

# RF AMPLIFIER

## MODEL *TM6421*

Available as: TM6421, 4 Pin TO-8 (T4)  
 TN6421, 4 Pin Surface Mount (SM3)  
 FP6421, 4 Pin Flatpack (FP4)  
 BX6421, Connectorized Housing (H1)

### Features

- High Gain: 30 dB Typ.
- Medium Output Power: +9 dBm Typ.
- 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 - 400 MHz	5 - 400 MHz
Gain (dB)	30	27 Min
Power @ 1 dB Comp. (dBm)	+9	+7 Min.
Reverse Isolation (dB)	-36	-33 Max.
VSWR In	1.35:1	2.0:1 Max.
Out	1.65:1	2.0:1Max.
Noise figure (dB)	3.5	6.0 Max.
Power Vdc	+15	+15
mA	37	40Max.

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

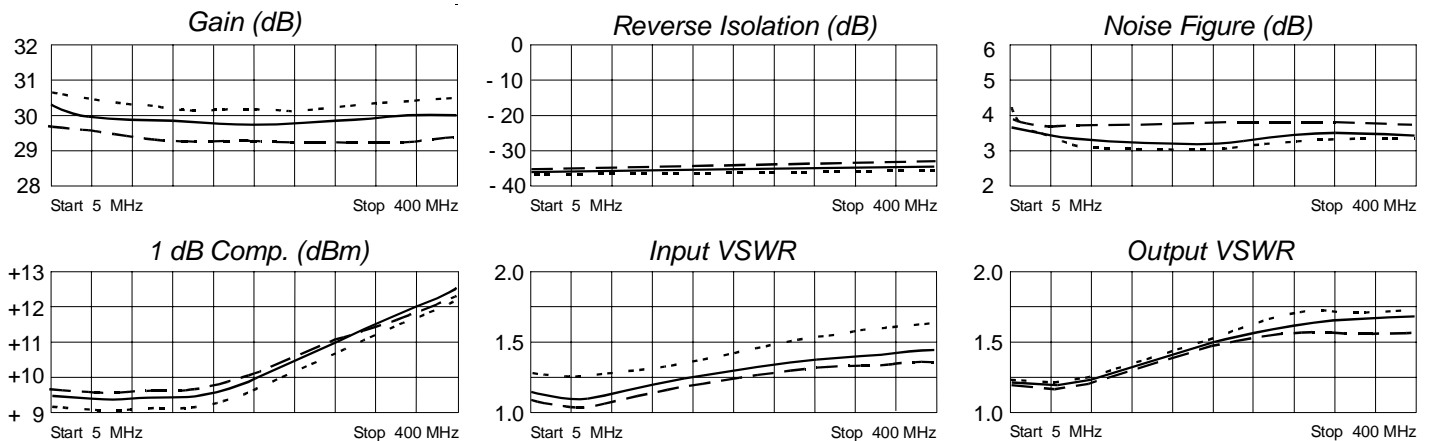
### Typical Intermodulation Performance at 25 ° C

Second Order Harmonic Intercept Point ..... +41 dBm (Typ.)  
 Second Order Two Tone Intercept Point ..... +36 dBm (Typ.)  
 Third Order Two Tone Intercept Point ..... +22 dBm (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	.06	-148	32.67	3	.01	7	.07	-162
50	.06	163	31.75	- 21	.01	2	.08	-165
100	.07	147	31.43	- 41	.01	6	.11	-162
200	.11	112	31.15	- 82	.01	14	.17	-176
300	.15	85	31.19	-123	.01	13	.23	163
400	.19	61	31.59	-166	.02	- 3	.26	140



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