

MCR5000 series Datasheet

Digital LCR Meter MCR-5000 Series



MCR5000 series is a multifunctional LCR precision meter used for testing various electronic components. Adopt 4.3-inch TFT LCD display, simple display, elegant layout. It is a high speed, wide band, 5 bit test resolution impedance measuring instrument with 40hz-200khz multiple frequency points and 0.1% accuracy, which can meet the requirements of component parameter detection in various occasions. Is a high - quality cost-effective tester

- With new 32-bit core processor, the data is as good as the one of foreign first-class equipment
- 4.3 inch true color TFT display
- 30 Ω , 100 Ω two types of different signal source output resistance
- Built - in comparator, 5 grade flexible quanlified and defective alarming mode shutdown automatically save test conditions, humanized operation
- Internal more than 100 sets of settings files, U disk extension to save multiple groups of test or recall simplified Chinese, English is optional
- U disk copy screen function, test data saving function, support FAT16 format, FAT32 file system,standard with RS232, USB HOST
- USB DEVICE, headphone interface, foot pedal interface and GPIB are optional

Model	MCR-5010	MCR-5030	MCR-5100	MCR-5200
Test parameter	L, C, R, Z , D, Q, X, ESR, θ (Deg), θ (Rad)			
Test frequency	100Hz, 120Hz, 1kHz、10kHz	100Hz, 120Hz, 1kHz, 10kHz, 20kHz, 30kHz	40Hz, 50Hz, 60Hz, 75Hz, 100Hz, 120Hz, 150Hz, 200Hz, 250Hz, 300Hz, 400Hz, 500Hz, 600Hz, 750Hz, 800Hz, 1kHz, 1.5kHz、2kHz, 2.5kHz, 3kHz, 4kHz、5kHz, 6kHz, 7.5kHz, 10kHz, 12kHz, 15kHz, 15.7kHz, 16.2kHz, 20kHz, 25kHz, 30kHz, 40kHz, 50kHz, 60kHz、66.6kHz, 75kHz, 100kHz in total 38 frequency points	40Hz, 50Hz, 60Hz, 75Hz, 100Hz, 120Hz, 150Hz, 200Hz, 250Hz, 300Hz, 400Hz, 500Hz, 600Hz, 750Hz, 800Hz, 1kHz, 1.5kHz, 2kHz, 2.5kHz, 3kHz, 4kHz, 5kHz, 6kHz, 7.5kHz, 10kHz, 12kHz, 15kHz, 15.7kHz、16.2kHz, 20kHz, 25kHz, 30kHz, 40kHz, 50kHz, 60kHz、66.6kHz, 75kHz, 100kHz, 120kHz, 150kHz, 200kHz in total 41 frequency points
Basic measurement accuracy	0.15%	0.1%		
Test signal level	0.05V, 0.1V、0.2V, 0.25V, 0.3V、0.3V, 0.4V, 0.5V, 1V			
Equivalent circuit	In series, in parallel			
Mathematical functions	Percentage deviation			
Range way	Automatic, hold, manual selection			
Trigger mode	Internal, manual, external, bus			
Measure speed (≥ 1 kHz)	High speed: The fastest is 30 times/second, middle speed: 10times/second, low speed: 3times/second			
Average time	1—255			
Delay time	0—6s, step is 1ms			
Calibration function	Open circuit/ short circuit / quick reset			
Display mode	Direct reading , $\Delta\%$, V/I (Measured voltage/current monitoring)			
Displayer	5 digit display of main and minor parameters , 4.3 inch true color LCD displayer			
Output impedance	30 Ω , 100 Ω optional			
Display range				
Z , R, X, ESR	0.1m Ω — 99.999M Ω			
C	0.01 pF — 9.9999F			
L	0.01 μ H — 99999 H			
D	0.0001 — 9.9999			
Q	0.0001 — 9999.9			
θ (Deg)	-179.99° — 179.99°			
θ (Rad)	-3.1416 — 3.1416			
$\Delta\%$	-999.99% — 999.99%			
Others				
Comparator function	5 grades of sorting function((Except MCR5010))			
Storage	More than 100 sets of internal instrument settings for storage/call U disk extension of more than 500 sets			
Port	RS232, HANDLER(Except MCR5010/5030), USB HOST are standard			
Net weight (kg)	3.5			
Gross weight (kg)	4.5			
Instrument size (W*H*D)	240*100*330			
Packing size (W*H*D)	330*210*425			