



bds Calibration Cart

Bird Diagnostic System



The RF Experts

The NEW BDS Calibration Carts are designed for immediate, effortless use. They utilize the Bird Diagnostic System (BDS) in an innovative new way to enable extremely accurate measurement of RF power over a wide range of frequencies. It is ideal for semiconductor test applications where technicians and engineers need to calibrate a variety of generators at various frequencies. The New Cal Cart integrates the BDS along with a laptop running our customized software and a low reflection 50 Ω terminating RF load that can dissipate up to 10 kW. These components are installed on a cart for easy transportation and connected so that the only connections required are the AC and RF power. The cart is suitable for use in a clean room environment and is equipped with swivel casters for maximum maneuverability.

- Designed for easy transportation and effortless use.
- Turnkey RF Measurements.
- High return loss ensures minimal power measurement error contribution.
- Harmonic Levels up to 150 MHz are available for analysis.
- Available in international and domestic versions.
- Service plans available with Bird Service Center.

PROBLEMS/SOLUTIONS

Need to calibrate generators at multiple frequencies.

- Supports broad range of Semiconductor frequencies.

Requires rugged design for daily use.

- The mobile cart is stainless steel and has locking wheels.

Require high power RF measurements.

- Measures power up to 10 kW.

Required for Semiconductor applications.

- Suitable for use in a Clean Room environment.

PARAMETER SPECIFICATIONS

Frequency Range	400 kHz to 100 MHz
Frequency Resolution	100 Hz
Frequency Accuracy	± 1 kHz
Power Accuracy	± 2% at 400 kHz, 2 MHz, 13.56 MHz, 27.12 MHz, 60 MHz ± 4% at all other frequencies
Update Rates	60 Hz typical
RF Power, Max	10 kW or maximum power limit of RF connector
RF Connector	7/16 DIN (f)
Operating	+20 to +40 °C (68 to 104 °F)
Storage	-20 to +80 °C (-4 to +176 °F)
Cable Operating	0 to +100 °C (32 to 212 °F)
Humidity, Max	85% Non-condensing
Impedance	50 Ohm
Casters	4 locking swivel
Operating Position	Vertical Only
Power Requirements	115/230 VAC, ± 10%, 50/60 Hz
Altitude	Load derated above 5,000 feet
5kW & 10 kW	52" L x 20" W x 44" H / 250 lbs.
Size / Weight	Fully assembled
Material of Construction	Stainless steel cart
Application Standards	CE

ULTRA-STABLE SC13 LOADS

Model	Frequency Range & VSWR	Power Input
8921SC13	DC to 28 MHz at 1.1 max. (VSWR less than 1.05:1)	5 kW
8931-115SC13	DC to 28 MHz at 1.1 max. (VSWR less than 1.05:1)	10 kW
8931-230SC13	DC to 28 MHz at 1.1 max. (VSWR less than 1.05:1)	10 kW

HIGH POWER LOADS

Model	Frequency Range & VSWR	Power Input
8921	DC to 1 GHz at 1.1 max.	5000 W continuous
8931-115	DC to 400 MHz at 1.15 max. 400 MHz to 1 GHz at 1.20 max.	10 kW continuous w/ blower on 2.5 kW continuous w/ blower off
8931-230	DC to 400 MHz at 1.15 max. 400 MHz to 1 Ghz at 1.20 max.	10 kW continuous w/ blower on 2.5 kW continuous w/ blower off