

CALIBRATION CART

Dual Sensor

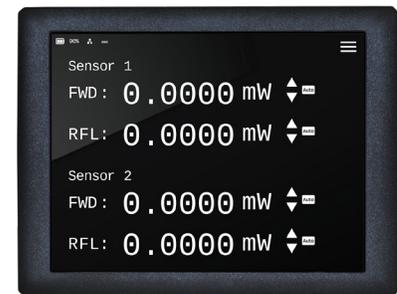
MSCC7 SERIES



Dual Power Sensor Support

The MSCC7 Calibration Cart is a unique calibration solution in that it is designed to support two Power Sensors. In addition, it includes a user friendly 4421A Multifunction Power Meter and a high power load in an easily transportable mobile cart. The system is indispensable for semiconductor clean room applications.

The Calibration Cart is factory configured to the user's requirements. A selection of Directional or Filtered Power Sensors are available covering various frequency bands from 100 kHz to 30 MHz. Load options include a number of high power loads available with a low reflection of 50 Ohm that can dissipate up to 10 kW max. Contact Bird for customization assistance to ensure that the calibration cart is optimized to your application.



MODEL 4421A

PRODUCT FEATURES

- Designed to support two power sensors
- Suitable for use in a clean room environment
- Stainless steel cart with locking wheels is designed for easy transportation and effortless use
- Customizable with choice of power sensor and load configuration
- High return loss ensures minimal power measurement error contribution
- System is adaptable for future requirements with available frequency and power upgrades

INCLUDES

- **4421A Series Multifunction Power Meter** to display RF power readings with up to 1% accuracy
- **Two 4020, 4027A, or 4027F Power Sensors** for accurate RF measurement
- **A High Power Load** for precision RF power regulation and control

SYSTEM

Meter	4421A Multifunction Power Meter
Sensors	Two 4020, 4027A, or 4027F Series
Load	Bird High Power Load
Frequency Range	100 kHz to 30 MHz, depending on sensor
Accuracy	
4020 Series Sensor	±3% across power and frequency range
4027A Series Sensor	±1% at calibration frequency and power levels ±2% over remainder of power range, and at other than calibration frequencies
4027F Series Sensor	±1% across power and frequency range ±2% over remainder of power range, and at other than calibration frequencies
Impedance	50 Ohm nominal
Power Requirements	115 or 230 VAC, 50/60 Hz
Connector Type	Customer specified
Casters	4 locking swivel
Material of Construction	Stainless steel cart

ENVIRONMENTAL

Operating Temperature	0 °C to 35 °C (32 °F to 95 °F)
Storage Temperature	-20 °C to 70 °C (-4 °F to 158 °F)
Humidity	85% max (non-condensing)
Altitude	Load derated above 5,000 ft (1,524 m)

PHYSICAL

Size	52 in x 20 in x 42 in (132 cm x 51 cm x 107 cm)
Weight	290 lb (132 kg)

CERTIFICATIONS

CE	CE Compliant
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PRODUCT SELECTION GUIDE

Example: MSCC7205140101072 = MSCC7 Calibration Cart with 4421A (CW) Power Meter, 4027A2M for Power Sensor 1, 4025 for Power Sensor 2, 8921A100 Load, 4240-062 (N-F) for Connector 1, 4240-063 (N-M) for Connector 2, with voltage of 230 V (NA).

Series	Meter	Sensor 1	Sensor 2	Load	Connector 1	Connector 2	Voltage (Plug - Type)
MSCC7	2 = 4421A (CW)	01= 4027A10M 02= 4027A250K 03= 4027A400K 04= 4027A800K 05= 4027A2M 06= 4027A4M 07= 4027A12M 08= 4027A25M 11= 4021 13= 4024 14= 4025 17= 4027F10M 18= 4027F2M	01= 4027A10M 02= 4027A250K 03= 4027A400K 04= 4027A800K 05= 4027A2M 06= 4027A4M 07= 4027A12M 08= 4027A25M 11= 4021 13= 4024 14= 4025 17= 4027F10M 18= 4027F2M	01= 8921A100 02= 8931A400-115 03= 8931A400-230	01= 4240-062 (N-F) 02= 4240-344 (7/16-F) 03= 4240-031 (LC-F) 04= 4240-268 (HN-F) 05= 4240-371 (SQS-F) 06= 4240-372 (SQS-M-P) 07= 4240-063 (N-M) 08= 4240-376 (QRM-F) 09= 4240-050 (UHF-F) 10= 4240-373 (QDS-UL-F) 11= 4240-100 (C-F)	01= 4240-062 (N-F) 02= 4240-344 (7/16-F) 03= 4240-031 (LC-F) 04= 4240-268 (HN-F) 05= 4240-371 (SQS-F) 06= 4240-372 (SQS-M-P) 07= 4240-063 (N-M) 08= 4240-376 (QRM-F) 09= 4240-050 (UHF-F) 10= 4240-373 (QDS-UL-F) 11= 4240-100 (C-F)	1= 115V - NA 2= 230V - NA 3= 115V - INT'L 4= 230V - INT'L

MSCC7 SERIES CALIBRATION CART

POWER SENSOR SELECTION GUIDE

4020 SERIES

Model Number	Frequency Range	Power Input
4021	1.8 to 32 MHz	300 mW to 1 kW
4024	1.5 to 32 MHz	3 W to 10 kW
4025	100 to 2500 kHz	3 W to 10 kW

4027F SERIES

Model Number	Frequency Range	Power Input
4027F2M	1.8 to 2.2 MHz	100 W to 10 kW
4027F10M	12 to 15 MHz	100 W to 10 kW

4027A SERIES

Model Number	Frequency Range	Power Input
4027A250k	250 to 400 kHz	3 W to 10 kW
4027A400k	400 to 550 kHz	3 W to 10 kW
4027A800k	800 to 950 kHz	3 W to 10 kW
4027A2M	1.5 to 2.5 MHz	3 W to 10 kW
4027A4M	3 to 5 MHz	3 W to 10 kW
4027A10M	10 to 15 MHz	3 W to 10 kW
4027A12M	10 to 15 MHz	3 mW to 1 kW
4027A25M	25 to 30 MHz	3 W to 9 kW

LOAD SELECTION GUIDE

HIGH POWER LOADS

Model Number	Frequency Range	Power Input
8921A100	DC to 30 MHz at 1.1 max (less than 1.05 typical)	5 kW
8931A400-115	DC to 30 MHz at 1.1 max (less than 1.05 typical)	10 kW
8931A400-230	DC to 30 MHz at 1.1 max (less than 1.05 typical)	10 kW

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MSCC7 SERIES



MODEL 4421A



HIGH POWER LOADS



4020 SERIES



4027A SERIES



4027F SERIES

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