

RF AMPLIFIER

MODEL *TM5175*

Available as: TM5175, 4 Pin TO-8 (T4)
 TN5175, 4 Pin Surface Mount (SM3)
 FP5175, 4 Pin Flatpack (FP4)
 BX5175, Connectorized Housing (H1)

Features

- High Gain: 16.3 dB Typical
- High Output Power: >+18 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	20 - 500 MHz	20 - 500 MHz
Gain (dB)	16.3	16.3 +/-0.8
Power @ 1 dB Comp. (dBm)	+18	+16.5 Min.
Reverse Isolation (dB)	-20	-18.0 Max.
VSWR In	<1.75:1	2.0:1 Max.
VSWR Out	<1.75:1	2.0:1 Max.
Noise figure (dB)	<3.0	3.8 Max.
Power Vdc	+15	+15
mA	45	50 Max.

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

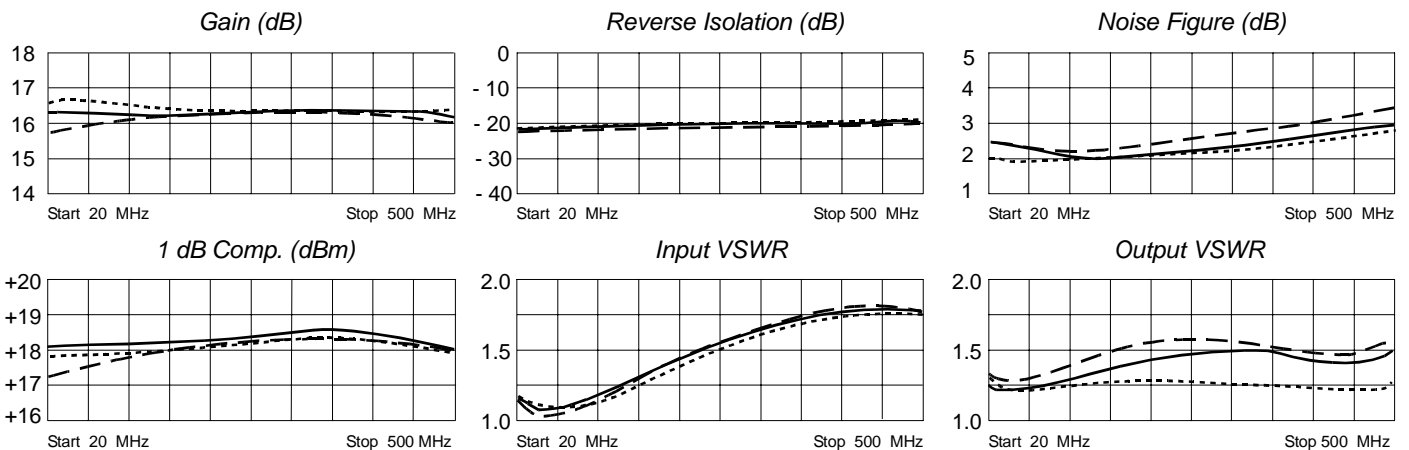
Typical Intermodulation Performance at 25 ° C

Second Order Harmonic Intercept Point +47 dBm (Typ.)
 Second Order Two Tone Intercept Point +41 dBm (Typ.)
 Third Order Two Tone Intercept Point +32 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 100 Milliwatts (1 Minute Max.)
 Maximum Peak Power 0.2 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	.16	- 76	6.49	-156	.09	-155	.15	- 33
50	.04	- 87	6.48	166	.09	163	.08	20
100	.07	- 94	6.44	148	.09	145	.12	23
200	.15	-123	6.46	114	.10	108	.18	3
300	.24	-159	6.50	80	.11	75	.18	- 30
400	.29	155	6.65	41	.11	41	.16	- 82
500	.29	89	6.58	1	.11	5	.19	-161



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