

## Plug N Play 1000 : Technical Specifications

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The PNP 1000 produces 1000 Watts of FM signal from any analog or digital source and is easily rack mounted. The Plug N Play products use the latest in digital and RF technology coupled with proven exciter technology from Broadcast Electronics. The exciter portion of the transmitter takes advantage of recent advances in DSP speed and efficiency to provide performance previously not available at prices like this.



### RF SPECS

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#### Output Power:

**Range:**  
250 W to 1 kW

**Accuracy:**  
10%

**Resolution:**  
1 W

**Efficiency:**  
32% or better

**VSWR:**  
Rated power into 1.5:1 VSWR maximum at all phase angles, open and short circuit protected

**Impedance:**  
50 Ohms nominal

**Frequency:**  
**Range:**  
87.5 MHz to 108 MHz

**Stability:**

±300 Hz, 3ppm; -10° C to +50° C

**RF Harmonics Suppression:**

73 dB or better

**Modulation:****Type:**

Digital FM

**Capabilities:**

>150 kHz; 350 kHz max

**Regulatory:**

FCC, IC 131061129, Meets IEC215 safety requirements

**FM AUDIO SPECIFICATIONS**

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**Stereo, L/R Analog:****Connector Type:**

D-Type, 15-Pin, Female

**Input Level:**

Jumper selectable (-10, 0, +4, +8 dBm) for 100% modulation @ 400 Hz

**Impedance:**

Balanced 600 Ohms or 10 kOhms; jumper selectable

**Amplitude Response:**

±0.5 dB; 30 Hz to 15 kHz; Flat, 50 µsec or 75 µsec pre-emphasis. +/-0.55 dB at -10dBm audio input.

**THD + Noise:**

0.05%; 30 Hz to 15 kHz. 0.06% at -10dBm input

**Intermod Dist:****S/N Ratio:**

73 db below 100% modulation at 400 Hz measures in a 22 Hz to 22 kHz bandwidth with CCIR weighted filter

**Separation:**

50 dB; 30 Hz to 15 kHz; L-to-R or R-to-L

**Asynchronous AM S/N Ratio:**

55 dB below rated power reference carrier with 100% AM modulation at 400 Hz, 75 µsec de-emphasis (no FM modulation present)

**Synchronous AM S/N Ratio:**

50 dB below rated power reference carrier with 100% AM modulation at 400 Hz, 75 µsec de-emphasis with FM modulation ±75 kHz at 400 kHz

**Pre-emphasis:**

None, 50 µS, 75 µS (switchable)

**Composite:****Connector Type:**

BNC, 50 Ohm or 10 kOhm selectable

**Input Level:**

3.5 V peak-to-peak; 100% modulation @ 400 Hz; adjustable

**Impedance:**

50 Ohms or 10 kOhms; jumper selectable

**Amplitude Response:**

±0.5 dB; 30 Hz to 10 kHz

**THD + Noise:**

0.07% at 1 kHz

**S/N Ratio:**

73 db below 100% modulation at 1 kHz measured in a 22 Hz to 22 kHz bandwidth with CCIR weighted filter

**Asynchronous AM S/N Ratio:**

55 dB below rated power reference carrier with 100% AM modulation at 400 Hz, 75 µsec de-emphasis (no FM modulation present)

**Synchronous AM S/N Ratio:**

50 dB below rated power reference carrier with 100% AM modulation at 400 Hz, 75 µsec de-emphasis with FM modulation ±75 kHz at 400 kHz

**Stereo, AES Digital input:****Connector Type:**

D-Type, 15-Pin, Female or Toshiba TORX173 optical connector

**Impedance:**

Balanced 600 Ohms or 10 kOhms; jumper selectable

**Amplitude Response:**

±0.5 dB; 30 Hz to 15 kHz; Flat

**THD + Noise:**

0.05%; 30 Hz to 15 kHz

**S/N Radio:**

76 db below 100% modulation at 1kHz measured in a 22 Hz to 22 kHz bandwidth with CCIR weighted filter

**Separation:**

50 dB; 30 Hz to 15 kHz; L-to-R or R-to-L

**Linear Crosstalk:**

40 dB minimum below 100% modulation. Main to Sub/Sub to Main due to distortion products

**57, 76, 95 kHz Suppression:**

80 dB below 100% modulation

**Asynchronous AM S/N Ratio:**

55 dB below rated power reference carrier with 100% AM modulation at 400 Hz, 75 µsec de-emphasis (no FM modulation present)

**Synchronous AM S/N Ratio:**

50 dB below rated power reference carrier with 100% AM modulation at 400 Hz, 75 µsec de-emphasis with FM modulation ±75 kHz at 400 kHz

**Pre-emphasis:**

None, 50 µS, 75 µS (switchable)

**SCA:****Connector Type:**

D-Type, 15-Pin, Female

**Input Level:**

+8 dBm

**Impedance:**

Balanced 600 Ohms or 10 kOhms; jumper selectable

**S/N Ratio:**

50 dB or better

**Frequency:**

67 kHz internally generated

**Deviation:**

5 kHz or 7.5 kHz; jumper selectable

**MECHANICAL/PHYSICAL**

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**Size (Unpacked):**

21"H x 19"W x 19"D

**Weight (Unpacked):**

126 lbs

**Airflow:****Inlet:**

Top of unit

**Outlet:**

Rear of unit

**RF Output Connector:**

Type N female (1 5/8" optional)

**ENVIRONMENTAL**

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**Temperature:**

-10° C to +50° C

**Altitude:**

7500 ft (2286m) @ 50 Hz; 10,000 ft (2048m) @ 60 Hz

**Humidity:**

95% maximum, non condensing

**ELECTRICAL**

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**AC Input Voltage:**

95 to 132 VAC or 195 to 264 VAC, Single phase, 47-63 Hz

**Disconnect Size:**

30 A at 110 VAC, 20 A at 220 VAC, High inrush rated

**AC Wire Size:**

#10 at 110 VAC, #12 at 220 VAC, Copper AWG, TYPE THHN

**Current Draw:**

26 A at 110 VAC, 13 A at 220 VAC

**Power Consumption:**

2.9 kW at 1 kW output into 50 Ohm load

**Heat Dissipation:**

1.9 kW at 1 kW output into 50 Ohm load

**BTU:**

6490 at 1 kW output into 50 ohm load

**Air Conditioning Sizing:**

Per room requirements

**Power Factor:**

0.99

**Surge Protection:**

MOV by customer