

MT 100

MT Range: 80 MHz - 1000 MHz / 100 W CW



Prana MT 100

- Class A solid state
- Broadband (instantaneous single band): 80 MHz – 1000 MHz
- Typical output power : 100 W CW
- Linear output power (1 dB compression) guaranteed with harmonics <-20 dBc:
 - P1dB > 100 W and H < -20 dBc up to 450 MHz and
 - P1dB > 65 W and H < -20 dBc from 450 MHz to 1000 MHz
- Air cooling: self contained fans
- Can operate in full mismatch conditions without damage
- Upgradable to MT 200 possible
- Reliable, efficient and robust
- 19" Rack
- 3 years standard warranty

Maintenance

- Amplifier designed for minimal maintenance
 - Easy access to all parts
 - Modular design
 - Repairs with minimum adjustments
- Rapid diagnostic
- Minimal downtime
- Contract for preventive and corrective maintenance available

Applications

- EMC tests
- RF tests and instrumentation
- Radiocommunication
- Measurement and research laboratories

Versions

- MT 100 S : standard amplifier
- MT 100 D amplifier with:
 - Display
 - Digital control
 - IEEE 488 GPIB Communication
- MT 100 SC : MT 100 S with
 - Integrated bidirectional coupler
- MT 100 DC : MT 100 D with :
 - Integrated bidirectional coupler
 - display of instantaneous power

MT Range

- MT 100 => 100 W CW
- MT 200 => 200 W CW
- MT 400 => 400 W CW
- MT 700 => 700 W CW
- MT 1200 => 1200 W CW
- MT 1400 => 1400 W CW
- MT 1700 => 1700 W CW
- MT 2000 => 2000 W CW
- MT 2800 => 2800 W CW

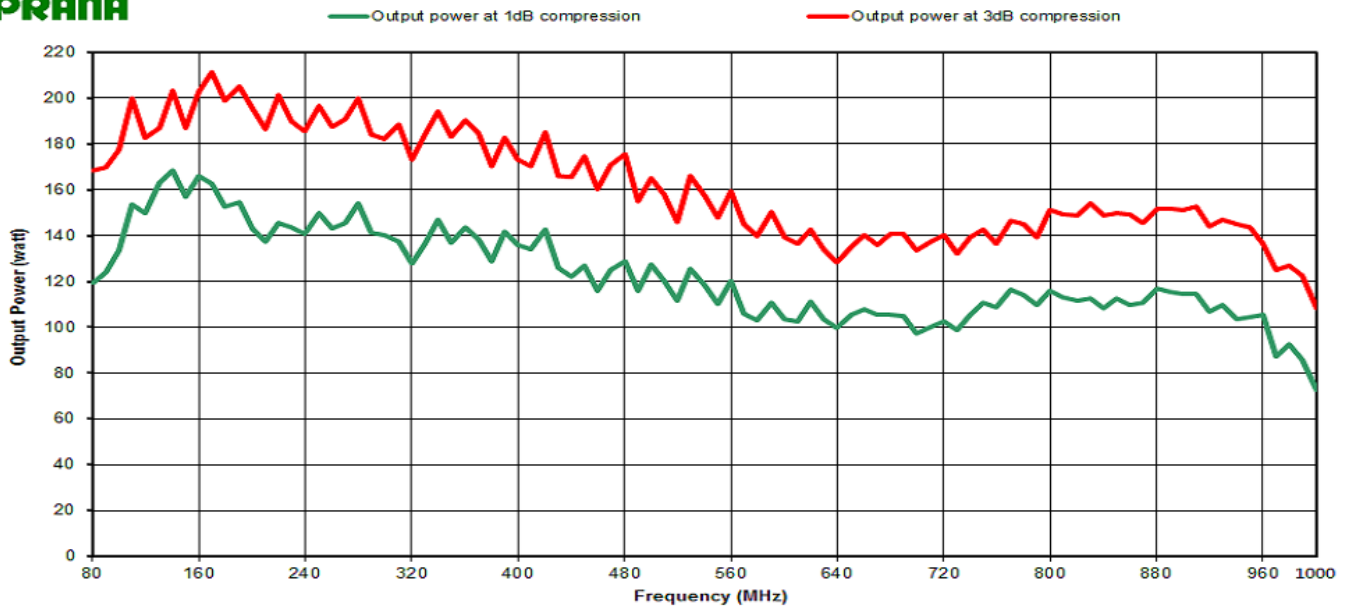
Extra

- External coupler
- Supply and integration inside a cabinet
- RF Power cable
- Switching unit

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Specifications

Frequency bandwidth	80 MHz - 1000 MHz
Typical output power	100 W
Power at 3 dB compression	120 W min. up to 450 MHz / 80 W min. from 450 MHz to 1000 MHz
Power at 1 dB compression	100 W min. up to 450 MHz / 65 W min. from 450 MHz to 1000 MHz
Harmonics distortion	H2,H3 < -20 dBc for the output power at 1 dB compression limit
Class type	Class A
Gain	48 dB
Linear power gain flatness	± 3 dB max
Mismatch tolerance	infinite without damage
Input impedance	50 ohms / VSWR: 2:1 max
Output impedance	50 ohms / VSWR: 2:1 max
Input power	+10 dBm max.
RF input connector	Type N fem. (front or rear panel) – other connector type on request
RF output connector	Type N fem. (front or rear panel) – other connector type on request
Ambient operating temperature	0 °C / + 35 °C
Room temperature storage	-20 °C / +70 °C
Cooling	Forced air: 60 l/sec max. (self contained fans)
Power voltage	90-250 VAC, 47-63 Hz, single phase
Rated current	6.4 A at 110 VAC / 3 A at 230 VAC
Dimensions	640 x 450 x 178 mm (4U) / 25.2 x 17.7 x 7 in (4U)
Weight	32 kg / 70 lb

MT 100 D version :

Safety interlock	Connector type BNC
Digital control	Transistors, power supplies and internal temperature
Communication interface	IEEE 488
4 lines digital display	Status, faults, (direct and reverse instantaneous power for DC version)

MT 100 SC and MT 100 DC versions :

Integrated bidirectional power coupler	Coupling factor 50 dB typ. (SC version) / 59 dB typ. (DC version)
Power coupling connector	Type N fem. (front or rear panel)
Estimated output power losses due to the coupler	0.3 dB