

# RF AMPLIFIER

## MODEL *TM9753*

Available as: TM9753, 4 Pin TO-8 (T4)  
 TN9753, 4 Pin Surface Mount (SM3)  
 FP9753, 4 Pin Flatpack (FP4)  
 BX9753, Connectorized Housing (H1)

### Features

- High Output Power: +27.0 dBm Typical
- Low Noise Figure: 2.5 dB typical
- Operating Temp. -55°C to +85°C
- Environmental Screening Available

### Typical Intermodulation Performance at 25°C

Second Order Harmonic Intercept Point ..... +50 dBm (Typ.)  
 Second Order Two Tone Intercept Point ..... +45 dBm (Typ.)  
 Third Order Two Tone Intercept Point ..... +38 dBm (Typ.)

### Specifications

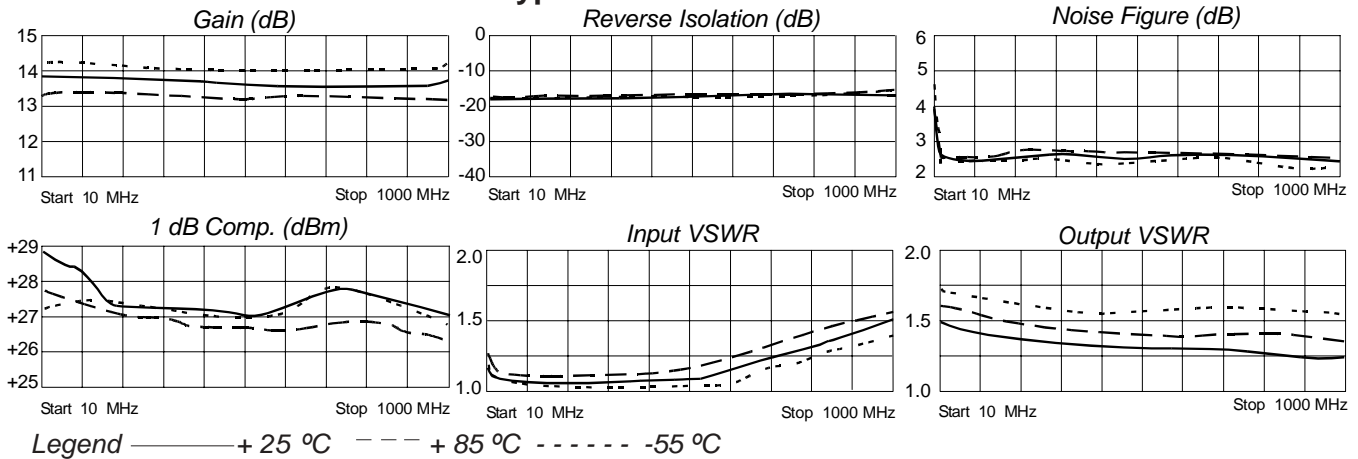
CHARACTERISTIC		TYPICAL Ta = 25 °C	MIN/MAX Ta = -55 °C to +85 °C
Frequency		10 - 1000 MHz	10 - 1000 MHz
Gain (dB)		13.5	13.0 Min.
Power @ 1 dB Comp. (dBm)		+27	+25 Min.
Reverse Isolation (dB)		-20	-18 Max.
VSWR	In	1.5:1	2.0:1 Max.
	Out	1.5:1	2.0:1 Max.
Noise Figure (dB)		2.5*	3.5 Max.*
Power	Vdc	+15	+15
	mA	124	130 Max.

### Maximum Ratings

Ambient Operating Temperature ..... -55°C to + 100 °C  
 Storage Temperature ..... -62°C to + 125 °C  
 Operating Case Temperature ..... + 125 °C  
 DC Voltage ..... + 17 Volts  
 Continuous RF Input Power ..... + 18 dBm  
 Short Term RF Input Power ... 100 Milliwatts (1 Minute Max.)  
 Maximum Peak Power ..... 0.5 Watt (3 µsec Max.)

Note: Care should always be taken to effectively ground the case of each unit.  
 \*1 dB Higher Below 100 MHz

### Typical Performance Data



### Linear S-Parameters

FREQ. MHz	S11		S21		S12		S22	
	Mag	Deg	Mag	Deg	Mag	Deg	Mag	Deg
10	0.06	-52	4.95	-176	0.10	3	0.22	176
109	0.04	-44	4.91	164	0.10	-9	0.22	161
208	0.05	-66	4.88	150	0.10	-15	0.22	145
307	0.07	-88	4.87	136	0.10	-23	0.22	129
406	0.08	-102	4.87	122	0.10	-31	0.21	113
505	0.10	-118	4.88	108	0.10	-40	0.21	98
604	0.11	-129	4.88	94	0.10	-47	0.20	82
703	0.13	-140	4.89	79	0.10	-56	0.19	66
802	0.15	-151	4.86	64	0.10	-63	0.18	51
901	0.17	-166	4.83	50	0.10	-71	0.17	37
1000	0.18	179	4.88	36	0.10	-79	0.17	18

