

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.

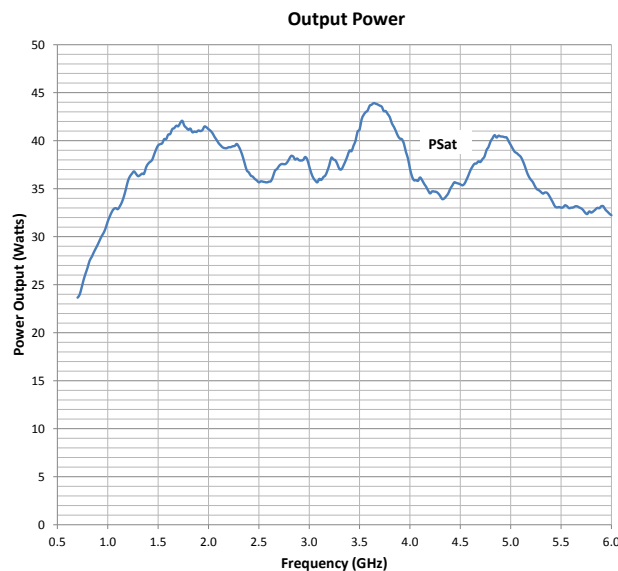
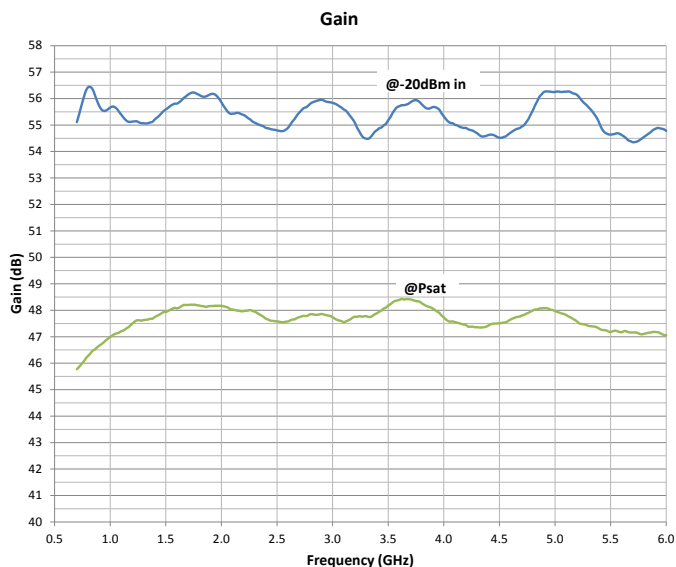
The Model 30HM1G6AB-45 operates from a single DC voltage (+28V) and provides 48dB of typical gain with excellent gain flatness, noise figure and low intermodulation distortion. It is designed to have low spurious signals, linearity and is extremely load tolerant which enables it to be used in many RF 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, cascadable 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 3A001. 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.



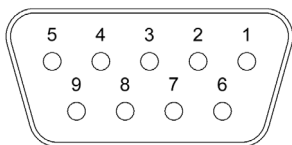
- Solid-state, Class AB design
- +28V DC single bias
- Operating Temperature -20°C to +70°C
- High reliability and ruggedness



SPECIFICATIONS, 30HM1G6AB-45

RATED POWER OUTPUT	30W minimum
INPUT FOR RATED OUTPUT	1.0 milliwatt maximum
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
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} =4.6A
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	3A001

DC VOLTAGE PINOUT

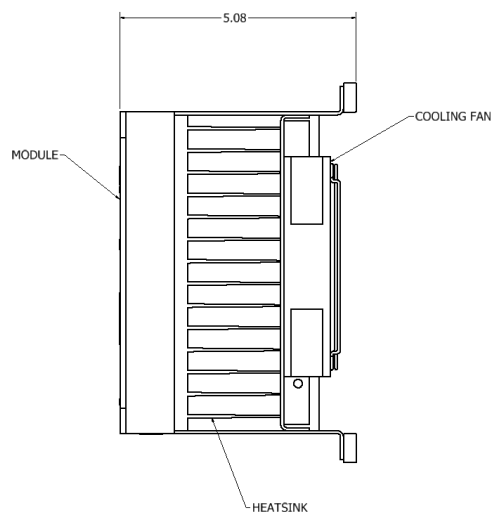
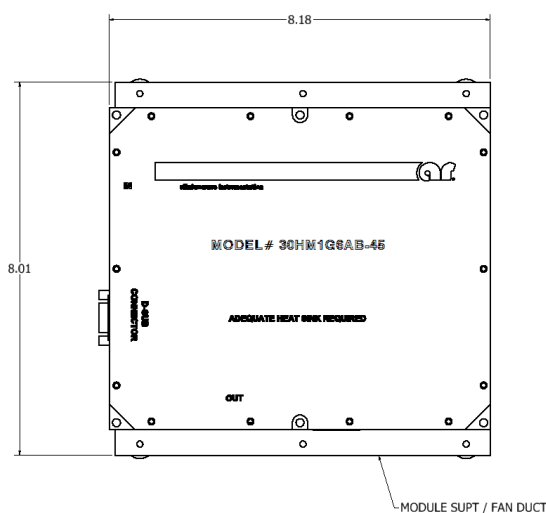


PIN #	FUNCTION
1,2,6,7	+28V
3,8,9	GND
5	FAULT
4	NOT USED*

TTL High: Normal

TTL Low: Fault

*For M1 versions, pin 4 is connected internally to +24V supply for fan.



Model Configurations		
Model	RF In/Out Connector	Housing
30HM1G6AB-45	SMA	Standard
30HM1G6AB-45M1	SMA	With heatsink and fan