtemperature, Excessive VSWR

AC Power Requirements 220V 3phase +/-10%, 50 - 60 Hz

Approx. Power consumption, 5 / 10 kW models: 12 / 24 kW

Nominal operating temperature range -50° to +45° C

Dimensions, 5 kW model: 1130 mm (89") W x 2100 mm (82³/₄") H x 800mm (31¹/₂") [2 Standard 19" cabinets side by side]

Weight, 5 kW model: 700 Kg (1540 lbs)

Dimensions & Weight, 10 kW model: as above x 2

UHF Models / Power Output / Description:

580TAD-TX: 5000 W TRANSMITTER, 310TCS + 580TAD

580TAD-TP: 5000 W TRANSLATOR, 290TCS + 580TAD

590TAD-TX: 10000 W TRANSMITTER, 310TCS + 590TAD

590TAD-TP: 10000 W TRANSLATOR, 290TCS + 590TAD

Low Band VHF Models / Power Output / Description:

580TAV1-TX: 5000 W TRANSMITTER, 310TFS + 580TAV1

580TAV1-TP: 5000 W TRANSLATOR, 290TFS + 580TAV1

590TAV1-TX: 10000 W TRANSMITTER, 310TFS+590TAV1

590TAV1-TP: 10000 W TRANSLATOR, 290TFS +590TAV1

High Band VHF Models / Power Output / Description:

580TAVD-TX: 5000 W TRANSMITTER, 310TFS + 580TAV

580TAVD-TP: 5000 W TRANSLATOR, 290TFS + 580TAV

590TAVD-TX: 10000 W TRANSMITTER, 310TFS+590TAV

590TAVD-TP: 10000 W TRANSLATOR, 290TFS + 590TAV

Note: In some countries, UHF is called Band 4 & 5; High

Band VHF is called Band 3; Low Band VHF is called Band 1

Video Inputs

Input level 1V p-p -3 to +6 dB adj.

Input impedance 75 ohm

Return loss > than or equal to 35 dB

Crosstalk > than or equal to 56 dB up to 5 MHz

Audio Inputs

Input level for 50 KHz deviation -12dBm - +6 dBm

Input impedance (balanced) > than or equal to 5 K ohm

Crosstalk > than or equal to 70 dB

Common mode rejection > than or equal to 40 dB

Video Processor

Clamp circuits referred to back porch or sync tip

White clipper threshold 95% of modulation

(color subcarrier not affected)