

QuadTech LCR Selection Guide

Feature	1910 CE	1920 CE	7400 CE	7600 CE	1715 CE	1730 CE
Accuracy (±)	0.1% LCR 0.001 DQ 0.18°	0.1% LCR 0.001 DQ 0.18°	0.05% LCR 0.0005 DQ 0.18° AutoAcc™	0.05% LCR 0.0005 DQ 0.18° AutoAcc™	0.2% LCR 0.002 DQ	0.1% LCR 0.0001 DQ
Test Frequency	20Hz – 1MHz	20Hz – 1MHz	10Hz – 500kHz	10Hz – 2MHz	100, 120, 1k, 10kHz	100, 120, 1k, 10k, 20k, 50k & 100k Hz
Test Voltage	20mV – 1.0V	20mV – 1.0V	20mV – 5.0V	20mV – 5.0V	0.25V and 1.0V	10mV – 1.0V
Test Current	No	No	250uA – 100mA	250uA – 100mA	No	No
Monitor V/I DUT	Yes	Yes	No	No	No	Yes
Measured Parameters	L, C, R, Z, D, Q, θ, Y, G, B, ESR, DCR	L, C, R, Z, D, Q, θ, Y, G, B, ESR, DCR	L, C, R, Z, D, Q, θ, Y, G, B	L, C, R, Z, D, Q, θ, Y, G, B	L, C, R, Z, D, Q, θ, X	L, C, R, Z, D, Q, θ, X, ESR
Measurement Range	0.001nH-99.999H 0.01pF-9.9999F 0.0001mΩ-99.999MΩ 0.00001-99.999 D 0.00000-9999.9 Q -180.000° - 179.99° 10nS-9999.9S 0.1mΩ-100kΩ DCR	0.001nH-99.999H 0.01pF-9.9999F 0.0001mΩ-99.999MΩ 0.00001-99.999 D 0.00000-9999.9 Q -180.000° - 179.99° 10nS-9999.9S 0.1mΩ-100kΩ DCR	0.001nH-99.9999H 0.01fF-9.9999F 0.0001mΩ-99.9999MΩ Ω 0.1ppm-99.9999 D 0.1ppm-999999.9 Q -180.000° - 180° 0.01uS-9.999999M S	0.001nH-99.9999H 0.01fF-9.9999F 0.0001mΩ-99.9999MΩ Ω 0.1ppm-99.9999 D 0.1ppm-999999.9 Q -180.000° - 180° 0.01uS-9.999999M S	0.01uH-9.999kH 0.01pF-99.999mF 0.1mΩ-99.99MΩ 0.0001-9999 -180.00° - +180.00°	0.001uH-99.999kH 0.001pF-9.9999F 0.01mΩ-99.99MΩ 0.0001-9999 -180.00° - +180.00°
Measurement Speed	Up to 40 meas/sec	Up to 40 meas/sec	Up to 40 meas/sec	25 meas/sec	Up to 25 meas/sec	Up to 62 meas/sec
Display	Full 5 digit (pri/sec) Eng/Sci Δ, Δ%, Pass/Fail Blank (No display)	Full 5 digit (pri/sec) Eng/Sci Δ, Δ%, Pass/Fail Blank (No display)	Full 7 digit (pri/sec), Bin #, Bin Sum, Δ, Δ%, Pass/Fail Blank (No display)	Full 7 digit (pri/sec), Bin #, Bin Sum, Δ, Δ%, Pass/Fail Blank (No display)	Full 5 + 4 digits Bin #, Δ, Δ%	Full 5 digit (pri/sec) Δ, Δ%, P/F, Bin#

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Plot: F, V, I	No	No	Yes	Yes	No	No
Sequence	Yes	Yes	Yes	Yes	No	No
DC Bias Voltage	No	0 - 2V INT	0 - 2V INT 0 - 200V EXT 0 - 500V EXT 7400A	2V INT 0 - 200V EXT 0 - 500V EXT 7600A	No	0-5V INT with R _{BIAS} 0 - 5V EXT
DC Bias Current	0 – 1.0A INT 0 – 20.0A EXT (1320)	No	No	No	No	No
Test Connection	4-BNC Kelvin plus Optional fixtures	4-BNC Kelvin plus Optional fixtures	4-BNC Guarded plus Optional fixtures	4-BNC Guarded plus Optional fixtures	Kelvin Clips plus Optional fixtures	Kelvin Clips plus Optional fixtures
Auto Parameters	Yes	Yes	Option	Option	No	No
Auto Range	Yes	Yes	Yes	Yes	Yes	Yes
Binning	No	No	Yes (15)	Yes (15)	Yes (8)	Yes (8)
Bin Sum	No	No	Yes	Yes	Yes	Yes
Averaging	Yes (1 – 1000)	Yes (1 – 1000)	Yes (1 – 1000)	Yes (1 – 1000)	No	Yes (1-256)
Median Mode	Value of last 3 msmt	Value of last 3 msmt	Yes	Yes	No	No
Offset / Zero	Yes	Yes	Yes	Yes	Yes	Yes
Calibration	Built-In Auto Cal	Built-In Auto Cal	Built-In Auto Cal	Built-In Auto Cal	No	No
Save Setup	Yes	Yes	Yes	Yes	Yes	Yes (50)
Floppy Drive	No	No	Yes	Yes	No	No
Self Diagnostics	Yes	Yes	Yes	Yes	No	No
RS232	Yes	Yes	Yes	Yes	Yes	No
IEEE-488	Yes	Yes	Yes	Yes	Option	Yes
Handler Port	Yes	Yes	Yes	Yes	Option	Yes
Printer Port	No	No	Yes	Yes	No	No
Constant V	Yes	Yes	Yes	Yes	No	No
Constant I	No	No	Yes	Yes	No	No
Source Imped-	5, 25, 50, 100Ω	5, 25, 50, 100Ω	25, 400, 6.4k,	25, 400, 6.4k,	25, 100, 1k, 10k,	100/25, 100, 25, 10

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ance (Ω)			100k Ω (Range dependent)	100k Ω (Range dependent)	100k (DUT dependent)	(Constant current)
Delta % (Δ %)	Yes	Yes	Yes	Yes	Yes	Yes
Delta LCR	Yes	Yes	Yes	Yes	Yes	Yes
D & Q in ppm	Yes	Yes	Yes	Yes	No	No
Ratio Display	No	No	No	No	No	No
Program Delay	Yes (0-10s)	Yes (0-10s)	Yes (0-10s)	Yes (0-10s)	Yes (0-10s)	Yes (0-10s)