

# RF AMPLIFIER

## MODEL *TM6505*

Available as: TM6505, 4 Pin TO-8 (T4)  
 TN6505, 4 Pin Surface Mount (SM3)  
 FP6505, 4 Pin Flatpack (FP4)  
 BX6505, Connectorized Housing (H1)

### Features

- Medium Gain: 15 dB Typical
- Medium Output Power: +10 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	5 - 500 MHz	5 - 500 MHz
Gain (dB)	15	14.0 Min.
Power @ 1 dB Comp. (dBm)	+10	+8.5 Min.
Reverse Isolation (dB)	-18	-16 Max.
VSWR In	<1.25:1	2.0:1 Max.
VSWR Out	<1.75:1	2.0:1 Max.
Noise figure (dB)	4.0	5.0 Max.
Power Vdc	+15	+15
mA	24	27 Max.

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

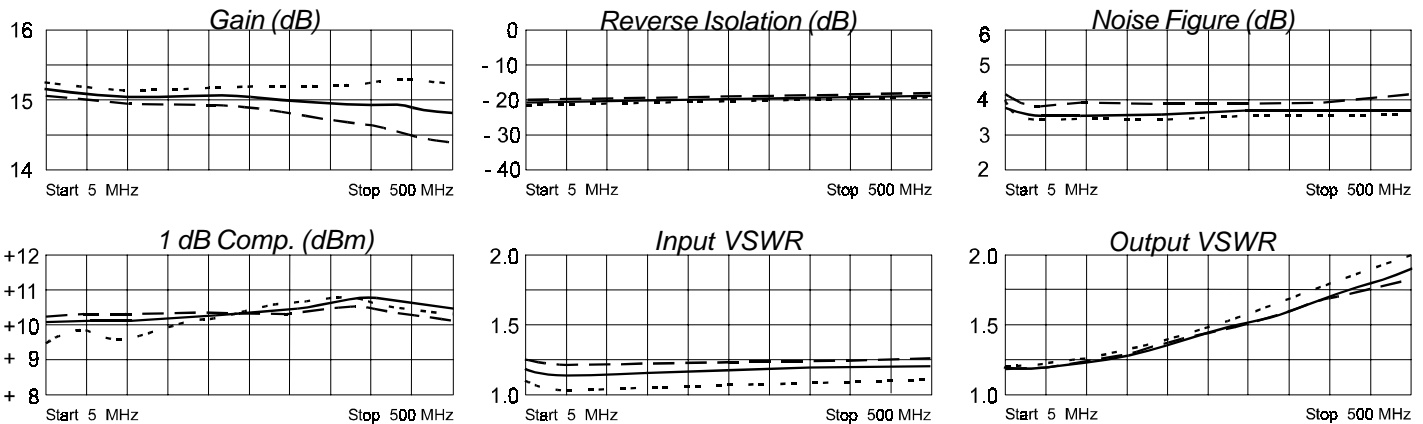
### Typical Intermodulation Performance at 25 ° C

Second Order Harmonic Intercept Point ..... +39 (Typ.)  
 Second Order Two Tone Intercept Point ..... +33 (Typ.)  
 Third Order Two Tone Intercept Point ..... +23 (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	.08	-3	5.80	-178	.10	2	.05	1.14
50	.07	-7	5.70	170	.10	-0	.05	1.16
100	.07	-10	5.69	159	.10	-2	.07	1.16
200	.08	-19	5.66	139	.10	-1	.11	1.13
300	.08	-38	5.63	118	.11	-3	.17	1.10
400	.08	-63	5.56	97	.11	-7	.24	1.05
500	.08	-92	5.44	74	.12	-10	.30	1.01

# Amplifonix

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