

# RF AMPLIFIER

# Medium Power Amplifier

## MODEL *BXMP1010*

Available as: WNMP1010: 10 Pin .625" Sq. Surface Mount (SG4)  
 BXMP1010: SMA Connectorized Housing

### Features

- High IP2: +69 dBm Typical
- Gain: +18 dB Typical
- Operating Temp. 0 °C to +65 °C
- Units are Unconditionally Stable

### Typical Intermodulation Performance at 25 ° C

Second Order Harmonic Intercept Point ..... +74 dBm (Typ.)  
 Second Order Two Tone Intercept Point ..... +69 dBm (Typ.)  
 Third Order Two Tone Intercept Point ..... +35 dBm (Typ.)

### Specifications

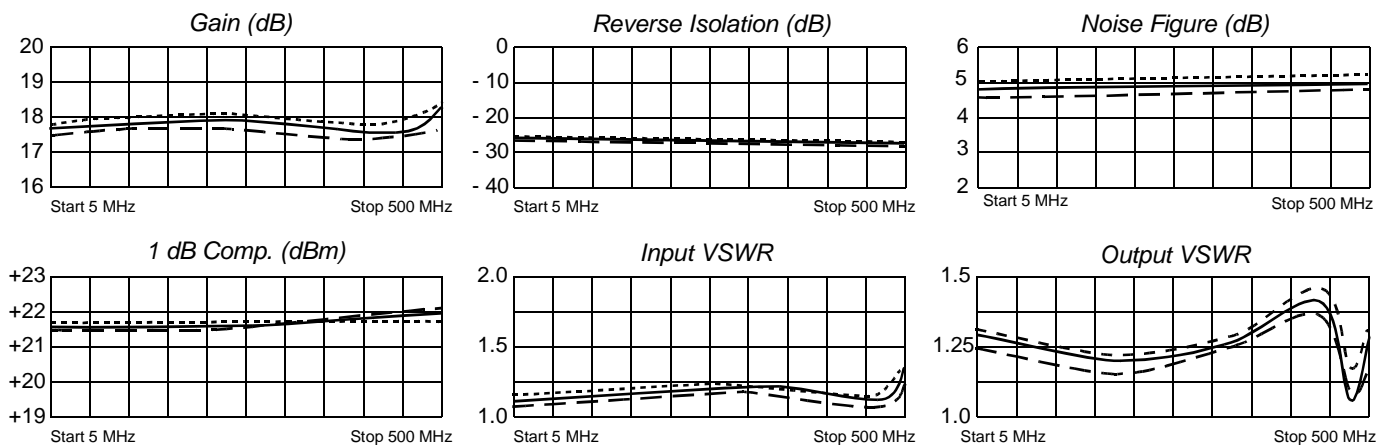
CHARACTERISTIC	TYPICAL Ta= 25 °C	MIN/MAX Ta = 0 °C to +65 °C
Frequency	5 - 500 MHz	5 - 500 MHz
Gain (dB)	18	16.5 Min.
Power @ 1 dB Comp. (dBm)	+21.5	+19.0 Min.
Reverse Isolation (dB)	-27	-25 Max.
VSWR In	<1.3:1	2.0:1 Max.
Out	<1.3:1	2.0:1 Max.
Noise Figure (dB)	4.5	6.0 Max.
Power Vdc	+15	+15
mA	160	175 Max.

### Maximum (No Damage) 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 ..... 0.2 Watt (3 µsec Max.)

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

### Typical Performance Data



Legend ——— + 25 °C    - - - - + 65 °C    ······ 0 °C

### Linear S-Parameters

Freq. MHz	---S11---		---S21---		---S12---		---S22---	
	Mag	Deg	Mag	Deg	Mag	Deg	Mag	Deg
5	.09	147	8.05	-168	.0423	13	.13	128
50	.12	159	8.21	155	.0432	-13	.08	77
100	.11	131	8.02	128	.0433	-29	.10	45
200	.06	80	7.78	77	.0418	-59	.15	-4
300	.01	75	7.69	25	.0383	-91	.16	-54
400	.04	95	7.91	-29	.0343	-122	.13	-118
500	.13	-11	7.83	-93	.0308	-150	.13	138



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