

# RF AMPLIFIER

## MODEL *TM5137*

Available as: TM5137, 4 Pin TO-8 (T4)  
 TN5137, 4 Pin Surface Mount (SM3)  
 FP5137, 4 Pin Flatpack (FP4)  
 BX5137, Connectorized Housing (H1)

### Features

- High Output Power: +22.5 dBm Typical
- High Third Order Intercept: +39 dBm Typical
- Operating Temp. - 55 °C to +85 °C
- Environmental Screening Available
- Equivalent to QBH-137

### Typical Intermodulation Performance at 25 °C

Second Order Harmonic Intercept Point.....+58 dBm (Typ.)  
 Second Order Two Tone Intercept Point.....+53 dBm (Typ.)  
 Third Order Two Tone Intercept Point.....+39 dBm (Typ.)

### Specifications

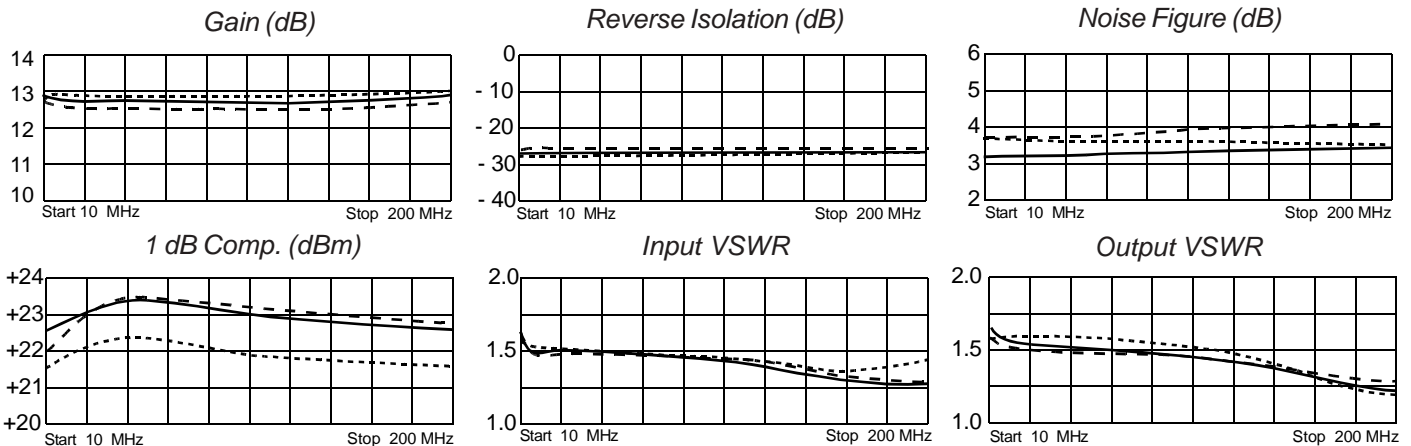
CHARACTERISTIC	TYPICAL Ta= 25 °C	MIN/MAX Ta = -55 °C to +85 °C
Frequency (MHz)	10-200 MHz	10-200 MHz
Gain (dB)	12.7	12.2 Min.
Power @ 1 dB Comp. (dBm)	+22.5	+20.5 Min.
Reverse Isolation (dB)	-18	-17 Max.
VSWR In	<1.6:1	2.0:1Max.
Out	<1.75:1	2.0:1 Max.
Noise Figure (dB)	<3.5	4.2 Max.
Power Vdc	+15	+15 Min.
mA	75	80 Max.

### Maximum Ratings

Ambient Operating Temperature ..... -55°C to + 100 °C  
 Storage Temperature ..... -62°C to + 125 °C  
 Case Temperature ..... + 125 °C  
 DC Voltage ..... + 18Volts  
 Continuous RF Input Power ..... + 18 dBm  
 Short Term RF Input Power .... 100 Milliwatts (1 Minute Max.)  
 Maximum Peak Power..... 0.2 Watt (3 µsec Max.)

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

### 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.
10	.22	-144	4.38	-175	.12	-179	.26	-12
40	.19	-167	4.33	164	.12	162	.23	-31
50	.19	-169	4.33	158	.12	157	.23	-38
100	.17	-169	4.32	135	.12	133	.21	-68
150	.14	-159	4.37	111	.12	110	.17	-89
200	.14	-127	4.43	85	.13	86	.12	-85



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