

HIGH POWER AMPLIFIERS

HPA 2500B - 500W TRI-BAND OUTDOOR

ND SATCOM



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ND SatCom has been a supplier to the satcom industry for over 30 years. All necessary features required in today's satellite communication applications such as serial/parallel M&C interfaces, local and remote panels are available in this HPA product line.

All RF parameters can be monitored and controlled on the front panel. The modular construction ensures easy servicing. The high voltage section is potted and all other electrical components are coated to protect against humidity and dust.

Key Features

- / Unmatched RF performance
- / High-tech power supply unit for highly reliable operation
- / Integrated power factor correction
- / Low power consumption (max. 1750 W)
- / Integrated attenuator (35dB range)
- / Compliant to MIL-STD

Options

- / Integrated X-Band linearizer
- / Redundancy switching
- / Remote control panel

// Unmatched TWT durability and reliability through our intelligent high-tech power supply unit //

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Technical Specifications

RF SPECIFICATION

HPA Type	HPA 2500B
Frequency Range	5.85 - 6.425 GHz / 7.9 - 8.4 GHz / 13.75 - 14.50 GHz
Flange Power	>325 W, > 55,1 dBm / >420 W, > 56,2 dBm / >380 W, > 55,8 dBm
TWT Power	500 W Tube
Gain @ Rated Power (10 dB OBO)	> 70 dB / > 73 dB
Gain Adjust	> 0 - 35 dB, ± 0.1 dB setability
Gain Stability	< ± 0.25 dB / °C / 24 hrs after 30 min warm-up
Gain Slope	< 0.04 dB / MHz
Gain Variation	< 1.0 dB / in any 80 MHz, < 2.5 dB / in any 500 MHz, < 7 dB / full band
Group Delay (in any 40 MHz)	< 0.01 ns / MHz linear, < 0.005 ns / MHz ² parabolic, < 0.5 ns ripple
Intermodulation	< -20 dBc at 6 dB below rated power without linearizer < -30 dBc at 4 dB below rated power with linearizer (only X-Band)
AM/PM Conversion	< 2.5° / dB at 6 dB below rated power, < 6° / dB at rated output power
Phase Noise	Meets IESS 308/309
Noise and Spurious Emissions	< -60 dBW / 4 kHz (4 -20 GHz)
Harmonic Output Suppression	< -3 dBc at rated output / < -10 dBc at rated output / < -12 dBc at rated output

PHYSICAL

Input RF Connector	N-jack (input/testport)
Output RF Connector	WRD 580D28 Waveguide Output, grooved, threaded UNC 6/34
Dimensions (L X W x H)	294 x 233 x 649 mm
Weight	< 36 kg / 79 lbs
Cooling	forced air min. 200 m ³ /h

MONITOR & CONTROL

Serial Remote Interface	PT 851-00R12-10S50 RS422/RS485
Alarm / Mute Interface	PT 851-00R12-10S50
Parallel Remote Interface	PT 851-00R19-10S50

GENERAL

Main Power Connector	Binder 694 99 0711 00 05
Noise Level (cooling fan)	< 65 dBA measured in 1 m distance
Prime Power	115 to 240 VAC / 50-60 Hz, single phase
Power Consumption	< 1750 W max.
CE Directive	73/23/EEC and 92/31/EEC 89/336/EEC 1999/5/EC

ENVIRONMENTAL SPECIFICATION

Temperature Range (operational)	-40°C to +50°C
Humidity	95% condensing at 40°C
Shock and Vibration	Compliant to MIL-STD 810F