

# Solid State Power Amplifier Module X-Band 7-11 GHz, 170 Watts

## Model BME79119-170

### Overview

Stellant PST proudly introduces its latest addition to its GaN solid state power amplifier product line. Stellant's latest development continues to expand on its integrated RF GaN Power Amplifier designs by offering a small form factor (SFF) module. Consistent with its planned technology development roadmap, Stellant PST proudly introduces the latest in GaN-based 7-11GHz RF amplifier for TWT/MPM Replacement. This highly integrated design is ideal for use in communication, electronic warfare, and radar transmitter systems where space, cooling, and power are limited. Comtech PST is a leading supplier in custom-built solid-state amplifiers for the U.S. and International markets.



### TWT/MPM Replacement Features

- 4GHz Bandwidth
- Class AB CW
- Rugged and Reliable
- Compact and Lightweight
- GaN Technology
- Low Harmonic Distortion
- Low Voltage Operation

### Specifications

- |  |                            |                          |                              |
|--|----------------------------|--------------------------|------------------------------|
| • Frequency Range:                     | 7-11 GHz                   | • DC/Control Interface:  | 9-pin Combo D                |
| • RF Power Output (P <sub>sat</sub> ): | >200 Watts (Typical)       | • PA Enable/Disable:     | 5.0V TTL (<2μS on/off)       |
| • RF Power Output (50 Ohms)            | 170 Watts (Minimum)        | • DC Input:              | +24 to 32 VDC                |
| • Gain @ P <sub>sat</sub> :            | >53 dB typical             | • DC Power @ Standby:    | <30W                         |
| • RF input Overdrive:                  | +5 dBm Max.                | • Efficiency (DC to RF): | >20% typical                 |
| • Gain Flatness @ 0 dBm Input:         | ±0.5 dB typical            | • RF Connectors          |                              |
| • Class of Operation:                  | AB                         | RF Input:                | SMA Female field replaceable |
| • Input/Output VSWR:                   | 2.0:1 Maximum              | RF Output:               | TNC Female field replaceable |
| • Harmonics at 170W output:            |                            | • Operating Temperature: | -40 to +65° C baseplate      |
| 2fo:                                   | <-20 dBc                   |                          | +65 to 80° C derated power   |
| 3fo:                                   | <-30 dBc                   |                          | (External heatsink required) |
| • Spurious:                            | <-60 dBc                   | • Storage Temperature:   | -40 to 85° C                 |
| • Noise Output Power                   | <-90 dBm/Hz                | • Environmental:         | Shock/Vibration MIL-STD-810F |
| • Stability:                           | Open/Short Tested          | • Altitude:              | 10,000 feet                  |
| • Built in Test:                       | Over Current Fault         | • Size:                  | 8.0" x 6.0" x 2.5"           |
|  | Over Temperature Fault     | • Weight:                | 6 lbs. (Max)                 |
|  | High Reflected Power Fault |                          |                              |

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