

dB-4128 Microwave Power Module



The dB-4128 is a microwave power module (MPM) operating in the frequency range of 6 to 18 GHz. This MPM is a power amplifier that provides 200 Watts pulsed/CW RF output power. The RF signal path consists of a solid state amplifier and a vacuum power booster. The power supply topology uses proprietary low-noise, high-efficiency designs to operate the RF signal path. A high-speed modulator is incorporated for pulse modulation of up to 10 KHz to CW. This compact, conduction-cooled MPM is designed to operate in extreme military environments.

Features

- High-band MPM
- 6 to 18 GHz, 200 W, pulsed to CW
- High PRF pulse modulation
- · Excellent reliability
- Prime input voltage 115 VAC, 400 Hz

Applications

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

Electrical

Frequency Range Output Power Pulse Operation

Gain at Rated Power Harmonics Spurious Input VSWR Load VSWR Prime Power Input TWTA Protection

Status/Indication Interface Control Modulation Control

Mechanical

Connectors: RF Input RF Output Prime Power Control/Pulse Input Dimensions Weight Cooling

Environmental

Vibration Shock Operating Temperature Storage Temperature Operating Altitude Humidity 6 to 18 GHz 200 Watts CW PRF: 10 KHz max. Pulse width: 1.0 μsec to CW 53 dB -2 dBc @ 6.0 GHz -50 dBc 2.0:1 (50 Ω Impedance) 1.5:1, max. for full specification compliance 115/208 VAC, 3 phase, 400 Hz Helix Over-Current, Cathode Over-Voltage, Over-Temperature Equipment status, faults Discrete logic Differential or TTL

SMA (F) WRD-650 Waveguide MS3112E14-5P MS3112E14-18P 12.5" (L) x 9.38" (W) x 2.15" (H) 12.0 lbs. Conduction

10 to 1000 Hz, 0.02g²/Hz 15 g, 11 msec, Half Saw Tooth -40° C to +75° C (Base Plate Temperature) -54° C to +85° C Up to 50,000 feet Up to 95% RH Non-Condensing

Specifications subject to change without notice.

Reliability by Design®

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 highpower 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 groundbased 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

