

# RF AMPLIFIER

## MODEL *TM5136*

Available as: TM5136, 4 Pin TO-8 (T4)  
 TN5136, 4 Pin Surface Mount (SM3)  
 FP5136, 4 Pin Flatpack (FP4)  
 BX5136, Connectorized Housing (H1)

### Features

- High Gain: 20 dB Typical
- High Output Power: +23 dBm Typical
- Operating Temp. - 55°C to +85 °C
- Environmental Screening Available

### Typical Intermodulation Performance at 25 °C

Second Order Harmonic Intercept Point ..... +52 dBm (Typ.)  
 Second Order Two Tone Intercept Point ..... +45 dBm (Typ.)  
 Third Order Two Tone Intercept Point ..... +33 dBm (Typ.)

### Specifications

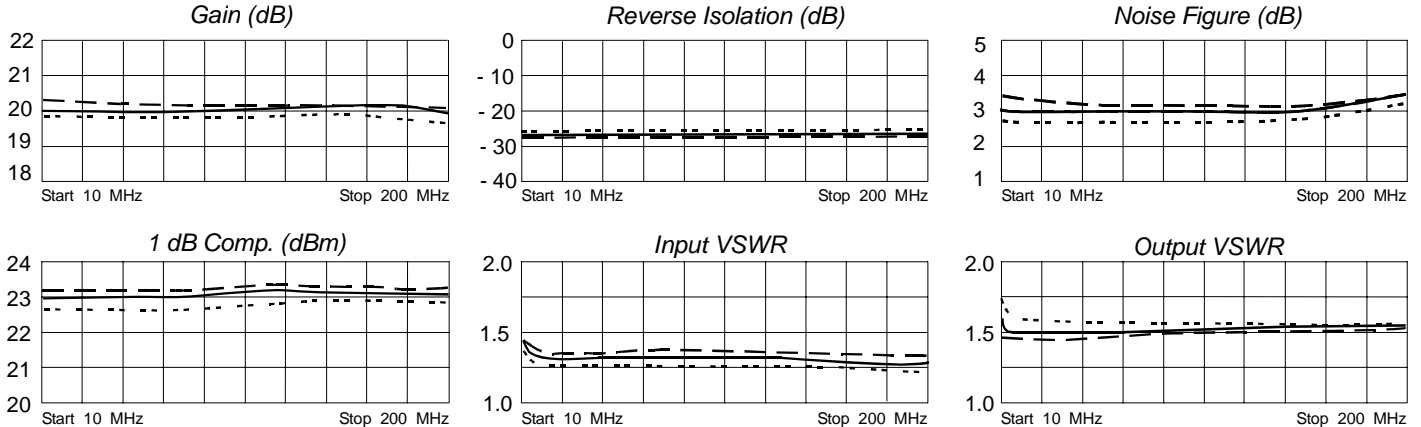
CHARACTERISTIC		TYPICAL Ta= 25 °C	MIN/MAX Ta = -55 °C to +85 °C
Frequency		10 - 200 MHz	10 - 200 MHz
Gain (dB)		20.0	19.0 Min.
Power @ 1 dB Comp. (dBm)		+23	+22 Min.
Reverse Isolation (dB)		-26	-25 Min.
VSWR	In	1.4:1	1.5:1 Max.
	Out	1.5:1	1.8:1 Max.
Noise Figure (dB)		3.0	4.0 Max.
Power	Vdc	+15	+15
	mA	65	70 Max.

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

### 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    ······ -40 °C

### Linear S-Parameters

Freq. MHz	---S11---		---S21---		---S12---		---S22---	
	Mag	Deg	Mag	Deg	Mag	Deg	Mag	Deg
10	.27	- 24	9.55	-168	.054	-167	.22	-23
20	.25	- 19	9.73	-179	.055	-177	.19	-19
50	.24	- 28	9.88	166	.054	162	.18	-22
100	.22	- 57	10.04	146	.056	135	.20	-45
150	.21	-100	10.13	125	.055	113	.22	-75
200	.26	-153	9.92	103	.055	88	.25	-113
250	.38	-165	9.25	79	.049	69	.28	-156



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