



RFA-9-M



DEVICE

9 GHz High Gain RF Amplifier-Module, 30 dBm

OVERVIEW

The Optilab RFA-9-M is a high gain RF amplifier module that offers cost-effective solutions for microwave and analog link. RFA-9-M features thin-film GaAs FET technology. Balanced circuitry ensures stable operation with excellent dynamic range and low return loss. The RF gain is over 35 dB in the range of operation. With its low noise, high gain and linear design, this device is also well-suited for RF analog modulated amplification in optical link, as well as 5G wireless applications. Contact Optilab for more information.

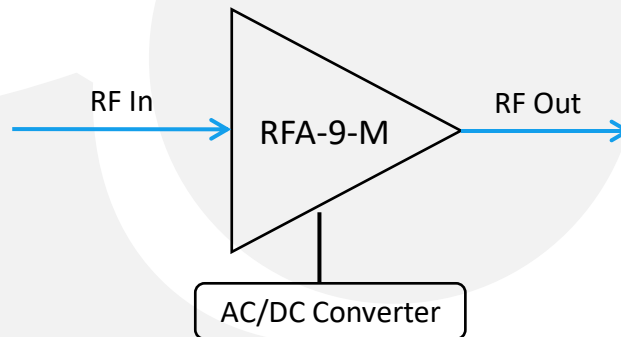
FEATURES

- Up to 37 dB Gain
- Operational Bandwidth 3 to 9 GHz
- Excellent Gain Flatness
- Low Noise Figure 3.5 dB
- Integrated Heat Sink
- 30 dBm Saturation Output

USE IN

- Analog RF Amplification
- 5G Wireless Antenna
- RF over Fiber Link
- Test & Measurement

FUNCTION DIAGRAM





RFA-9-M



SPECIFICATIONS

Operational Bandwidth	3 to 9 GHz
S11 Characteristics	< -15 dB @ 9 GHz
RF Gain	34 dB min.
Saturated Output Power	30 dBm typ.
Gain Ripple	< ±0.5 dB over any 1 GHz range
Input, Output Impedance	50±5 Ω
Input VSWR	2.0:1 max.
Output VSWR	2.0:1 max.
Noise Figure	4.5 dB max.
Isolation	30 dB min.
Group Delay Variation	100 ps max. (4 to 9 GHz)

GENERAL

MECHANICAL

Operating Temperature	0°C to +50°C
Storage Temperature	-45 °C to +80 °C
Operating Humidity	0% to 85% Relative Humidity
Power Supply Requirements	5V DC
RF Input / Output Connector	SMA Female
Dimensions	153mm x 115mm x 33mm

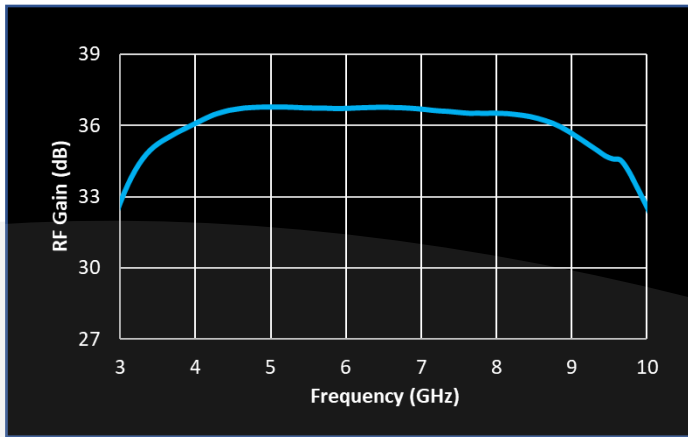




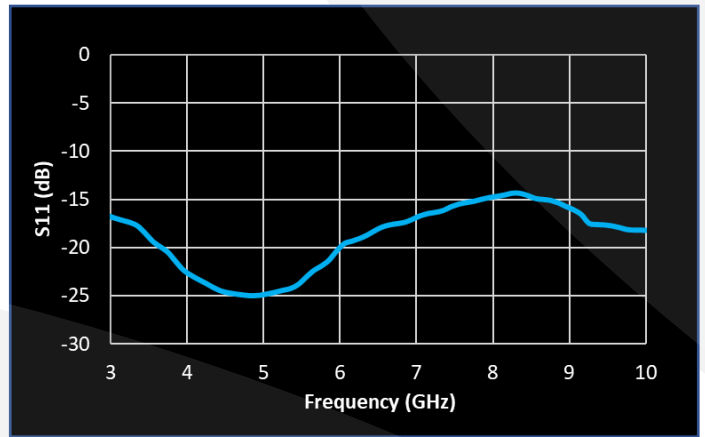
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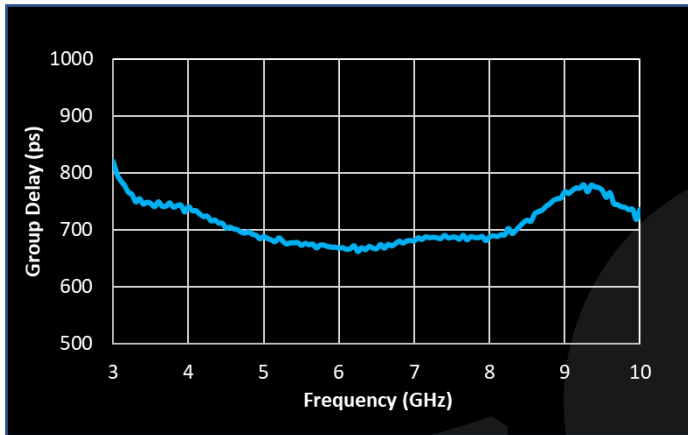
TYPICAL S21 GAIN



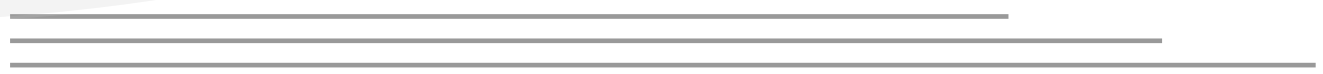
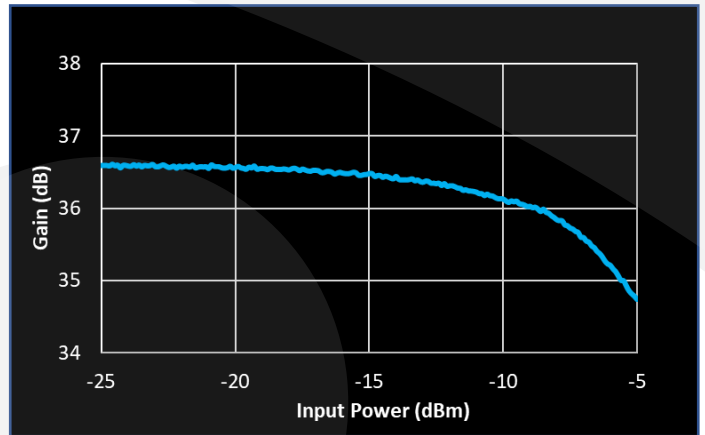
TYPICAL S11 RESPONSE

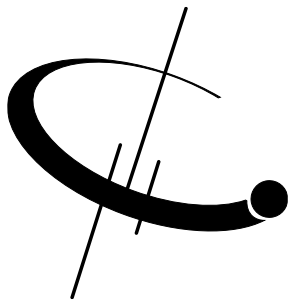


TYPICAL GROUP DELAY



TYPICAL 1-dB COMPRESSION

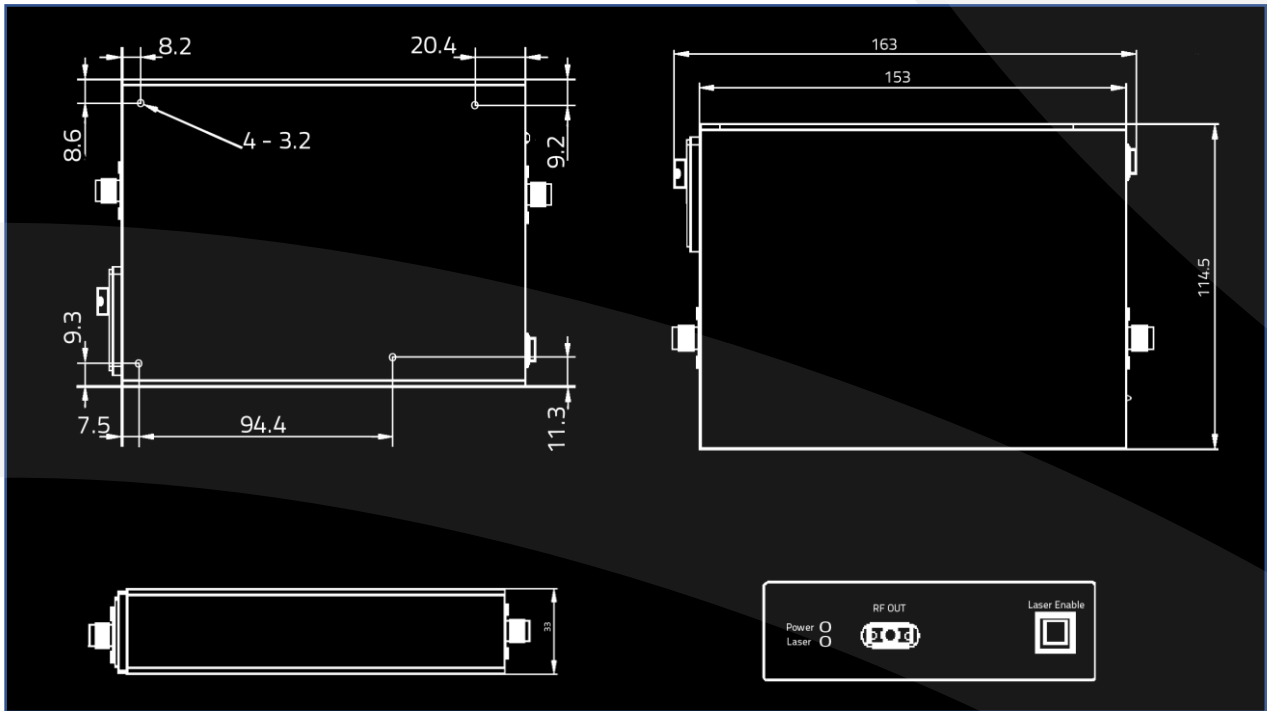




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MECHANICAL DRAWING



APPLICATION DIAGRAM

