

## Model # TM6108



### Features

- Low Noise Figure: 3.3 dB
- Wide 1 – 250 MHz Bandwidth
- Environmental Screening Available
- Unconditionally Stable

### Available as:

TM6108, 4 Pin TO-8 (T4)  
TN6108, 4 Pin 0.450" Sq. Surface Mount (SM3)  
BX6108, SMA Connectorized Housing (H1)

### Technical Specifications

Characteristic		TYPICAL Ta = +25 °C	MIN/MAX Ta = -55°C to +85 °C
Frequency		1 – 250 MHz	1 – 150 MHz
Gain (dB)		15	14 Min.
Power @ 1 dB Comp. (dBm)*		+25	+23.5 Min.
Reverse Isolation (dB)		-28	--
VSWR	In	1.75:1	2.0:1 Max.
	Out	1.75:1	2.0:1 Max.
Noise Figure (dB)**		3.3	4.5 Max.
Power*	Vdc	+15	+15
	mA	135	140 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.

\*Power Output @1 dB Compression: 1 dB lower below 2 MHz.

\*\*Noise Figure: 10-150 MHz.

### Typical

### Intermodulation

### Performance at 25 °C

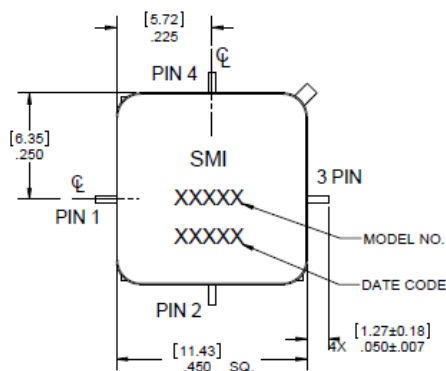
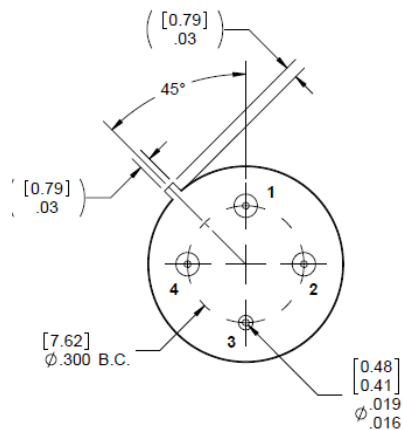
Second Order Harmonic Intercept Point:	+66 dBm (Typ.)
Second Order Two Tone Intercept Point:	+60 dBm (Typ.)
Third Order Two Tone Intercept Point:	+43 dBm (Typ.)

**Note:** Measured at 50 MHz at 25C.

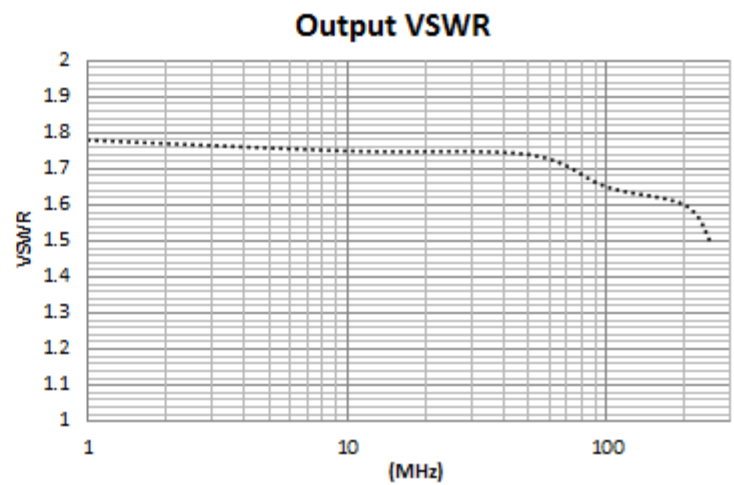
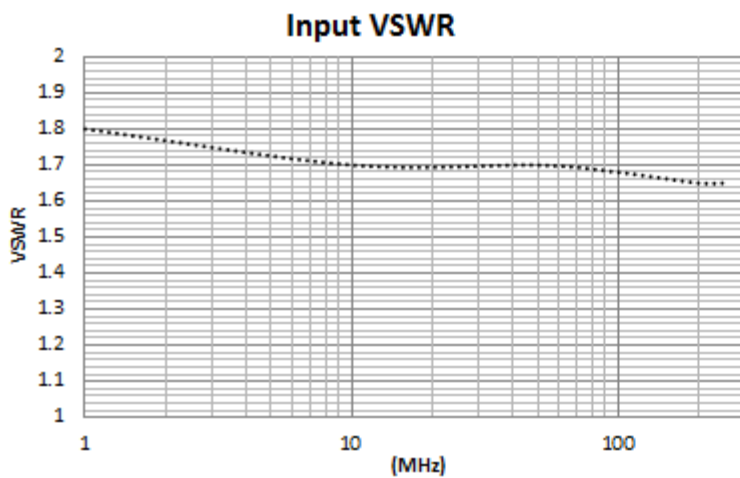
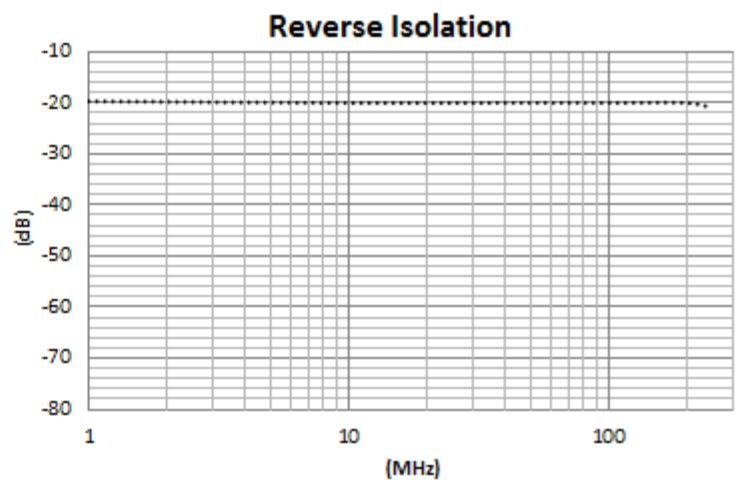
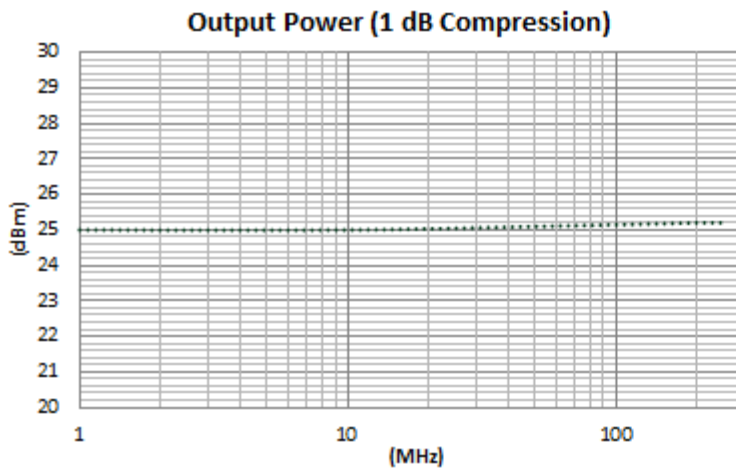
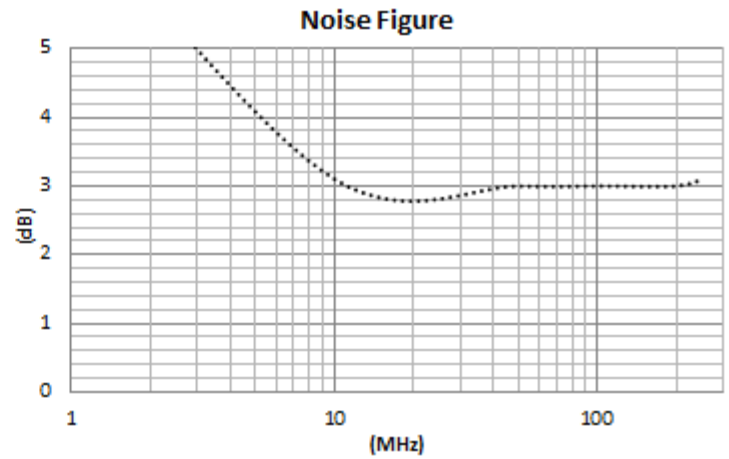
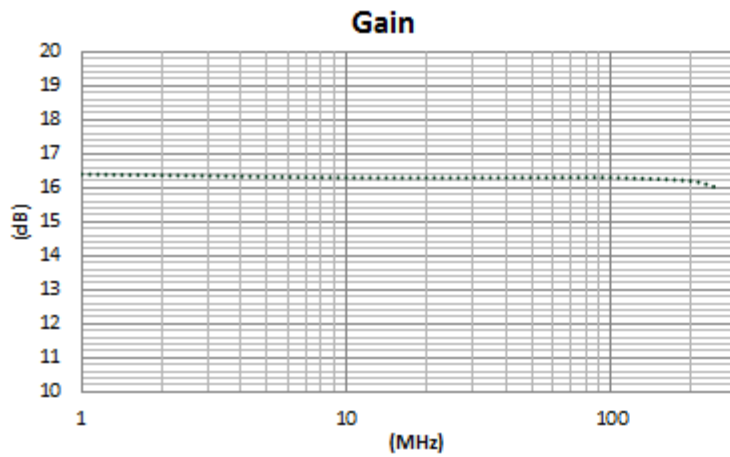
### Absolute Maximum

### (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	100 Milliwatts (1 Minute Max.)
Maximum Peak Power	0.5 Watt (3 µsec Max.)



# Model # TM6108



Instructions

Grounding Instructions	Care should be taken to effectively ground each unit.
Revisions	Spectrum Control 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.

NOTES:

- 1. HOUSING: ALUMINUM
- 2. FINISH: NICKEL

