

# RF AMPLIFIER

## MODEL *TM7302*

Available As: TM7302, 4 Pin TO-8 (T4)  
 TN7302, 4 Pin Surface Mount (SM3)  
 BX7302, Connectorized Housing (H1)

### Features

- High Output Power: +25 dBm Typical
- High IP3: +38 dBm Typical
- Operating Temp. - 55 °C to +71 °C

### Typical Intermodulation Performance at 25 °C

Second Order Harmonic Intercept Point..... +54 dBm (Typ.)  
 Second Order Two Tone Intercept Point..... +50 dBm (Typ.)  
 Third Order Two Tone Intercept Point..... +38 dBm (Typ.)

### Specifications

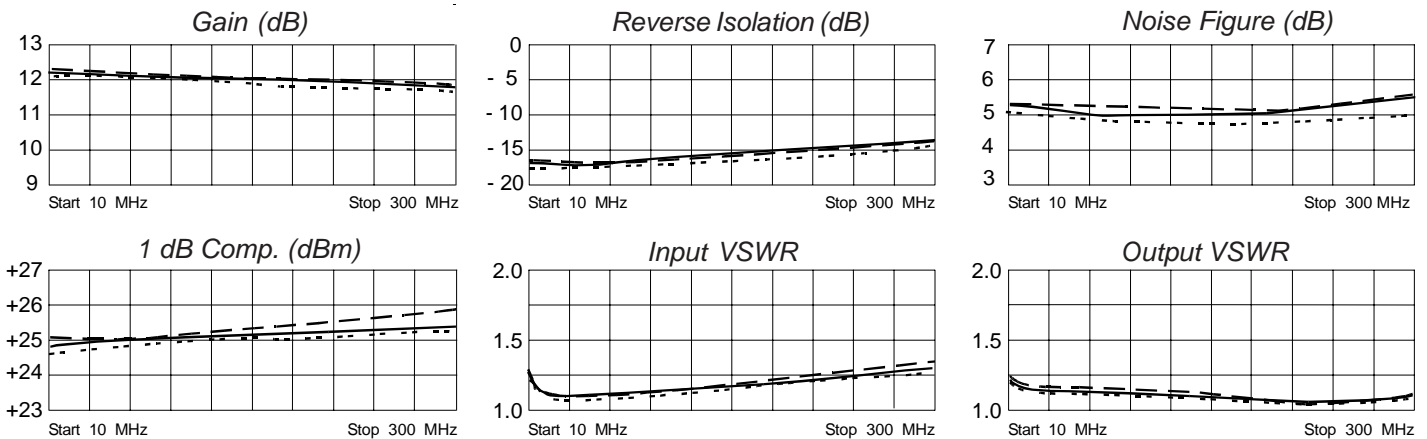
CHARACTERISTIC	TYPICAL Ta= 25 °C	MIN/MAX Ta = -55 °C to 71 °C
Frequency	10-300 MHz	10-300 MHz
Gain (dB)	11.8	11 Min.
Power @ 1 dB Comp. (dBm)	+25	+23.5 Min.
Reverse Isolation (dB)	-16	-13.5 Max.
VSWR In	1.7:1	2.0:1 Max.
VSWR Out	1.7:1	2.0:1 Max.
Noise Figure (dB)	6	8 Max.
Power Vdc	+24	+24
mA	100	105 Max.

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

### Maximum Ratings

Ambient Operating Temperature ..... -55°C to + 85 °C  
 Storage Temperature ..... -62°C to + 125 °C  
 Case Temperature ..... + 80 °C  
 DC Voltage ..... + 25 Volts  
 Continuous RF Input Power ..... + 20 dBm  
 Short Term RF Input Power ... 200 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
10	.08	-79	4.04	-174	.1511	8	.10	55
50	.03	-30	4.00	168	.1535	3	.06	16
100	.04	-22	3.98	154	.1568	5	.07	5
150	.06	-32	3.96	140	.1638	6	.06	-3
200	.09	-48	3.96	126	.1723	6	.05	-7
250	.13	-67	3.93	111	.1842	5	.03	-1
300	.16	-85	3.87	96	.1952	4	.03	56



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