Standard Capacitance
Reference or Working Standards

SC Series

High-stability, cost-effective capacitance standards with low temperature coefficient, low losses and a wide range of values.

- Wide range of values - 1 pF to 2000 µF
- Mechanically stabilized capacitors
- <100 ppm/yr stability
- Excellent TC - as low as 10 ppm/°C
- Low loss - D as low as 0.0002

SCA SERIES

Model SCA-	Adjustment to Nominal	TC (ppm/°C)	Calibration Accuracy (%)	Test Conditions			Dissipation Factor (typical)	Maximum Voltage* (V)
				Frequency	Capacitor Model	No. of Terminals		
1 pF	±0.1 pF	20	.01	1 kHz	Series	3	.002	500
1.9 pF	±0.1 pF	20	.01	1 kHz	Series	3	.002	500
10 pF	±0.1 pF	20	10 ppm	1 kHz	Series	3	.002	500
19 pF	±0.1 pF	20	.01	1 kHz	Series	3	.001	500
100 pF	±0.1 pF	20	10 ppm	1 kHz	Series	3	.0005	500
190 pF	±0.1 pF	20	.01	1 kHz	Series	3	.0005	500
1 nF	±0.02%	20	10 ppm	1 kHz	Series	3	.0003	500
1.9 nF	±0.02%	20	.01	1 kHz	Series	3	.0003	500
10 nF	±0.02%	20	.01	1 kHz	Series	3	.0003	500
19 nF	±0.02%	20	.01	1 kHz	Series	3	.0003	500
100 nF	±0.02%	20	.01	1 kHz	Series	3	.0003	500
190 nF	±0.02%	20	.01	1 kHz	Series	3	.0003	500
1 µF	±0.02%	20	.01	1 kHz	Series	5	.0002	500
1.9 µF	±0.02%	20	.01	1 kHz	Series	5	.0002	100
5 µF	±0.02%	-50	.012	1 kHz	Series	5	.0005	100
10 µF	±0.04%	-50	.04	100 Hz	Series	5	.0005	44 Vrms†
19 µF	±0.04%	-50	.04	100 Hz	Series	5	.0005	22 Vrms†
100 µF	±0.05%	-50	.04	100 Hz	Series	5	.001	22 Vrms†
190 µF	±0.05%	-50	.04	100 Hz	Series	5	.001	22 Vrms†
1000 µF	±0.4%	-150	.15	100 Hz	Series	5	.001	22 Vrms†

* Peak up to 10 kHz.
† Maximum allowable Vrms; subject to maximum Vdc = 50 V and max Vrms = (39000/f) for C = 10 µF; (26000/f) for C = 19 µF; (13000/f) for C ≥100µF, where f = frequency (in Hz).

Terminals: Two BNC connectors for 190 pF and under; two 5-way binding posts for 1 nF to 190 nF; four 5-way binding posts for 1 µF and over. Case ground is also provided.

Stability: <(0.01% + 0.1 pF) per year, up to 1 µF.

Dimensions: 8.6 cm H x 10.5 cm W x 12.7 cm D (3.4" x 4.15" x 5");
for 1000 µF: 8.6 cm H x 30.5 cm W x 8.92 cm D (3.4" x 12" x 3.5").

Transit Case: Optional Model SRC-100 lightweight transit case with handle, suitable for transporting and storing two units. The case provides insulation from temperature changes during transportation or shipping.

Calibration Report: SI traceable initial calibration data provided with unit.

Capacitor Type: Air capacitors for 1 pF and 10 pF; hermetically sealed silvered mica for 100 pF to 100 nF; hermetically sealed polystyrene for 10 µF; hermetically sealed matalized polycarbonate for 10 µF steps and over.

Operating Temperature: 10°C to 50°C.

ORDERING INFORMATION

SCA-Value	Standard Capacitor
SRC-100	Lightweight transit case with handle; See p. 27

Other values of capacitance and calibration frequencies available.

- Optional combinations

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