

SU 50

SU Range: 1 GHz - 2.5 GHz / 50 W CW



Prana SU 50

- Class A solid state
- Broadband (instantaneous single band): 1 GHz – 2.5 GHz
- Typical output power : 50 W CW
- Linear output power (1 dB compression) guaranteed with harmonics <-20 dBc:
 - P1dB > 40 W and H < -20 dBc up to 1.6 GHz and
 - P1dB > 30 W and H < -20 dBc from 1.6 GHz to 2.5 GHz
- Air cooling: self contained fans
- Can operate in full mismatch conditions without damage
- Upgradable to SU 90 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

- SU 50 S : standard amplifier
- SU 50 D amplifier with:
 - Display
 - Digital control
 - IEEE 488 GPIB Communication
- SU 50 SC : SU 50 S with
 - Integrated bidirectional coupler
- SU 50 DC : SU 50 D with :
 - Integrated bidirectional coupler
 - display of instantaneous power

SU Range

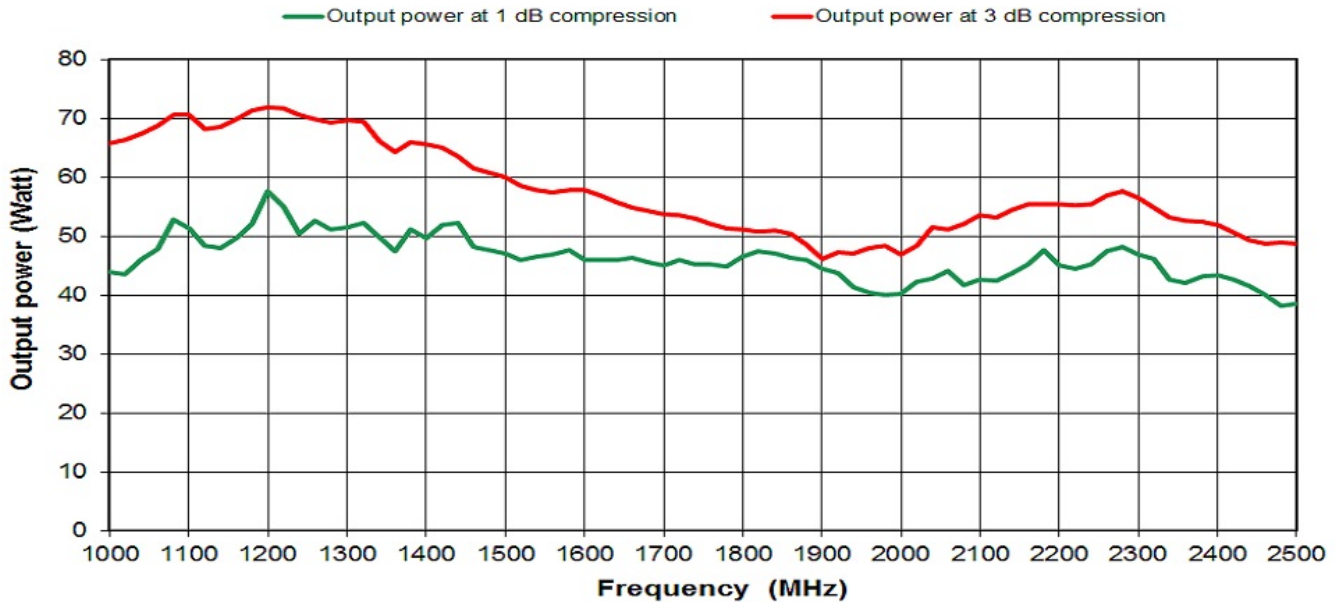
- SU 50 => 50 W CW
- SU 90 => 90 W CW
- SU 175 => 175 W CW
- SU 300 => 300 W CW
- SU 600 => 600 W CW
- SU 1200 => 1200 W CW

Extra

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

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Specifications

Frequency bandwidth	1 GHz - 2.5 GHz
Typical output power	50 W
Power at 3 dB compression	50 W min. up to 1.6 GHz / 40 W min. from 1.6 GHz to 2.5 GHz *
Power at 1 dB compression	40 W min. up to 1.6 GHz / 30 W min. from 1.6 GHz to 2.5 GHz *
Harmonics distortion	H2,H3 < -20 dBc for the output power at 1 dB compression limit
Class type	Class A
Gain	45 dB
Linear power gain flatness	± 4 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	3.2 A at 110 VAC / 1.5 A at 230 VAC
Dimensions	640 x 450 x 178 mm (4U) / 25.2 x 17.7 x 7 in (4U)
Weight	20 kg / 44 lb

SU 50 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)

SU 50 SC and SU 50 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 * => take account these power losses for the min output power