

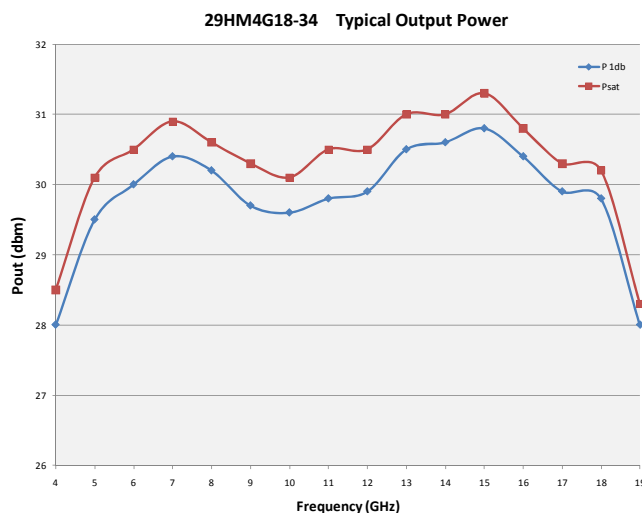
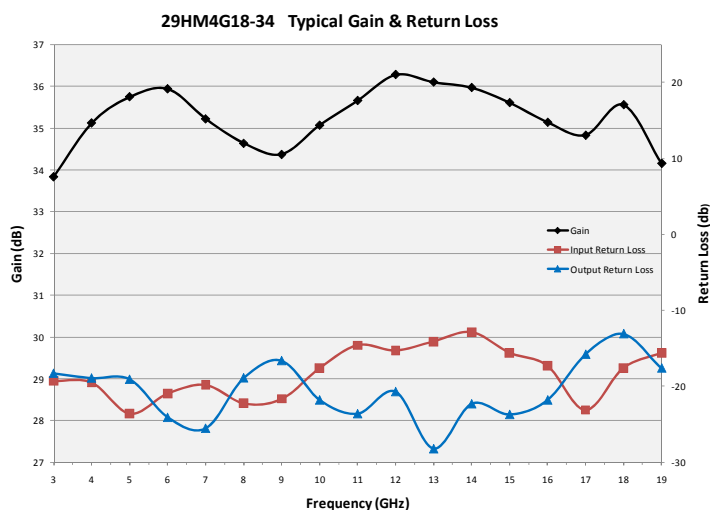


**Model 29HM4G18-34**  
**29 dBm CW**  
**4GHz–18GHz**

The Model 29HM4G18-34 is a compact, wide-band, hybrid power amplifier module that covers 4-18GHz. When used with a sweep generator, the Model 29HM4G18-34 provides a minimum of 29dBm of RF power instantaneously from 4-18GHz.

The Model 29HM4G18-34 operates from a single DC voltage and provides 34dB 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 is hermetically-sealed and should be bolted to a heat sink for good heat dissipation. The RF input/output connectors are field-replaceable.



## SPECIFICATIONS, 29HM4G18-34

RATED POWER OUTPUT .....	29 dBm minimum
POWER OUTPUT @ 3dB COMPRESSION	
Nominal .....	29.5 dBm
Minimum .....	29 dBm
POWER OUTPUT @ 1dB COMPRESSION	
Nominal .....	29 dBm
Minimum .....	28 dBm (5-18GHz); 27 dBm (4-5 GHz)
FLATNESS.....	±1.0 dB typical ±2.0 dB maximum
FREQUENCY RESPONSE .....	4–18 GHz instantaneously
GAIN .....	33 dB minimum
NOISE FIGURE .....	3 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 maximum at 28 dBm (5-18GHz); at 27 dBm (4-5 GHz)
THIRD ORDER INTERCEPT POINT .....	37 dBm typical
DC POWER.....	+10V, 1.2A
CONNECTORS.....	SMA female
SIZE (W x L x H) .....	3.15 x 6.91 x 0.914 cm (1.24 x 2.72 x 0.36 in)

