



LD-MOS TV TRANSMITTERS MD 100



- ° **Generals.** The TV transmitter MD 100 gives 100 Watts peak sync in continuous service in the whole IV-V band.
- ° **New LDMOS technology.** Using the latest LDMOS technology and new PA module design, the RF amplifier is extremely rugged and exhibits excellent thermal characteristics. Linearity and IMD performance are better than older bi-polar technology. This means an excellent transmission quality with analogue or digital operation.
- ° **Digital upgradeable.** The MD 100 transmitter is upgradeable for digital transmission. Optional kits are available for easy field digital upgrading. This reduces the cost of later upgrade to digital while providing the best quality of analogue service currently available.
- ° **Frequency-agile.** Transmitter is fully broadband. The RF stage can operate on any UHF channel, selectable via a digital selector.
- ° **Advanced controller** provides full front panel transmitter control capabilities and extensive metering. Standard or special remote control interface is also available.
- ° **Meets or exceeds** all international standards for safety and electrical requirements.



MD 100 TECHNICAL CHARACTERISTICS

RF Specifications:

Frequency range	470-860 MHz
Bandwidth	Broadband
Output Power:	
MD 50 – MD 50/01	50 Wps (16 Wrms)
MD 100 – MD 100/01	100 Wps (32 Wrms)
MD 150 – MD 150/01	150 Wps (50 Wrms)
MD 280 – MD 280/01	280 Wps (90 Wrms)
MD 500 – MD 500/01	550 Wps (170 Wrms)
MD 1000 – MD 1000/01	1 kWps (300 Wrms)
MD 1500 – MD 1500/01	1.6 kWps (500 Wrms)
MD 2000	2 kWps (600 Wrms)
MD 3000	3 kWps (900 Wrms)
MD 4000	4 kWps (1.2 kWrms)
MD 5000	5 kWps (1.6 kWrms)
MD 10000	10 kWps (3.2 kWrms)
MD 20000	20 kWps (6.4 Wrms)
Output impedance	50 Ω
Output connector:	
From 50 to 500 Wps output power	N (others on request)
From 1000 to 1500 Wps output power	DIN 7/16" (others on request)
From 2000 to 3000 Wps output power	EIA 7/8" (others on request)
From 4 kWps tp 5 kWps output power	EIA 1+5/8" (others on request)
From 10 to 20 kWps output power	EIA 3+1/8" (others on request)
Spurious and harmonic suppression (ref. to carrier)	< - 60 dBc (-62 dBc typ.)
Power stability	< 1%
Intermodulation (IMD-DIN 45004 -8, -16, -10 dB)	< -58 dB (typ. - 60 dBc)

Video characteristics:

Input connector	BNC unbalanced
Input impedance	75 Ω
Input signal level	1 Vp.p.
Input return loss	>30 dB
Differential gain	< \pm 3 %
Differential phase	< \pm 3 °
Amplitude frequency response (in the vision band)	< \pm 0.5 dB
Group delay frequency response (in the vision band)	< \pm 50 nS
S/N ratio	> 64 dB
2T K factor	< 1.8 %
Luminance non linearity	< 2 %

Metering:

Forward and reflected power, DC voltages and currents, inlet and heatsink air temperatures



MD 100 TECHNICAL CHARACTERISTICS

Alarms:

VSWR, over temperature, vision signal missing, cooling system failure, overdriving

Operating conditions:

Operating voltage	110/220/240 Vac \pm 10%, 50/60 Hz
	single phase or 380/415 Vac \pm 10%, 50/60 Hz three phases
Power Consumption (at maximum power):	
MD 50 – MD 50/01	180 VA
MD 100 – MD 100/01	260 VA
MD 150 – MD 150/01	370 VA
MD 280 – MD 280/01	680 VA
MD 500 – MD 500/01	1.2 kVA
MD 1000 – MD 1000/01	2.4 kVA
MD 1500 – MD 1500/01	3.6 kVA
MD 2000	4.7 kVA
MD 3000	7.1 kVA
MD 4000	9.6 kVA
MD 5000	11.9 kVA
MD 10000	23.4 kVA
MD 20000	46 kVA
Cooling	forced air with fans
Operating temperature	-5° ÷ +45° C
Humidity	95% max

Dimensions (WxHxD):

MD 50 – MD 50/01	540x405x720 mm
MD 100 – MD 100/01	540x405x720 mm
MD 150 – MD 150/01	540x405x720 mm
MD 280 – MD 280/01	540x405x720 mm
MD 500 – MD 500/01	540x550x720 mm
MD 1000 – MD 1000/01	540x550x720 mm
MD 1500 – MD 1500/01	540x550x720 mm
MD 2000	540x805x720 mm
MD 3000	540x805x720 mm
MD 4000	540x1070x720 mm
MD 5000	540x1480x840 mm
MD 10000	540x1480x840 mm (2 cabinet)
MD 20000	540x1480x840 mm (4 cabinet)



MD 100 TECHNICAL CHARACTERISTICS

Weight:

MD 50 – MD 50/01	122 kg
MD 100 – MD 100/01	125 Kg
MD 150 – MD 150/01	132 Kg
MD 280 – MD 280/01	133 Kg
MD 500 – MD 500/01	148 Kg
MD 1000 – MD 1000/01	152 Kg
MD 1500 – MD 1500/01	158 Kg
MD 2000	210 kg
MD 3000	260 kg
MD 4000	330 kg
MD 5000	405 kg
MD 10000	810 kg
MD 20000	1650 kg

Features and specifications subject to change without notice.