

# RF AMPLIFIER

## MODEL **TM6183**

Available as: TM6183, 4 Pin TO-8 (T4)  
 TN6183, 4 Pin Surface Mount (SM3)  
 FP6183, 4 Pin Flatpack (FP4)  
 BX6183, Connectorized Housing (H1)  
 PN6183, Reduced Size Surface Mount (SM11)

### Features

- High Gain: 29 dB Typical
- Low Noise Figure: <4 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 - 1000 MHz	10 - 1000 MHz
Gain (dB)	29.0	28.0 Min.
Power @ 1 dB Comp. (dBm)	+15	+13.5 Min.
Reverse Isolation (dB)	- 36	- 34 Max.
VSWR In	<1.5:1	2.0:1 Max.
Out	<1.5:1	2.0:1 Max.
Noise figure (dB)	<4.0	5.0 Max.
Power Vdc	+15	+15
mA	70	83 Max.

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

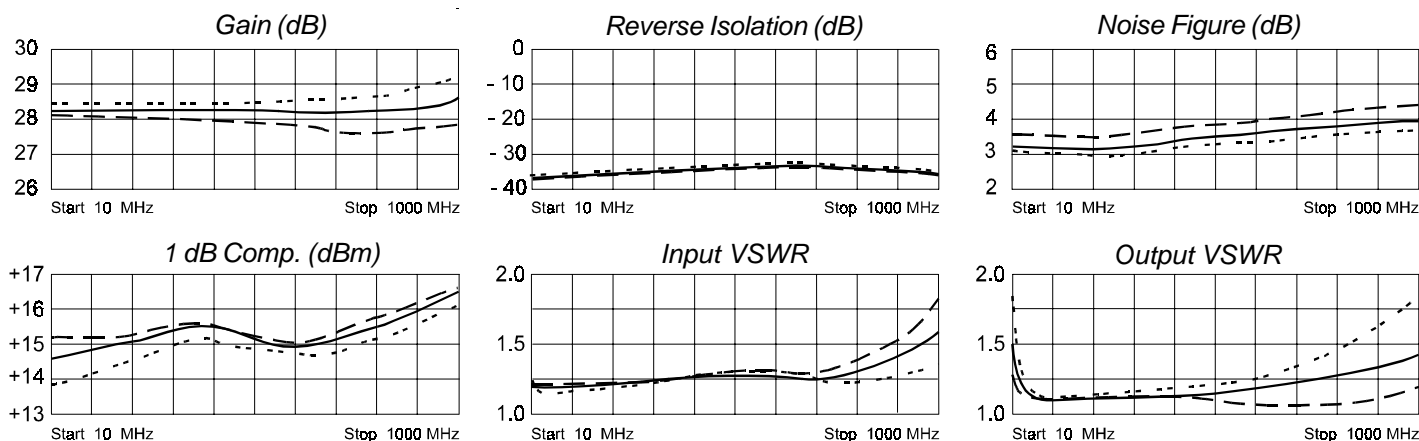
### Typical Intermodulation Performance at 25 ° C

Second Order Harmonic Intercept Point ..... +37 (Typ.)  
 Second Order Two Tone Intercept Point ..... +32 (Typ.)  
 Third Order Two Tone Intercept Point ..... +25 (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 ..... + 6 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
5	.18	33	22.77	23	.01	24	.36	113
10	.19	13	23.76	10	.01	12	.17	99
50	.18	-10	23.90	-9	.02	8	.05	76
100	.18	-22	23.93	-21	.01	2	.04	66
200	.17	-47	24.04	-44	.01	3	.04	54
400	.15	-93	23.87	-89	.01	-6	.04	41
600	.12	-129	23.38	-134	.02	1	.05	75
800	.10	-130	23.59	-178	.02	-12	.12	91
1000	.24	-135	25.96	132	.02	-26	.31	62

# Amplifonix

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