



HIGH POWER AMPLIFIER 500W TRI-BAND Outdoor HPA 2500B

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 and remote panel are available in this HPA product line.

All RF parameters can be monitored and controlled on the remote 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.

The HPA 2500B delivers unmatched TWT durability and reliability through our intelligent high-tech power supply unit.

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
- Integrated Triband Blockupconverter
- Remote control panel

HPA 2500B

RF SPECIFICATION	
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 at Rated Power	> 70 dB
Small Signal Gain (10 dB OBO)	> 73 dB
Gain Adjust	> 0 - 35 dB, min. step size 0.1 dB
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 (two equal carriers at total output power)	< -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 / N-Jack Testport
Output RF Connector	WRD 580D28 Waveguide Output, grooved, threaded UNC 6/32
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, 92/31/EEC, 89/336/EEC and 1999/5/EC
Environmental Specifications	
Temperature Range (operational)	-40°C to +50°C
Humidity	95% condensing at 40°C
Shock and Vibration	Compliant to MIL-STD 810F

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