

# dB-9001 Instantaneous Frequency Measurement Unit



The dB-9001 is a custom-mounted Instantaneous Frequency Measurement (IFM) unit operating in the C, X and Ku-band frequency range providing highly accurate measurements at 100 nanoseconds (ns) to CW pulse width measurements. The IFM units measure frequency, as well as power level and pulse duration. The IFM units are packaged in a custom configuration with integral forced-air and conduction cooling.

#### Features

- Wideband IFM
- 6 to 18 GHz
- Pulse width 100 ns to CW
- · High accuracy

#### **Applications**

- Electronic attack detection
- Airborne RF recorder
- Radars
- Electronic countermeasures (ECM)
- Electronic warfare (EW) threat simulation
- Test and measurement
- Antenna pattern and radar cross section measurements

### dB-9001 IFM Specifications

#### Electrical

Frequency Range Amplitude	6
Amplitude Measurement Range	-5
Duty Cycle	50
Pulse Width Measurement	1(
Frequency Measurement Accuracy	0
	ty
	С
Frequency Switching Speed	±
	te
Amplitude Measurement Accuracy	±
	te
Pulse Width Measurement	±

6 to 18 GHz -50 to 0 dBm 5%, max. 100 ns to CW Open Loop Mode: ± 9MHz max., ± 4MHz typical over the entire temperature range Closed Loop Mode: ± 1MHz max., ± 0.2MHz ± 3MHz Max, ± 1MHz typical over the entire temperature range ± 5dB Max, ± 2dB yypical over the entire temperature Range ± 25 nsec

#### Mechanical

Accuracy

Connectors: Prime Power RF Intput Digital Input/Output Dimensions Weight Cooling

Nominal Power Consumption

MS27508E12F8P Type SMA (F) P50E-080P1-SR1-EA 9.0" (L) x 6.5" (W) x 2.5" (H) 8 lbs. Forced air with integral fan and conduction

70W

#### Environmental

Operating Temperature Operating Altitude Humidity -20° C to +50° C, ambient Up to 40,000 feet ASL Up to 95% RH non-condensing

#### Options

- Custom frequency bands and output power
- · Different prime power input
- Custom frequency, amplitude measurement accuracy
- Custom pulse width measurement accuracy
- Customizable digital interface for control/communication

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

