



T U T Series TV

5 / 10 / 20 / 25 / 30 / 40 / 60 kW UHF
Television Transmitters



- Single tube, modular construction
- Driver suitable for precision offset
- Oversized cooling systems
- Local or remote mode control logic
- HV power supply in 3 equal sections
- Sequential soft start turn-on
- Cavities are tunable to any UHF channel
- Available in all TV Standard Worldwide
- Full protection for: Loss of Video; Overloads & short-circuits; phase loss in 3 phase power supply; Cooling system failure; RF mismatch; Operator's error; Erratic voltages

Technical Specifications

Frequency range	UHF Band, 470-860 MHz
TV Standards	All (specify with order)
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	7/8" EIA flange / 50 ohms
Video/Audio power ratio	Mono=10 dB or S1=13 dB or S2=20 dB (NICAM=20 dB)
Input connector/impedance	BNC / Video 75 ohm Audio 600 ohm NICAM 50 ohm
Input level	Video 1 V p-p \pm 6 dB Return loss >34 dB Audio 6 dBm \pm 10 dB IF NICAM 0 dBm 50 μ sec defeatable
Audio pre-emphasis	75 μ sec (standard M-N)
RF monitor outputs	50 ohm unbalanced
1 V rms nominal	
Receiver delay precorrector	Built-in and defeatable
Precorrector	(NICAM group delay) Linear
Operating temperature	-10°C to 45°C
Maximum relative humidity	90%
Nominal operating altitude	2,000 m asl (others on request)
Acoustic noise	<65 dBA
Voltage power supply	All electrical systems
(specify with order)	50 Hz or 60 Hz, \pm 2 Hz
Model	5 kW 10 kW 30 kW 40 kW 60kW
Output:	1 5/8" 1 5/8" 3 1/8" 6 1/8" 6 1/8"
Pwr req	18 kVA 28 kVA 70 kVA 90 kVA 100 kVA
Width	1210mm 1652mm 1815mm 1400mm 1400mm
Height	2183mm 2183mm 2183mm 2200mm 2200mm
Depth	1194mm 1194mm 1194mm 1200mm 1200mm
Weight	550 Kg 600 Kg 1000 Kg 3000 Kg 3800 Kg
RF power variation (W/B)	\pm 0.5 dB
Carriers frequency tolerance	\pm 250 Hz for three months
Precision Offset (option)	\pm 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	60 dB
Video	
Differential gain	<5%
Differential phase	\pm 3°
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%
Reponse at line frequency	<2%
Static linearity	<10%
Group delay at 4.43 MHz	< \pm 25 ns (without sound trap and receiver precorrector filter)
Response level/frequency	\pm 0.5 dB (Cv-0.75 MHz to Cv+5.5 MHz)
	53 dB at Cv-4.43 Mhz
	20 dB below -1.25 MHz
	20 dB above Cs
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, \pm 0.2 dB
Multisound IRT	
Crosstalk (stereo)	>40 dB
(dual audio)	>70 dB
Multisound NICAM	
Response level/frequency	\pm 0.5 dB
NICAM	
Group delay NICAM	<50 ns
Multisound BTSC	
Crosstalk (stereo)	>40 dB
Available in the following configurations:	
	5 kW, combined amplification, single tube, air-cooled
	10 kW, single tube, steam condensation cooling
	30 kW, single tube, steam condensation cooling
	Note: 40 kW and 60 kW are IOT