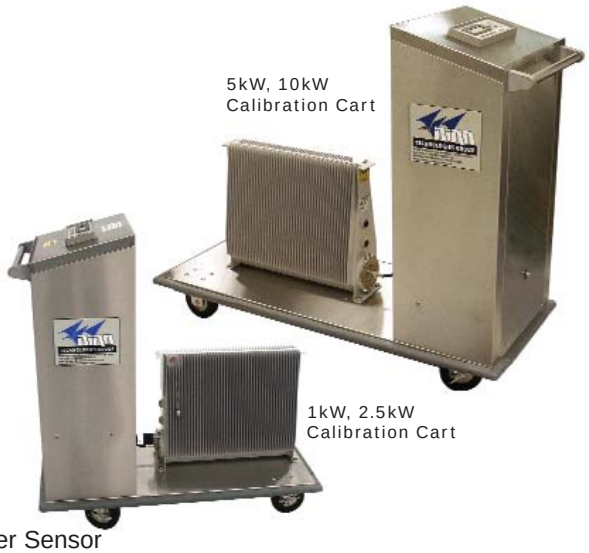
BIRD® CALIBRATION CARTS

SCC7 SERIES

TURNKEY RF MEASUREMENTS AT YOUR FINGERTIPS



5kW, 10kW
Calibration Cart

1kW, 2.5kW
Calibration Cart

SCC7 Series Provides Quality Turnkey Calibration for Fab Houses and Equipment Suppliers.

Let Bird® Be an Extension of Your RF Design Team!

The Bird® Engineering Design Team provides over 250 years of collective RF Engineering experience.

Our R & D / Design Engineers focus on leading edge technology, product integrity and quality control.

We have the expertise to provide a standard or custom product to suit an environment or a specific design application.

Bird® Electronic Corporation designs and manufactures a diverse range of products, from RF power meters and antenna analyzers to high power RF load resistors. This broad product offering requires an equally diverse design skills base.

The System Consists of:

- (1) 4421 Power Meter
- (1) 4020 Series ± 3% or
  4027A Series ± 1% Power Sensor
- (1) Oil Load
- (1) Mobile Cart and Minor Accessories

- Stainless Steel Mobile Cart with Locking Wheels
- High Return Loss Ensures Minimal Power Measurement Error Contribution
- Available in International and Domestic Versions
- Frequency and Power Upgrades Available
  (Contact factory for more details)
- Service Plans Available with Bird® Service Center

Bird® Calibration Cart Frequently Asked Questions (FAQs):

Q: Do I have the option to send the cart back or just the sensor for calibration?
A: Yes, you have the option to send the cart back or just the sensor depending on your accuracy requirements. Contact us for more information.

Q: Can I operate my cart with a higher power load and / or sensor?
A: Power and frequency upgrades are available.

Semiconductor FAQs:

Q: What methods does Bird use for primary power measurement standards?
A: Two paths of trace ability according to the National Institute of Standards and Technology (NIST) are used.
- High Power RF Calorimetry
- Modified Bramal Techniques
  - VSWR cascaded couplers and precision bolometer based power meters

Q: What is the typical VSWR of a Bird Oil Load within the specified frequency range?
A: Typically <1:05:1, 1.1:1 max

Q: What is our definition of measurement to measurement and unit to unit repeatability?
A: Measurement-to-measurement is defined as the ability of the power meter to make multiple measurements of the same power source.
Unit-to-Unit is defined as the uncertainty from one power sensor to another power sensor.

Q: What is the typical surface temperature of an Oil Load at rated power?
A: The sides and top fin area will typically run between 80 to 100ºC depending upon the specific model and environmental conditions. The bottom of the radiator housing will typically be around 120ºC.

RF Measurement and Management in Your World

www.bird-technologies.com **440.248.1200/866.695.4569** sales@bird-technologies.com

BIRD® CALIBRATION CARTS

SCC7 SERIES
SPECIFICATIONS

SCC7 Series provides quality turnkey calibration for fab houses and equipment suppliers. The system consists of (1) 4421 power meter, (1) power sensor, (1) oil load, (1) mobile cart, and minor accessories.

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 (See Below)
Impedance:	50 Ohm
Frequency Range 4020 Sensor:	100 KHz - 1000 MHz
Frequency Range 4027A Sensor:	250 KHz-65MHz
Accuracy 4020 Series:	±3% across power and frequency range
Accuracy 4027A Series:	±1% at calibration frequency and power levels; ±2% over remainder of power range, and at other than calibration frequencies
Casters:	4 locking swivel
Connector Type:	*Customer Specified
Operating Position:	Vertical only
Power Requirements:	115/230 VAC, ±10%, 50/60Hz
Ambient Temp Range:	0ºC to 45ºC (For 10kW 0°C to +40°C)
Storage Temperature:	-20ºC to +70ºC
Humidity:	85% Max., Non condensing
Altitude:	Load derated above 5,000 feet
5kW & 10kW Size/Weight:	52" L x 20" W x 42" H / 250 lbs. Fully assembled
1kW & 2.5kW Size/Weight:	42" L x 20" We x 42" H / 175 lbs. Fully assembled
Material of Construction:	Stainless steel cart
Applicable Standards:	CE pending

*For connector options, please refer to our catalog or contact sales at 866.695.4569 / sales@bird-electronic.com

4020 SERIES POWER SENSOR

Model	Frequency Range	Power Input
4021	1.8-32MHz	300mW to 1 kW 1.2 kW max.
4022	25-1000 MHz	300mW to 1 kW 1.2 kW max
4024	1.5-32MHz	3 W to 10 kW 12 kW max.
4025	100-2500 kHz	3 W to 10 kW 12 kW max.

4027A SERIES POWER SENSOR

Model	Frequency Range	Power Range
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 1kW
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	3.75W to 3.75 kW

HIGH POWER LOADS

Model	Frequency Range & VSWR	Power Rating
8251	DC to 1 GHz at 1.1 max.	1000 W continuous
8890-300	DC to 1 GHz at 1.1 max	2500 W continuous
	1 GHz to 2 GHz at 1.25 max.	
	2 GHz to 2.4 GHz at 1.3 max	
8921	DC to 1 GHz at 1.1 max	5000 W continuous
8931-115	DC to 400 MHz at 1.15 max.	10 kW continuous w/ blower on
	400 MHz to 1 GHz at 1.20 max.	2.5 kW continuous w/ blower off
8931-230	DC to 400 MHz at 1.15 max.	10 kW continuous w/ blower on
	400 MHz to 1 GHz at 1.20 max.	2.5 kW continuous w/ blower off

ULTRA-STABLE SC13 LOADS

Model	Frequency Range & VSWR	Power Rating	
8865SC13	DC to 28 MHz at 1.1 max.	1 kW	
	(VSWR less than 1.05:1)		
8890-300SC13	DC to 28 MHz at 1.1 max.	2.5 kW	
	(VSWR less than 1.05:1)		
8921SC13	DC to 28 MHz at 1.1 max.	5 kW	
	(VSWR less than 1.05:1)		
8931-115SC13	DC to 28 MHz at 1.1 max.	10kW	115 Volt
	(VSWR less than 1.05:1)		
8931-230SC13	DC to 28 MHz at 1.1 max.	10W	230 Volt
	(VSWR less than 1.05:1)		

4027F SERIES FILTERED POWER SENSOR

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

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