

# RF AMPLIFIER

## MODEL *TM6149*

Available as: TM6149, 4 Pin TO-8B (T4)  
 TN6149, 4 Pin Surface Mount (SM3)  
 FP6149, 4 Pin Flatpack (FP4)  
 BX6149, Connectorized Housing (H1)

### Features

- Medium Gain: 15.3 dB Typical
- Medium Output Power: +16 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 (MHz)	5 - 500 MHz	5 - 500 MHz
Gain (dB)	15.3	14.5 Min.
Power @ 1 dB Comp. (dBm)	+16	+14.5 Min.
Reverse Isolation (dB)	-19	-18 Max.
VSWR In	<1.25:1	2:0:1 Max.
Out	<1.25:1	2:0:1 Max.
Noise figure (dB)	<5.0	6.0 Max.
Power Vdc	+15	+15
mA	45	48 Max.

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

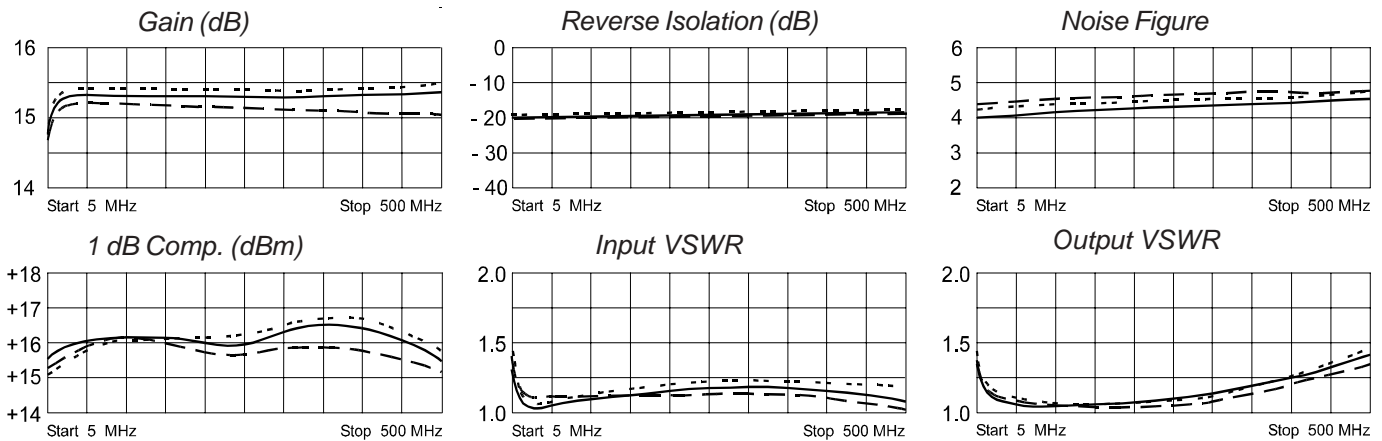
### Typical Intermodulation Performance at 25 ° C

Second Order Harmonic Intercept Point ..... +47 dBm (Typ.)  
 Second Order Two Tone Intercept Point ..... +41 dBm (Typ.)  
 Third Order Two Tone Intercept Point ..... +30 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 ..... 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
5	.14	-66	5.58	-167	.09	13	.14	119
50	.02	22	5.85	172	.09	1	.01	93
100	.03	49	5.81	161	.09	-2	.01	-171
200	.07	52	5.78	141	.10	-7	.03	-160
300	.08	44	5.75	121	.10	-12	.05	169
400	.08	41	5.75	101	.11	-17	.09	140
500	.05	50	5.71	79	.12	-25	.14	110
600	.06	136	5.67	56	.13	-34	.22	77



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