

Available as:

TM7538, 4 Pin TO-8 Can (T4)

TN7538, 4 Pin Surface Mount (SM3)

BX7538, SMA Connectorized Laser Seal Housing (H1L)

RF/Microwave Amplifier



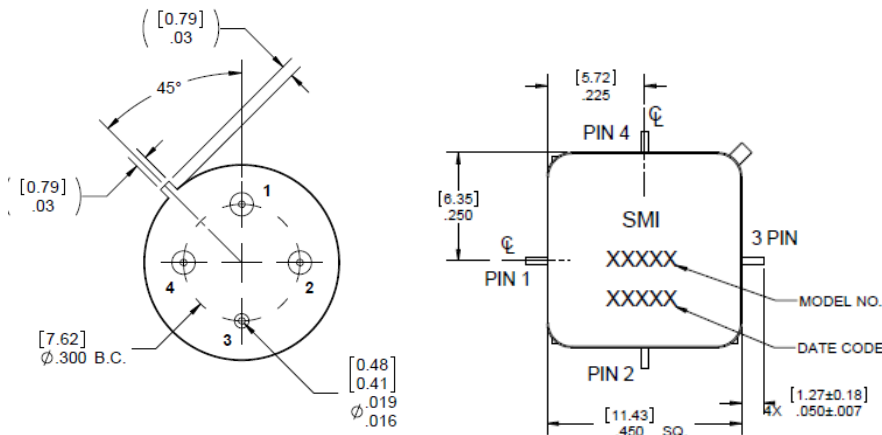
Features

- Low Noise Figure
- High Gain
- Environmental Screening Available
- No External Circuitry Needed

Technical Specifications

Characteristic	TYPICAL Ta = +25 °C	MIN/MAX Ta = -55°C to +85 °C
Frequency	3 – 600 MHz	5 – 500 MHz
Gain (dB)	27.5	26.5 Min.
Power @ 1 dB Comp. (dBm)	+12.5	+11 Min.
Reverse Isolation (dB)	37	---
VSWR	In	1.5:1
	Out	1.5:1
Noise Figure (dB)	2.8	4.0 Max.
Power	Vdc	+5
	mA	47
		53 Max.

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



Typical (Output) Intermodulation Performance at 25 °C

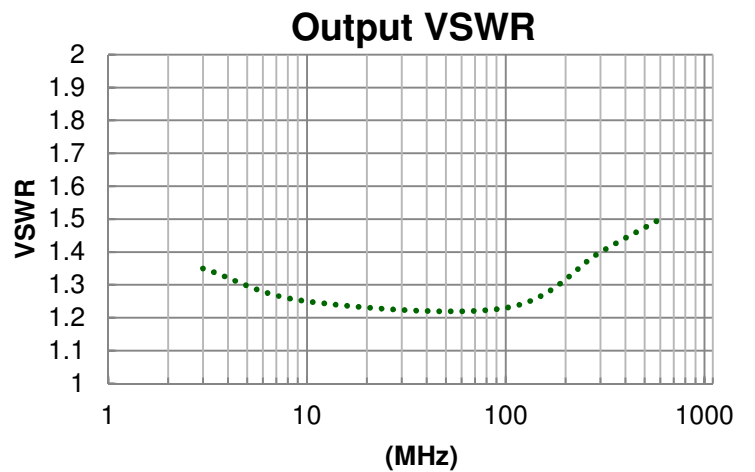
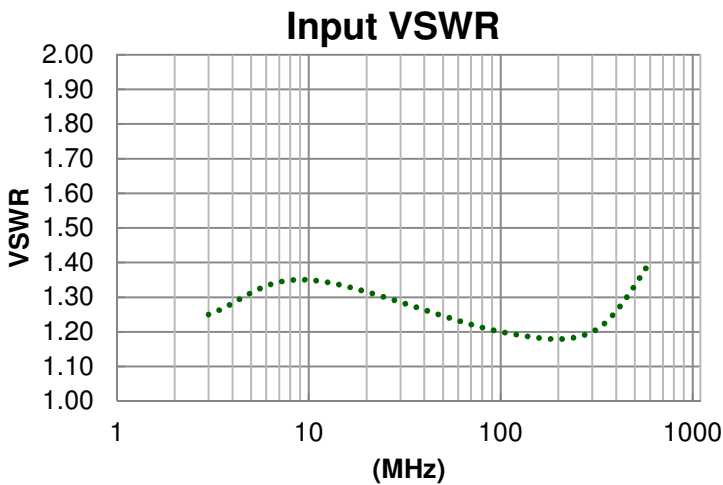
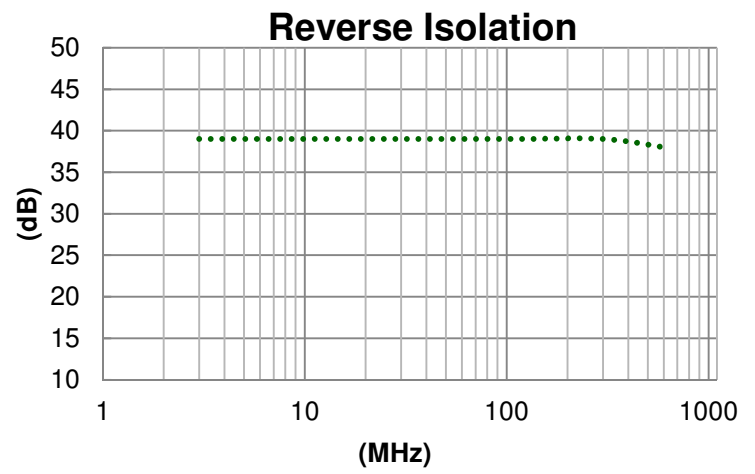
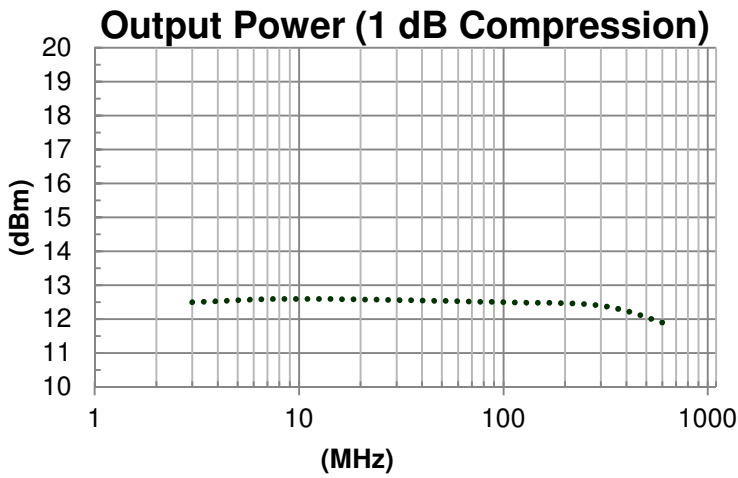
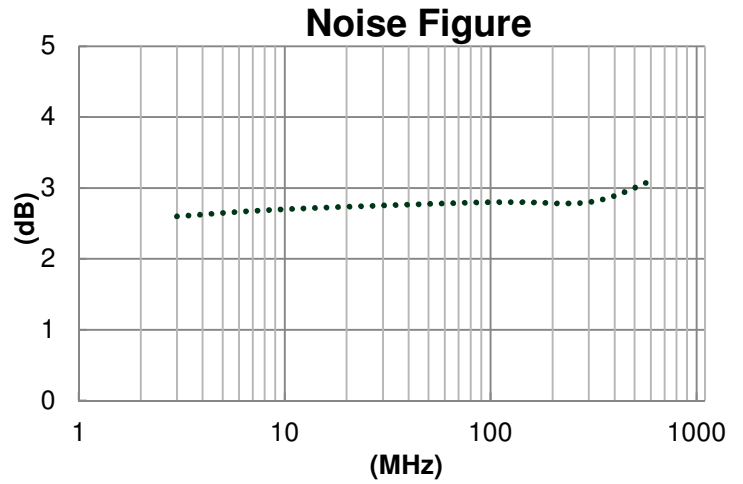
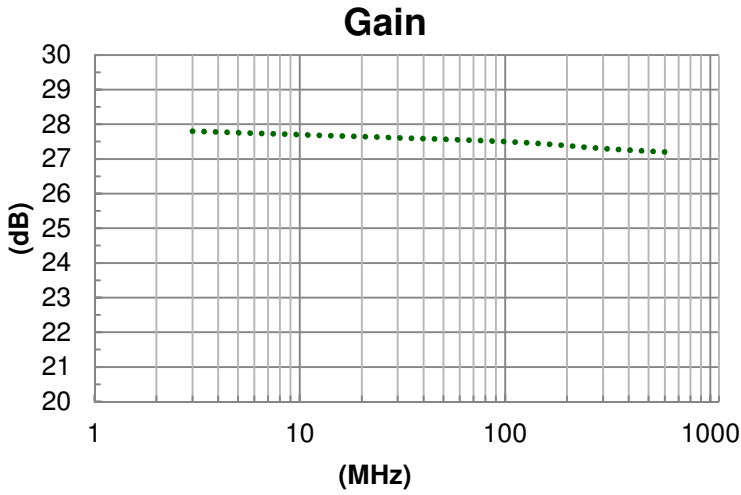
Second Order Harmonic Intercept Point:	+56 dBm (Typ.)
Second Order Two Tone Intercept Point:	+50 dBm (Typ.)
Third Order Two Tone Intercept Point:	+27 dBm (Typ.)

Note: Measured at 250 MHz

Absolute Maximum (No Damage) Ratings

Operating Temperature	-55°C to +100 °C
Storage Temperature	-69°C to +125°C
Case Temperature	+125 °C
DC Voltage	+8 Volts
Continuous RF Input Power	+10 dBm
Short Term RF Input Power	50 Milliwatts (1 Minute Max.)
Maximum Peak Power	0.5 Watt (3 µsec Max.)

Typical Performance Graphs



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.	

HOUSING: 70/30 CN/NI
ELECTRONIC GRADE

