

# dB-8016 Solid State Power Amplifier



**GaN Solid State Power Amplifier  
500W CW 500 – 1000 MHz**

The dB-8016 is a Solid State Power Amplifier (SSPA) providing 500 Watts CW power over the frequency range of 500 to 1000 MHz. LDMOS solid state modules are used for power amplification. A Low Voltage Power Supply (LVPS) is used for generating power to the SSA modules. It utilizes modular architecture and low noise power supply topology with high efficiency solid state power conversion circuits. An embedded micro-controller provides the interface, control and protection functions as well as extensive fault diagnostics and status indication for the SSPA. Standard interface protocol is Ethernet. The SSPA Amplifier is packaged in a 19" rack mount package with a color screen display. Cooling of the SSPA is accomplished by integral forced air-cooling arrangement.

## Features

- LDMOS SSPA
- 500 to 1000 MHz, 500 W, CW
- 180 to 240 VAC
- Integral Forced Air Cooling
- Instant On (No Warm-Up)

## Applications

- Electronic countermeasures (ECM)
- Electronic warfare (EW) and simulations
- Multi-band communication systems



dB-8016 Datasheet

# dB-8016 Solid State Power Amplifier Specifications

**Reliability by Design®**

## Electrical

Frequency	500 to 1,000 MHz
RF Output Power	500 watts CW, minimum
Gain Flatness	3 dB p-p, maximum
RF Gain Control	0 to 20 dB
RF Drive Level for Rated Output	-0 dBm
Spurious	-60 dBc minimum
Harmonic Output	-15 dBc maximum
Input VSWR	2.0:1 maximum
Output VSWR	2.0:1 maximum
Load VSWR	1.5:1 Continuous for Spec Compliance
Load VSWR	3.0:1 No Damage
SSPA Protection	SSPA/Power Supply Over-Temp Excessive VSWR (Reflected Power)
Input Voltage	180-240 VAC $\pm$ 10%, 1 Phase, 60 Hz
Power Consumption	2500 Kw, maximum
Front Panel Controls	Power On/Off
Front Panel Indicators	HPA On/Off, Forward Power, Reflected Power, HPA Faults
Remote Control Interface	Ethernet

## Mechanical

Dimensions	8.75" H x 26.6" L x 19.0" W (inches) 222.25 H x 675.64 L x 482.6 W (mm)
Weight	80 lbs (36.3 kg)
Cooling	Forced Air with Integral Fans
Connectors:	
Input Power Connector	IEC 60320-C14
Remote Control Connector	9 Pin D-Sub
RF Input	Type N (F)
RF Output	Type N (F)
RF Sample	Type N (F)

## Environment

Operating Temperature	0° C to +50° C
Storage Temperature	-40° C to +85° C
Humidity	Up to 95% RH Non-Condensing
Operating Altitude	Up to 10,000 feet ASL
Shock & Vibration	Normal transport

Specifications subject to change without notice.



### About dB Control

Established in 1990, dB Control Corp., a subsidiary of the Electronic Technologies Group (ETG) of HEICO Corp., supplies mission-critical, often sole-source, products worldwide to military organizations, as well as to major defense contractors and commercial manufacturers. dB Control designs and manufactures reliable high-power TWT Amplifiers (TWTAs), microwave power modules (MPMs), transmitters and power supplies with modulators for radar, electronic countermeasures (ECM) and data link applications. The company's high-power amplifiers use solid state, as well as vacuum electron devices and cover the 1 to 50 GHz frequency range. The modularity of dB Control's designs enables rapid configuration of custom products for a variety of platforms, including ground-based and high-altitude military manned and unmanned aircraft. dB Control has an outstanding record of successfully repairing, refurbishing and replacing tightly packaged high-voltage transformers, assemblies and power supplies. The company offers specialized contract manufacturing, transformer winding and testing, full vacuum encapsulation, pressure cure, conformal coating and repair depot services from its modern 40,000 square foot facilities in Fremont, California. [www.dBControl.com](http://www.dBControl.com) AS-9100D and ISO-9001:2015 Certified.



dB Control Products

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