

RF AMPLIFIER

MODEL TZ9411

Available as: TZ9411, 4 Pin TO-8 (T4)
 TN9411, 4 Pin Surface Mount (SM3)
 FP9411, 4 Pin Flatpack (FP4)
 BX9411, Connectorized Housing (H1)
 PN9411, Reduced Size Surface Mount (SM11)

Features

- 5 to 400 MHz
- 12 Volt Operation
- Operating Temp. -55 °C to +85 °C
- Environmental Screening Available

Typical Intermodulation Performance at 25 °C

Second Order Harmonic Intercept Point +20 dBm (Typ.)
 Second Order Two Tone Intercept Point +15 dBm (Typ.)
 Third Order Two Tone Intercept Point +13 dBm (Typ.)

Specifications

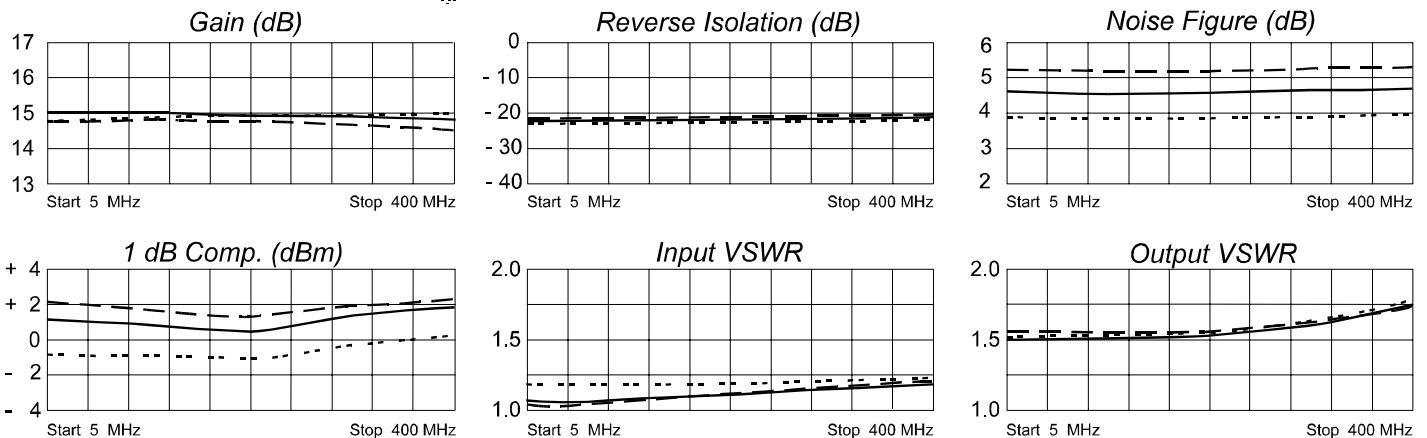
CHARACTERISTIC	TYPICAL Ta= 25 °C	MIN/MAX Ta = -55 °C to +85 °C
Frequency	5 - 400 MHz	5 - 400 MHz
Gain (dB)	15	14.0 Min.
Power @ 1 dB Comp. (dBm)	+0.5	-2.0 Min.
Reverse Isolation (dB)	-20.5	-19 Max.
VSWR In	<1.25:1	2.0:1 Max.
VSWR Out	<1.75:1	2.0:1 Max.
Noise Figure (dB)	4.5	6.0 Max.
Power Vdc	+12	+12
mA	12	14 Max.

Maximum Ratings

Ambient Operating Temperature -55°C to +100 °C
 Storage Temperature -62°C to +125 °C
 Case Temperature +125 °C
 DC Voltage +15 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.)

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

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	.03	-146	5.96	-178	.08	3	.20	- 2
50	.03	-164	5.96	169	.08	1	.20	- 15
100	.03	-153	5.93	159	.08	- 0	.20	- 29
200	.04	-143	5.92	137	.09	- 2	.21	- 61
300	.06	-147	5.89	115	.09	- 5	.23	- 97
400	.08	-159	5.81	92	.09	- 8	.28	-137



Spectrum Microwave · 2144 Franklin Drive N.E. · Palm Bay, Florida 32905 · PH (888) 553-7531 · Fax (888) 553-7532 04/27/93

www.SpectrumMicrowave.com Spectrum Microwave · 2707 Black Lake Place · Philadelphia, Pennsylvania 19154 · PH (215) 464-4000 · Fax (215) 464-4001