

TECHNICAL CHARACTERISTICS

VIDEO CHARACTERISTICS (MD SERIES)	Input connector	BNC unbalanced			
	Input impedance	75 Ω			
	Input signal level	1 Vp.p.			
	Input return loss	>30 dB			
	Differential gain	≤ 3 %			
	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	> 63 dB			
	2T K factor	≤ 1 %			
Luminance non linearity	≤ 1 %				
AUDIO CHARACTERISTICS (MD 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				
ALARMS	VSWR, over temperature, video signal missing, cooling system failure, overdriving				
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	Transmitter	Weight (including cabinet)	Amplifiers	Weight	
	MD 05	39 kg	KD 05	11.5 kg	
	MD 10	39 kg	KD 10, KD 10/01	11.5 kg	
	MD 20, MD 20/01	39 kg	KD 20, KD 20/01	11.5 kg	
	MD 50, MD 50/01	63 kg	KD 50, KD 50/01	11.5 kg	
	MD 100, MD 100/01	63 kg	KD 100, KD 100/01	11.5 kg	
	MD 150, MD 150/01	63 kg	KD 150, KD 150/01	11.5 kg	
	MD 280, MD 280/01	68 kg	KD 280, KD 280/01	16 kg	
	MD 500, MD 500/01	86 kg	KD 500, KD 500/01	34 kg	
	MD 1000, MD 1000/01	130 kg	KD 1000, KD 1000/01	60 kg	
	MD 1500	140 kg	KD 1500	60 kg	
	SIZES (WxHxD)	Transmitter			
		MD 05	545 x 340 x 560 mm		
MD 10		545 x 340 x 560 mm			
MD 20, MD 20/01		545 x 340 x 560 mm			
MD 50, MD 50/01		570 x 530 x 800 mm			
MD 100, MD 100/01		570 x 530 x 800 mm			
MD 150, MD 150/01		570 x 530 x 800 mm			
MD 280, MD 280/01		570 x 530 x 800 mm			
MD 500, MD 500/01		570 x 530 x 800 mm			
MD 1000, MD 1000/01		625 x 710 x 850 mm			
MD 1500		625 x 710 x 850 mm			
Amplifier					
KD 05		483 x 133 x 400 mm			
KD 10, KD 10/01		483 x 133 x 400 mm			
KD 20, KD 20/01		483 x 133 x 400 mm			
KD 50, KD 50/01		483 x 133 x 410 mm			
KD 100, KD 100/01		483 x 133 x 410 mm			
KD 150, KD 150/01		483 x 133 x 410 mm			
KD 280, KD 280/01		483 x 133 x 560 mm			
KD 500, KD 500/01		483 x 223 x 550 mm			
KD 1000, KD 1000/01	483 x 267 x 670 mm				
KD 1500	483 x 223 x 705 mm				

Features and specifications subject to change without notice.



UHF Solid State Low Power Television Transmitters / Amplifiers

MD Series / KD Series



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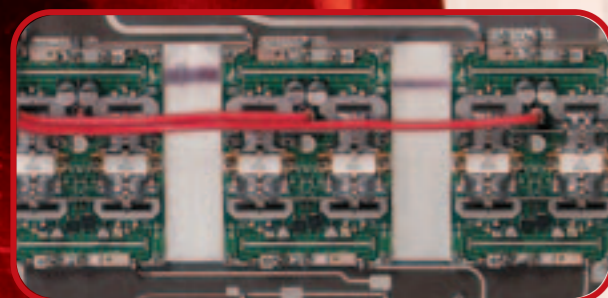
UHF Solid State Low Power Television Transmitters/Amplifiers

MD Series /KD Series

- **New LDMOS technology.** Using the latest LDMOS technology and new PA module design, the MD Series transmitters and KD Series amplifiers are extremely rugged and exhibit excellent thermal characteristics. Linearity and IMD performances are better than older bi-polar technology. This means an excellent transmission quality with analogue or digital operation.
- **Digital ready.** The MD Series transmitters and KD Series amplifiers are designed to grant extremely high performances also for digital television modulation (DVB-T, ATSC,etc...). Each MD'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.
- **Frequency-agile.** MD Series transmitters and KD Series amplifiers are fully broadband. All RF stages ahead of the output filters can operate on any UHF channel.
- **Dual driver.** High on-air reliability is assured by using optional dual driver configuration.
- **Low maintenance.** The overall operating costs are reduced and the maintenance is optimised for two year intervals thanks to the absence of wear-out mechanism in solid state devices.
- **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.
- **Advanced LCD monitoring system** provide full front panel transmitter control capabilities and extensive metering. Standard or special remote control interfaces 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



RF LD-MOS AMPLIFIERS



TECHNICAL CHARACTERISTICS

ELECTRICAL CHARACTERISTICS

Frequency Range	470-860 MHz		
Bandwidth	Broadband		
Output power:			
Transmitter	Amplifier	Analog Power	Digital Power
MD 05	KD 05	5 Wps	2 Wrms
MD 10	KD 10, KD 10/01	10 Wps	3.5 Wrms
MD 20, MD 20/01	KD 20, KD 20/01	20 Wps	6.5 Wrms
MD 50, MD 50/01	KD 50, KD 50/01	50 Wps	16 Wrms
MD 100, MD 100/01	KD 100, KD 100/01	100 Wps	32 Wrms
MD 150, MD 150/01	KD 150, KD 150/01	150 Wps	50 Wrms
MD 280, MD 280/01	KD 280, KD 280/01	280 Wps	80 Wrms
MD 500, MD 500/01	KD 500, KD 500/01	500 Wps	150 Wrms
MD 1000, MD 1000/01	KD 1000, KD 1000/01	1000 Wps	300 Wrms
MD 1500	KD 1500	1500 Wps	450 Wrms
Input power (KD series only):			
With option /01			max. 10 dBm
Without option /01:			
Amplifier	Max. Input Analog Power	Max. Input Digital Power	
KD 05	10 dBm	5 dBm	
KD 10	1 Wps	0.35 Wrms	
KD 20	1 Wps	0.35 Wrms	
KD 50	5 Wps	1.7 Wrms	
KD 100	5 Wps	1.7 Wrms	
KD 150	5 Wps	1.7 Wrms	
KD 280	5 Wps	1.7 Wrms	
KD 500	5 Wps	1.7 Wrms	
KD 1000	5 Wps	1.7 Wrms	
KD 1500	5 Wps	1.7 Wrms	
Power Consumption (at maximum power with black video signal):			
Transmitter	Consumption		
MD 05	77 VA		
MD 10	89 VA		
MD 20, MD 20/01	107 VA		
MD 50, MD 50/01	195 VA		
MD 100, MD 100/01	300 VA		
MD 150, MD 150/01	425 VA		
MD 280, MD 280/01	680 VA		
MD 500, MD 500/01	1310 VA		
MD 1000, MD 1000/01	2520 VA		
MD 1500	3580 VA		
Amplifier	Consumption		
KD 05	45 VA		
KD 10	46 VA		
KD 10/01	58 VA		
KD 20	70 VA		
KD 20/01	83 VA		
KD 50	135 VA		
KD 50/01	165 VA		
KD 100	235 VA		
KD 100/01	270 VA		
KD 150	360 VA		
KD 150/01	395 VA		
KD 280	620 VA		
KD 280/01	650 VA		
KD 500	1250 VA		
KD 500/01	1280 VA		
KD 1000	2460 VA		
KD 1000/01	2490 VA		
KD 1500	3540 VA		
In/out impedance	50 Ω		
Input connector (KD 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)	< -60 dBc (typ. - 62 dBc)		