

# RF AMPLIFIER

## MODEL *TM3078*

Available as: TM3078, 4 Pin TO-8 (T4)  
 TN3078, 4 Pin Surface Mount (SM3)  
 BX3078, Connectorized Housing (H1)

### Features

- Low +5 Volt Supply
- Wide 200-3000 MHz Bandwidth
- Environmental Screening Available

### Specifications

CHARACTERISTIC	TYPICAL Ta= 25 °C	MIN/MAX Ta = -55 °C to +85 °C
Frequency (MHz)	200-3000 MHz	200-3000 MHz
Gain (dB)	10.0	9.0 Min.
Power @ 1 dB (<2000 MHz) Comp. (dBm) (>2000 MHz)	12.0 10.5	11.0 Min 10.0 Min.
Reverse Isolation (dB)	-17	-15 Min.
VSWR In	1.7:1	2.5:1 Max
Out	1.5:1	2.0:1 Max.
Noise Figure (dB)	4.0	5.0 Max.
Power Vdc	+5	+5
mA	30	40 Max.

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

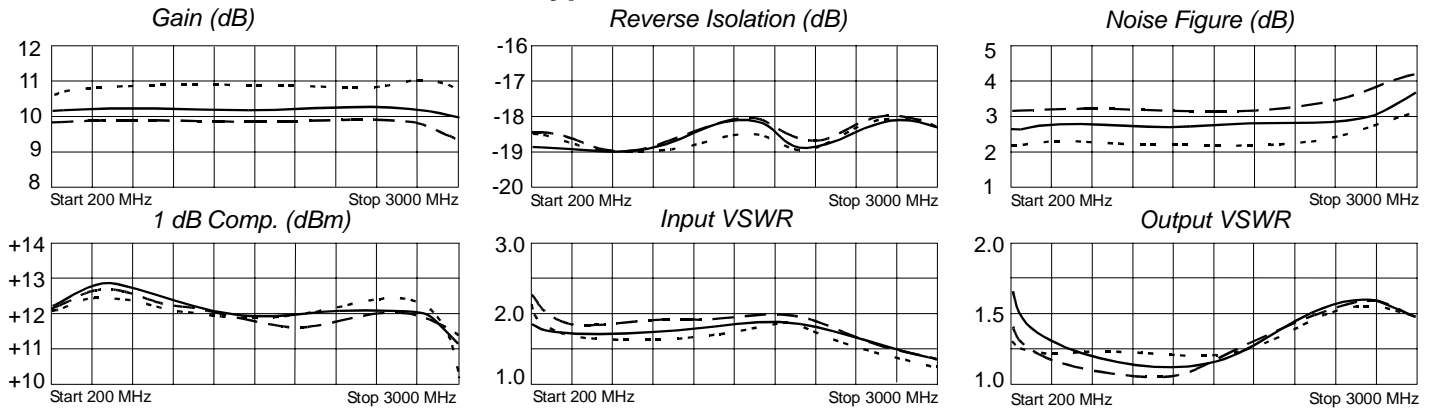
### Typical Intermodulation Performance at 25 ° C

Second Order Harmonic Intercept Point ..... +47 dBm (Typ.)  
 Second Order Two Tone Intercept Point ..... +42 dBm (Typ.)  
 Third Order Two Tone Intercept Point ..... +24 dBm (Typ.)

### Maximum Ratings

Ambient Operating Temperature ..... -55°C to + 100 °C  
 Storage Temperature ..... -69°C to + 125 °C  
 Case Temperature ..... + 125 °C  
 DC Voltage ..... + 8 Volts  
 Continuous RF Input Power ..... + 13 dBm  
 Short Term RF Input Power ..... 20 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
100	.33	-54	3.36	-171	.1248	2	.17	118
300	.31	-57	3.37	-176	.1252	1	.15	121
500	.30	-58	3.39	-180	.1243	-2	.14	126
700	.29	-60	3.39	177	.1231	-3	.13	124
900	.29	-62	3.37	174	.1223	-4	.12	128
1100	.28	-64	3.39	171	.1244	-4	.12	128
1300	.28	-66	3.40	168	.1234	-7	.11	132
1500	.28	-68	3.39	165	.1235	-7	.11	132
1700	.28	-70	3.40	163	.1219	-10	.10	132
1900	.28	-72	3.39	161	.1216	-12	.10	133
2100	.28	-75	3.39	159	.1225	-12	.10	135
2300	.28	-77	3.39	156	.1222	-12	.09	136
2500	.28	-80	3.41	154	.1233	-14	.09	134
2700	.28	-83	3.39	152	.1207	-15	.09	135
2900	.28	-84	3.38	150	.1243	-16	.09	138
3100	.28	-87	3.38	148	.1237	-17	.08	139



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