

NuWaves Engineering

Trusted RF Solutions.™

NuPower™ 12B01A

L- & S-Band Solid State Power Amplifier

P/N: NW-PA-12B01A

(Replaces P/N: NW-SSPA-10W-1.0-2.5)



The NuPower™ 12B01A is a small, highly efficient solid state power amplifier that provides over 10 watts of RF power to boost performance of data links and transmitters.

Based on the latest gallium nitride (GaN) technology, NuPower's 20% - 40% power efficiency and 3.9 in³ form factor make it ideal for size, weight, and power-constrained broadband RF telemetry and tactical communication systems.

The NuPower 12B01A power amplifier accepts a nominal 0 dBm RF input and provides 40 dB of gain from 1000 MHz to 2500 MHz. The NuPower 12B01A module comes standard with a NW-PA-ACC-CB09MA interface cable, for ease of integration. This model is also available with a 1 watt input drive level (P/N: NW-PA-12B01A-D30), making it ideal for use with L-3 Communications' Bandit miniature L- and S-band transceiver.

NuPower PAs feature over-voltage and reverse-voltage protection and can operate over a wide temperature range of -30 °C to +60 °C.

Extend your operational communication range with NuPower™ amplifiers from NuWaves Engineering.

Features

- 10 Watts RF Output Power
- 1.0 GHz to 2.5 GHz
- Miniature Package (3.00" x 2.00" x 0.65")
- High-Efficiency GaN Technology
- 0 dBm Nominal RF Input
- Over-Voltage Protection
- Reverse-Voltage Protection
- Logic On/Off Control

Benefits

- Extended Range
- Improved Link Margin
- Lessened load on DC power budget due to high efficiency operation
- Consumes less volume on space-constrained platforms

Applications

- Unmanned Aircraft Systems (UAS), Group 2 & 3
- Unmanned Ground Vehicles (UGV)
- Broadband RF Telemetry
- RF Communication Systems
- Software Defined Radios



NuPower™ 12B01A Power Amplifier



Specifications

Operational

Frequency Range	1000 MHz to 2500 MHz
RF Output Power	10 W (min)
RF Gain	40 dB
2nd Harmonic	1000 to 1400 MHz: -6 dBc 1400 to 1700 MHz: -15 dBc 1700 to 2000 MHz: -20 dBc 2000 to 2500 MHz: -25 dBc
Power Amplifier Enable	GND On
Nominal Input Drive Level	0 dBm
Maximum Input Drive Level (no damage)	+10 dBm
Supply Voltage	+26 to +30 VDC
Current Consumption	1.5 A @ +28 VDC (typ) 2.1 A @ +28 VDC (max)
RF Connectors	SMA (female)
Interface Connector	9-pin Micro-D (socket)

Mechanical

Size	3.00" x 2.00" x 0.65" (L x W x H)
Weight	3 oz.

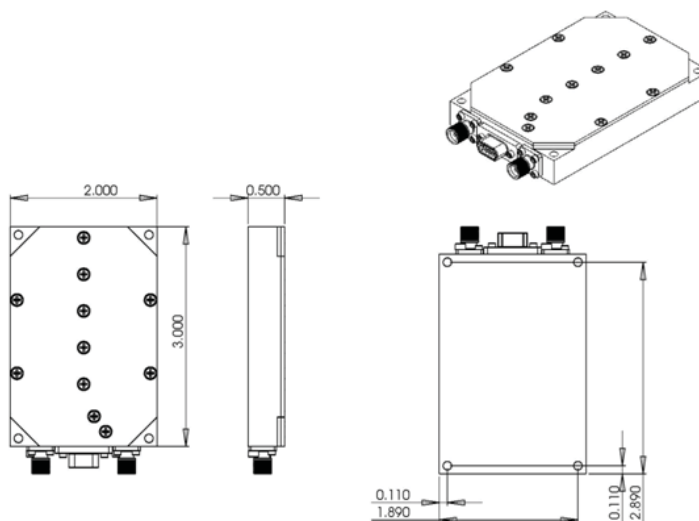
Environmental

Operating Temperature	-30 to +60 °C
Storage Temperature	-40 to +85 °C

Export

Classification	EAR99
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Mechanical Outline



Contact NuWaves



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