Stellant
Power Systems Technology (PST)

Solid State Power Amplifier Module 4-18 GHz, 50 Watts

Model BME49189-50

Overview

Stellant PST proudly introduces a new ultra-wideband high-power solid-state RF module. Comtech's latest development continues to expand on its proven innovative integrated RF GaN Power Amplifier designs by further increasing the bandwidth and power density. Consistent with its planned technology development roadmap, Stellant proudly introduces the latest in GaN-based 4-18GHz RF amplifier. This highly integrated design is ideal for use in communication, electronic warfare, and radar transmitter systems where space, cooling, and power are limited. This unit is ideal for UAV/Airborne, Ground Mobile, Surface and Shipboard applications.

Features

- Ultra Wideband Operation
- High Efficiency
- Full Power across the Entire Bandwidth
- Rugged and Reliable
- Low Harmonic Distortion
- Compact and Lightweight
- GaN Technology

Specifications

Frequency Range:	4-18 GHz
RF Power Output (P3dB):	>50 Watts typical
Gain @ 40 watts typical:	>49 dB typical
RF input Overdrive:	+10 dBm Max.
Gain Flatness @ 40W (50Ω)	±4.5dB typical
Class of Operation:	AB Linear
Input VSWR/Output VSWR:	2.0:1 Maximum
Output Load VSWR:	2.0:1 Full Power
Harmonics:	
2fo:	<-16dBc typical
3fo:	<-30dBc typical
Noise Output Power	-105dBm/Hz typical
Spurious:	<-60 dBc
Stability:	Open/Short Tested
Built in Test:	Composite Fault Indication
	Over Current Fault
	Over Temperature Fault

DC/Control Interface:	7-pin Combo D
PA Enable/Disable:	5.0V TTL <1.2 us full RF ON/OFF typical
DC Input:	+28Vdc + 0.3Vdc
Max DC Power:	<370W
DC Power @ Standby:	< 10W
Efficiency (DC to RF):	>15% typical
RF Connectors:	
RF Input:	SMA Female field replaceable
RF Output:	SMA Female field replaceable
Operating Temperature*:	-40 to +85°C Baseplate (external heatsink required)
Environmental:	Shock/Vibration MIL-STD-810F
Relative Humidity:	95% Non-Condensing
Size:	6.56" x 3.50" x 0.84"
Weight:	1.5 lbs. max.

*Performance specified -40°C to +55°C baseplate.
Performance may degrade linearly above +55°C baseplate.

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