

# 500 W C-band Hub-Mount Solid-State Power Amplifier



## C-band Hub-Mount Solid-State Power Amplifier MHA-CSA500

The 500 Watt Hub-Mount SSPA takes high efficiency to a new level in solid-state power amplifiers. Wavestream's proprietary spatial power combining enables packing 500 Watts into a rugged 85-lb. unit that can be mounted directly on medium aperture antennas, maximizing the power into the feed and further enhancing system-level efficiency.

The compact 24" x 12" x 8" SSPA provides the required linearity for Satcom links. It provides high reliability to minimize life cycle costs even in the most demanding applications and extreme environments (-40° to +60° C).

### KEY FEATURES & BENEFITS

- ▶ 500 W for higher data rate capability
- ▶ Industry leading efficiency with 2.4 kVA for 500 Watts of output power
- ▶ High reliability lowers life cycle cost
- ▶ Rugged 85 lb package
- ▶ Mounts on antenna for simple integration
- ▶ Redundancy and BUC options available



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## RF Specifications

<b>Transmit Frequency</b>	5.85 - 6.425 GHz
<b>Small Signal Gain</b>	75 dB nominal
<b>P1dB Output Power</b>	57 dBm
<b>Rated Output Power</b>	57 dBm
<b>Intermodulation</b> with two equal carriers at 3 dB total power backoff from rated power	-25 dBc
<b>Spectral Regrowth</b> (typical) at 2 dB below rated power at 1.0x symbol rate offset for OQPSK or QPSK	-30 dBc
<b>Output Spurious</b>	-60 dBc
<b>AM/PM Conversion</b> up to rated power	2.5 deg/dB

## Power

<b>AC Power</b>	200 - 240 VAC, 50-60 Hz
<b>AC Prime Draw</b> (typical) At rated power output	2.4 kVA

## Interfaces

<b>Input Port Connector</b>	Type N Female
<b>Input Port Impedance</b>	50 Ohms
<b>RF Sample Port</b>	Type N Female
<b>RF Port Connector</b>	WR-137
<b>RF Output VSWR</b>	1.25:1 max
<b>AC Connector</b>	4-Pin circular
<b>M&amp;C Connector</b>	19-Pin Military circular
<b>Monitor and Control</b>	Serial RS-485 (SA-bus), Forward Power Monitor

## Physical

<b>Size</b>	24" L x 12" W x 8" H
<b>Weight</b>	85 lbs
<b>Operating Temperature</b>	-40°C to +60°C

Wavestream develops and manufactures high-power solid-state amplifiers which meet the evolving needs of modern mobile and fixed communications systems. Wavestream's proprietary spatial power combining technologies enable higher amplifier output powers in smaller packages with greater efficiency and lower cost than competing solutions. Wavestream offers Ka-band, Ku-band, C-band and X-band SSPAs or BUCs for satellite uplink and tropospheric communications. Using Wavestream technology solid-state amplifiers are now a preferred choice to tubes in the low to moderate power segment of tube usage. With the introduction of its products Wavestream has become the industry-leading provider of a new generation of highly reliable solid-state amplifier solutions for commercial, defense and homeland security systems.

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Specifications subject to change without notice.