

# RF AMPLIFIER

## MODEL *TM6443*

Available as: TM6443, 4 Pin TO-8 (T4)  
 TN6443, 4 Pin Surface Mount (SM3)  
 FP6443, 4 Pin Flatpack (FP4)  
 BX6443, Connectorized Housing (H1)

### Features

- Low Power Drain: 10 mA @+5 Volts Typical
- Output Power: +6.5 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 - 400 MHz	10 - 400 MHz
Gain (dB)	13.2	12.0 Min.
Power @ 1 dB Comp. (dBm)	+6.5	+5.0 Min.
Reverse Isolation (dB)	- 17	- 15 Max.
VSWR In	<1.5:1	2.0:1 Max.
Out	<1.75:1	2.0:1 Max.
Noise figure (dB)	<3.5	5.0 Max.
Power Vdc	+5	+5
mA	10	12 Max.

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

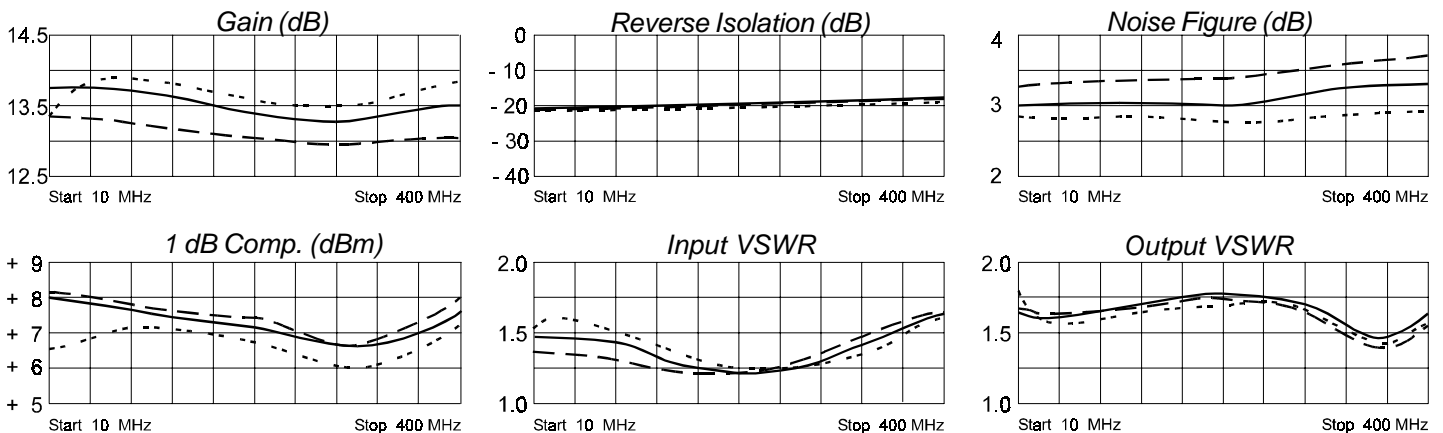
### Typical Intermodulation Performance at 25 °C

Second Order Harmonic Intercept Point ..... +33 (Typ.)  
 Second Order Two Tone Intercept Point ..... +27 (Typ.)  
 Third Order Two Tone Intercept Point ..... +19 (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
5	.15	-158	4.86	-179	.11	3	.22	172
50	.14	169	4.89	161	.11	- 9	.21	-175
100	.11	154	4.84	141	.12	- 19	.24	-169
200	.03	-177	4.71	100	.12	- 39	.29	-176
300	.12	-137	4.72	58	.12	- 61	.28	154
400	.16	157	4.87	6	.13	- 97	.27	54
500	.25	11	3.52	- 65	.10	-150	.69	- 52



2707 Black Lake Place, Philadelphia, PA 19154

TEL 215-464-4000 •••• FAX 215-464-4001 1/14/03