

RF AMPLIFIER

MODEL *TM7381*

Available as: TM7381, 4 Pin TO-8 (T4)
 TN7381, 4 Pin Surface Mount (SM3)
 FP7381, 4 Pin Flatpack (FP4)
 BX7381, Connectorized Housing (H1)

Features

- High Gain: 24.5 dB Typical
- Low Noise Figure: 2.2 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	10-300 MHz	20-250 MHz
Gain (dB)	24.5	23.0 Min.
Power @ 1 dB Comp. (dBm)	+14.5	+12.5 Min.
Reverse Isolation (dB)	-31	-30 Max.
VSWR In	1.35:1	2.0:1 Max.
Out	1.5:1	2.0:1 Max.
Noise Figure (dB)	2.2	3.0 Max.
Power Vdc	+15	+15 Min.
mA	18	21 Max.

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

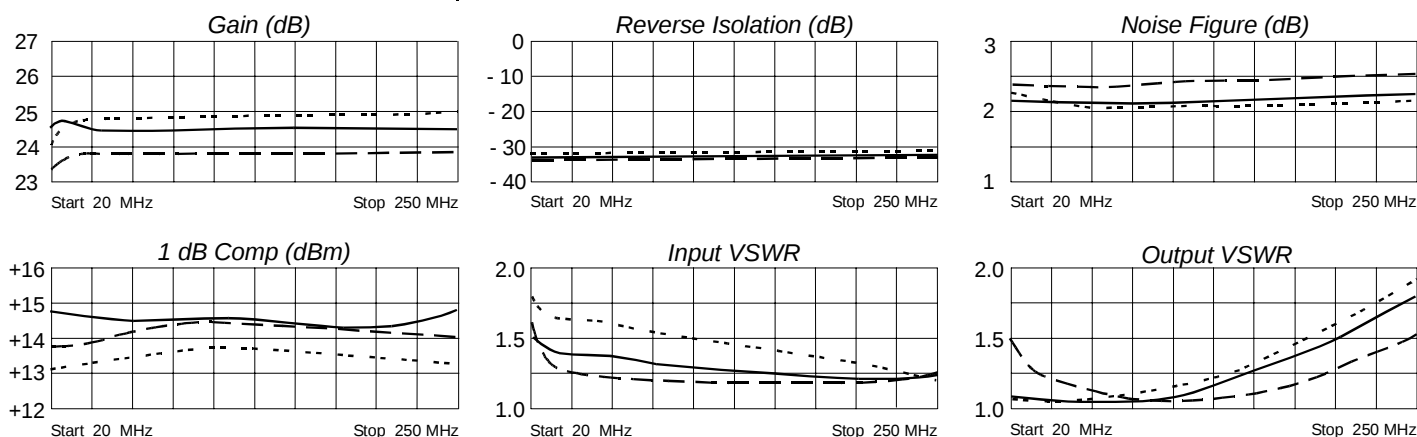
Typical Intermodulation Performance at 25 ° C

Second Order Harmonic Intercept Point..... +37 dBm (Typ.)
 Second Order Two Tone Intercept Point..... +32 dBm (Typ.)
 Third Order Two Tone Intercept Point..... +27 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 + 10 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
10	.23	-135	17.24	-171	.03	- 5	.05	-101
50	.18	170	17.32	159	.03	- 5	.02	-177
100	.17	141	17.13	135	.02	-16	.02	- 63
200	.14	92	16.83	86	.02	-33	.14	-104
300	.05	12	16.50	37	.02	-56	.30	-150



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