

AT3816A/B

DIGITAL LCR METER

Continuous testing frequency
10Hz~200kHz



Power Voltage: 90V-260VAC Frequency: 50Hz~60Hz
Max power: 30VA

CHINESE/ENGLISH
OPERATION

264 (W) * 107 (H) * 350 (D)
UNIT: mm

Weight: 4kg

The AT3816 series is a precision LCR digital bridge, a fully automatic real-time detection micro desktop instrument controlled by a high-performance 32-bit ARM microprocessor. The instrument can choose any testing frequency between **10Hz~200kHz**, and can choose a testing signal level between 0.01V and 2.00V in steps of 0.01V. It has built-in -2.5V~+2.5V programmable DC bias, automatic measurement of inductance L, capacitance C, resistance R, complex impedance Z, quality factor Q, loss angle tangent D, phase angle θ (degree), phase θ (radians) and DC Resistance.

The main and auxiliary parameters are all displayed in 6 digits, with two monitoring displays that can simultaneously display Z, D, Q, θ , R, θ , d, R, X, G, B, Y, Vac, Iac, Δ , $\Delta\%$ A type of. With an accuracy of up to 0.05%, this instrument can meet the requirements of various component manufacturers, schools, research institutes, and metrology and quality inspection departments for precise testing and mass production.

MODEL	AT3816A	AT3816B
Parameters	Cs-Rs,Cs-D,Cp-Rp,Cp-D,Lp-Rp,Lp-Q,LS-Rs,LS-Q,G-B,R-X,Z- θ rad,Z- θ deg DCR	
Monitor Parameters	Z, D, Q, θ r, θ d, R, X, G, B, Y, Vac, Iac, Δ , $\Delta\%$	
Accuracy	0.05% \pm 5dgt	0.1% \pm 5dgt
Frequency	10Hz ~ 200kHz (continuous frequency point, resolution 0.001Hz)	50Hz ~ 200kHz (37points)
Range	Auto, Manual & Nominal, 9 ranges	
Display	L: 0.00001 μ H-9999.99H C: 0.00001pF - 9999.99mF R,Z: 0.00001 Ω - 99.9999M Ω D: 0.00001 - 9.99999 Q: 0.00001 - 99999.9 $\Delta\%$:-999999% - 999999% θ (rad):-3.14159 -3.14159 θ (deg): -179.999 $^{\circ}$ -179.999 $^{\circ}$ DCR: 0.00001Ω ~ 99.9999MΩ (only for AT3816 series)	
Signal level	0.01V ~ 2.00V (10mV step) with ALC function	
Test speed	40t/s 10t/s 3t/s (with average)	
DC Bias	-2.5V~+2.5V(0.5%+0.005V)	
Max display	6 digital principle parameter, sub parameter, monitor parameter: 999999	
Source Resistance	30 Ω , 50 Ω &100 Ω	
Comparator	14-bin sorting, 10 bin GD, 1 bin NG, 1 bin AUX, 2 bin principle parameter NG	
List test	10 groups frequency and level scanning measurement	
Calibration	Open/short frequency correction, 3 point frequency and load correction	
Interface	RS232C, Handler, standard USB disc interface (save article 10000 data)	
Others	LCR auto selection, Key lock, SCPI instruction set,save 999 sets of LCD, trigger delay, build in SCPI& Modbus protocols	
Files	10 groups files to save user's setting, 1 group to save system data real-time	
Accessories	ATL501E Test cable; ATL601 Test Fixture ; ATL600 Short-circuit plate; ATL108A communication cable;ATL103 USB cable (ATL508A SMD Patch test clip AT3816A only)	