

# RF AMPLIFIER

## MODEL *TM6721*

Available as: TM6721, 4 Pin TO-8 (T4)  
 TN6721, 4 Pin Surface Mount (SM3)  
 FP6721, 4 Pin Flatpack (FP4)  
 BX6721, Connectorized Housing (H1)

### Features

- High Gain: 30 dB Typical
- Low Noise Figure: <3 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	5 - 500 MHz	5 - 500 MHz
Gain (dB)	30	28.0 Min
Power @ 1 dB Comp. (dBm)	+9	+7.5 Min.
Reverse Isolation (dB)	-36	-34 Max.
VSWR In	<1.75:1	2.0:1 Max.
VSWR Out	<1.75:1	2.0:1 Max.
Noise figure (dB)	<3.0	4.0 Max.
Power Vdc	+15	+15
mA	38	41Max.

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

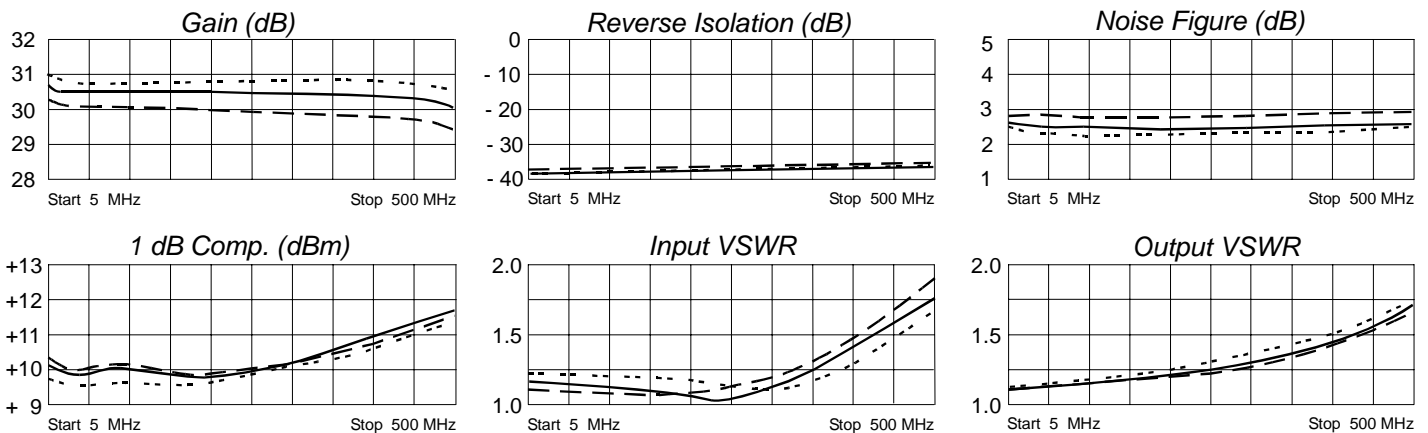
### Typical Intermodulation Performance at 25 ° C

Second Order Harmonic Intercept Point ..... +43 dBm (Typ.)  
 Second Order Two Tone Intercept Point ..... +37 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 ..... + 6 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	.08	-163	34.22	3	.01	9	.06	-169
50	.07	165	33.49	-21	.01	-13	.06	-165
100	.06	151	33.32	-42	.01	-3	.08	-161
200	.02	138	33.35	-84	.01	-15	.10	-158
300	.06	-100	33.19	-128	.01	-13	.14	-162
400	.16	-130	32.86	-173	.01	-15	.19	-170
500	.29	-161	31.51	139	.01	-16	.27	172



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