

CALIBRATION CART

High Power

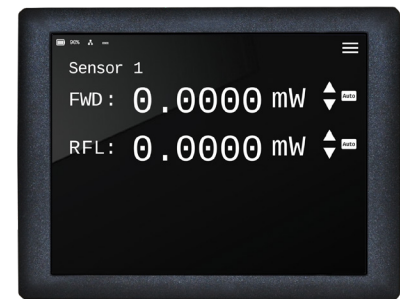
SCC8 SERIES



Turnkey Solution for High Power Measurement

The SCC8 Calibration Cart provides the ideal solution for the calibration of high power RF generators with power measurement up to 25 kW. It combines the high accuracy Bird 4028 Series Power Sensor, a user friendly 4421A Multifunction Power Meter, and a Bird Moduload in an easily transportable mobile package. The system is indispensable for semiconductor clean room applications.

The 4028 Series Power Sensor models are available for a range frequency bands from 250 kHz to 30 MHz. These highly accurate sensors measure RF power without requiring field calibration, external couplers or attenuators. The built-in Bird Moduloads are low reflection 50 Ohm terminations that can dissipate up to 25 kW. Contact Bird for customization assistance to ensure the calibration cart is optimized to your application.



MODEL 4421A

PRODUCT FEATURES

- Designed for effortless, immediate use
- Suitable for use in a clean room environment
- High return loss ensures minimal power measurement error contribution
- Stainless steel cart with locking wheels is designed for easy transportation and effortless use
- Customizable with choice of power sensor frequency range

INCLUDES

- **4421 Multifunction Power Meter** to display RF power readings with up to 1% accuracy
- **A 4028 Series Power Sensor** for accurate RF measurement
- **A Bird Moduload** with low reflection 50 Ohm terminations that can dissipate up to 25 kW

SYSTEM

Power Levels	1 kW or 10 kW
Meter	4421A Multifunction Power Meter
Sensor	4028 Series
Load	Bird Moduload
Frequency Range	250 kHz - 30 MHz, depending on sensor
Accuracy	±2% (2s) at calibration frequency and power levels ±3% (2s) of reading at other power levels and frequencies within sensor range (add 2% to uncertainty outside 25 ± 10 °C)
Impedance	50 Ohm nominal
Power Requirements	115 or 230 VAC, 50/60 Hz
Connector Type	Customer specified
Sensor VSWR	1.05 max (32.2 dB return loss)
Load VSWR	1.1 max (26.4 dB return loss)
Coolant	100% water or 35% industrial ethylene glycol / 65% water, 9 quarts (8.5 liters), forced air cooling
Particle Generation	156 per cfm (0.5 µm) 29 per cfm (1 µm) 0 per cfm (3 µm)
Casters	4 locking swivel
Material of Construction	Stainless steel cart

ENVIRONMENTAL

Operating Temperature	5 °C to 30 °C (41 °F to 86 °F), < 25 kW, 100% water, (derate sensor accuracy outside 25 ± 10 °C) 5 °C to 35 °C (41 °F to 95 °F), < 20 kW, 100% water, (derate sensor accuracy outside 25 ± 10 °C) 0 °C to 25 °C (32 °F to 77 °F), < 25 kW, 35% ethylene glycol/65% water 0 °C to 35 °C (32 °F to 95 °F), < 20 kW, 35% ethylene glycol/65% water
Storage Temperature	5 °C to 50 °C (41 °F to 122 °F), 100% water -20 °C to 50 °C (-4 °F to 122 °F), 35% ethylene glycol/65% water
Humidity	85% max (non-condensing)
Altitude	Load derated above 5,000 ft (1,524 m)

PHYSICAL

Size	39.5 in x 21.5 in x 39.5 in (100.3 cm x 54.6 cm x 100.3 cm)
Weight	240 lb (109 kg)

CERTIFICATIONS

CE	CE Compliant
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POWER SENSOR SELECTION GUIDE

4028 SERIES

Model Number	Frequency Range	Power Input
4028A10M	10 to 15 MHz	1 kW to 25 kW
4028A250K	250 to 400 kHz	1 kW to 20 kW
4028A25M	25 to 30 MHz	1 kW to 25 kW
4028A2M	1.5 to 2.5 MHz	1 kW to 25 kW
4028A3M	2.5 to 3.5 MHz	1 kW to 25 kW
4028A400K	400 to 550 kHz	1 kW to 20 kW
4028A4M	3.5 to 4.5 MHz	1 kW to 25 kW
4028B10M	10 to 15 MHz	1 kW to 25 kW
4028B3M	3 to 4 MHz	1 kW to 25 kW

SCC8 SERIES CALIBRATION CART

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PRODUCT SELECTION GUIDE

Example: SCC820702032 = SCC7 Calibration Cart with 4421A Power Meter, 4028A10M Power Sensor, 8640B Series Load, 4240-344 (7/16) Connector, with voltage of 230 V (50 Hz).



Series	Meter	Sensor	Load	Connector	Voltage (Plug - Type)
SCC8	2 = 4421A (CW)	01= 4028B10M 02= 4028A250K 03= 4028A400K 04= 4028A2M 05= 4028A3M 06= 4028A4M 07= 4028A10M 08= 4028A25M 28= 4028B3M	02= 8640B Series	01= 1-5/8" Flanged 02= 4240-062 (N-F) 03= 4240-344 (7/16-F) 04= 4240-031 (LC-F) 05= 4240-268 (HN-F) 06= 4240-371 (SQS-F) 07= 4240-372 (SQS-M) 08= 4240-063 (N-M) 09= 4240-025 (LC-M) 10= 4240-363 (7/16-M)	1= 115V - 60 Hz 2= 230V - 50 Hz 3= 115V - 50 Hz 4= 230V - 60 Hz



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4028 SERIES

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