

RF Amplifier

Medium Gain: 15 dB

Model TM6416

5 to 500 MHz

Features

- Medium Gain: 15 dB Typical
- Medium Output Power: +13.5 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	5 - 500 MHz	5 - 500 MHz
Gain (dB)	15	14.0 Min.
Power @ 1 dB Comp. (dBm)	+13.5	+12.0 Min.
Reverse Isolation (dB)	- 17.5	- 17 Max.
VSWR In	<1.25:1	2.0:1 Max.
VSWR Out	<1.25:1	2.0:1 Max.
Noise figure (dB)	3.5	4.5 Max.
Power Vdc	+15	+15
mA	35	38 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 +41 dBm(Typ.)
 Second Order Two Tone Intercept Point +35 dBm(Typ.)
 Third Order Two Tone Intercept Point +27 dBm(Typ.)

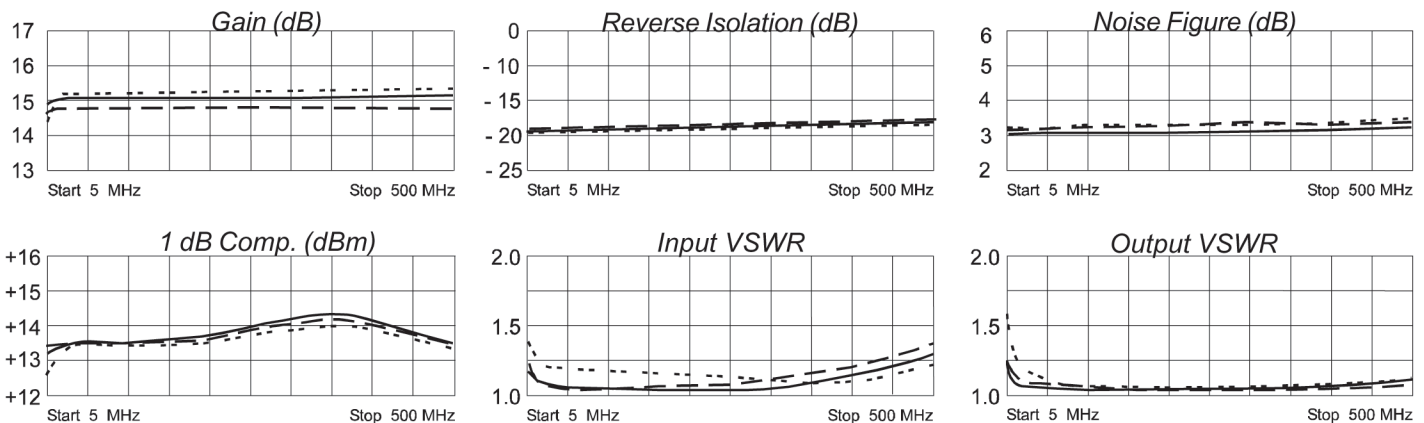
Maximum Ratings

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 + 13 dBm
 Short Term RF Input Power 50 Milliwatts
 (1 Minute Max.)
 Maximum Peak Power 0.5 Watt
 (3 µsec Max.)

Packaging Options (see Appendix)

TM6416, 4 Pin TO-8 (T4)
 TN6416, 4 Pin Surface Mount (SM3)
 FP6416, 4 Pin Flatpack (FP4)
 BX6416, Connectorized Housing (H1)

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	-118	5.54	-173	.11	9	.09	129
50	.05	-173	5.65	173	.11	-0	.02	154
100	.05	179	5.63	164	.12	-1	.03	175
200	.04	-176	5.65	147	.12	-3	.03	177
300	.04	-145	5.66	130	.12	-4	.04	172
400	.07	-128	5.69	113	.13	-8	.04	145
500	.12	-127	5.73	96	.14	-12	.06	111

