

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)
 PN5175, Reduced Size Surface Mount (SM11)

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.

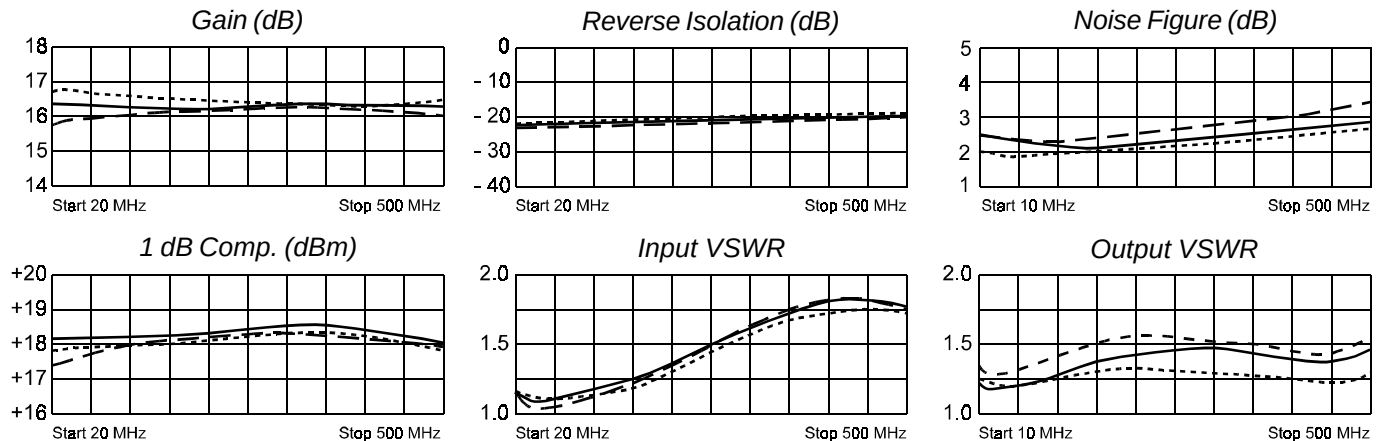
Typical Intermodulation Performance at 25 °C

Second Order Harmonic Intercept Point +47 (Typ.)
 Second Order Two Tone Intercept Point +41 (Typ.)
 Third Order Two Tone Intercept Point +32 (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 --- Mag. Deg.	--- S21 --- Mag. Deg.	--- S12 --- Mag. Deg.	--- S22 --- Mag. Deg.
5	.16 - 76	6.48 -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

Amplifonix

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