

# RF AMPLIFIER

## MODEL *TM6547*

Available as: TM6547, 4 Pin TO-8 (T4)  
 TN6547, 4 Pin Surface Mount (SM3)  
 FP6547, 4 Pin Flatpack (FP4)  
 BX6547, Connectorized Housing (H1)  
 PN6547, Reduced Size Surface Mount (SM11)

### Features

- Low Noise Figure: < 4.0 dB Typical
- High Output Power: +19 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 - 500 MHz	10 - 500 MHz
Gain (dB)	12.5	11.0 Min.
Power @ 1 dB Comp. (dBm)	+19	+17.5 Min.
Reverse Isolation (dB)	- 17	- 15 Max.
VSWR In	1.75:1	2.0:1 Max.
Out	1.5:1	2.0:1 Max.
Noise figure (dB)	<4.0	4.5 Max.
Power Vdc	+15	+15
mA	55	58 Max.

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

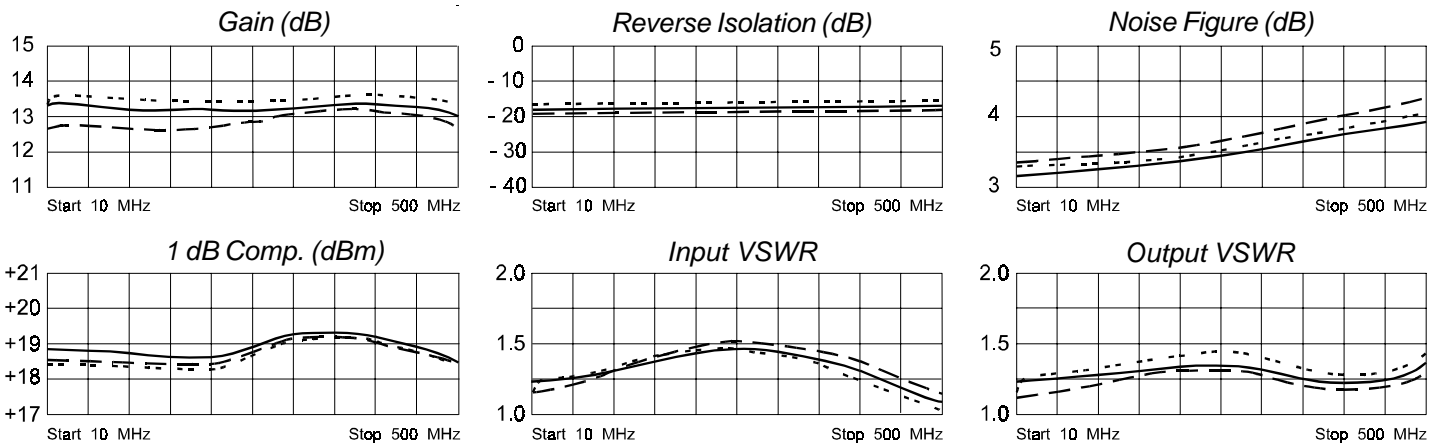
### Typical Intermodulation Performance at 25 ° C

Second Order Harmonic Intercept Point ..... +54 (Typ.)  
 Second Order Two Tone Intercept Point ..... +48 (Typ.)  
 Third Order Two Tone Intercept Point ..... +35 (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 ..... 0.2 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	.10	-13	4.62	-173	.13	-174	.10	- 8
50	.10	7	4.62	169	.13	169	.11	3
100	.12	14	4.57	155	.13	153	.12	5
200	.17	6	4.54	129	.13	127	.15	- 8
300	.18	-16	4.53	103	.13	102	.14	-39
400	.13	-44	4.52	75	.14	76	.12	-94
500	.04	-89	4.43	43	.14	50	.17	-170
600	.09	92	4.05	10	.15	22	.31	140

# Amplifonix

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