

Quick and accurate testing in work shops, laboratories and aut. production lines



- **Measuring range: Capacitance, Resistance and Inductance as well as second parameters**
- **Measuring frequencies: 100kHz, 10kHz, 1kHz, 100Hz and 120Hz**
- **Overall accuracy better than 0,05%**
- **Good measuring speed: 100ms from trig to end of measurement, 1kHz, 10kHz, 100kHz**
- **Input protection: 4 μ F up to 1kV**
- **Measuring cables: 1m or 39.3 inch (supplied as standard)**
- **Average: 1 to 99 measurements**
- **IEEE, GPIB & RS232c interfaces as standard**
- **Ethernet connector for browser PC control**

General

The Danbridge DB210 is a fast and accurate CLR-Bridge offering the Component users the speed, accuracy and reliability required to test and sort a wide spectrum of passive components.

The DB210 can be used as stand-alone-instrument by using the display and keyboard. Further is the instrument suitable for remote controlled, integrated test system. The instrument has IEEE 488 and RS232C interfaces as well as Ethernet connector for easy PC control via a standard Web Browser. External trig and BIN outputs are part of the standard design as well.

Four BNC sockets on the front panel will accept up to 1meter long interconnections to an external 4-terminal Kelvin Type test fixture. JIG10 or a set of Kelvin Clips can be supplied.

The DB210 is an attractive, cost-saving solution for manual testing or automatic production lines of CLR components and is supplied in a 19" cabinet for rack mounting.

Sockets for Ethernet, IEEE, RS232C, external trig and bin sorting are located on the rear panel.

Reliability and Serviceability

The DB210 is microprocst fixture and the DB210 without any deterioration of the accuracy.

Specification for DB210

PRELIMINARY SPECIFICATIONS:

Measured Parameters: C, L, R, (serial or parallel) Tan d, ESR, Rs, Rp, L/Q,
Measuring Frequencies: 100kHz, 10kHz, 1kHz, 100Hz and 120Hz selectable from the keyboard or by data-link

Measuring Voltages:	1 V RMS down to 40 Ohm
	0,3 V RMS from 40 Ohm to 4 Ohm
	Linear reduction at lower impedance values

		100Hz	120Hz	1kHz	10kHz	100kHz
Measuring Speed:	From trig to end of measurement *	180ms	180ms	38ms	38ms	38ms
	From trig to data ready: *	190ms	190ms	46ms	46ms	46ms
	Add. time per meas. by average	160ms	160ms	34ms	34ms	34ms

*) Allowing 3ms contact bouncing or 1 range change

Multiple measurements The sum of each measurement (from trig to end of measurement) + 8ms for calculation time
 (average):

Measuring Cables: 1m (39.3 inch) from bridge to fixture (Cables supplied by Danbridge)
Input Protection: 2 Joule up to 1kV or 4µF charged 1000V
Bias Voltage External: Up to ±48V DC

Accuracy C & tan δ:	Frequency	100Hz & 120Hz	1kHz	Accuracy ±1 digit	
				Capacitance	Tan δ
		100pF - 300µF	1pF - 99pF 100pF - 389pF 390pF - 3µF 3µF 30uF	0,5pF* 0,1% 0.05% 0.1%	± .0010 ± .0005 ± .0005 ± .0010
		>3mF C: (C measured / 0.3mF) * 0.1%		Tan d: (C measured / 0.3mF) * 0.005	
		10kHz	100kHz	*) Accuracy ± 0,2pF	
		39pF - 3µF	39pF - .3µF	0,05%	± .0005
Accuracy ESR:		$ESR = \frac{\tan d}{2 \pi f C_s}$			

Bin Sorting: Up to 12 limits for 1st parameter and 4 limit for 2nd parameter by opto-couplers

Interfaces: Rear panel: IEEE 488 (GPIB), RS232C and Ethernet connector
 Control: Measure end, data ready, trig ready, fault and status
 Trig input: DC, AC and contact closure

Keyboard & Display: Front panel: For manual settings, etc.

Environment: Ambient temp.: 10-30 degrees Celsius

Warm-up time: Minimum 30 minutes

Power: 90-130 and 200-260 V AC, 50-60 Hz,

Calibration Interval: Minimum: Every 12 months

Dimensions:	Mainframe:	Export Packing	
		Europe	Overseas
Height:	44mm	30cm	32cm
Width:	435mm	51cm	52cm
Depth:	280mm	56cm	55cm
Weight:	5kg	11kg	13kg



HEIDEN power GmbH
 Am Wiesengrund 1
 86932 Pürgen
 Germany

Tel.: +49-8196-9988-0
Fax: +49-8196-998877
info@heidenpower.com
www.heidenpower.com