

Hermetically Sealed Wide Band Solid State Power Amplifier 800 - 3000MHz



Note: The photo is for illustration purposes only.
Please refer to outline drawing

Features

- Wide Band Solid State Amplifier
- Gain: 55dB Typical
- Psat: 47dBm Typical
- DC Voltage: +28V

Typical Applications

- Wireless Infrastructure
- Test and Measurement
- Military and Defense

Electrical Specifications, $T_A = +25^\circ\text{C}$, $V_{dd} = +28\text{V}$

Parameter	Min.	Typ.	Max.	Units
Frequency Range	800		3000	MHz
RF Output Power		47		Watt
Power Gain		55		dB
Power Gain Flatness		± 1.5		dB
Noise Figure		11		dB
Input Return Loss			-10	dB
Harmonics @20W		-15		dBc
Spurious Signals		-60		dBc
Impedance		50		Ω
Operating Voltage	24	28	32	Volt
DC Current @40W		6		Amp
Switch On/Off@10-90% Time		2	5	us
DC Current @ Shutdown		0.3		Amp

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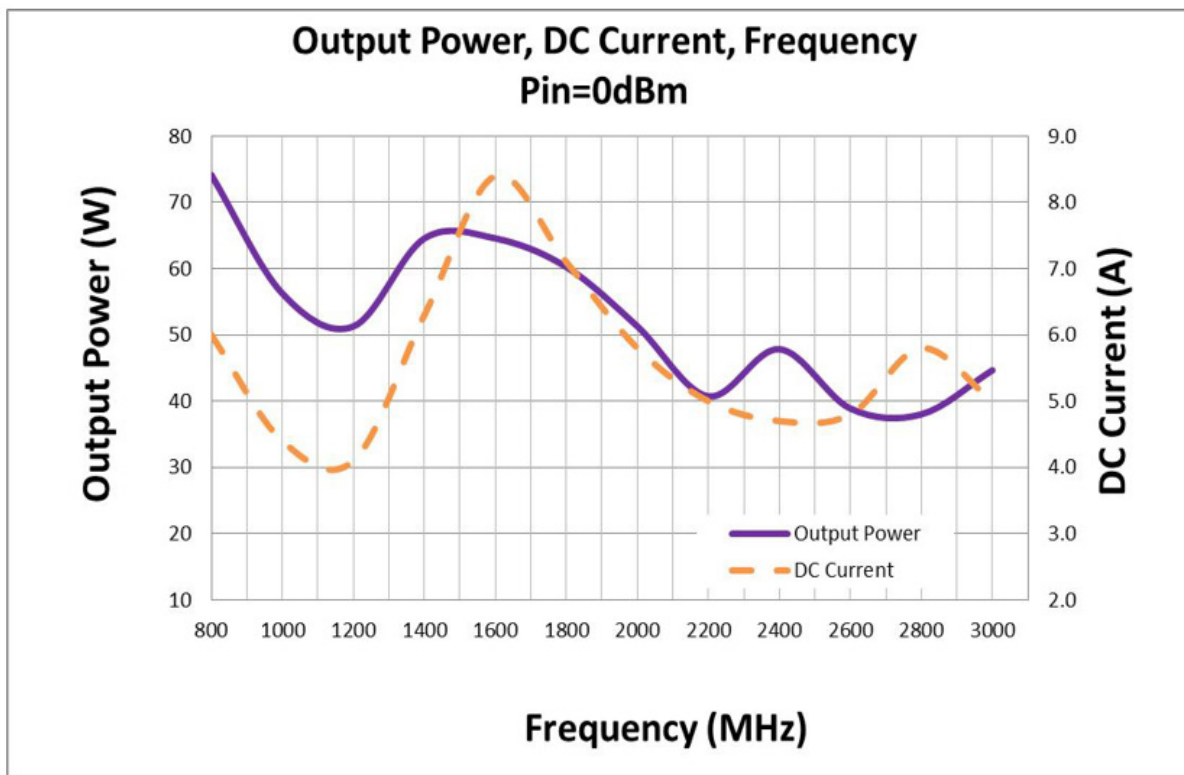
Absolute Maximum Ratings

Input RF drive level without damage	+10dBm(Max)
Load VSWR @ POUT =20W	∞ @ all load phase & amplitude for duration of 1 minute; 3:1 @ all load phase & amplitude continuous
Over Temperature Shutdown	85°C @ heatsink(restored @ 60°C)

Environmental Specifications and Test Standards

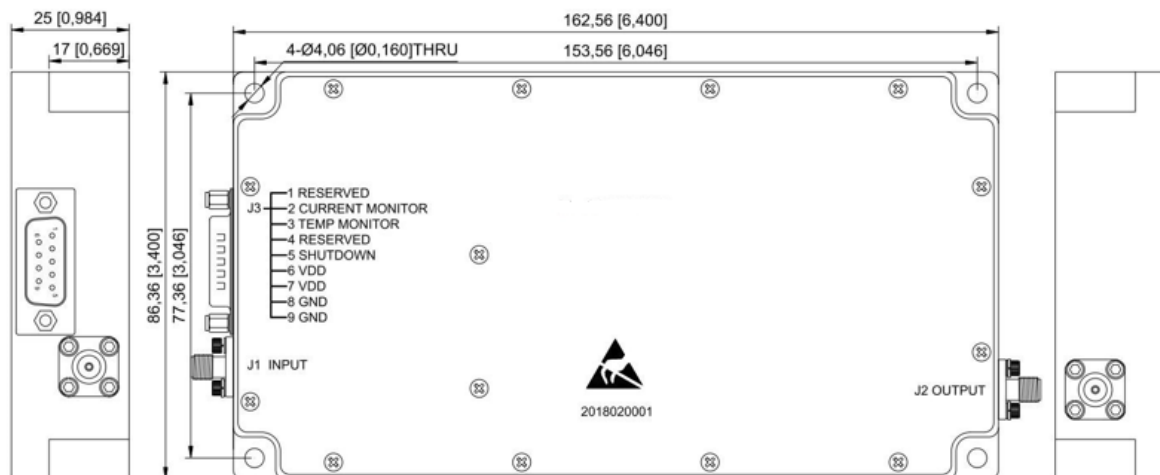
Parameter	Description
Operational Temperature	-20°C~+60°C (Case Temperature less than 85°C)
Storage Temperature	-40°C~+85°C
Thermal Shock	-40°C → +85°C (5 Cycles / 10 hours)
Random Vibration	MIL-STD-202G Table 214-I, Test Condition Letter C 1.5 Hours Per Axis
High Temperature Burn In	Temperature +85°C for 72 Hours
Shock	1. Weight >20g, 50g half sine wave for 11ms, Speed variation 3.44m/s 2. Weight <=20g, 100g Half sine wave for 6ms, Speed variation 3.75m/s 3. Total 18 times (6 directions, 3 repetitions per direction).
Altitude	Standard: 30,000 Ft (Epoxy Sealed Controlled Environment) Optional: Hermetically Sealed (60,000 ft. 1.0 PSI min)
Hermetically Sealed (Optional)	MIL-STD-883 (For Hermetically Sealed Units)

Typical Performance Plots



Outline Drawing:

All Dimensions in mm [inches]



Interface Connector

Pin #	Description	Specifications
1	Reserved	No Connection
2	Current Monitor	Analog voltage relative to IDD @ 50mV/100mA
3	Temp Monitor	Analog voltage relative to module temperature @ 10mV/°C
4	Reserved	No Connection
5	Shutdown	Amplifier Disable: TTL Logic Low
6,7	VDD	+28.0VDC
8,9	GND	Ground

DC Interface Connector: D-Sub 9-Pin, Male

Weight 1.5kg



Important Notice

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