

TECHNICAL CHARACTERISTICS

VIDEO CHARACTERISTICS (MT SERIES)	Input connector	BNC unbalanced
	Input impedance	75 Ω
	Input signal level	1 Vp.p.
	Input return loss	>30 dB
	Differential gain	≤ 4 %
	Differential phase	≤ ± 3°
	Amplitude frequency response (in the vision band)	≤ ± 0.5 dB
	Group delay frequency response (in the vision band)	≤ ± 50 nS
S/N ratio	> 60 dB	

AUDIO CHARACTERISTICS (MT SERIES)	Input connector	XLR balanced
	Input impedance	600 Ω
	THD (50 KHz peak deviation at 1 KHz)	≤ 0.4 %
	S/N (50 KHz peak deviation at 1 KHz)	>60 dB
	Deviation from preemphasis curve (20 Hz to 15 KHz)	± 0.5 dB

METERING	Forward and reflected power, DC voltages and currents
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ALARMS	VSWR, over temperature, video signal missing, cooling system failure, overdriving
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POWER SUPPLY	Operating voltage:	
	Up to 500 Wps	115/230/240 Vac ±10%, 47 to 62 Hz single phase
	Over 500 Wps	115/230/240 Vac ±10%, 47 to 62 Hz single phase or 208/220/380 Vac ±10%, 47 to 62 Hz three phases

GENERAL OPERATING CONDITIONS	Cooling	forced air with axial fans
	Operating temperature	-5° ÷ +45° C
	Humidity	95% max

WEIGHTS & SIZES	Transmitter	Weight (including cabinet)	Size WxHxD (including cabinet)
	MTI 5/S, MTV 5/S	39 kg	545 x 340 x 560 mm
	MTI 10/S, MTV 10/S	39 kg	545 x 340 x 560 mm
	MTI 20/S, MTV 20/S	39 kg	545 x 340 x 560 mm
	MTI 50/S, MTV 50/S	68 kg	570 x 530 x 800 mm
	MTI 150/S, MTV 150/S	68 kg	570 x 530 x 800 mm
	MTI 280/S, MTV 280/S	68 kg	570 x 530 x 800 mm
	MTI 500/S, MTV 500/S	84 kg	570 x 530 x 800 mm
	MTI 1000/S, MTV 1000/S	138 kg	625 x 710 x 850 mm
	MTI 1500/S, MTV 1500/S	138 kg	625 x 710 x 850 mm

WEIGHTS & SIZES	Amplifier	Weight	Size WxHxD
	KBI 5/01, KBV 5/01	11.5 kg	483 x 133 x 400 mm
	KBI 10/01, KBV 10/01	11.5 kg	483 x 133 x 400 mm
	KBI 10, KBV 10	11.5 kg	483 x 133 x 400 mm
	KBI 20/01, KBV 20/01	11.5 kg	483 x 133 x 400 mm
	KBI 20, KBV 20	11.5 kg	483 x 133 x 400 mm
	KBI 50, KBV 50	16 kg	483 x 133 x 560 mm
	KBI 150, KBV 150	16 kg	483 x 133 x 560 mm
	KBI 280, KBV 280	16 kg	483 x 133 x 560 mm
	KBI 500, KBV 500	33 kg	483 x 223 x 550 mm
	KBI 1000, KBV 1000	58 kg	483 x 223 x 705 mm
	KBI 1500, KBV 1500	58 kg	483 x 223 x 705 mm

Features and specifications subject to change without notice.



VHF Solid State Low Power Television Transmitters / Amplifiers

MT Series / KB Series



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VHF Solid State Low Power Television Transmitters / Amplifiers

MT Series / KB Series

- **Digital upgradeable.** Thanks to the high linearity of the internal MOSFET amplifier modules, the MT Series transmitters and KB Series amplifiers are designed to grant extremely high performances for analog modulation and for digital television modulation (DVB-T, ATSC, etc...). Each MT's Series transmitter is also easily upgradeable for digital transmission. Optional kits are available for field digital upgrading. This reduces the cost of later upgrade to digital while providing the best quality of analogue service currently available.
- **New MOSFET technology.** Using the latest MOSFET technology and a new PA design, the MT Series transmitters and KB Series amplifiers are extremely rugged, with excellent thermal characteristics, exhibiting at the same time superior IMD and linearity performances.
- **High gain.** The KB Series amplifiers have a very high gain with only 5 watt of maximum drive power required to obtain the full nominal output power.
- **Broadband.** The amplification circuits are fully broadband, so enabling a fast and agile frequency change without any retuning needing.
- **Modular assembly.** The modular structure of MT Series transmitters and KB Series amplifiers simplifies the maintenance, reducing the installation costs and spare parts investment.
- **Dual driver.** High on-air reliability is assured by using optional dual driver configuration.
- **Power supply.** A rugged and oversized high-efficiency (> 93%) power supply allows to increase reliability, decreases heating and reduces AC power consumption as well. Power supplies are protected from incoming AC line overvoltage, overcurrent, transient and lightning.
- **Electronic protections system** gives full reliability and protects the units against all system or environmental anomalies.
- **Advanced LCD monitoring system** provide full front panel transmitter control capabilities and extensive metering. Standard or special remote control interface are also available.
- **Cooling.** An oversized standard air cooling system with internal fans extends transistors life.
- **Meets or exceeds** all international standards for safety and electrical requirements.



SWITCHING POWER SUPPLY



ELECTRICAL CHARACTERISTICS

TECHNICAL CHARACTERISTICS

Frequency range:			
MTI Series, KBI Series		45-90 MHz	
MTV Series, KBV Series		174-230 MHz	
Output power:			
Transmitter	Amplifier	Analog Power	Digital Power
MTI 5/S, MTV 5/S	KBI 5/01, KBV 5/01	5 Wps	2 Wrms
MTI 10/S, MTV 10/S	KBI 10/01, KBI 10, KBV 10/01, KBV 10	10 Wps	3 Wrms
MTI 20/S, MTV 20/S	KBI 20/01, KBI 20, KBV 20/01, KBV 20	20 Wps	6 Wrms
MTI 50/S, MTV 50/S	KBI 50, KBV 50	50 Wps	15 Wrms
MTI 150/S, MTV 150/S	KBI 150, KBV 150	150 Wps	40 Wrms
MTI 280/S, MTV 280/S	KBI 280, KBV 280	280 Wps	60 Wrms
MTI 500/S, MTV 500/S	KBI 500, KBV 500	500 Wps	130 Wrms
MTI 1000/S, MTV 1000/S	KBI 1000, KBV 1000	1000 Wps	250 Wrms
MTI 1500/S, MTV 1500/S	KBI 1500, KBV 1500	1500 Wps	400 Wrms
Input power (KB series only):			
With option /01		max. 10 dBm	
Without option /01:			
Amplifier	Max. Input Analog Power	Max. Input Digital Power	
KBI 10, KBV 10	1 Wps	0.4 Wrms	
KBI 20, KBV 20	2 Wps	0.8 Wrms	
KBI 50, KBV 50	5 Wps	2 Wrms	
KBI 150, KBV 150	5 Wps	2 Wrms	
KBI 280, KBV 280	5 Wps	2 Wrms	
KBI 500, KBV 500	5 Wps	2 Wrms	
KBI 1000, KBV 1000	5 Wps	2 Wrms	
KBI 1500, KBV 1500	5 Wps	2 Wrms	
Power Consumption (at maximum power with black video signal):			
Transmitter	Consumption		
MTI 5/S, MTV 5/S	80 VA		
MTI 10/S, MTV 10/S	96 VA		
MTI 20/S, MTV 20/S	112 VA		
MTI 50/S, MTV 50/S	210 VA		
MTI 150/S, MTV 150/S	425 VA		
MTI 280/S, MTV 280/S	740 VA		
MTI 500/S, MTV 500/S	1440 VA		
MTI 1000/S, MTV 1000/S	2740 VA		
MTI 1500/S, MTV 1500/S	3580 VA		
Amplifier	Consumption		
KBI 5/01, KBV 5/01	48 VA		
KBI 10/01, KBV 10/01	68 VA		
KBI 10, KBV 10	50 VA		
KBI 20/01, KBV 20/01	92 VA		
KBI 20, KBV 20	76 VA		
KBI 50, KBV 50	150 VA		
KBI 150, KBV 150	360 VA		
KBI 280, KBV 280	680 VA		
KBI 500, KBV 500	1380 VA		
KBI 1000, KBV 1000	2680 VA		
KBI 1500, KBV 1500	3540 VA		
In/out impedance		50 Ω	
Input connector (KB series only)		N type (others on request)	
Output connector:			
Up to 280 Wps		N type (others on request)	
Over 280 Wps		DIN 7/16" (others on request)	
Spurious and harmonic emissions (ref. to carrier)		≤ - 60 dBc	
Power stability		< 1%	
Intermodulation (IMD-DIN 45004 -8, -16, -10 dB)		< -54 dBc (typ. - 56 dBc)	