

# RF AMPLIFIER

## MODEL *TM7278*

Available as: TM7278, 4 Pin TO-8 (T4)  
 TN7278, 4 Pin Surface Mount (SM3)  
 FP7278, 4 Pin Flatpack (FP4)  
 BX7278, Connectorized Housing (H1)

### Features

- High Third Order Intercept: +36 dBm Typical
- High Output Power +21.5 dBm 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	5-300 MHz	5-300 MHz
Gain (dB)	13.5	12.5 Min.
Power @ 1 dB Comp. (dBm)	21.5	19 Min.
Reverse Isolation (dB)	-15	-14 Max.
VSWR In	<1.25:1	2.0:1 Max.
Out	<1.5:1	2.0:1 Max.
Noise figure (dB)	4.0	5.5 Max.
Power Vdc	+15	+15
mA	65	75 Max.

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

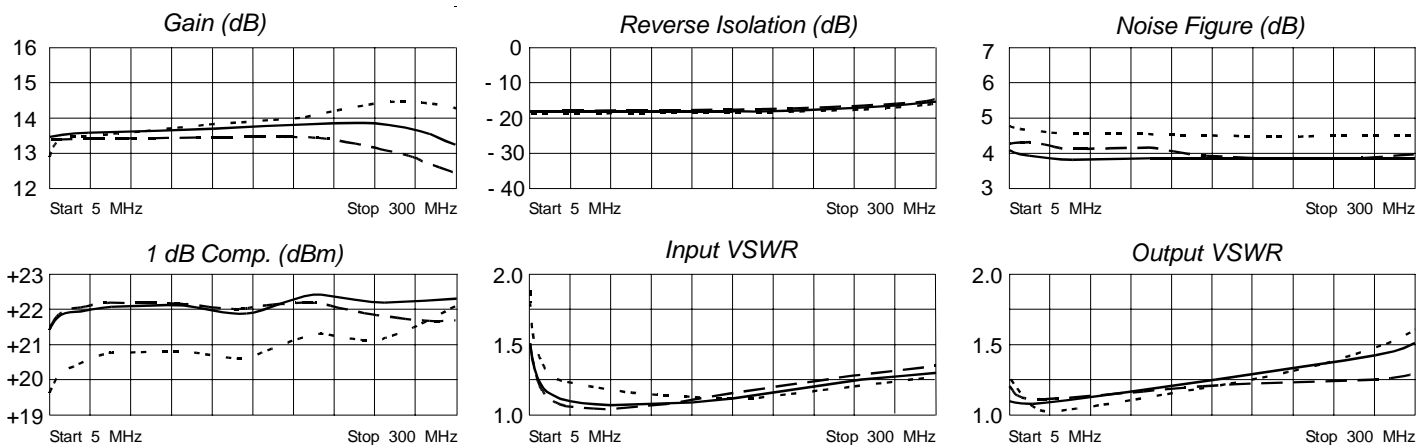
### Typical Intermodulation Performance at 25 ° C

Second Order Harmonic Intercept Point ..... +55 dBm (Typ.)  
 Second Order Two Tone Intercept Point ..... +49 dBm (Typ.)  
 Third Order Two Tone Intercept Point ..... +36 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 ..... 50 Milliwatts (1 Minute Max.)  
 Maximum Peak Power ..... 0.5 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	.20	-92	4.67	-162	.13	6	.07	135
20	.06	-140	4.80	178	.13	2	.05	174
50	.04	160	4.80	165	.13	2	.05	-159
100	.05	97	4.84	147	.14	3	.08	-149
150	.06	44	4.90	128	.14	2	.11	-161
200	.09	2	4.95	108	.15	2	.14	176
250	.12	-37	4.92	85	.16	-2	.16	137
300	.14	-72	4.61	59	.18	-7	.21	84



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