

# RF AMPLIFIER

## MODEL *TM9725*

Available as: TM9725, 4 Pin TO-8  
 TN9725-3, 4 Pin Surface Mount (SM3)  
 FP9725-4, 4Pin Flatpack (FP4)  
 BX9725, Connectorized Housing (H1)

### Features

- Medium Gain: 11 dB Typical
- High Output Power: +26.5 dBm Typical
- High IP3: +38 dBm Typical

### Specifications

CHARACTERISTIC	TYPICAL Ta= 25 °C	MIN/MAX Ta= -55 °C to +85 °C
Frequency	500 - 2000 MHz	500 - 2000 MHz
Gain (dB)	11	10.0 Min.
Power @ 1 dB Comp. (dBm)	+26.5	+25.0 Min.
Reverse Isolation (dB)	-19	-18 Max.
VSWR In	<1.5:1	2.0:1 Max.
VSWR Out	<1.5:1	2.0:1 Max.
Noise figure (dB)	3.75	6.0 Max.
Power Vdc	+15	+15
mA	165	190 Max.

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

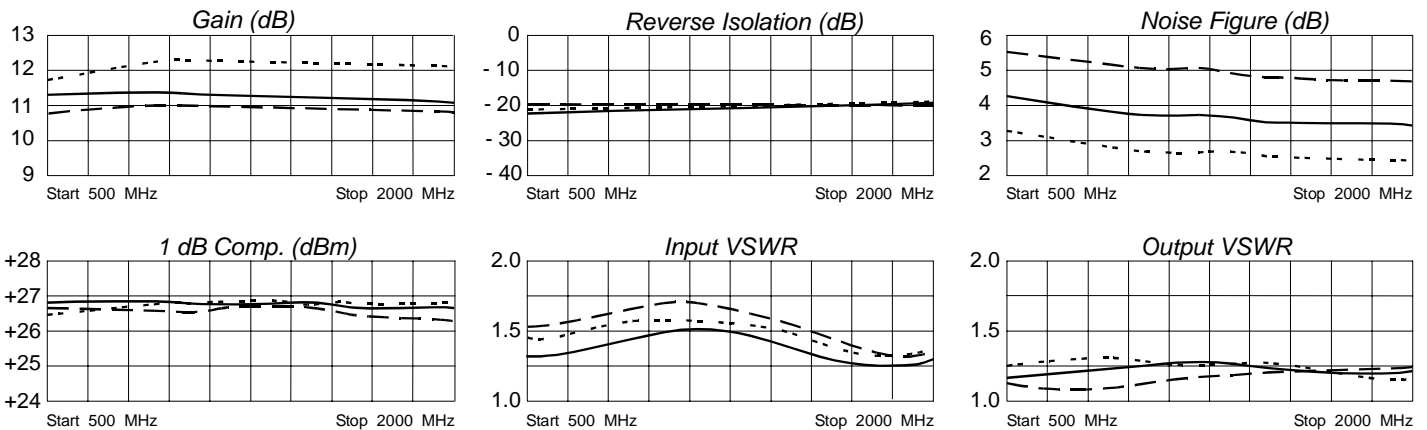
### Typical Intermodulation Performance at 25 ° C

Second Order Harmonic Intercept Point .....+51 dBm (Typ.)  
 Second Order Two Tone Intercept Point ..... +45 dBm (Typ.)  
 Third Order Two Tone Intercept Point ..... +38 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 ..... + 20 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
500	.20	-76	3.73	153	.11	-5	.05	108
750	.24	-100	3.77	131	.10	-13	.08	80
1000	.25	-126	3.71	110	.10	-19	.10	48
1250	.24	-152	3.62	90	.10	-23	.11	20
1500	.21	-179	3.52	70	.10	-26	.12	-12
1750	.17	-139	3.41	49	.11	-32	.11	-44
2000	.14	79	3.26	28	.12	-39	.13	-82

