

Microwave Amplifier 2.0 to 12.0 GHz

Rev. V3

Features

ULTRAWIDE BANDWIDTH: 1.5 to 16.0 GHz (TYP.)

HIGH GAIN: 27.0 dB (TYP.)

POWER OUTPUT: +14.2 dBM (TYP)

NOISE FIGURE: 2.7 dB (TYP)

INTERNAL VOLTAGE REGULATION

FIELD REPLACEABLE SMA RF CONNECTORS

Description

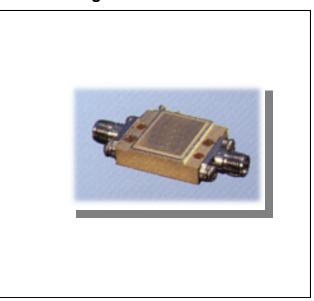
The 6884-700 microwave amplifier is a hybrid design, which utilizes GaAs MMIC technology and thin film manufacturing processes for accurate performance and high reliability.

This amplifier design displays an impressive combination of performance characteristics over a broadband frequency range. The MIC style package is hermetically sealed, and incorporates field replaceable SMA Connectors.

Ordering Information

Part Number	Package	
6884-700	SMA Connectorized	

Product Image



Electrical Specifications: $Z_0 = 50\Omega$, $V_{CC} = +15 V_{DC}$

Parameter	Units	Typical	Guar	anteed
Farailleter		25°C	0°C to 50°C	-40° to +70°C*
Frequency	GHz	1.5 to 16 GHz	2.0-12.0 GHz	2.0 to 12.0 GHz
Small Signal Gain (min)	dB	27.0 dB	26.0	25.0
Gain Flatness (max)	dB	± 1.2	± 1.7	± 2.0
Reverse Isolation	dB	50		
Noise Figure (max) 2.0 to 5.0 GHz 5.0 to 10.0 GHz 10-12 GHz	dB dB dB	4.2 2.7 3.2	4.5 3.2 3.5	5.0 3.5 3.7
Power Output @ 1 dB comp. (min)	dBm	+14.2	+13.5	+13.0
IP3	dBm	+25.0		
VSWR Input / Output (max)		1.8:1	2:1:1	2.3:1
DC Current @ 15 Volts (max)	mA	143	155	160

Absolute Maximum Ratings

Parameter	Absolute Maximum	
Storage Temperature	-62°C to +125°C	
Case Temperature	+125°C	
DC Voltage	+18 V	
Continuous Input Power	+13 dBm	
Short Term Input power (1 minute max.)	100 mW	
Peak Power (3 µsec max.)	0.25 W	
"S" Series Burn-In Temperature (case)	+125°C	

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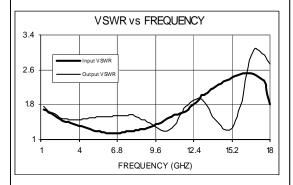


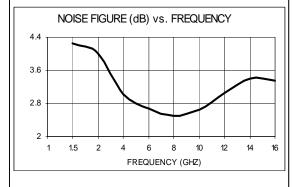
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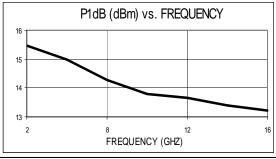
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Typical Performance Curves at +25°

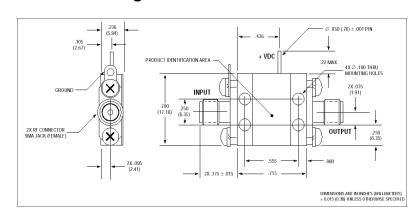
GAIN vs FREQUENCY 28.5 27.5 26.5 25.5 8 10 FREQUENCY (GHZ)







Outline Drawing: SMA Connectorized



changes to the product(s) or information contained herein without notice.

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