

# N-DR 140

DR Range: 9 kHz - 400 MHz / 140 W CW



## Prana N-DR 140

- Class A solid state
- Broadband (instantaneous single band): 9 kHz –400 MHz
- Frequency extension between 4 kHz and 9 kHz upon request
- Typical output power : 140 W CW
- Linear output power (1 dB compression) guaranteed with harmonics <-20 dBc:
  - P1dB > 90 W and H<-20 dBc at 9 kHz
  - P1dB > 110 W and H<-20 dBc from 10 kHz to 20 kHz
  - P1dB > 100 W and H<-20 dBc from 20 kHz to 250 MHz
  - P1dB > 60 W and H<-20 dBc from 250 MHz to 400 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

- N-DR 140 S : standard amplifier
- N-DR 140 D amplifier with:
  - Multicolor LCD display with touch panel
  - Digital control
  - IEEE 488 GPIB, Ethernet, USB, RS232 Communications
  - Temperature controlled fans
  - Safety interlock
- N-DR 140 SC : N-DR 140 S with
  - Integrated dual directional coupler
- N-DR 140 DC : N-DR 140 D with :
  - Integrated dual directional coupler
  - Display of instantaneous incident and reflected power

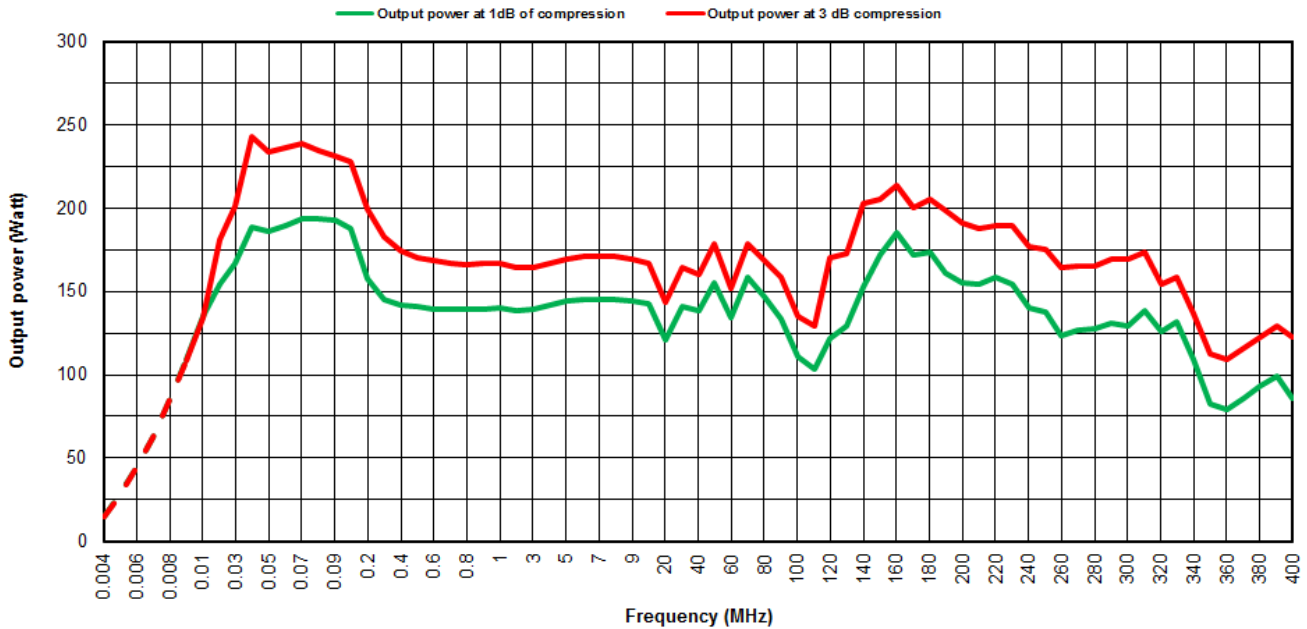
## DR Range

- N-DR 75 => 75 W CW
- N-DR 140 => 140 W CW
- N-DR 290 => 290 W CW
- N-DR 540 => 540 W CW
- N-DR 1100 => 1100 W CW
- N-DR 1800 => 1800 W CW
- N-DR 3200 => 3200 W CW

## Extra

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

N-DR14010JUN2020 - Electrical and Mechanical Specifications subject to change without notice.



## Specifications

Frequency bandwidth	9 kHz - 400 MHz
Typical output power	140 W
Power at 3 dB compression minimum	100W at 9kHz / 130W 10-20kHz / 125W 20kHz-250MHz / 80W 250-400MHz
Power at 1 dB compression minimum	90W at 9kHz / 110W 10-20kHz / 100W 20kHz-250MHz / 60W 250-400MHz
Harmonics distortion	H2,H3 < -20 dBc for the output power at 1 dB compression limit
Class type	Class A
Gain	50 dB
Linear power gain flatness	± 2.5 dB max
Mismatch tolerance	infinite without damage
Input impedance	50 ohms / VSWR: 2:1max
Output impedance	50 ohms / VSWR: 2:1max
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	7.3 A at 110 VAC / 3.5 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

## N-DR 140 D version :

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

## N-DR 140 SC and N-DR 140 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	0.3 dB