

Model 25HM1G6AB-44

25 Watts

1GHz–6GHz

The Model 25HM1G6AB-44 is a compact, wide-band, hybrid power amplifier module that covers 1-6GHz. When used with a sweep generator, the Model 25HM1G6AB-44 provides a minimum of 25W of RF power instantaneously from 1-6 GHz.

The Model 25HM1G6AB-44 operates from a single DC voltage and provides 48dB of typical gain with excellent gain flatness, noise figure and low intermodulation distortion. It is designed to have low spurious signals, linearity and is extremely load tolerant which enables it to be used in many RF applications that require linearity, power and wide bandwidth. The circuitry consists of balanced topology which provides good input and output return loss and stability. It is a 50 ohm, cascable building block and can be used as a microwave power amplifier for both the military and commercial industries.

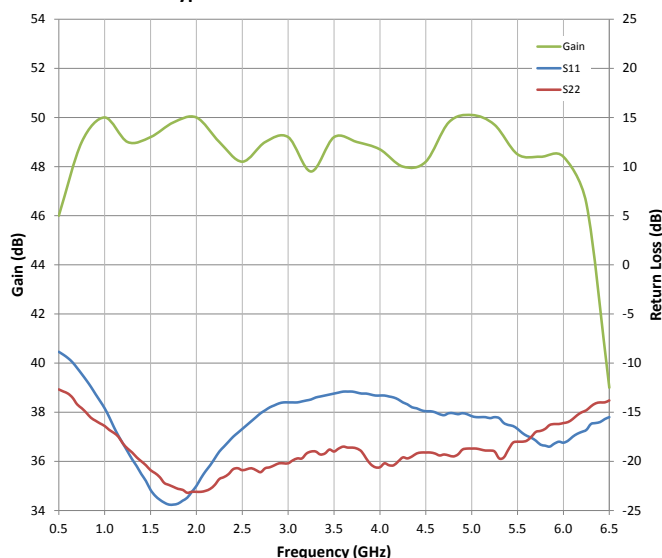
The amplifier circuitry is based on the latest developments in thin film substrates. It incorporates plated-thru holes and air bridge technology to ensure optimum RF performance. The active devices are in chip form, eutectic-die attached and wire-bonded, providing solid-state reliability and long operating life. Special materials and process techniques were selected to achieve excellent thermo-dissipation and capability for meeting stringent military-environment test requirements. The module should be bolted to a heat sink for good heat dissipation. The RF input/output connectors are field-replaceable.

The export classification for this equipment is EAR99. These commodities, technology or software are controlled for export in accordance with the U.S. Export Administration Regulations. Diversion contrary to U.S. law is prohibited.

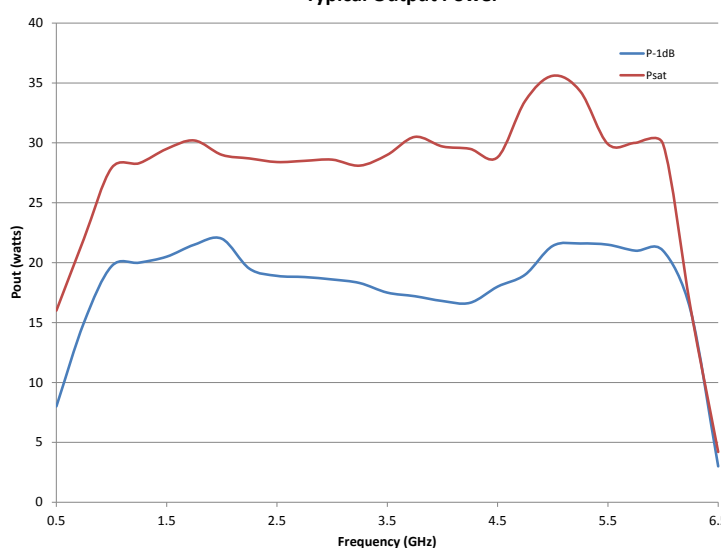


- Solid-state, Class AB design
- +28V DC single bias
- Built-in control monitoring and protection circuits (optional)
- High reliability and ruggedness
- Soft-fail design

Typical Gain and Return Loss



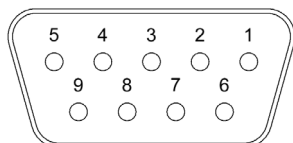
Typical Output Power



SPECIFICATIONS, 25HM1G6AB-44

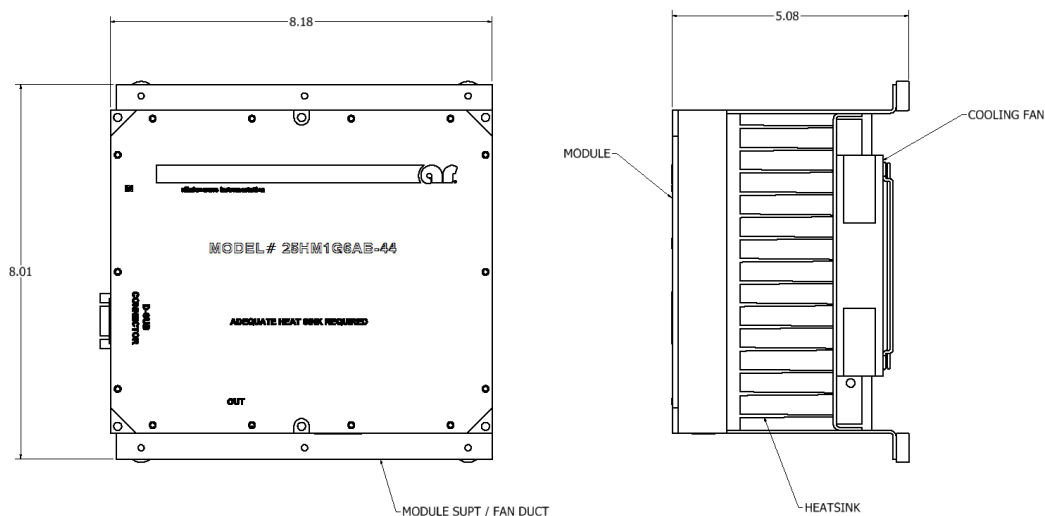
RATED POWER OUTPUT	25W minimum
POWER OUTPUT @ 3dB COMPRESSION	
Nominal	25W
Minimum	20W
POWER OUTPUT @ 1dB COMPRESSION	
Nominal	18W
Minimum	14W
SMALL SIGNAL GAIN FLATNESS.....	±1.0 dB typical ±2.0 dB maximum
FREQUENCY RESPONSE	1–6 GHz instantaneously
GAIN	44 dB minimum
NOISE FIGURE	8.5 dB typical
INPUT IMPEDANCE.....	50 ohms, VSWR 2.0:1 maximum
OUTPUT IMPEDANCE	50 ohms, VSWR 2.0:1 maximum
MISMATCH TOLERANCE @ RATED Pout	3:1 at all load phase.
MODULATION CAPABILITY	Will faithfully reproduce AM, FM, or pulse modulation appearing on the input signal.
HARMONIC DISTORTION	Minus 20 dBc typical at 20W
THIRD ORDER INTERCEPT POINT	48 dBm typical
DC POWER.....	+28V, I _{DQ} =4A
CURRENT CONSUMPTION @ 25W.....	I _{DD} =7A typical
CONNECTORS.....	SMA female
SIZE (W x L x H)	17.5 x 20.3 x 3 cm (6.9 x 8.2 x 1.2 in)

DC VOLTAGE PINOUT



PIN #	FUNCTION
1,2,6,7	+28V
3,8,9	GND
5	FAULT
4	NOT USED

TTL High: Normal
TTL Low: Fault



Model Configurations		
Model	RF In/Out Connector	Housing
25HM1G6-44	SMA	Standard
25HM1G6-44M1	SMA	With heatsink and fan