

RF AMPLIFIER

MODEL *TM3108*

Available as: TM3108, 4 Pin TO-8 (T4)
 TN3108, 4 Pin Surface Mount (SM3)
 BX3108, Hermetic Seal SMA Replaceable
 Female Connectors (H1L)

Features

- High Gain: 29 dB Typical
- High Second Order Harmonics: +60 dBm Typical
- Unconditionally Stable
- RoHs Compliant

Specifications

CHARACTERISTIC	TYPICAL Ta= 25 °C	MIN/MAX Ta = -40 °C to +85 °C
Frequency	20 - 500 MHz	20 - 500 MHz
Gain (dB)	29	27 Min.
Power @ 1 dB Comp. (dBm)	26	24.5 Min.
Reverse Isolation (dB)	-40	-35 Max.
VSWR In	1.5:1	1.8:1 Max.
Out	1.5:1	1.8:1 Max.
Noise Figure (dB)	2.5	4.5 Max.
Power Vdc	+15	+15
mA	160	180 Max.

Note: Care should always be taken to effectively ground the case of each unit.

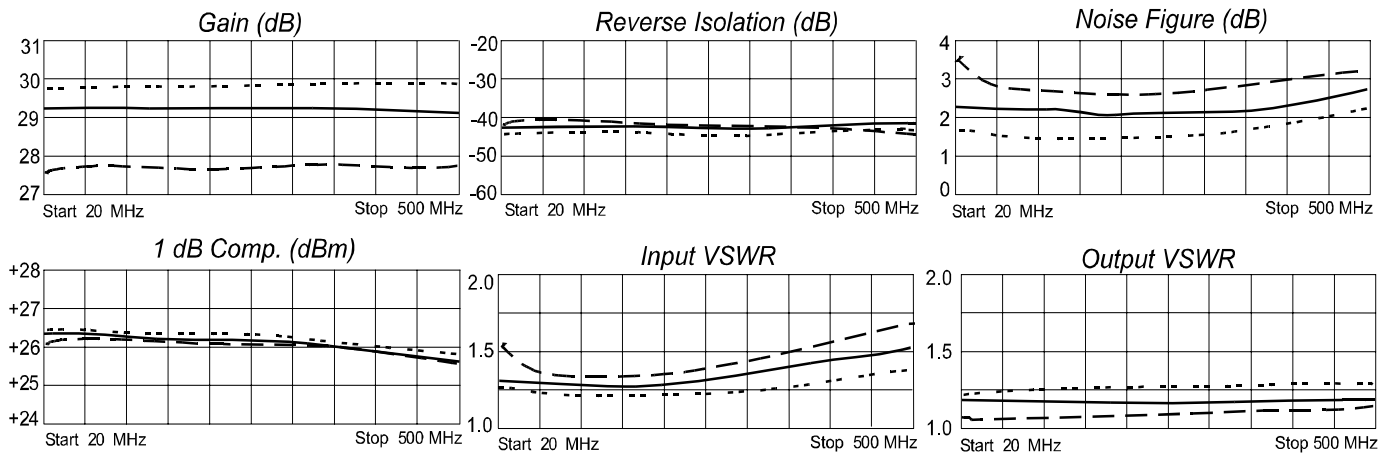
Typical Intermodulation Performance at 25 °C

Second Order Harmonic Intercept Point.....+60 dBm (Typ.)
 Second Order Two Tone Intercept Point.....+55 dBm (Typ.)
 Third Order Two Tone Intercept Point.....+40 dBm (Typ.)

Absolute Maximum (No Damage) Ratings

Ambient Operating Temperature -55°C to + 100 °C
 Storage Temperature -62°C to + 125 °C
 Maximum Operating Case Temperature + 125 °C
 DC Voltage.....+17 Volts
 Continuous RF Input Power.....+15 dBm
 Short Term RF Input Power.....+17 dBm (1 Minute Max.)
 Maximum Peak Power.....+20 dBm (3 µsec Max.)

Typical Performance Data



Legend ——— +25 °C - - - - +85 °C ······ -40 °C

Linear S-Parameters

Freq. MHz	---S11---		---S21---		---S12---		---S22---	
	Mag	Deg	Mag	Deg	Mag	Deg	Mag	Deg
30	0.06	-58.65	26.35	- 1.33	0.01	1.49	0.07	-176.92
120	0.04	-46.44	26.65	-34.10	0.01	- 4.72	0.08	-179.92
210	0.05	-53.09	26.44	-61.46	0.01	- 5.83	0.09	176.84
300	0.07	-63.99	26.23	-88.58	0.01	-10.60	0.10	170.54
420	0.11	-83.17	26.19	-124.31	0.01	-15.13	0.13	160.32
510	0.15	-98.49	26.25	-151.65	0.01	-23.65	0.15	152.22



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