

# RF AMPLIFIER

## MODEL *TM7205*

Available as: TM7205, 4 Pin TO-8 (T4)  
 TN7205, 4 Pin Surface Mount (SM3)  
 FP7205, 4 Pin Flatpack (FP4)  
 BX7205, Connectorized Housing (H1)

### Features

- 5 Volt Oper.; Low Noise: 1.6 dB Typical
- High Gain: 20 dB 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 - 200 MHz	10 - 200 MHz
Gain (dB)	20	19 Min.
Power @ 1 dB Comp. (dBm)	+14	+12.0 Min.
Reverse Isolation (dB)	- 24	- 23 Max.
VSWR In	<1.8:1	2.0:1 Max.
VSWR Out	<1.6:1	2.0:1 Max.
Noise figure (dB)	1.6	2.2 Max.
Power Vdc	+5	+5
mA	18	21 Max.

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

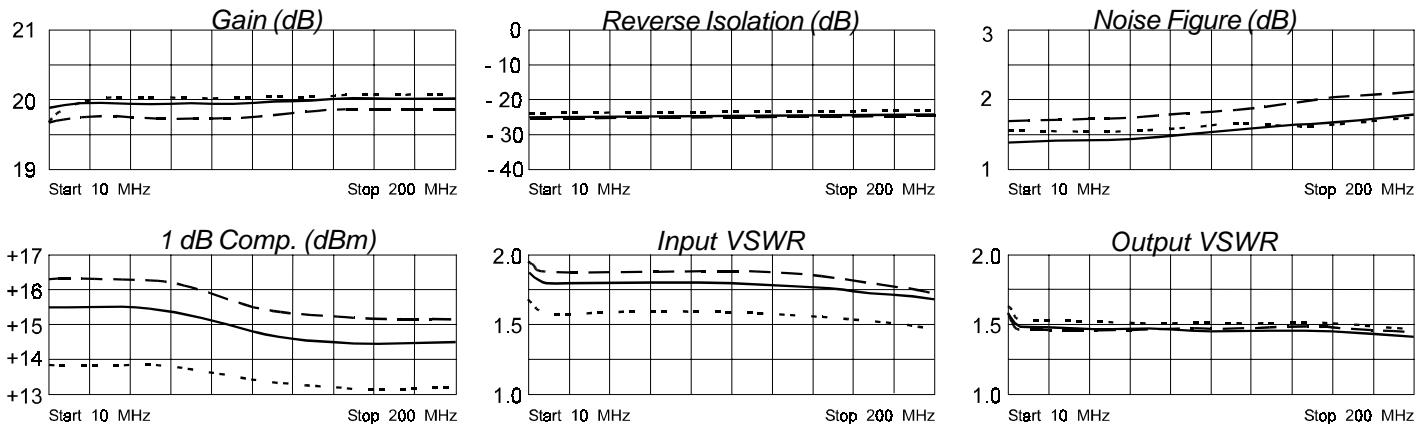
### Typical Intermodulation Performance at 25 ° C

Second Order Harmonic Intercept Point ..... +32 (Typ.)  
 Second Order Two Tone Intercept Point ..... +26 (Typ.)  
 Third Order Two Tone Intercept Point ..... +21 (Typ.)

### Maximum Ratings

Ambient Operating Temperature ..... -55°C to + 100 °C  
 Storage Temperature ..... -62°C to + 125 °C  
 Case Temperature ..... + 125 °C  
 DC Voltage ..... + 10 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
10	.31	- 20	9.69	-176	.05	-177	.23	- 22
50	.30	- 33	9.78	159	.05	153	.21	- 12
100	.29	- 61	9.72	136	.05	128	.20	- 16
150	.28	- 92	9.70	113	.06	100	.20	- 28
200	.24	-130	9.62	88	.06	75	.19	- 45
250	.20	167	9.43	60	.06	47	.15	- 77
300	.26	80	8.52	29	.06	20	.10	-144



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