

# 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)  
 PN9302, Reduced Size Surface Mount (SM11)

### 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

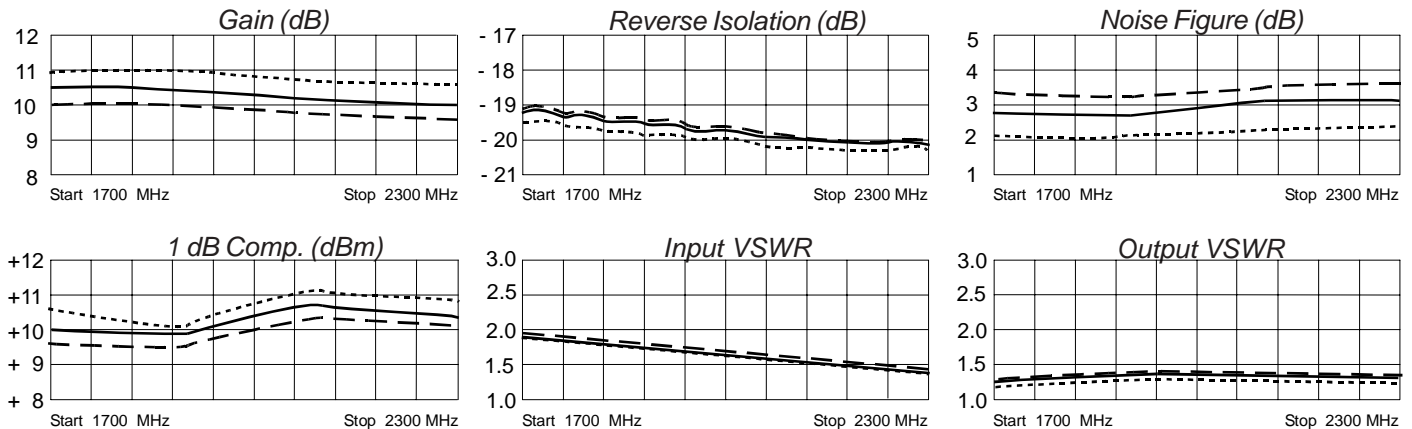
CHARACTERISTIC		TYPICAL Ta= 25 °C	MIN/MAX Ta = -55 °C to +85 °C	
Frequency		1700 - 2300 MHz	1700 - 2300 MHz	
Gain (dB)		10.5	9	Min.
Power @ 1 dB Comp. (dBm)		+10	+9	Min.
Reverse Isolation (dB)		- 19	- 17	Max.
VSWR	In	1.75	2.0	Max.
	Out	1.50	2.0	Max.
Noise figure (dB)		> 4.0	5.5	Max.
Power	Vdc	+15	+15	
	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
1600	.29	177	3.32	79	.1065	- 51	.06	- 43
1700	.28	166	3.35	71	.1042	- 55	.06	- 57
1800	.28	156	3.34	64	.1000	- 60	.07	- 68
1900	.27	144	3.34	56	.1004	- 63	.07	- 88
2000	.27	131	3.30	48	.0968	- 67	.07	- 105
2100	.26	116	3.26	41	.0948	- 71	.06	- 120
2200	.25	100	3.27	34	.0922	- 76	.05	- 128
2300	.24	83	3.28	27	.0942	- 80	.05	- 129
2400	.23	65	3.29	19	.0941	- 88	.06	- 124



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