

# DT 90

DT Range: 9 kHz - 1000 MHz / 90 W CW



## Prana DT 90

- Class A solid state
- Broadband (instantaneous single band): 9 kHz – 1000 MHz
- Frequency extension between 4 kHz and 9 kHz upon request
- Typical output power : 90 W CW
- Linear output power (1 dB compression) guaranteed with harmonics <-20 dBc:
  - P1dB > 50 W and H<-20 dBc up to 500 MHz and
  - P1dB > 30 W and H<-20 dBc from 500 MHz to 1000 MHz
- Air cooling: self contained fans
- Can operate in full mismatch conditions without damage
- 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

- DT 90 S : standard amplifier
- DT 90 D amplifier with:
  - Multicolor LCD display with touch panel
  - Digital control
  - IEEE 488 GPIB, USB, RS232, Ethernet Communications
  - Temperature controlled fans
  - Safety interlock
- DT 90 SC : DT 90 S with
  - Integrated dual directional coupler
- DT 90 DC : DT 90 D with :
  - Integrated dual directional coupler
  - Display of instantaneous incident and reflected power

## DT Range

- DT 30 => 30 W CW
- DT 90 => 90 W CW
- DT 180 => 180 W CW
- DT 90/130 => 90 W CW - 130 W CW
- DT 170/130 => 170 W CW - 130 W CW
- DT 310/220 => 310 W CW - 220 W CW
- DT 1250-800 => 1250 W CW - 800 W CW

## Extra

- External coupler
- Supply and integration inside a cabinet
- Bulk Current Injection + Calibration JIG
- RF Power cable
- Switching unit

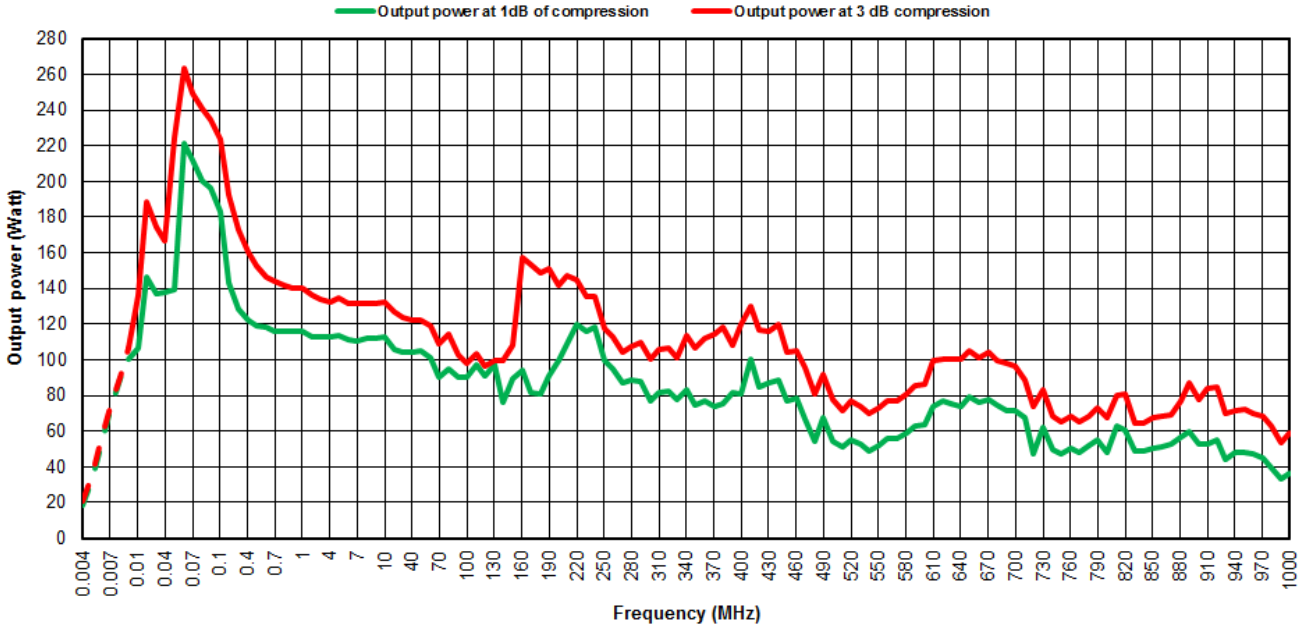
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## Specifications

Frequency bandwidth	9 kHz - 1000 MHz
Typical output power	90 W
Power at 3 dB compression	60 W min up to 500 MHz / 40 W min from 500 MHz to 1000 MHz
Power at 1 dB compression	50 W min up to 500 MHz / 30 W min from 500 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	± 5 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 with fan speed control (for D version): 60 l/sec max. (self contained fans)
Power voltage	90-250 VAC, 47-63 Hz, single phase
Rated current	7.7 A at 110 VAC / 3.7 A at 230 VAC
Dimensions	640 x 450 x 178 mm (4U) / 25.2 x 17.7 x 7 in (4U)
Weight	28 kg / 67 lb

## DT 90 D version :

Safety interlock	Connector type BNC
Digital control	Transistors, power supplies, temperature and fans
Communication interface	Ethernet, USB, GPIB, RS232
Color LCD display with touch screen	Status, faults, (direct and reverse instantaneous power for DC version)

## DT 90 SC and DT 90 DC versions :

Integrated bidirectional power coupler	Coupling factor 40 dB typ. (SC version) / 49 dB typ. (DC version)
Power coupling connector	Type N fem. (front or rear panel)
Estimated output power losses due to the coupler	0.6 dB