

## Microwave Amplifier 2.0 to 12.0 GHz

6884-700

V2

### Features

- ULTRA WIDE 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)		1.7:1 / 1.8:1	1.9:1 / 2.0:1	2.1:1 / 2.2:1
DC Current @ 15 Volts (max)	mA	138	144	148

### 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**

**6884-700**

V2

**Typical Performance Curves at +25°**

**Outline Drawing: SMA Connectorized**

