

# RF AMPLIFIER

## MODEL *TM9302*

Available as: TM9302, 4 Pin TO-8 (T4)  
 TN9302, 4 Pin Surface Mount (SM3)  
 FP9302, 4 Pin Flatpack (FP4)  
 BX9302, Connectorized Housing (H1)

### Features

- Output Power: +10 dBm Typical
- Operating Temp. - 55 °C to +85 °C
- Environmental Screening Available

### Typical Intermodulation Performance at 25 ° C

Second Order Harmonic Intercept Point.....+34 dBm (Typ.)  
 Second Order Two Tone Intercept Point.....+28 dBm (Typ.)  
 Third Order Two Tone Intercept Point.....+22 dBm (Typ.)

### Specifications

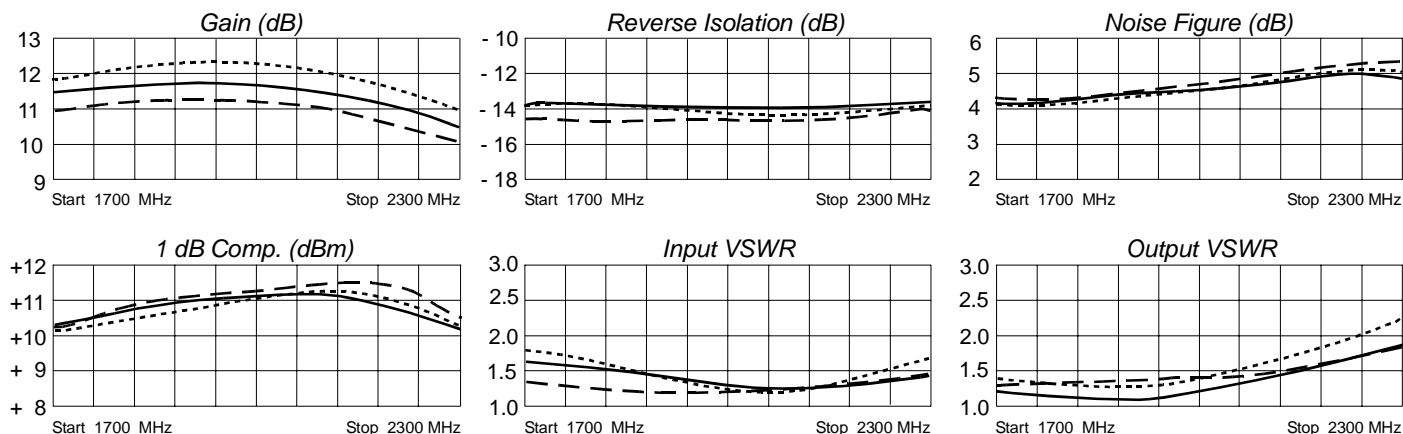
CHARACTERISTIC	TYPICAL Ta= 25 °C	MIN/MAX Ta = -55 °C to +85 °C
Frequency	1700 - 2300 MHz	1700 - 2300 MHz
Gain (dB)	10.5	9 Min.
Power @ 1 dB Comp. (dBm)	+10	+9 Min.
Reverse Isolation (dB)	-13	-12 Max.
VSWR In	1.75:1	2.0:1 Max.
Out	1.5:1	2.0:1 Max.
Noise figure (dB)	4.0	5.5 Max.
Power Vdc	+15	+15 Max.
mA	21	24 Max.

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

### 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 ..... + 10 dBm  
 Short Term RF Input Power .... 100 Milliwatts (1 Minute Max.)  
 Maximum Peak Power ..... 0.1 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
1700	.27	33	3.81	37	.20	-19	.16	-11
1800	.22	29	3.86	25	.20	-21	.12	-39
1900	.17	29	3.90	13	.20	-23	.10	-80
2000	.13	43	3.93	1	.19	-22	.10	-130
2100	.13	67	3.84	-13	.20	-21	.13	-167
2200	.16	83	3.69	-26	.21	-22	.17	164
2300	.23	86	3.43	-39	.21	-23	.21	140



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