

SMART TWEEZERS USER MANUAL ADDENIUM

DETAIL ACCURACY SPECIFICATION

Parameter	Measurement Range	Basic Measurement Accuracy*
Resistance	1Ω to 999 kΩ	< 1.0%
	0.1 to 9.9 MΩ	< 5.0%
Capacitance	10 pF to 100 uF	< 3.0%
	0.5 pF to 4999 uF	< 5.0%
Inductance	10 uH to 99 mH	< 3.0%
	0.5 uH to 999 mH	< 5.0%
DC voltage**	0V to +/-8V	< 1.0%

* at optimum test frequency, ranges, without calibration offset

** required DC voltage offset calibration

Typical offset:

Resistance ≤ 25 mΩ

Capacitance 1.65 pF

Inductance 0.15 uH

Offset value should be subtracted from measurement result for small value components (R < 10Ω, C < 100 pF, L < 10 uH).

Parameter	Measurement Range	Test frequency
Resistance	< 9.9 MΩ	1 kHz
Capacitance	< 9999 pF	10 kHz
	10000 pF to 1 uF	1 kHz
	> 1 uF	100 Hz
Inductance	0.5 uH to 99 uH	10 kHz
	100 uH 99 mH	1 kHz
	> 100 mH	0.1 kHz

Maximum measurement ranges

Resistance R: 0.05 Ω to 9.9 MΩ
 Capacitance C: 0.5 pF to 4999 uF
 Inductance L: 0.5 uH to 999 mH
 Quality factor Q: 0.002 to 500 *
 Dissipation factor D: 0.002 to 500 *
 DC Voltage V: 0 to +/-8V

Maximum resolution

Impedance/Resistance Z or RAC: 10 mΩ
 Capacitance C: 0.1 pF
 Inductance L: 0.1 uH
 Quality factor Q: 0.001
 Dissipation factor D: 0.001
 Phase angle F: 0.1 deg
 DC voltage V: 0.8 mV

* indication of the parameter not implemented in some versions