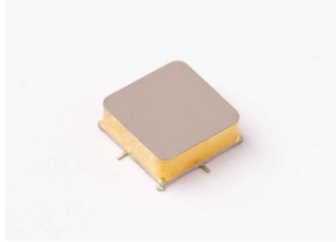


Standard Microwave Amplifier

Frequency Range: 500 MHz to 6000 MHz



Features

- Broadband Operation: 500 MHz to 6000 MHz
- High Output Power: +20 dBm
- Low Noise Figure: +3.5 dB
- Hermetic Package

Model TN9560 is a broadband amplifier covering 500 MHz to 6000 MHz. This higher power design utilizes a hermetically sealed package for superior environmental protection. This standard design may also be ordered in a MIL-STD-883 screened version (Model #SN9560) 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	500 - 6000 MHz	500 - 6000 MHz
Gain	dB	20.5	19 (Min)
Noise Figure*	dB	3.5	4.0 (Max)
Output Power @ 1 dB Compression*	dBm	20	18 (Min)
Output 3 rd Order Intercept	dBm	30	---
Output 2 nd Order Intercept	dBm	45	---
Reverse Isolation	dB	35	---
Input VSWR	---	1.5:1	2.0:1 (Max)
Output VSWR	---	1.5:1	2.0:1 (Max)
Supply Voltage	volts	+15	+15
Supply Current	mA	140	155 (Max)

Absolute Maximum Ratings

Maximum (No Damage) Ratings	
Storage Temperature	-62°C to +125°C
Operating Temperature	-55°C to +85°C
DC Voltage @ 25°C	+17 volts
Input Drive @ 25°C (CW)	+20 dBm

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

- * Noise Figure 1 dB greater at 6000 MHz.
- Output Power 1 dB less at 6000 MHz.
- ECN: Jan 20, 2025 Gain increased from 17 dB min to 19 dB min.

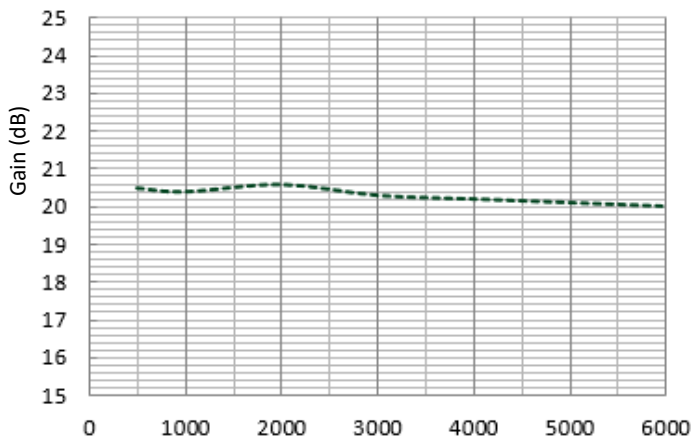
Mechanical & Electrical

Parameter	Specification
Specification Temperatures (Min/Max)	-55°C to +85°C
Package Size	TN9560: 0.450" Square Surface-mount
Package Drawing	SM3 Package (SMA Connectorized Version HF1)
RF Connectors	BX9560 (SMA)

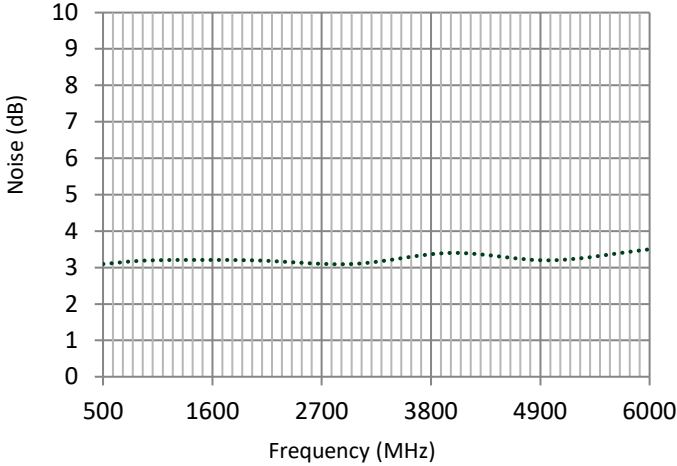


Typical Performance Graphs

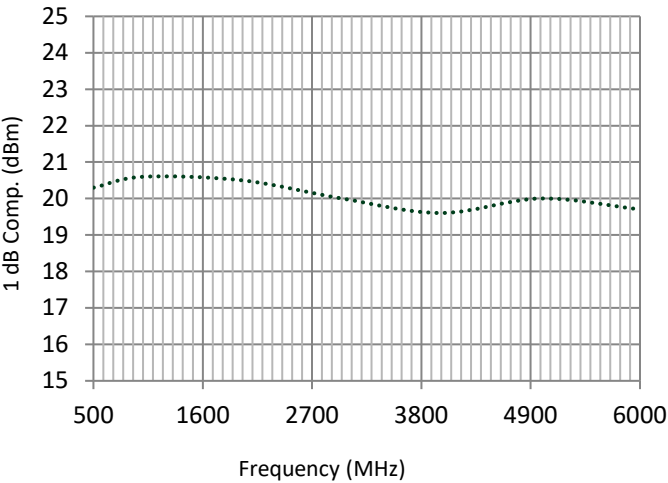
Gain (dB)



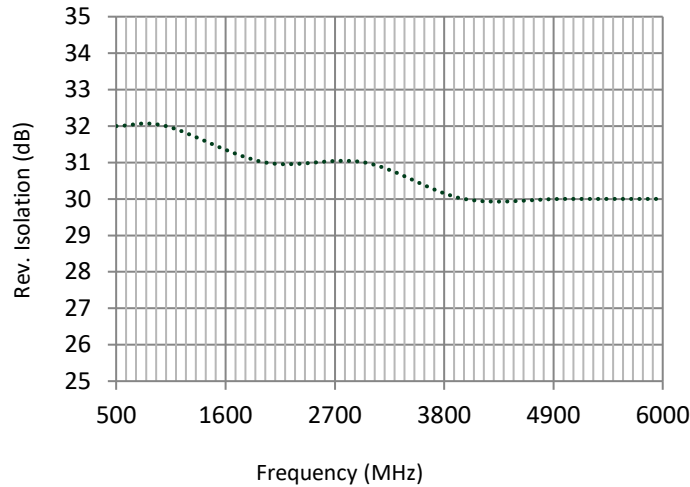
Noise Figure (dB)



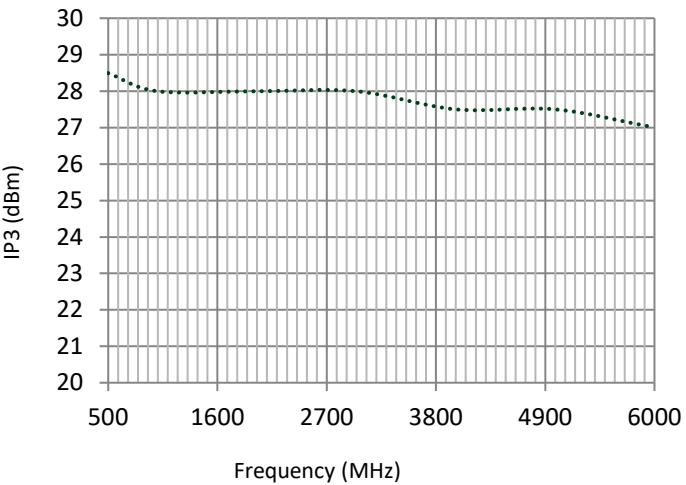
1 dB Compression (dBm)



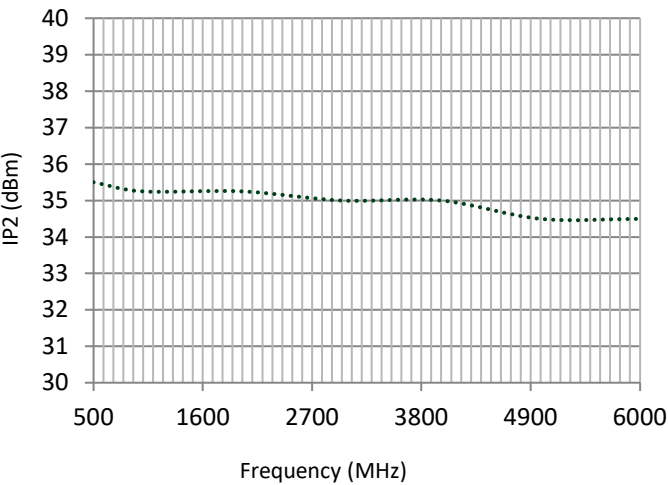
Reverse Isolation (dB)



3rd Order Intercept (dBm)

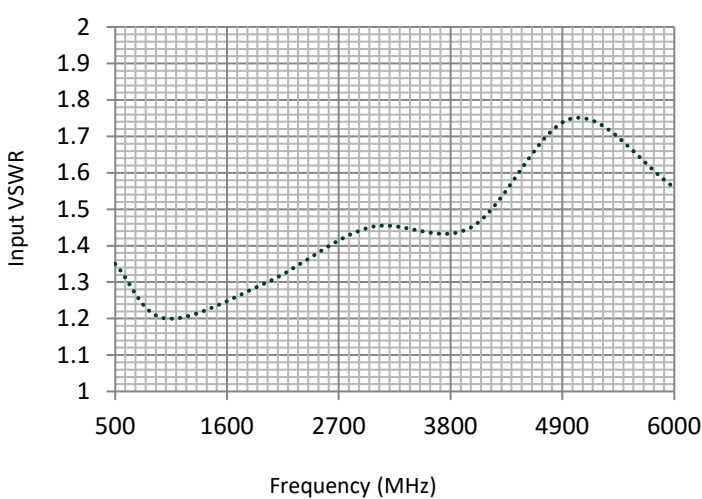


2nd Order Intercept (dBm)

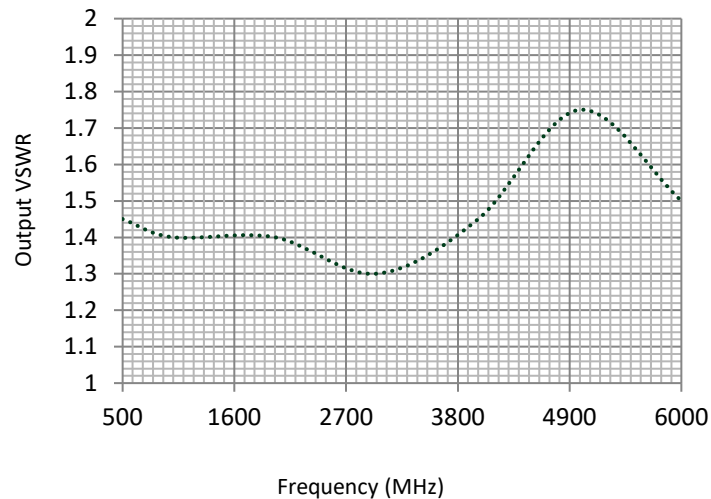


Typical Performance Graphs

Input VSWR



Output VSWR

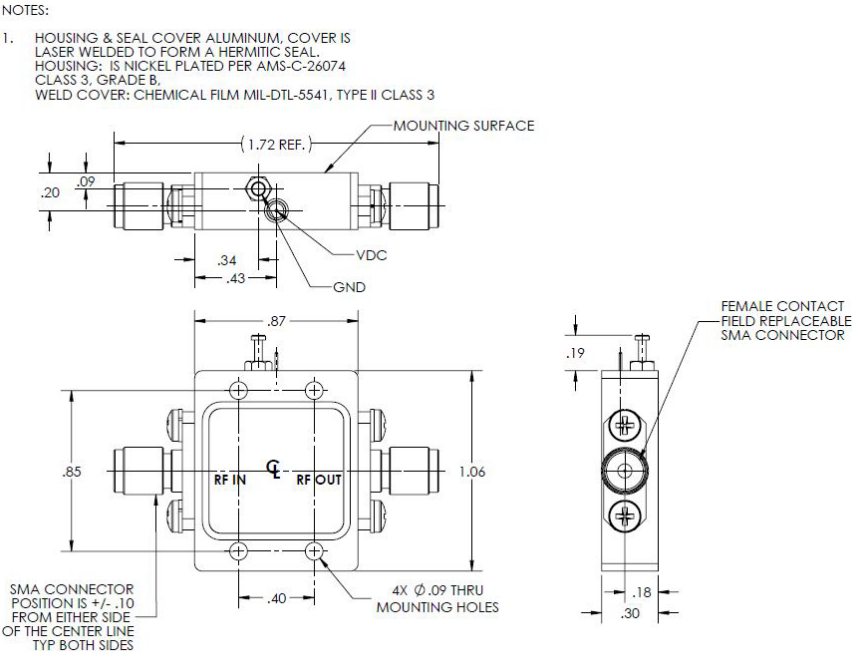


Instructions

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.	

Outline Drawing

(For reference only)



TN9560

BX9560