

RF AMPLIFIER

MODEL *TM9731*

Available as: TM9731, 4 Pin TO-8 (T4)
 TN9731, 4 Pin Surface Mount (SM3)
 FP9731, 4 Pin Flatpack (FP4)
 BX9731, SMA Connectorized Housing (H1)

Features

- Higher Gain: 24 dB Typical
- Higher Output Power: +24 dBm Typical
- Operating Temp. - 55 °C to + 85 °C
- Environmental Screening Available

Specifications

CHARACTERISTIC	TYPICAL Ta= 25 °C	MIN/MAX Ta = -55 °C to +85 °C
Frequency	10 - 300 MHz	10 - 300 MHz
Gain (dB)	24	23 Min.
Power @ 1 dB Comp. (dBm)	+24	+23 Min.
Reverse Isolation (dB)	-37	-35 Max.
VSWR In	1.7:1	2.0:1 Max.
Out	1.7:1	2.0:1 Max.
Noise Figure (dB)	3.5	5.0 Max.
Power Vdc	+15	+15
mA	130	140 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 +50 dBm (Typ.)

Second Order Two Tone Intercept Point +45 dBm (Typ.)

Third Order Two Tone Intercept Point +35 dBm (Typ.)

Maximum Ratings

Ambient Operating Temperature -55°C to + 100 °C

Storage Temperature -62°C to + 125 °C

Case Temperature + 125 °C

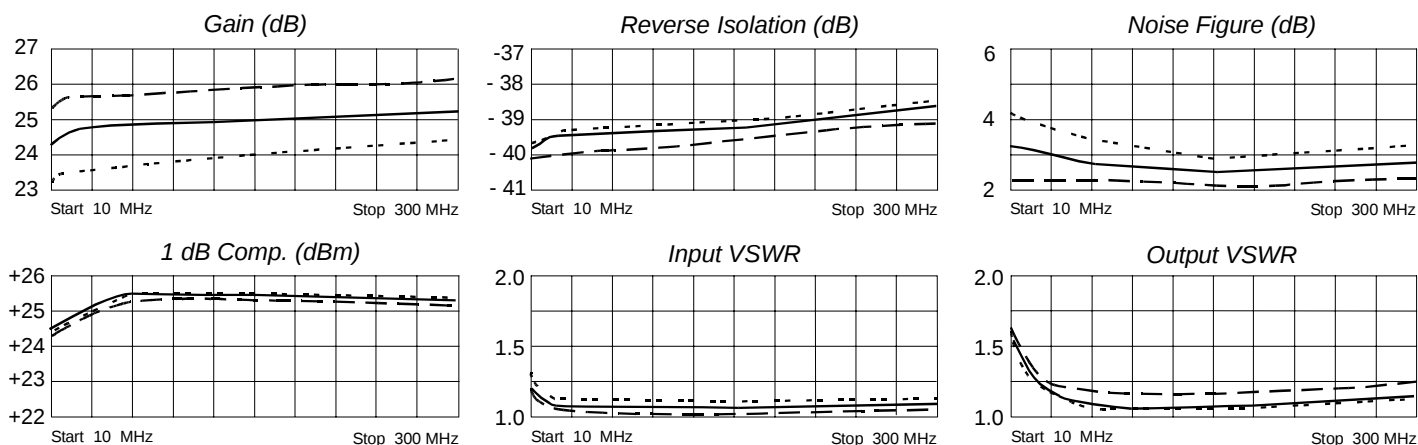
DC Voltage + 18 Volts

Continuous RF Input Power + 13 dBm

Short Term RF Input Power ... 100 Milliwatts (1 Minute Max.)

Maximum Peak Power 0.2 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	.22	-97	12.58	75	.0101	44	.44	3.09
50	.18	-102	13.28	62	.0119	37	.37	2.70
100	.14	-104	13.70	53	.0106	28	.32	3.09
150	.12	-107	13.97	46	.0114	20	.28	2.91
200	.10	-108	14.18	41	.0115	22	.25	2.90
250	.09	-109	14.27	36	.0117	16	.23	2.89
300	.08	-109	14.37	33	.0130	18	.21	2.63



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