

RF AMPLIFIER

MODEL *TM5138*

Available as: TM5138, 4 Pin TO-8 (T4)
 TN5138, 4 Pin Surface Mount (SM3)
 FP5138, 4 Pin Flatpack (FP4)
 BX5138, Connectorized Housing (H1)

Features

- High Output Power: +23.0 dBm Typical
- Low Noise Figure: 3.1 dB Typical
- Operating Temp. - 55 °C to + 85 °C
- Environmental Screening Available

Specifications

CHARACTERISTIC	TYPICAL Ta= 25 °C	MIN/MAX Ta = -55 °C to +85 °C
Frequency	5 - 150 MHz	5 -150 MHz
Gain (dB)	15.5	14.0 Min.
Power @ 1 dB Comp. (dBm)	+23.0	+21.0 Min.
Reverse Isolation (dB)	-27	-26 Max.
VSWR In	<1.6:1	1.8:1 Max.
Out	<1.6:1	1.8:1 Max.
Noise Figure (dB)	3.1	4.0 Max.
Power Vdc	+15	+15 Min.
mA	90	95 Max.

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

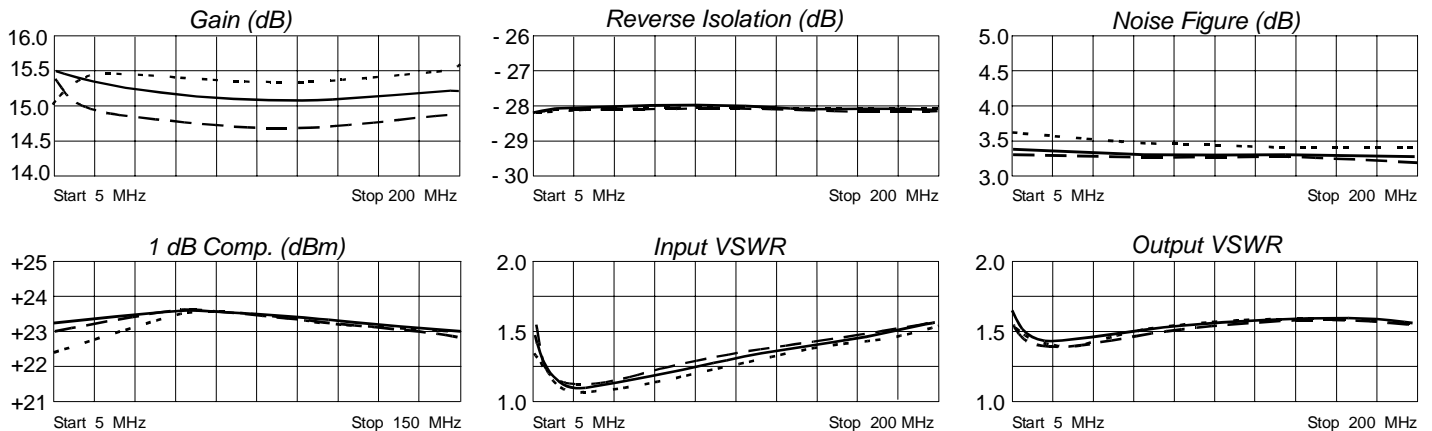
Typical Intermodulation Performance at 25 ° C

Second Order Harmonic Intercept Point.....+52 dBm (Typ.)
 Second Order Two Tone Intercept Point..... +46 dBm (Typ.)
 Third Order Two Tone Intercept Point..... +38 dBm (Typ.)

Maximum Ratings

Ambient 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 + 13 dBm
 Short Term RF Input Power..... 50 Milliwatts (1 Minute Max.)
 Maximum Peak Power..... 0.5 Watt (3 µsec Max.)

Typical Performance Data



Legend ——— + 25 °C - - - - + 85 °C ······ -55 °C

Linear S-Parameters

FREQ. MHz	S11		S21		S12		S22	
	Mag	Deg	Mag	Deg	Mag	Deg	Mag	Deg
5	.22	- 92	5.91	-163	.09	-170	.13	- 47
25	.11	-116	5.85	168	.10	168	.07	- 98
50	.15	-120	5.78	151	.10	151	.09	-124
75	.19	-125	5.72	135	.09	135	.11	-146
100	.23	-130	5.70	119	.09	120	.12	-167
125	.25	-135	5.71	104	.09	105	.12	172
150	.26	-140	5.78	89	.09	90	.11	151



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