

RF AMPLIFIER

MODEL *TM6546*

Available as: TM6546, 4 Pin TO-8 (T4)
 TN6546, 4 Pin Surface Mount (SM3)
 FP6546, 4 Pin Flatpack (FP4)
 BX6546, Connectorized Housing (H1)

Features

- High IP3: +38 dBm Typical
- High Output Power: +25 dBm Typical
- Operating Temp. - 55 °C to +85 °C

Specifications

CHARACTERISTIC		TYPICAL Ta = 25 °C	MIN/MAX Ta = -55 °C to +85 °C
Frequency		20 - 500 MHz	20 - 500 MHz
Gain (dB)		11.5	10.0 Min.
Power @ 1 dB Comp. (dBm)		+25	+23 Min.
Reverse Isolation (dB)		-19	-18 Max.
VSWR	In	1.8:1	2.0:1 Max.
	Out	1.7:1	2.0:1 Max.
Noise Figure (dB)		4.0	6.0 Max.
Power	Vdc	+15	+15
	mA	105	110 Max.

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

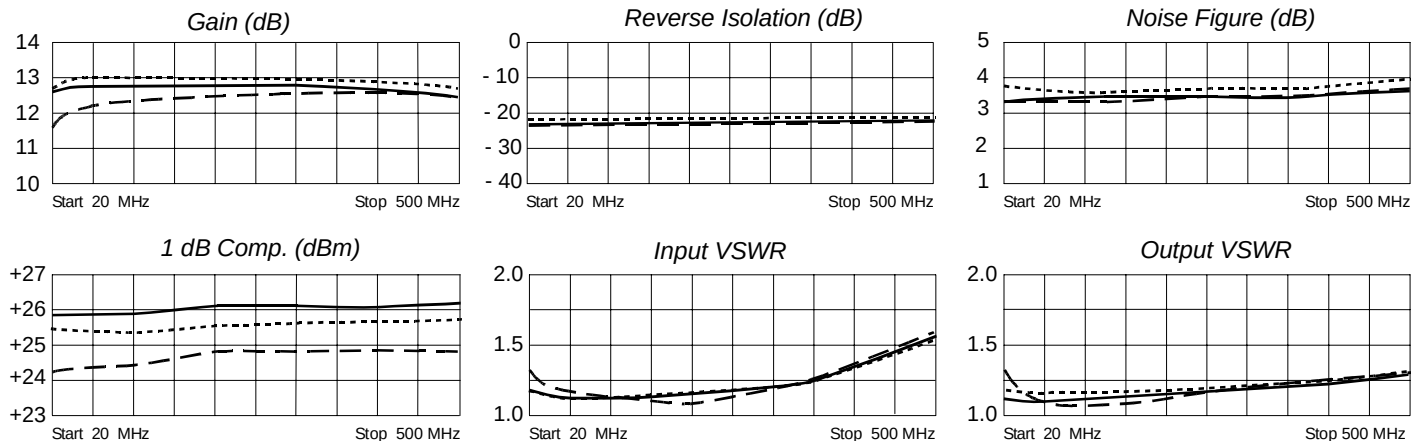
Typical Intermodulation Performance at 25 ° C

Second Order Harmonic Intercept Point.... +53 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.... 200 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
10	.19	165	3.80	-171	.09	-173	.19	31
50	.17	-179	3.88	163	.09	160	.19	-24
100	.19	-176	3.85	142	.09	139	.22	-60
200	.24	171	3.70	104	.09	98	.27	-111
300	.26	146	3.65	67	.09	62	.30	-153
400	.21	117	3.62	28	.10	27	.26	170
500	.16	96	3.64	-16	.11	-9	.17	132



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