

Standard Microwave Amplifier

Frequency Range: 50 MHz to 2700 MHz



Features

- No External Circuitry Needed
- RoHS Compliant Model Available
- Unconditionally Stable

Model TR7589 is a matched broadband amplifier covering 50 MHz to 2700 MHz. This surface mount design utilizes a hermetically sealed package without the need for external matching circuitry. All specification ratings are based on measurements in a 50 Ω (ohm) system with a dc supply of 15 volts and a voltage tolerance of +/- 2%.

Technical Specifications

Parameter	Unit	Typical	Min/Max
Frequency Range	MHz	50-2700	100-2500
Gain	dB	20.5	18.5
Noise Figure*	dB	3.4	4.5
Output Power @ 1 dB Compression**	dBm	28.3	27
Reverse Isolation	dB	-34	---
Input VSWR	---	1.5:1	2.0:1 (Max.)
Output VSWR	---	1.5:1	2.0:1 (Max)
Supply Voltage	Volts (dc)	15	15
Supply Current	mA	283	310

*NF is 0.5 dB higher for frequencies below 500 MHz.

** P1dB is 0.5 dBm lower at 2500 MHz.

Mechanical & Electrical

Parameter	Specification
Specification Temperatures (Min/Max)	-55°C to +85°C

Maximum (No Damage) Ratings

Parameter	Specification
Storage Temperature	-62°C to +125°C
Operating Temperature	-55°C to +85°C
DC Voltage @ 25°C	18 volts
Input Drive @ 25°C (CW)	13 dBm

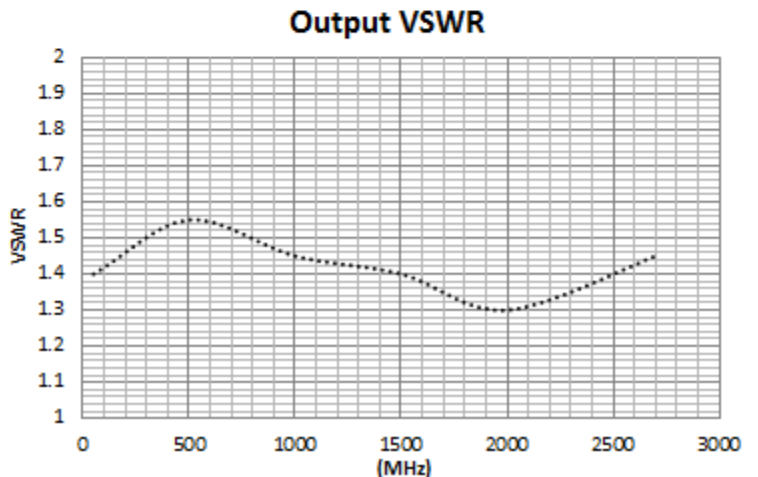
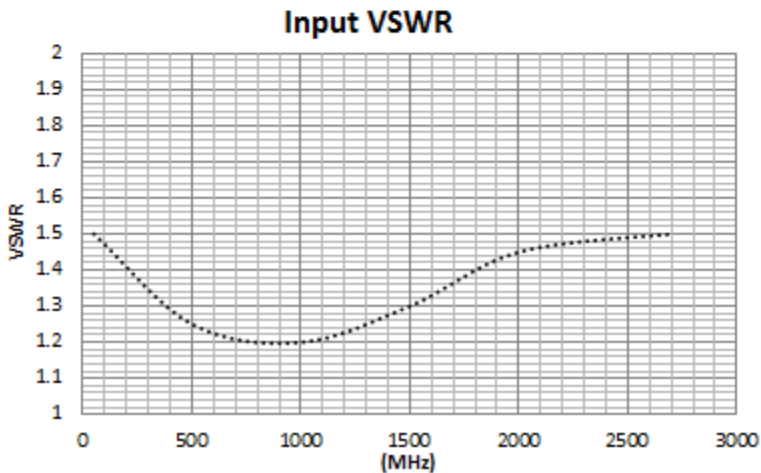
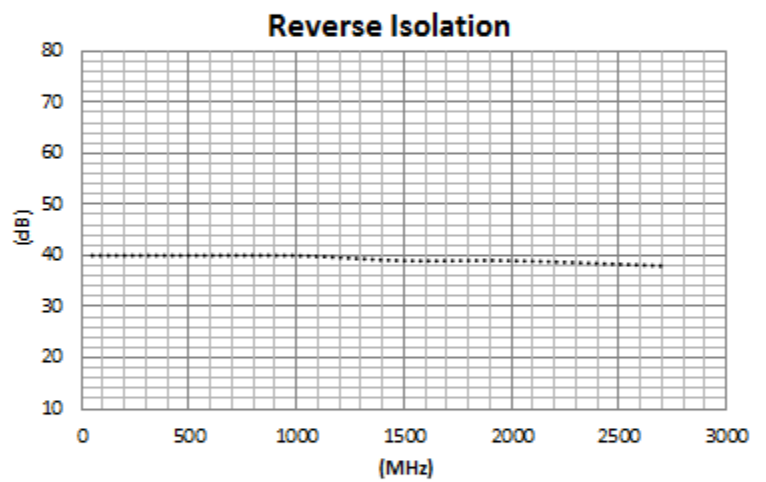
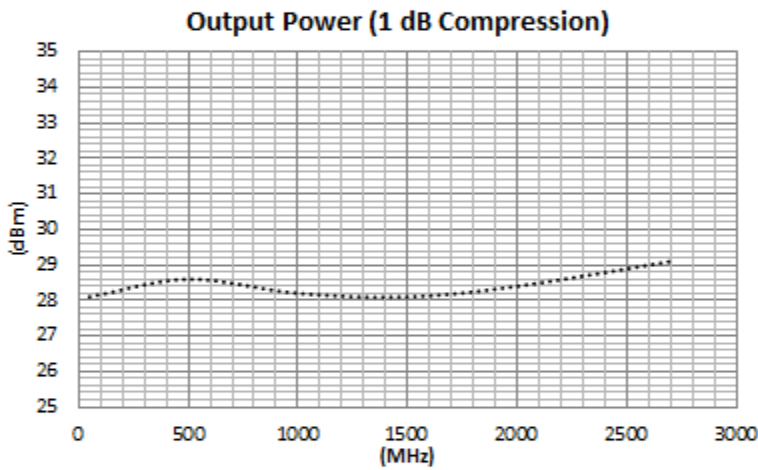
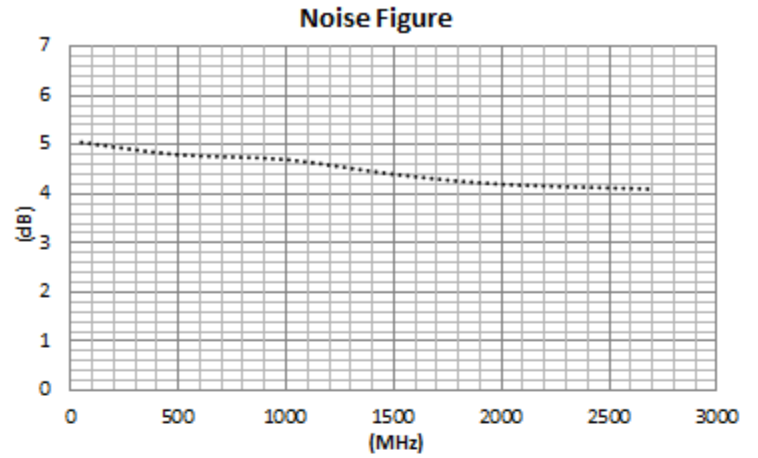
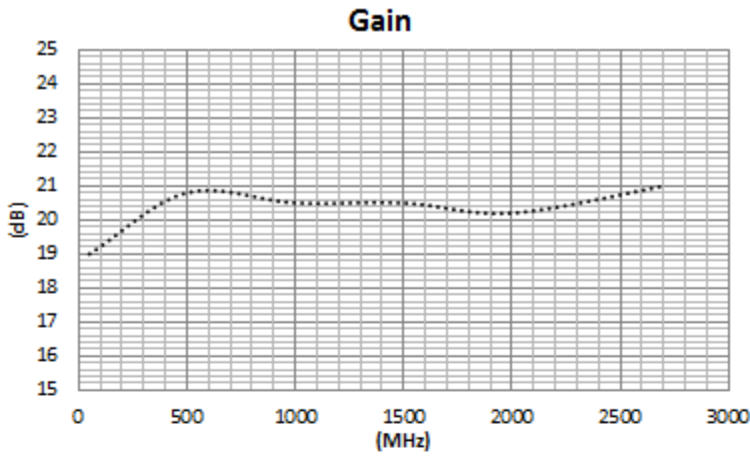
Note: Typical values are measured at 25°C, but not guaranteed.

Typical Intermodulation* Performance at 25°C

Second Order Harmonic Intercept Point:	+61 dBm (Typ.)
Second Order Two Tone Intercept Point:	+55 dBm (Typ.)
Third Order Two Tone Intercept Point:	+39 dBm (Typ.)

Grounding Instructions	Care should be taken to effectively ground each unit.
Revisions	API reserves the right to make revisions to both product and/or the information contained within their datasheets without advanced notice.
Min./Max. Values	Specifications are guaranteed when tested in a 50 Ω (ohm) system.
Typical performance graphs and values are measured at 25°C, but not guaranteed.	

Typical Performance Graphs



Instructions

Grounding Instructions	Care should be taken to effectively ground each unit.
Revisions	API reserves the right to make revisions to both product and/or the information contained within their datasheets without advanced notice.
Min./Max. Values	Specifications are guaranteed when tested in a 50 Ω (ohm) system.
Typical performance graphs and values are measured at 25°C, but not guaranteed.	

