



## The **RF** Experts

SCC7 Series, Calibration Cart is designed for immediate, effortless use. It has three primary components: the 4421 Multifunction Power Meter for displays RF power; the 4020, 4027A and 4027F Series Power Sensors are highly accurate sensors for measuring RF power without requiring calibration or external couplers or attenuators; and low reflection 50 Ohm loads that can dissipate 1 kW to 10 kW max. These components are installed on a cart for easy transportation and connected so that the only setup required is connecting AC and RF power.

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

#### PROBLEMS/SOLUTIONS

Require for Semiconductor applications.

• Suitable for use in a Clean Room environment.

Requires rugged design for daily use

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

Adaptable for future requirements.

• Frequency and power upgrades available.

# Calibration Carts

### **SCC7 Series**

#### **CHARACTERISTICS**

| Power Levels  | 1, 2.5, 5, 10 kW  |
|---|---|
| Meter   | 4421  |
| Sensor Options  | 4020 Series or 4027A Series (See Below)   |
| Load Options  | 8251, 8890-300, 8921, 8931-115, 8931-230<br>(See Below)   |
| Impedance   | 50 Ohm  |
| Frequency Range<br>4020 Sensor  | 100 KHz - 1000 MHz  |
| Frequency Range<br>4027A Sensor   | 250 KHz - 65 MHz  |
| Accuracy 4020 Series  | ±3% across power and frequency range  |
| Accuracy 4027A Series   | ±1% at calibration frequency and power<br>levels<br>±2% over remainder of power range,<br>and at other than calibration frequencies   |
| Casters   | 4 locking swivel  |
|   |   |
| Connector Type  | *Customer Specified   |
| Connector Type Operating Position   | *Customer Specified  Vertical only  |
|   | ·   |
| Operating Position  | Vertical only   |
| Operating Position Power Requirements   | Vertical only<br>115/230 VAC, ±10%, 50/60 Hz  |
| Operating Position Power Requirements Ambient Temp Range  | Vertical only  115/230 VAC, ±10%, 50/60 Hz  0° to 45°C (For 10kW 0°C to +40°C)  |
| Operating Position Power Requirements Ambient Temp Range Storage Temperature  | Vertical only  115/230 VAC, ±10%, 50/60 Hz  0° to 45°C (For 10kW 0°C to +40°C)  -20°C to +70°C  |
| Operating Position Power Requirements Ambient Temp Range Storage Temperature Humidity   | Vertical only  115/230 VAC, ±10%, 50/60 Hz  0° to 45°C (For 10kW 0°C to +40°C)  -20°C to +70°C  85% Max., Non condensing  |
| Operating Position Power Requirements Ambient Temp Range Storage Temperature Humidity Altitude 5kW & 10kW                         | Vertical only  115/230 VAC, ±10%, 50/60 Hz  0° to 45°C (For 10kW 0°C to +40°C)  -20°C to +70°C  85% Max., Non condensing  Load derated above 5,000 feet  52"L x 20"W x 42"H / 250 lbs.  |
| Operating Position Power Requirements Ambient Temp Range Storage Temperature Humidity Altitude 5kW & 10kW Size/Weight 1kW & 2.5kW | Vertical only  115/230 VAC, ±10%, 50/60 Hz  0° to 45°C (For 10kW 0°C to +40°C)  -20°C to +70°C  85% Max., Non condensing  Load derated above 5,000 feet  52"L x 20"W x 42"H / 250 lbs. Fully assembled  42"L x 20"W x 42"H / 175 lbs. |

<sup>\*</sup> For connector options, please refer to our catalog or contact sales at 866.695.4569 or sales@birdrf.com

#### **4020 SERIES POWER SENSOR**

| Model | Frequency Range | Power Input                  |
|-------|-----------------|------------------------------|
| 4021  | 1.8-32 MHz      | 300 mW to 1 kW at 1.2 kW max |
| 4022  | 25-1000 MHz     | 300 mW to 1 kW at 1.2 kW max |
| 4024  | 1.5-32 MHz      | 3 W to 10 kW at 1.2 kW max   |
| 4025  | 100-2500 kHz    | 3 W to 10 kW at 1.2 kW max   |

#### **4027A SERIES POWER SENSOR**

| Model     | Frequency Range | Power Input       |
|-----------|-----------------|-------------------|
| 4027A250k | 250-400 kHz     | 3 W to 10 kW      |
| 4027A400k | 400-550 kHz     | 3 W to 10 kW      |
| 4027A800k | 800-950 kHz     | 3 W to 10 kW      |
| 4027A2M   | 1.5-2.5 MHz     | 3 W to 10 kW      |
| 4027A4M   | 3-5 MHz         | 3 W to 10 kW      |
| 4027A10M  | 10-15 MHz       | 3 W to 10 kW      |
| 4027A12M  | 10-15 MHz       | 300 mW to 1 kW    |
| 4027A25M  | 25-30 MHz       | 3 W to 9 kW       |
| 4027A35M  | 35-45 MHz       | 3 W to 7.5 kW     |
| 4027A60M  | 45-65 MHz       | 3 W to 6 kW       |
| 4027A100M | 95-105 MHz      | 3 W to 4 kW       |
| 4027A150M | 150-170 MHz     | 3.75 W to 3.75 kW |

#### **ULTRA-STABLE SC13 LOADS**

| Model        | Frequency Range                                     | Power Input |
|--------------|---|-------------|
| 8865SC13     | DC to 28 MHz at 1.1 max. (VSWR less than 1.05:1)    | 1kW         |
| 8890-300SC13 | DC to 28 MHz at 1.1 max. (VSWR less than 1.05:1)    | 2.5 kW      |
| 8921SC13     | DC to 28 MHz at 1.1 max.<br>(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.<br>(VSWR less than 1.05:1) | 10 kW       |

#### **HIGH POWER LOADS**

| Model    | Frequency Range  | Power Input  |
|----------|--|--|
| 8251     | DC to 1 GHz at 1.1 max.  | 1kW  |
| 8890-300 | DC to 1 GHz at 1.1 max.<br>1 GHz to 2 GHz at 1.25 max.<br>2 GHz to 2.4 Ghz at 1.3 max. | 2500 W continuous  |
| 8921     | DC to 1 GHz at 1.1 max.  | 5000 W continuous  |
| 8931-115 | DC to 400 MHz at 1.15 max.<br>400 MHz to 1 GHz at 1.20 max.                            | 10 kW continuous w/<br>blower on<br>2.5 kW continuous<br>w/ blower off |
| 8931-230 | DC to 400 MHz at 1.15 max.<br>400 MHz to 1 Ghz at 1.20 max.                            | 10 kW continuous w/<br>blower on<br>2.5 kW continuous<br>w/ blower off |









