

# RF AMPLIFIER

## MODEL WN6160

Available as: WN6160, 10 Pin .625" Sq. Gullwing (SG4)  
 BX6160, Connectorized Housing

### Features

- High Gain: 28 dB Typical
- Low Noise Figure: <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	100 - 600 MHz	100 - 600 MHz
Gain (dB)	28	26 Min.
Power @ 1 dB Comp. (dBm)	+17	+16 Min.
Reverse Isolation (dB)	-43	-40 Max.
VSWR In	<1.75:1	2.0:1 Max.
Out	<1.75:1	2.0:1 Max.
Noise Figure (dB)	<2	3 Max.
Power Vdc	+15	+15
mA	65	75 Max.

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

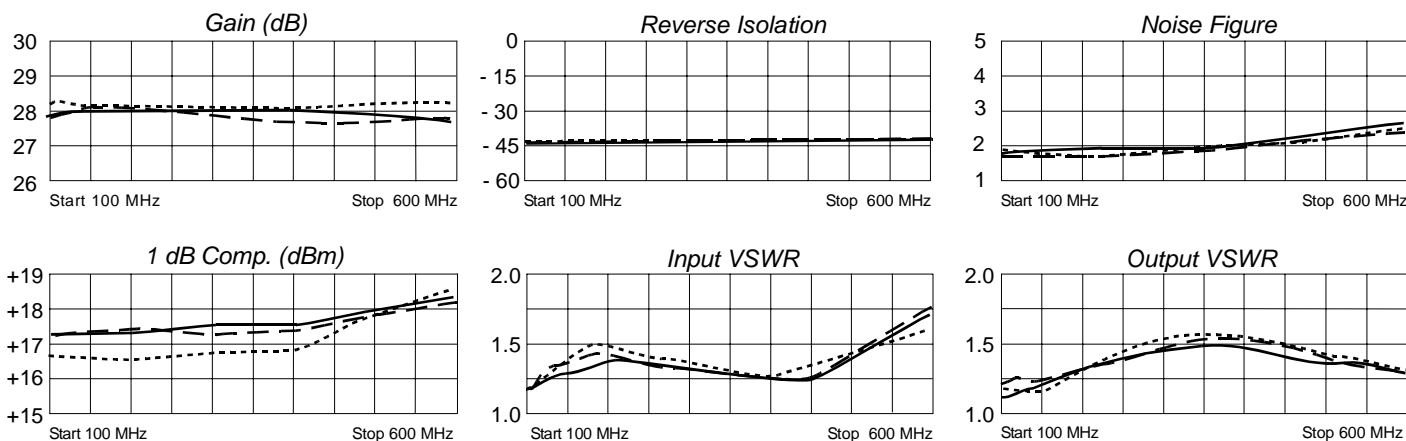
### Typical Intermodulation Performance at 25 ° C

Second Order Harmonic Intercept Point ..... +51 dBm (Typ.)  
 Second Order Two Tone Intercept Point ..... +46 dBm (Typ.)  
 Third Order Two Tone Intercept Point ..... +32 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.... 20 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
50	.12	-168	25.49	-17	.01	-16	.13	-17
100	.16	-158	25.77	-48	.01	-51	.16	-50
200	.21	-175	25.09	-103	.01	-105	.20	-94
300	.16	175	24.57	-156	.01	-159	.22	-121
400	.15	-159	24.23	150	.01	162	.22	-145
500	.25	-176	24.57	93	.01	127	.17	-166
600	.31	115	25.28	28	.01	75	.08	-161



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