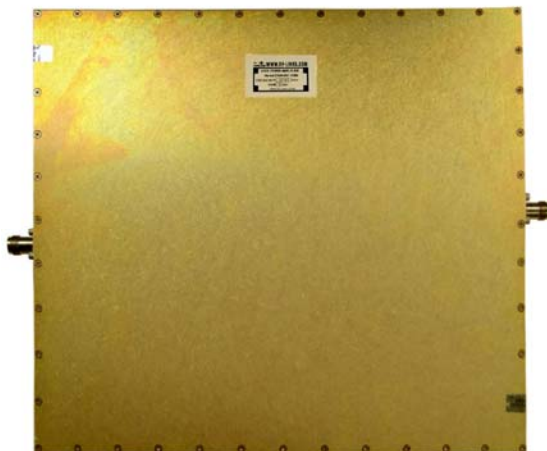




# ZHM-0911G50

## HIGH POWER MIL GRADE AMPLIFIER

### 9.5GHz – 10.5 GHz



This ZHM-0911-G50 amplifier is a high power, X band, Solid State Power that operates from 9.5 to 10.5 GHz. The saturated output power is 80 watts typical at 25C. Typical small signal gain is 43 dB. Noise figure is 6.5 dB typical at 25C. Input VSWR is 2.0:1 maximum. Output VSWR is 2.0:1 maximum. This unit is equipped with DC switching circuitry that enables and disables the DC-DC circuitry in 1000 nSec maximum. Standard features include reverse polarity protection, output short and open circuit protection, an over-temperature alarm and an integrated DC-DC converter with over/under voltage protection. This power amplifier operates from a +28 Vdc power supply with a class AB bias of typically 15.0 amps. This unit is also offered as a +12Vdc amplifier in a smaller package. Please contact the factory. This amplifier operates from -40C to +65C base plate temperature. Maximum input power with no damage is +20 dBm.

- Operation across 9.5 to 10.5 GHz
- 55 watts saturated output power typ
- 43 dB typ small signal gain
- High speed DC switching circuitry
- 8.0 dB noise figure

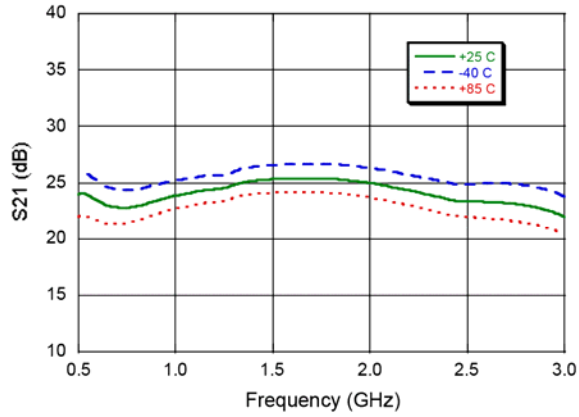
#### Electrical Specifications:

Freq. = 0.5 - 3.0 GHz,  $V_{DD} = 12\text{ V}$ ,  $I_{DQ} = 1.5\text{ A}$ ,  $T_A = 25\text{ }^\circ\text{C}$ ,  $Z_0 = 50\ \Omega$

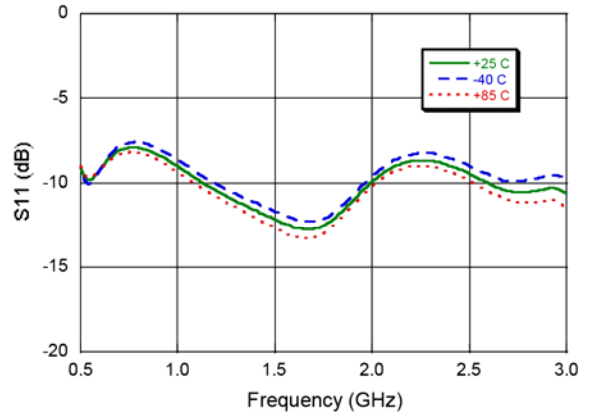
Parameter	Test Conditions	Units	Min.	Typ.	Max.
Gain	Small signal	dB	24	26	26
Input Return Loss	—	dB	—	10	—
Output Return Loss	—	dB	—	10	—
P1dB	—	dBm	—	35	—
$P_{SAT}$	—	dBm	38	41	—
Current	$I_{DQ}$ $P_{SAT}$	A	— —	1.5 2.0	— —
PAE	$P_{SAT}$	%	—	30	—
Duty Cycle	—	%	—	—	100

# Typical Performance Curves

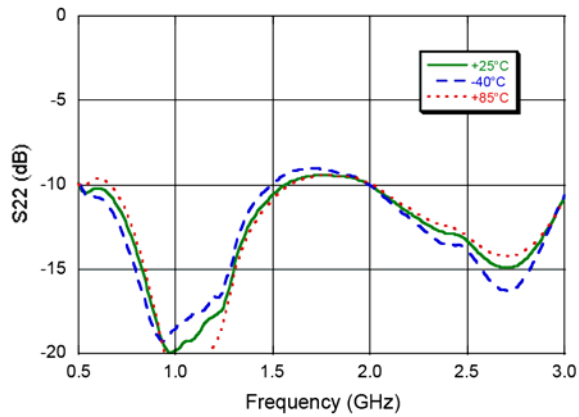
**Gain**



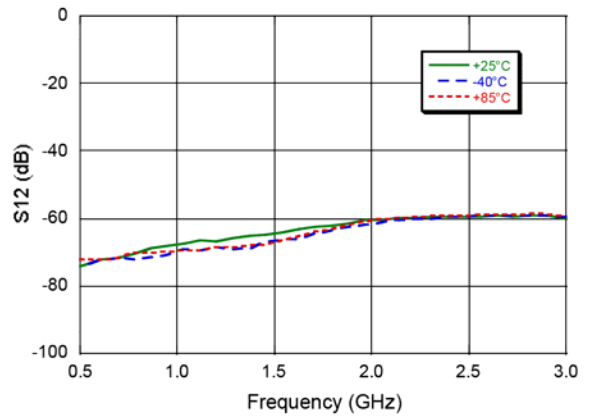
**Input Return Loss**



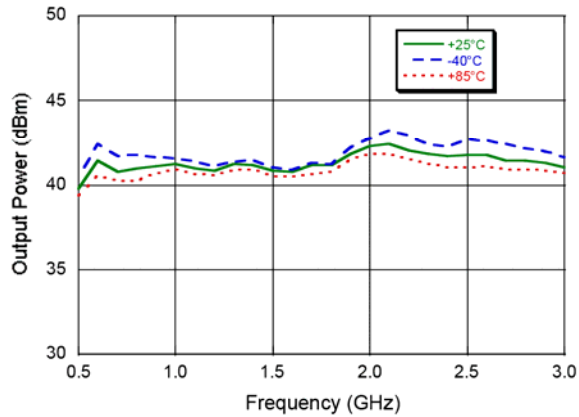
**Output Return Loss**



**Reverse Isolation**



**Output Power (dBm)**



**Output Power (W)**

