

Model 30HM1G6AB-45

30 Watts

1GHz–6GHz

The Model 30HM1G6AB-45 is a compact, wide-band, hybrid power amplifier module that covers 1-6GHz. When used with a sweep generator, the Model 30HM1G6AB-45 provides a minimum of 30W of RF power instantaneously from 1-6 GHz.

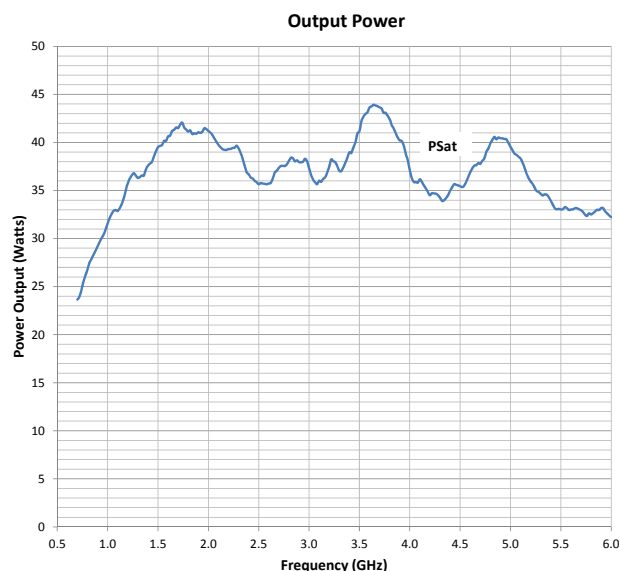
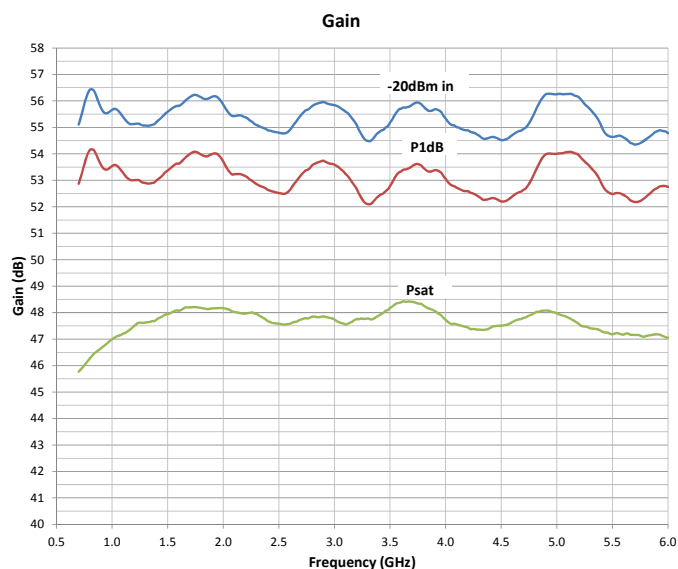
The Model 30HM1G6AB-45 operates from a single DC voltage (+28V) and provides 48dB of typical gain with excellent gain flatness, noise figure and low intermodulation distortion. It is designed to have low spurious signals, linearity and is extremely load tolerant which enables it to be used in many RF 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 and have a proper cooling fan to keep case temperature below 60°C.

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.

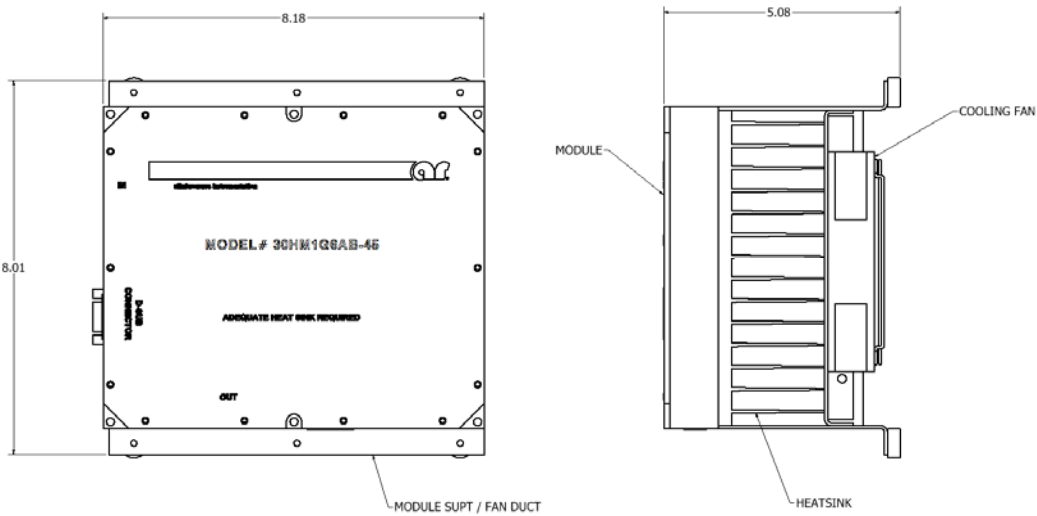
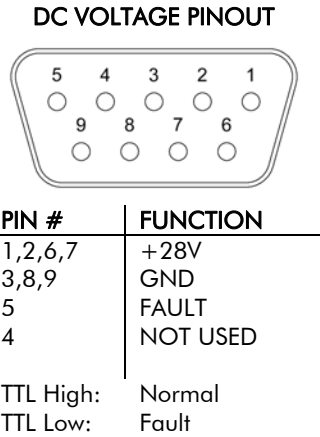


- Solid-state, Class AB design
- +28V DC single bias
- Operating Temperature -20°C to +70°C
- High reliability and ruggedness
- Soft-fail design



SPECIFICATIONS, 30HM1G6AB-45

RATED POWER OUTPUT	30W minimum
POWER OUTPUT @ 3dB COMPRESSION	
Nominal	35W
Minimum	25W
SMALL SIGNAL GAIN FLATNESS	±1.0 dB typical ±2.0 dB maximum
FREQUENCY RESPONSE	1–6 GHz instantaneously
GAIN	45 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	100% of rated power without foldback. Will operate without damage or oscillation with any magnitude and phase of source and load impedance.
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	50 dBm typical
DC POWER.....	+28V/I _{dq} =3A
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)
WEIGHT	1.9 kg (4.2 lbs)
EXPORT CLASSIFICATION	EAR99



Model Configurations		
Model	RF In/Out Connector	Housing
30HM1G6-45	SMA	Standard
30HM1G6-45M1	SMA	With heatsink and fan