

Available as:

TM3117, 4 Pin TO-8 (T4)

TN3117, 4 Pin Surface Mount (SM3)

BX3117, SMA Connectorized Laser Seal Housing (H1L)

RF/Microwave Amplifier



Features

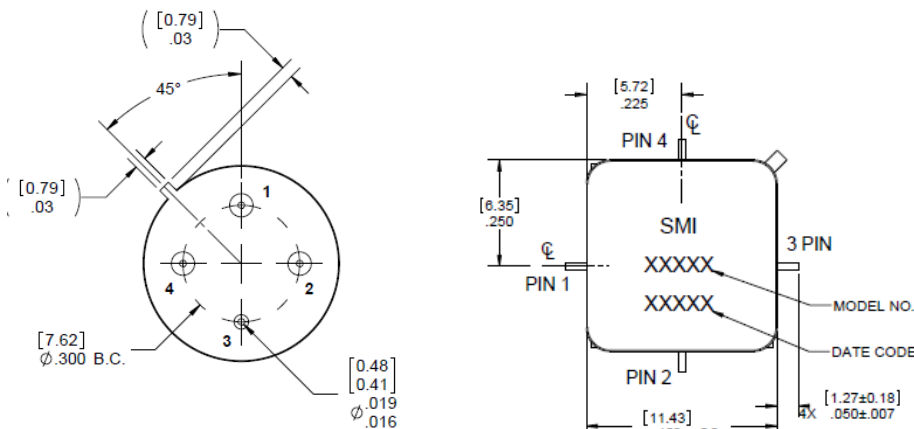
- High +25 dBm Output Power
- Wide 20 – 3000 MHz Bandwidth
- Environmental Screening Available
- Unconditionally Stable

Technical Specifications

Characteristic		TYPICAL Ta = +25 °C	MIN/MAX Ta = -55°C to +85 °C
Frequency		20 – 3000 MHz	20 – 3000 MHz
Gain (dB)		12	10.5 Min.
Power @ 1 dB Comp. (dBm)		+25	+23 Min.
Reverse Isolation (dB)		-19	--
VSWR	In	1.8:1	2.0:1 Max.
	Out	1.8:1	2.0:1 Max.
Noise Figure (dB)		3.5	4.2 Max.
Power	Vdc	+15	+15
	mA	190	220 Max.

- 1) Care should always be taken to effectively ground the case of each unit
- 2) Typical values are measured at 25°C, but not guaranteed.
- 3) Package drawings below are for reference only.

Outline Drawing



Typical Intermodulation Performance at 25 °C

Second Order Harmonic Intercept Point:	+57 dBm (Typ.)
Second Order Two Tone Intercept Point:	+54 dBm (Typ.)
Third Order Two Tone Intercept Point:	+41 dBm (Typ.)

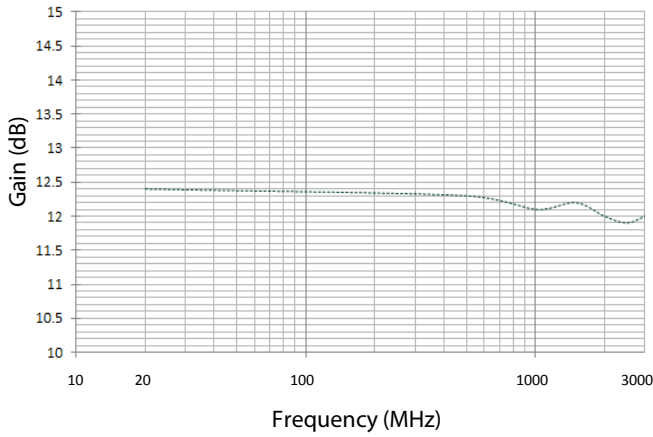
Note: Measured at 1500 MHz.

Absolute Maximum (No Damage) Ratings

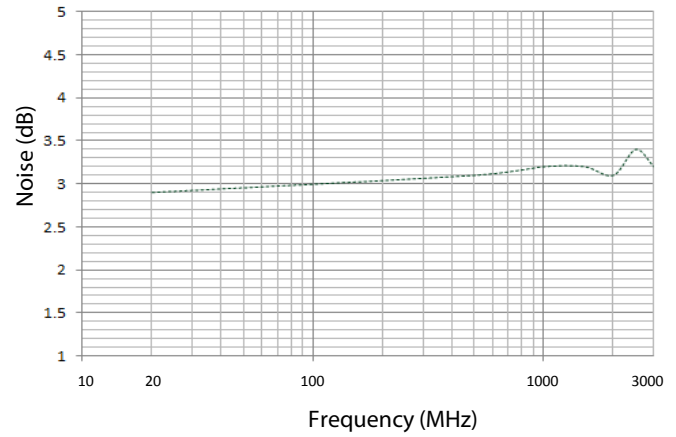
Operating Temperature	-55°C to +100 °C
Storage Temperature	-62°C to +125°C
Case Temperature	+125 °C
DC Voltage	+18 Volts
Continuous RF Input Power	+17 dBm
Short Term RF Input Power	200 Milliwatts (1 Minute Max.)
Maximum Peak Power	0.5 Watt (3 µsec Max.)

Typical Performance Graphs

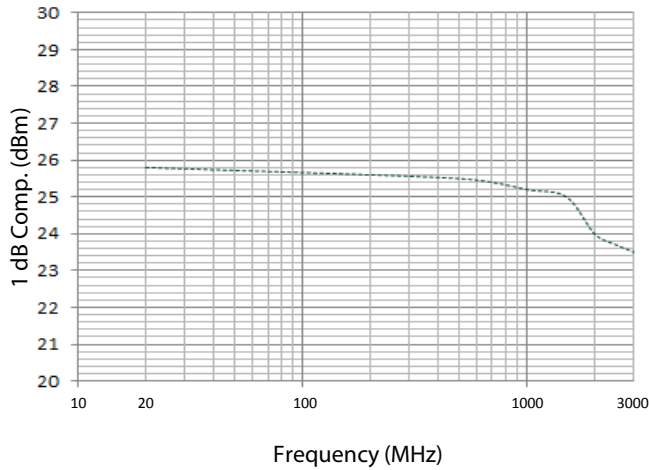
Gain (dB)



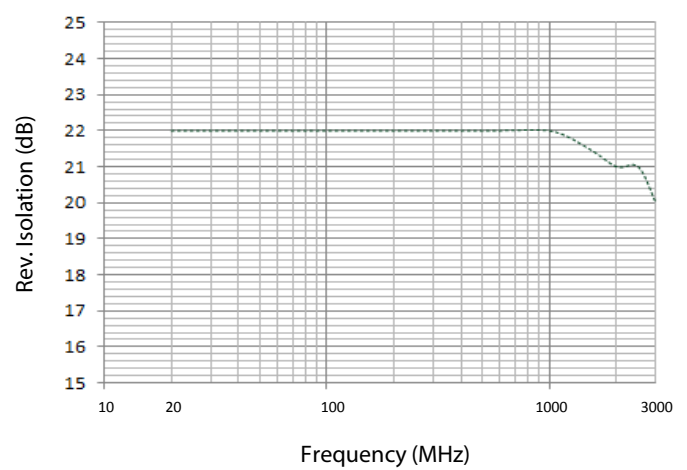
Noise Figure (dB)



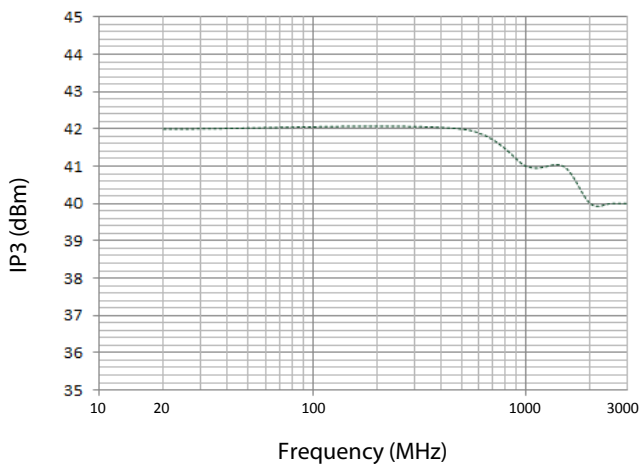
1 dB Compression (dBm)



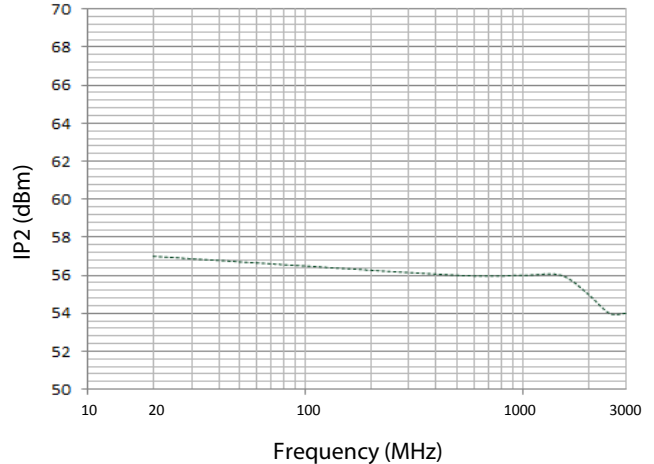
Reverse Isolation (dB)



3rd Order Intercept (dBm)

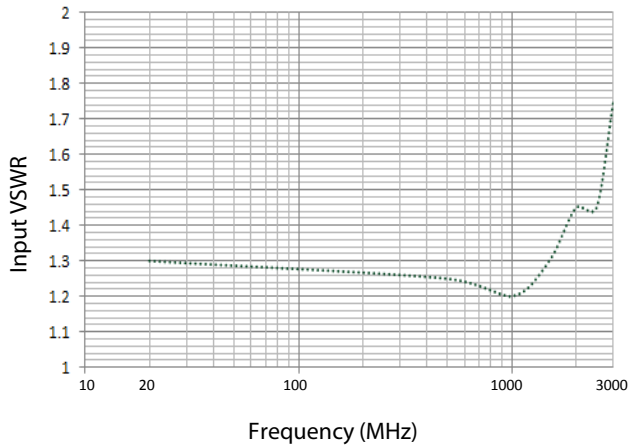


2nd Order Intercept (dBm)

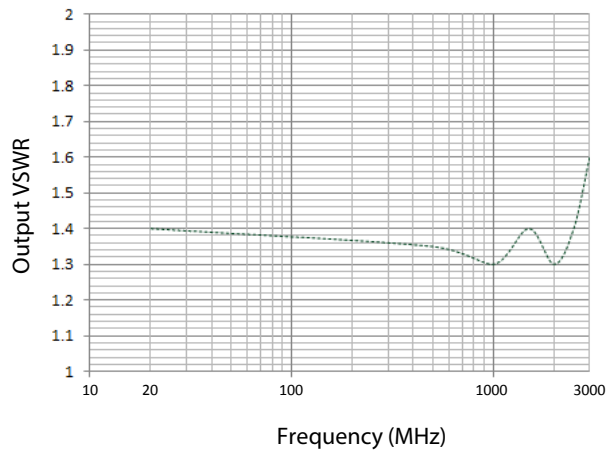


Typical Performance Graphs

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.	

1) Outlines drawings below are for reference only.

