

# RF AMPLIFIER

## MODEL *TM7207*

Available as: TM7207, 4 Pin TO-8 (T4)  
 TN7207-3, 4 Pin Surface Mount (SM3)  
 FP7207-4, 4 Pin Flatpack (FP4)  
 BX7207, Connectorized Housing (H1)

### Features

- Medium Output Power: +16 dBm Typ.
- Low Noise Figure: 2 dB Typ.
- Operating Temp. - 55 °C to +85 °C

### Specifications

CHARACTERISTIC	TYPICAL Ta = 25 °C	MIN/MAX Ta = -55 °C to +85 °C
Frequency	10 - 300 MHz	10 - 200 MHz
Gain (dB)	18	17 Min.
Power @ 1 dB Comp. (dBm)	+16	+15 Min.
Reverse Isolation (dB)	- 21	- 21 Max.
VSWR In	<1.7:1	2.0:1 Max.
VSWR Out	<1.7:1	2.0:1 Max.
Noise figure (dB)	2.0	3.0 Max.
Power Vdc	+15	+15
mA	33	40 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 ..... +48 (Typ.)  
 Second Order Two Tone Intercept Point ..... +42 (Typ.)  
 Third Order Two Tone Intercept Point ..... +31 (Typ.)

### Maximum Ratings

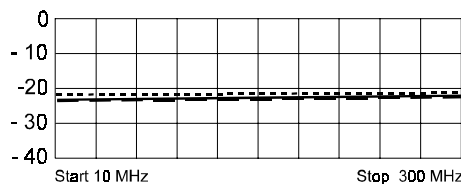
Ambient Operating Temperature ..... -55°C to + 100 °C  
 Storage Temperature ..... -62°C to + 125 °C  
 Case Temperature ..... + 125 °C  
 DC Voltage ..... + 18 Volts  
 Continuous RF Input Power ..... + 13 dBm  
 Short Term RF Input Power ..... 100 Milliwatts  
 ..... (1 Minute Max.)  
 Maximum Peak Power ..... 0.5 Watt  
 ..... (3 µsec Max.)

### Typical Performance Data

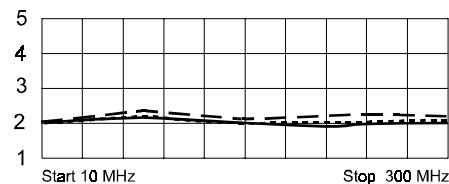
Gain (dB)



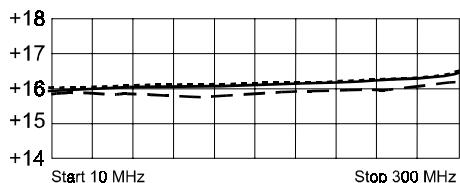
Reverse Isolation (dB)



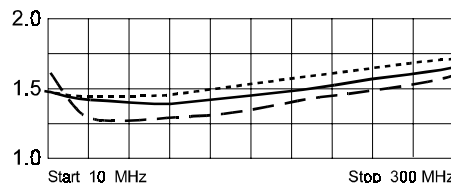
Noise Figure (dB)



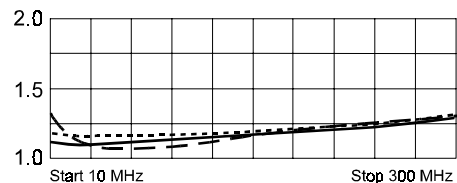
1 dB Comp. (dBm)



Input VSWR



Output VSWR



Legend ——— + 25 °C - - - - + 85 °C . . . . . -55 °C

#### Linear S-Parameters

Freq	---S11---		---S21---		---S12---		---S22---	
MHz	Mag	Deg	Mag	Deg	Mag	Deg	Mag	Deg
10	.21	-39	9.42	-172	.069	-171	.15	-56
50	.15	-29	9.53	167	.069	165	.05	-8
100	.16	-41	9.35	150	.073	148	.06	23
150	.17	-59	9.16	134	.077	132	.08	37
200	.19	-77	8.88	118	.081	119	.10	41
250	.21	-98	8.51	102	.085	104	.12	43
300	.22	-120	8.01	87	.090	92	.14	40

# Amplifonix

2707 Black Lake Place, Philadelphia, PA 19154

TEL 215-464-4000 • • • • FAX 215-464-4001