



T U S & T V S Series Solid State TV UHF / VHF 5 kW / 10 kW / 20 kW & 30 kW Transmitters

- Modular construction, fully solid state
- Redundant configuration available with dual driver
- Each module RF amplifier with own power supply
- Each RF transistor has own power supply regulator
- Available in all TV Standards Worldwide
- Stereo/dual sound compatible, digital upgradable
- Auto-foldback in case of excessive VSWR
- Modular structure simplifies transport, installation and allows for easy maintenance, low operating cost and drastically reduces the cost of spares
- Full protections: Loss of Video; Overload & short-circuits; Cooling system failure; RF mismatch; Phase loss on 3phase line; Incorrect operation
- Precision Offset Option available
- Meets or exceeds all FCC & CCIR requirements

UHF Model Types / Power Out / Type of cooling:

T-U-5/S-S: 5 kW, Air or Liquid Cooled
T-U-10/S-S: 10 kW, Air or Liquid Cooled
T-U-20/S-S: 20 kW, Air or Liquid Cooled
T-U-30/S-S: 30 kW, Air or Liquid Cooled

VHF High Band Model Types / Pwr Out:

T-V/III-5/S-S: 5 kW, Air or Liquid Cooled
T-V/III-10/S-S: 10 kW, Air or Liquid Cooled
T-V/III-20/S-S: 20 kW, Air or Liquid Cooled
T-V/III-30/S-S: 30 kW, Air or Liquid Cooled
(Low Band: Same but replace "III" with "I")

Video emission class	C3F (A5C)
Audio emission class	S1=F3E (F3) S2=F3E (F3) or NICAM 728
Audio FM carrier deviation	50 kHz or 25 kHz (standard M-N)
Color system	NTSC or PAL or SECAM
Stereo system	2XF3E (IRT) or NICAM 728 or 1XF3E (BTSC)
Output connector/impedance	EIA flange / 50 ohms
Input connector/impedance	BNC / Video 75 ohm Audio 600 ohm NICAM 50 ohm
Input level	Video 1 V p-p ± 6 dB Return loss >34 dB Audio 6 dBm ± 10 dB IF NICAM 0 dBm
Audio pre-emphasis	50 μ sec or 75 μ sec defeatable
RF monitor outputs	50 ohm unbalanced 1 V rms nominal
Precorrector	Receiver group delay Linearity (NICAM group delay)
Operating temperature	-10°C to 45°C
Maximum relative humidity	90%
Operating altitude	Up to 2,000 m asl (others on req.)
Acoustic noise	<65 dBA
AC Line Requirements	Any electrical systems, 50/60 Hz (specify with order)

Power consumption (at black level)	5 kW UHF 18 kVA	10 kW UHF 32.5 kVA	20 kW UHF 68 kVA	30 kW UHF 105 kVA
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Power consumption (at black level)	5 kW VHF 17.5 kVA	10 kW VHF 31 kVA	20 kW VHF 65 kVA	30 kW VHF 100 kVA
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Output	5 kW models: 1 5/8"	10 kW models: 1 5/8"	20 kW models: 3 1/8"	30kW models: 3 1/8"
Width	1075 mm (42.5")	2150 mm (85")	3225 mm (126")	5375 mm (211")
Height	2000 mm (79")	2000 mm (79")	2000 mm (79")	2000 mm (79")
Depth	1200 mm (47.5")	1200 mm (47.5")	1200 mm (47.5")	1200 mm (47.5")
Weight	800 Kg (1760 lbs)	1650 Kg (3630 lbs)	3200 Kg (7040 lbs.)	5000 Kg (11000 lbs)

Transmission Characteristics

RF power variation (W/B)	± 0.25 dB
Carriers frequency tolerance	± 250 Hz for six months
Precision offset (option)	± 1 Hz
External driver freq. (option)	5 MHz
Spurious emission	Below -60 dB, not >1 mW
Out-of-band intermod. products	Below -60 dB
In-band intermod. products	Below -60 dB

Video

Differential gain	<5%
Differential phase	< $\pm 3^\circ$
Pulse 2T distortion	$\pm 5\%$
Periodic noise (hum)	Below -48 dB (p-p)
Random noise S/N	Below -56 dB rms
Non-periodic noise	Below -60 dB (p-p)
Response at half-frame	<2%
Response at line frequency	<2%
Static linearity	<10%
Group delay 4.43 or 3.58 MHz	$\leq \pm 25$ ns, (without sound trap and receiver precorrector filter)
Response level/frequency	± 0.5 dB (Cv-0.75 MHz-Cv+5.8 MHz) 53 dB at Cv-4.5 Mhz 20 dB below -1.25 MHz

Audio

Harmonic distortion	<0.3%, (from 30 Hz to 15 kHz)
Harmonic IM distortion	D2 <0.35%
(from 5 kHz to 15 kHz)	D3 <0.50%
FM noise (unweighted)	<-60 dB
FM noise (weighted)	<-70 dB
AM synchronous modulation	<-40 dB
AM noise	<-50 dB
Response level/frequency	40 Hz to 15 kHz, ± 0.2 dB
Multisound IRT Crosstalk (stereo)	>40 dB
(dual audio)	>70 dB
Frequency Response NICAM	± 0.5 dB
Group delay NICAM	<50 ns
Multisound BTSC	
Crosstalk (stereo)	>40 dB