

Microwave Amplifier 2.0 to 12.0 GHz

Rev. V3

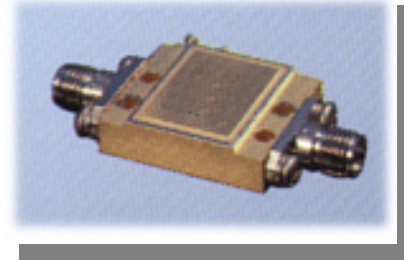
Features

- 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.

Product Image



Ordering Information

Part Number	Package
6884-700	SMA Connectorized

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

Parameter	Units	Typical	Guaranteed	
		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	dB	4.2	4.5	5.0
5.0 to 10.0 GHz	dB	2.7	3.2	3.5
10-12 GHz	dB	3.2	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

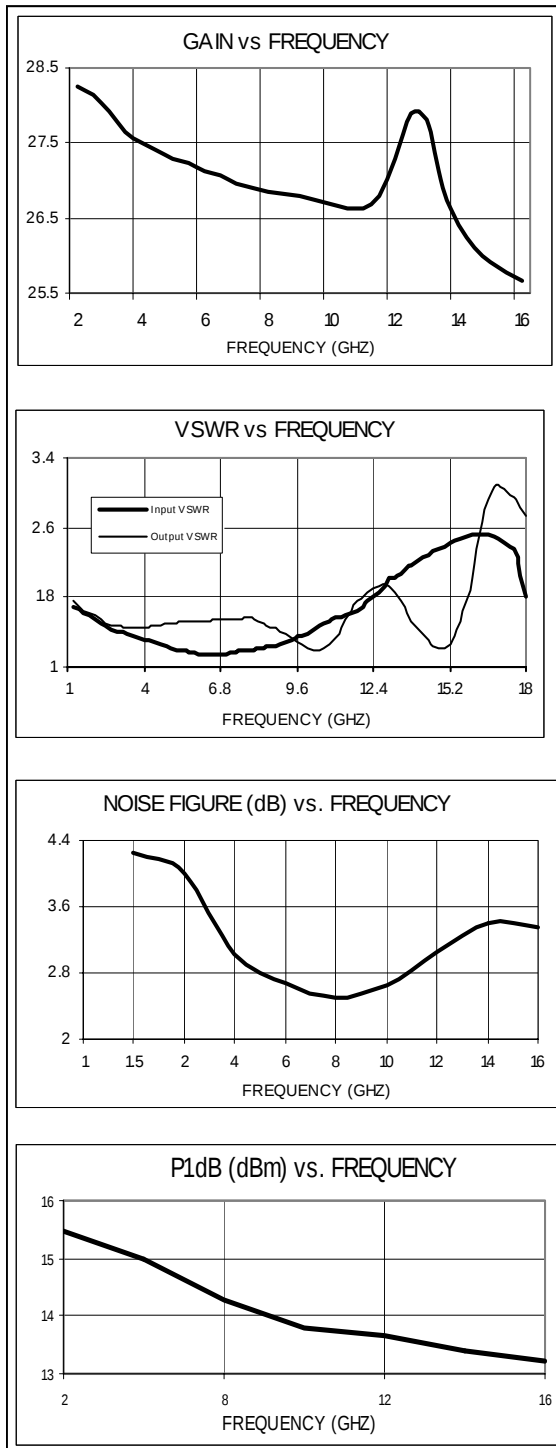
Absolute Maximum Ratings

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

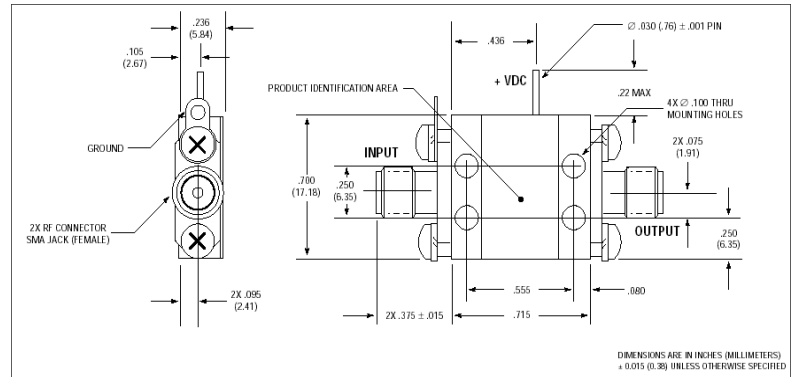
Microwave Amplifier 2.0 to 12.0 GHz

Rev. V3

Typical Performance Curves at +25°



Outline Drawing: SMA Connectorized



ADVANCED: Data Sheets contain information regarding a product M/A-COM Technology Solutions is considering for development. Performance is based on target specifications, simulated results, and/or prototype measurements. Commitment to develop is not guaranteed.

PRELIMINARY: Data Sheets contain information regarding a product M/A-COM Technology Solutions has under development. Performance is based on engineering tests. Specifications are typical. Mechanical outline has been fixed. Engineering samples and/or test data may be available. Commitment to produce in volume is not guaranteed.

• **North America** Tel: 800.366.2266 • **Europe** Tel: +353.21.244.6400
 • **India** Tel: +91.80.4155721 • **China** Tel: +86.21.2407.1588
 Visit www.macomtech.com for additional data sheets and product information.

M/A-COM Technology Solutions Inc. and its affiliates reserve the right to make changes to the product(s) or information contained herein without notice.