



# 1 Watt, Driver Amplifier DC to 20 GHz

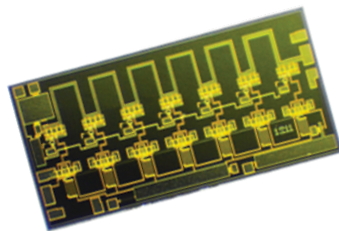
**EMD1211-D**

## Typical Applications

- General Purpose Applications
- Commercial and Industrial Applications
- Production Test
- Test Instruments

## Features

- 10 dB Gain @ 10 GHz
- +30 dBm Psat Output Power @ 10 GHz
- +12V @ 300 mA Typical Supply Voltage



## Product Description

Eclipse Microwave Products EMD1211-D is a GaAs MMIC general purpose driver amplifier in die form. This amplifier is ideal for applications that requires a typical output of +30.5 dBm @ 10 GHz while requiring only 300mA from a + 12 Volt supply. Gain flatness of this device is typically 2.0 dB from DC to 20 GHz. The EMD1211-D is available in die form or in a small connectorized module, ideal for commercial and industrial applications.

## ELECTRICAL SPECIFICATION @ +25 °C, Vdd=8-12V, Ids=290mA

### SPECIFICATION

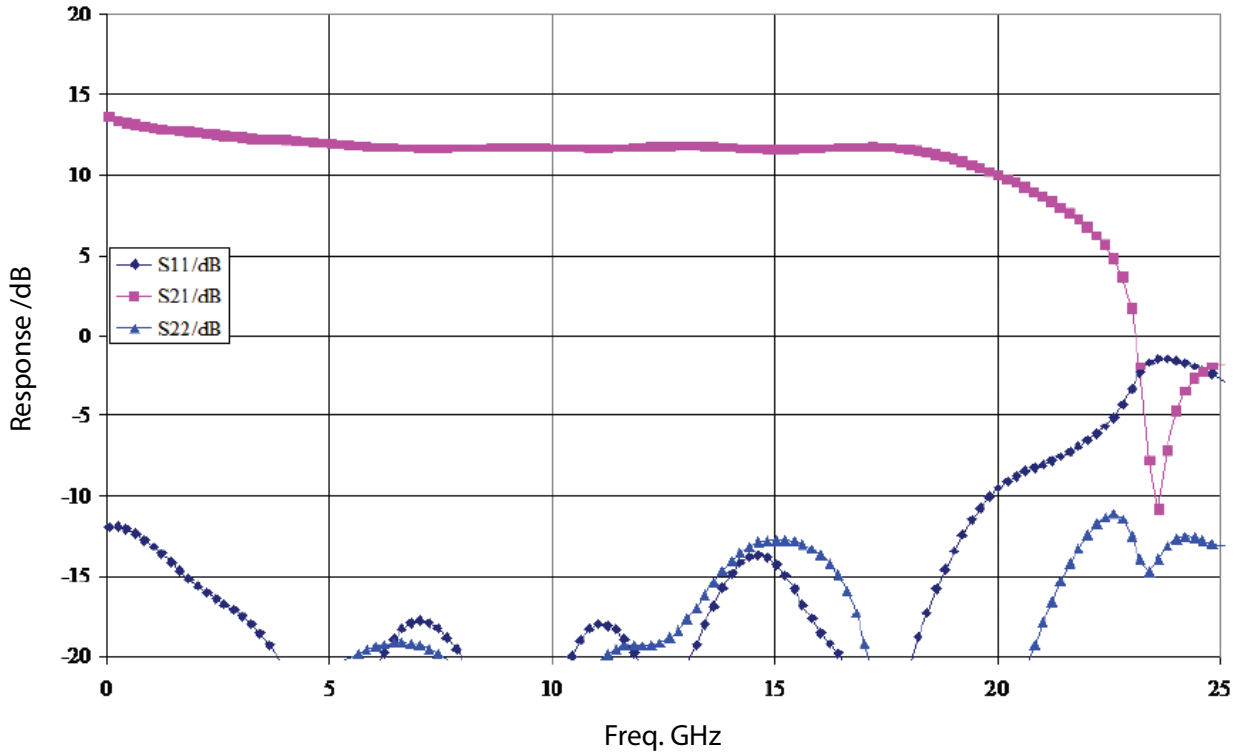
Parameters	Freq. (GHz)	MIN	TYPICAL	MAX	UNITS
Gain	2.0	12.5	13.2		dB
	8.0	12.0	13.0		dB
	14.0	12.5	13.5		dB
	20.0	11.5	12.5		dB
Gain Flatness	DC to 10 GHz		±0.80	±1.0	dB
	10.0 to 20.0 GHz		±0.50	±0.8	dB
Gain Variation Over Temperature				0.005	dB/°C
Noise Figure			6.5		dB
Input Return Loss		10	14		dB
Output Return Loss		12	18		dB
1dB Compression Point	2.0-6.0	27.0	28.0		dBm
	6.0-8.0	27.0	28.0		dBm
	8.0-14.0	26.5	27.5		dBm
	14.0-20.0	24.0	26.0		dBm
Saturated Output Power	2.0-6.0	30.0	31.0		dBm
	6.0-8.0	30.0	30.5		dBm
	8.0-14.0	26.5	28.5		dBm
	14.0-20.0	26.0	28.0		dBm
3rd Order Intercept Point	2.0		38.0		dBm
	8.0		38.0		dBm
	14.0		34.0		dBm
	20.0		32.0		dBm



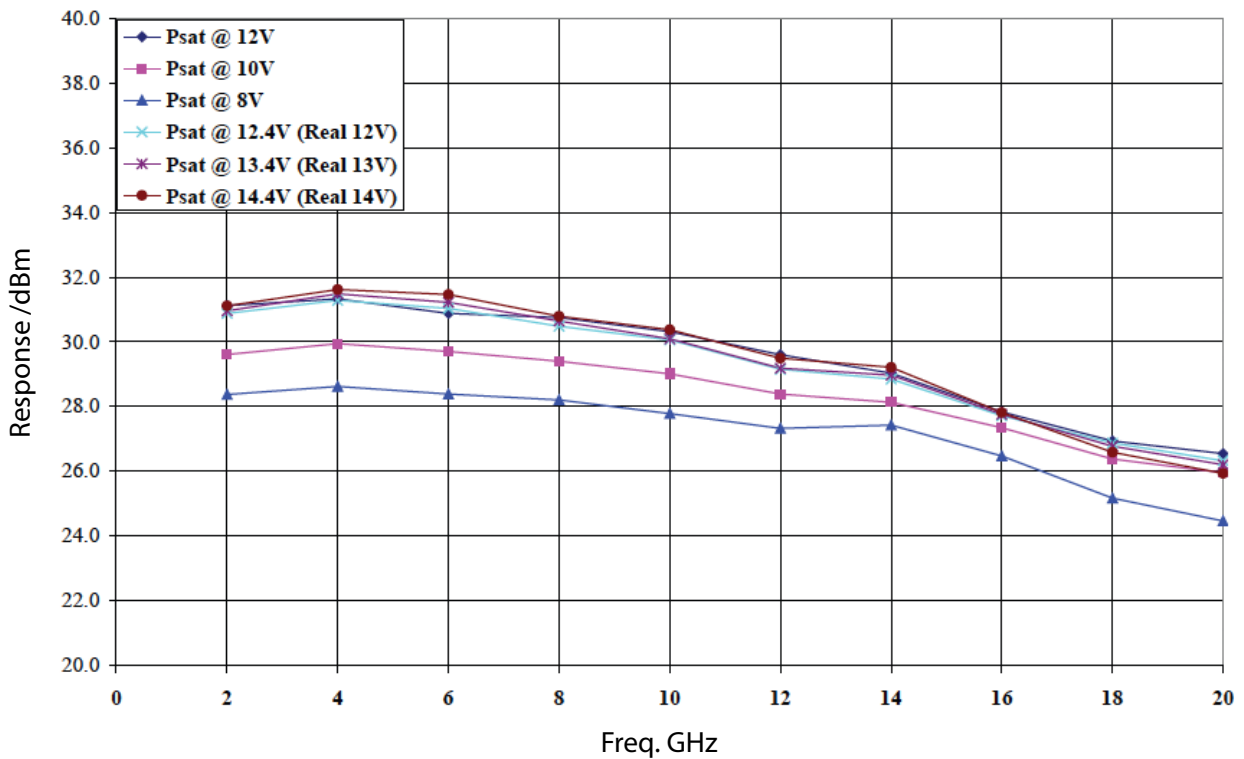
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DC-20 GHz, Power Amplifier Device, S-Parameter



Power Data for 1211 Distributed Amplifier at over Vdd





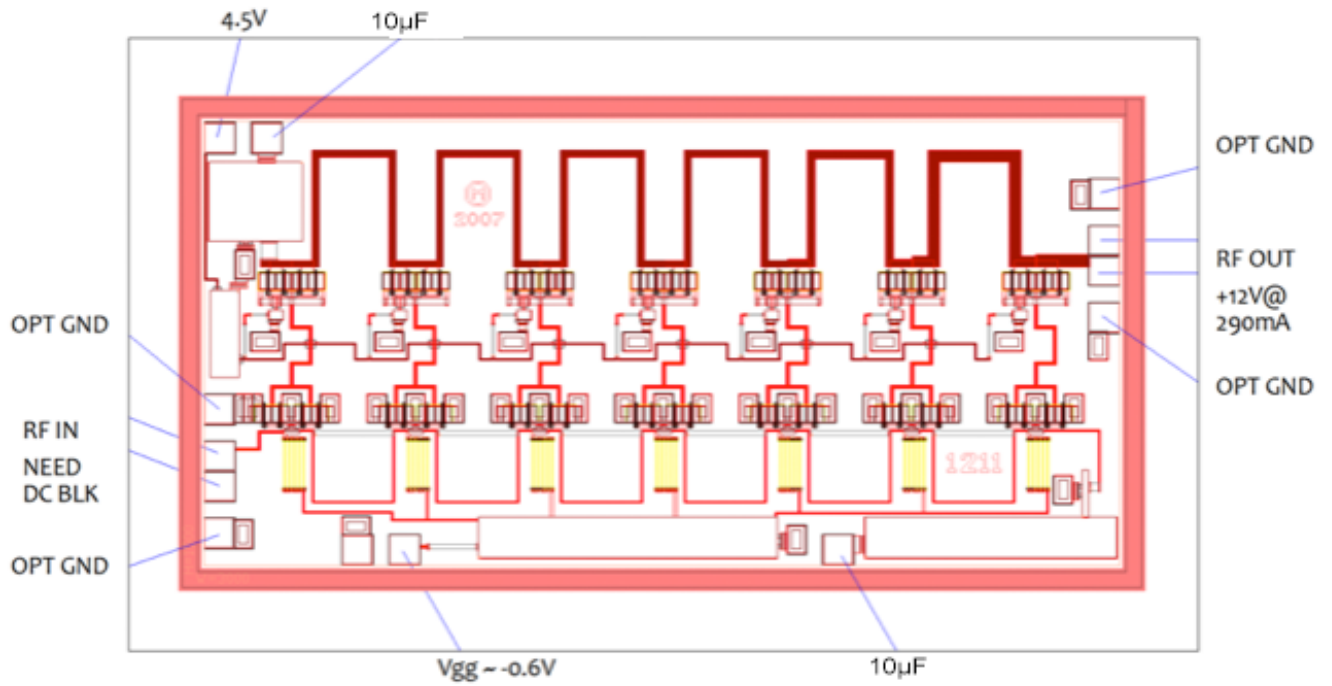
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## Absolute Maximum Ratings

RF Input Power:	+27dBm
Drain Voltage (Vdd):	+14.0 Vdc
Storage Temp:	-55 to +150 °C
Operating Temp:	-40 to +85 °C

## Device Outline



Die Size: .118[3.0]X.060[1.5]- inch[mm]