Applent Instruments

8th edition

Test & Measurement Catalog

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Applent Instruments Inc.

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Digital LCR Meter

AT2818

Frequency : 10Hz~300kHz
Signal level : 0.01V~2.00Vrms
Accuracy : 0.05%

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AT2818 adopts true-color TFT-LCD and English operation interface (Chinese also available). AT2818 (has been upgraded into continuous frequency with the resolution of 0.001Hz. Four parameters can be measured simultaneously by AT2818. Any parameters can be set arbitrarily. Both main & sub parameters can be displayed in 6 dgt after the improvement. AT2818 can not only scan 10 kinds of frequency or voltage level, but also correct three groups of user frequency so as to improve the accuracy. The upgrade version adopts big font.

SPECIFICATIONS	
	AT2818 Precision Digital LCR Meter
Parameters	Cs-Rs,Cs-D,Cp-Rp,Cp-D,Lp-Rp,Lp-Q,Ls-Rs,Ls-Q,Rs-Q,R-X,Z-θrad,Z-θdeg
Monitor Parameters	Z, D, Q, θr, θd, R, X, G, B, Y, Vac, Iac, Δ, Δ%
Accuracy	0.05% ± 5 dgt
Frequency	10Hz - 300kHz (continuous frequency, frequency resolution 0.001Hz)
Display Range	L: 0.00001μH-999999H C: 0.00001pF - 999999μF R,Z: 0.00001Ω - 99.9999MΩ D, 0.00001 – 9.99999 Q: 0.00001 – 99999.9 Δ%: -999999% - 999999% θ(deg): -179.999° -179.999° θ(rad):-3.14159 – 3.14159
Source Resistance	30Ω, 50Ω, 100Ω
Range	Automatic, Manual, and nominal, 9 ranges
Display Max	6 digital, principle parameter: 999999; sub parameter:999999; monitor parameter: 999999
Signal Level	0.01V - 2.00V (10mV Step)
Speed	30t/s, 10t/s, 6 t/s, 3 t/s 1-256 times average is available
Comparator	14-bin sorting, 10-bin GD, 1-bin NG, 1-bin AUX, 2-bin principle parameter NG; Count Function: Max - 999999
List Test	10 group frequency and level scanning measurement
Adjustment	Open & Short circuit sweep frequency correction, 3 point frequency correction and load calibration.
Files	10 group files to save user's setting, 1 group to save system data real-time
Interface	RS232C, ExHandler interface, standard configuration USB Disc interface (article 10000 data)
Others	LCR Automatic selection, keypad lock, SCPI instruction set, true-color TFT-LCD Display
GENERAL FEATURES	
Power Supply	Voltage: 90V AC - 250V AC Frequency: 50Hz - 60Hz Max Power: 20VA
Size	264mm (width)x107mm(height)x350mm(depth) 4kg
ORDERING INFORMATION	
Accessories	ATL501: Kelvin Test clip ATL601: Test fixture ATL600: Short-circuit slice ATL108:RS232 Communication cable
Options	ATL608 SMD patch test fixture ATL508: SMD patch test clip ATS2818: Data acquisition software ATL508A patch test clip

AT2816A/AT2816B adopt true-color TFT-LCD and English operation interface (Chinese also available). Menu soft key board operation & digital keypad.6 digits display with the maximum speed of 30 times per second. It can not only scan 10 groups frequency or voltage level list, but also correct 3 groups of user frequency so as to improve the accuracy. Equipped with automatic 14-bin sorting interface and RS-232C interface

SPECIFICATIONS

	AT2816A Precision Digital LCR Meter	AT2816B Digital LCR Meter
Parameters	Cs-Rs,Cs-D,Cp-Rp,Cp-D,Lp-Rp,Lp-Q,Ls-Rs,Ls-Q,G-B,R-X,Z-θrad,Z-θdeg	
Monitor Parameters	Z, D, Q, θr, θd, R, X, G, B, Y, Vac, Iac, Δ, Δ%	
Accuracy	0.05% ±5 dgt	0.1%±5 dgt
Frequency	50Hz-200kHz(continuous frequency with resolution of 0.001Hz)	50Hz - 200kHz (37 kinds frequency)
Display Range	L: 0.00001μH-999999H C: 0.00001pF - 999999μF R,Z: 0.00001Ω - 99.9999MΩ D: 0.00001 – 9.99999 Q: 0.00001 – 99999.9 Δ%:-999999% - 999999% θ(rad): -3.14159 – 3.14159 θ(deg): -179.999° -179.999°	
Source Resistance	30Ω, 50Ω, 100Ω	
Range	9 ranges, Automatic, Manual, Nominal	
Display Max	6 dgt, principle parameter: 999999; sub parameter: 999999; monitor parameter: 999999	
Signal Level	0.01V - 2.00V (10mV Step)	
Speed	30 t/s, 10 t/s, 6 t/s, 3 t/s 1 - 256 times average is available	
Comparator	14-bin sorting, 10-bin GD, 1-bin NG, 1-bin AUX, 2-bin principle parameter NG Count function: Max - 999999	
List Test	10 groups frequency and level scanning test	
Adjustment	Open/Short frequency correction, 3 point frequency and load correction	
Files	10 group files to save users' setting, 1 group to save system data real-time	
Interface	RS232C, ExHandler Interface, with standard USB disc interface (article 10000 data)	
Others	LCR automatic selection, keypad lock, SCPI instruction set, true-color TFT-LCD display	

GENERAL FEATURES

Power Supply	Voltage: 90V AC - 250V AC Frequency: 50Hz - 60Hz Power: Max 20VA
Size	264mm(Width)x107mm(Height)x350 mm(Depth); 4kg

ORDERING INFORMATION

Accessories	ATL501: Kelvin Test clip ATL601: Test fixture ATL600: Short-circuit slice ATL108:RS232 Communication cable
Options	ATL608 SMD patch test fixture ATL508: SMD patch test clip ATS2816: Data acquisition software ATL508A: SMD patch test clip

Digital LCR Meter

AT810A

Frequency : 10Hz~20 kHz
Signal level : 0.01V~2.00Vrms
Accuracy : 0.05%

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Digital LCR meter AT810A series adopt the latest technology and continuous level setting, cover all low frequency. Both main & sub parameters can be displayed in 6 dgt with accuracy of 0.05% which made AT810A the performance leadership of LCR. Impeccable function of low frequency and multiple interfaces make AT810A adapt to any harsh environment.

AT810A improved Handler interface can meet more requirements of different sorting machine. AT810A provides a high cost-performance and more accuracy solution for produce line.

SPECIFICATIONS	
	AT810A Precision Digital LCR Meter
Parameters	Cs-Rs, Cs-D, Cp-Rp, Cp-D, Lp-Rp, Lp-Q, Ls-Rs, Ls-Q, Rs-Q, R-X, Z-θrad, Z-θdeg
Monitor Parameters	Z, D, Q, θr, θd, R, X, G, B, Y, Vac, Iac, Δ, Δ%
Accuracy	0.05% ±5 dgt
Frequency	10Hz - 20kHz (continuous frequency with resolution of 0.001Hz)
Display Range	L: 0.00001μH-999999H C: 0.00001pF - 999999μF R,Z: 0.00001Ω - 99.9999MΩ D:0.00001–9.99999 Q: 0.00001 – 99999.9 Δ%:-999999% - 999999% θ(deg): -179.999° -179.999° θ(rad) :-3.14159 – 3.14159
Source Resistance	30Ω, 50Ω, 100Ω
Range	9 ranges, Automatic, Manual, Nominal
Display Max	6 dgt, principle parameter: 999999; sub parameter: 999999; monitor parameter: 999999
Signal Level	0.01V - 2.00V (10mV Step)
Speed	30 t/s, 10 t/s, 6 t/s, 3 t/s 1 - 256 times average is available
Comparator	14-bin sorting, 10-bin GD, 1-bin NG, 1-bin AUX, 2-bin principle parameter NG Count function: Max - 999999
List Test	10 groups frequency and level scanning test
Adjustment	Open/Short sweep frequency correction, 3 point frequency and load correction
Files	10 group files to save users' setting, 1 group to save system data real-time
Interface	RS232C, ExHandler Interface, with standard USB disc interface (article 10000 data)
Others	LCR automatic selection, keypad lock, SCPI instruction set, true-color TFT-LCD display
GENERAL FEATURES	
Power Supply	Voltage: 90V AC - 250V AC Frequency: 50Hz - 60Hz Power: Max 20VA
Size	264mm(Width)x107mm(Height)x350mm (Depth); 4kg
ORDERING INFORMATION	
Accessories	ATL501: Kelvin Test clip ATL601: Test fixture ATL600: Short-circuit device ATL108:RS 232 Communication cable
Options	ATL608 SMD patch test fixture ATL508: SMD patch test clip ATS810A: Data acquisition software ATL508A: SMD patch test clip

Digital LCR Meter

AT2817A AT817D

AT2817A improved Handler interface which can meet more requirements of different sorting machine. The update version adopts big font display.

Economic 100K digital LCR meter, the newest design, easy to operate.

SPECIFICATIONS		
	AT2817A Digital LCR Meter	**AT817D Digital LCR Meter**
Parameters	Cs-Rs,Cs-D,Cp-Rp,Cp-D,Lp-Rp,Lp-Q,Ls-Rs,Ls-Q,G-B,R-X,Z-θrad,Z-θdeg	L-Q, C-D, R-Q, Z-Q,
Monitor Parameters	Z, D, Q, θr, θd, R, X, G, B, Y, Vac, Iac, Δ, Δ%	
Accuracy	0.05% ±5 dgt	0.1%
Frequency	50Hz-100kHz (16 points)	50Hz-100kHz (10 points)
Display Range	L:0.00001μH-999999H C:0.00001pF-999999μF R,Z: 0.00001Ω-99.9999MΩ D,0.00001–9.99999 Q:0.00001–99999.9 Δ%:-999999%-999999% θ(deg):-179.999° -179.999° θ(rad): -3.14159–3.14159	L: 0.0001μH - 99999H C: 0.0001pF - 99999μF R,Z: 0.0001Ω - 99.999MΩ Q: 0.00001 - 99999 Δ%: -99999% - 99999% D: 0.0001 ~ 9.9999
Source Resistance	30Ω, 50Ω, 100Ω	
Range	9 ranges Automatic, Manual, Nominal	
Display Max	principle parameter: 999999; sub parameter: 999999	principle parameter: 99999; sub parameter: 99999
Signal Level	0.01V - 2.00V (10mV Step)	0.1V, 0.3V, 1.0V
Speed	30 t/s, 10 t/s, 6 t/s, 3 t/s 1~256 times average	3 t/s
Comparator	14-bin sorting, 10-bin GD, 1-bin NG, 1-bin AUX, 2-bin principle parameter NG	1 group to save, 5-bin sorting
Adjustment	Open/Short sweep frequency correction, 3 point frequency and load correction	
Files	10 group files to save users' setting, 1 group system data save real-time	1 group to save system data real-time
Interface	RS232C, ExHandler Interface, with standard USB disc interface (article 10000 data)	None
Others	LCR automatic selection, true-color TFT-LCD display	VFD display
GENERAL FEATURES		
Power Supply	Voltage: 90V AC - 250V AC Frequency: 50Hz - 60Hz Power: Max 20VA	Voltage: 198V AC - 250V AC Frequency: 50Hz Power: Max 15VA
Size	264mm(Width)x107mm(Height)x350mm (Depth); 4kg	
ORDERING INFORMATION		
Accessories	ATL501: Kelvin Test clip ATL601: Test fixture ATL600: Short-circuit slice ATL108: RS232 Communication cable	
Options	ATL608 SMD patch test fixture ATL508: SMD patch test clip ATS2817: Data acquisition software ATL508A: SMD patch test clip	

SPECIFICATIONS		
	AT810 Digital LCR Meter Rev 5	**AT811 Digital LCR Meter Rev 2 *Promotion***
Parameters	L, C, R, |Z|, D, Q, θ(deg), θ(rad)	L, C, R, |Z|, D, Q
Accuracy	0.1%	0.2%
Frequency	100Hz, 120Hz, 1kHz, 10kHz	
Display Range	L: 0.01μH-9999H C: 0.01pF - 9999μF R,Z: 0.0001Ω-99.99MΩ Δ%: -9999% - 9999% θ(deg): -179.99°-179.99° D, 0.0001–9.999 θ(rad) :-3.1416 – 3.1416 Q: 0.0001–999.9	L: 0.01μH-9999H C:0.01pF - 9999μF R,Z: 0.0001Ω-99.99MΩ Q:0.0001 – 999.9 Δ%: -9999% - 9999% D, 0.0001 – 9.999
Display Max	principle parameter: 99999; sub parameter: 99999	
Source Resistance	30Ω, 100Ω	
Range	Automatic and manual with 6 ranges	
Signal Level	0.1V rms, 0.3V rms, 1V rms	0.3V rms, 1V rms
Speed	15 times/second, 5 times/second, 3 times/second	2 times/second, 5 times/second
Equivalent Circuit	In series and parallel	
Result Display	3 parameters are displayed together: show, ΔABS, Δ%, D, Q, |Z | and sorting results	show, ΔABS, Δ%
Adjustment	Open & short sweep frequency and point frequency	Open and short sweep frequency correction
Comparator	20 groups files record, 5-bin sorting, beep indication	5-bin sorting, beep indication
Impact Protection	1000V/10 F, 600V/80 F or 400V/150 F capacitance under electricity impact protection	
Interface	RS232C (SCPI) Handler interface	Optional RS232C (SCPI programmable language)
Others	VFD Display, keypad lock and data hold function	LCD Display, button light indication and soft key control
GENERAL FEATURES		
Power Supply	Voltage: 198V AC - 250V AC Frequency: 50Hz Power: Max 15VA	Voltage: 85V AC - 260V AC Frequency: 50Hz Power: Max 10VA
Size	264mm(Width)x107mm(Height)x350mm(Depth) 4kg	216mm(Width)x88mm(Height)x300mm(Depth) 3kg
ORDERING INFORMATION		
Accessories	ATL501: Kelvin Test clip ATL601: Test fixture ATL600: Short-circuit slice ATL108: RS232 Communication cable	ATL501: Kelvin Test clip

AT810D/AT2811/821 digital LCR meter is created as the smallest bench-type digital meter , this depends on Applent professional intelligent instrument technology.

Four grades of test frequency: 100Hz, 120Hz, 1kHz, 10kHz; 6 parameters (L, C, R, Z, D, Q) can be tested and the built-in comparator can easily deal with the sorting operation of components which made AT821 high cost-performance.

SPECIFICATIONS		
	AT810D Digital LCR Meter	**AT821 Digital LCR Meter *promotion***
Parameters	L,C,R,Z,D,Q,θ(deg),θ(rad)	L,C,R,|Z|,D,Q
Accuracy	0.2%	0.25%
Frequency	100Hz, 120Hz, 1kHz, 10kHz	100Hz, 120Hz, 1kHz, 10kHz
Display Range	L: 0.01μH-9999H C: 0.01pF-9999μF R,Z:0.0001Ω-99.99MΩ Δ%: -9999% - 9999% D: 0.0001 - 9.9999 Q:0.0001 - 9999	L: 0.01μH-9999H C: 0.01pF-9999μF D: 0.0001–9.999 Q: 0.0001–999.9 R,Z: 0.0001Ω - 99.99MΩ
Max Reading	Principle parameter: 99999 sub parameter: 99999	
Source Resistance	30Ω和 100Ω	100Ω (30Ω can be customized)
Range	Automatic and manual with 6 ranges	
Signal Level	0.1Vrms, 0.3Vrms 和 1Vrms	0.3V rms (can be customized)
Speed	3 times/second	
Equivalent Circuit	In series and parallel	
Result Display	Show & sorting results	
Adjustment	Short and open sweep frequency correction	Short and open sweep frequency Correction
Comparator	5-bin sorting	
Protection	1000V/10μF 、 600V/80μF or 400V/150μF capacitance electrify protection	None
Interface	Optional RS232	None
Beep	P1, P2, P3, NG, OFF	
Others	VFD display,keypad lock and data hold function	LCR automatic parameter select
GENERAL FEATURES		
Power Supply	Voltage: 198V AC - 240V AC Frequency: 50Hz Power: Max 15VA	
Size	264mm(Width)x107mm(Height)x350mm(Depth) 4kg	225mm (Width)x83.5mm (Height)x199mm (Depth); 2kg
ORDERING INFORMATION		
Accessory	ATL501: Test cable ATL601: Test fixture ATL600: Short-circuit device Optional: ATL608 SMD patch clamp ATL508: SMD patch test clip	ATL501: Kelvin Test clip

AT826, 825, 824 series handheld Digital LCR electric bridge adopts high performance 32-bit ARM microprocessor. True-color TFT liquid crystal display, keypad and touch screen double control. Using Li- battery supply power. USB communication. Switch in both English and Chinese. AT826, 825 handheld LCR digital meter have the highest configuration. With the highest frequency of 100kHz, constant 100Ω source internal resistance, 0.6Vrms measurement voltage level, and 0.2% accuracy, make AT826, 825 have the excellent performance of both desktop instrument and portability of handheld.

SPECIFICATIONS			
	AT826	**AT825**	**AT824**
Main Parameters	L,C,R,Z		
Sub Parameters	D, Q, θr, θd, X,ESR		
Accuracy	0.2%		
Frequency	100Hz,120Hz,1kHz,10kHz,100kHz	100Hz,120Hz,1kHz, 10kHz	100Hz,120Hz,1kHz
Display Range	L: 0.01μH-9999H D: 0.0001 – 9.999 θ(deg):-179.99°-179.99°	C: 0.01pF - 9999μF Q: 0.0001 – 999.9 θ(rad) :-3.1416 – 3.1416	R,Z: 0.0001Ω-99.99MΩ Δ%: -9999% - 9999%
Speed	4 times/second，1.5 times/second		
Source Resistance	100Ω		
Signal Level	0.6Vrms		
Range	Automatic or Manual		
Display Max	Principle Parameter: 49999 Sub Parameter：49999		
Adjustment	Open/short scan frequency correction for each range		
Comparator	1 sets, compare main parameters		
Trigger	Internal		
Interface	Build-in Mini-USB interface（virtual interface） Charging interface		
Others	2.8 inch true-color 16M color TFT-LCD display；touch screen（AT825）;USB communication; compatible SCPI instruction set； switch in both English and Chinese；adjustable back light; automatic power off		
GENERAL FEATURES			
Power Supply (ATL909)	Input：100-240V~50/60Hz 0.35A Output：9V 1A DC		
Battery Parameter	8.4V，Li， 1400mAh rechargeable battery		
Working Time	Highlight 30%≥14 hours， Highlight 50%≥12 hours ， Highlight 100%≥9 hours		
Size	Outside（mm）: 90(Width)x190(Height)x31(Depth) 400g		
OREDRING INFORMATION			
Accessories	ATL501C four-terminal Kelvin test clip ATL909 DC adapter ATL805 Li-battery • ATL105Mini-USB Communication cable • ATS826 data acquisition software		

AT617 adopts the same circuit as AT2817A's and is mainly used for the test of capacitance. With standard Handler interface, AT610 series adopt high performance processor and highlight color VFD screen with excellent properties after improved by AT810. Rev5 of AT610, with better stability and new button design and easy to operate, is the best choice for capacitance sorting

SPECIFICATIONS		
	AT617 Capacitance Meter	**AT610 Capacitance Meter**
Parameters	C-D, C-ESR, C-EPR, R-Q	C, D, ESR, EPR,Q
Accuracy	0.05%	0.1%
Frequency	50Hz, 60Hz, 100Hz, 120Hz, 1kHz, 10kHz, 20kHz, 40kHz, 50kHz, 100kHz	100Hz, 120Hz, 1kHz, 10kHz
Display Range	C: 0.0001pF - 9999μF R: 0.0001Ω - 99.99MΩ D: 0.00001 – 9.99999 Δ%: -9999% - 9999%	C: 0.01pF – 9999μF D: 0.0001 – 9.9999 R: 0.0001Ω - 99.99MΩ Δ%: -9999% - 9999%
Source Resistance	30Ω, 50Ω, 100Ω	30Ω, 100Ω
Range	Automatic and manual, 9 ranges	Automatic and manual, 6 ranges
Signal Level	0.1V rms, 0.3V rms, 1V rms	0.3V rms, 1V rms
Speed	25 t/s, 10 t/s, 2 t/s	
Equivalent Circuit	In series and parallel	
Result Display	3 parameters are displayed together in 5 dgt: show, ΔABS, Δ%, ESR, EPR or sorting results	
Adjustment	Open-circuit point or sweep frequency zero correction; short-circuit point or sweep frequency zero correction	
Comparator	20 groups record, 5-bin sorting (9-bin sorting is available), beep	
Impact Protection	1000V/10μF, 600V/80μF, 400V/150μF capacitance under electricity impact protection	
Interface	RS-232C (SCPI programmable language) Handler	
Others	VFD four-color high definition color screen; keypad lock & data hold function	
GENERAL FEATURES		
Power Supply	Voltage: 198V AC - 240V AC Frequency: 50Hz Power: Max 15VA	
Size	264mm (Width)x107mm (Height)x350mm (Depth) 4kg	
ORDERING INFORMATION		
Accessories	ATL501: Kelvin Test clip ATL601: Test fixture ATL600: Short-circuit device ATL108:RS232 communication cable	

AT6810 Capacitance Integrated Tester is applied to capacitance sorting machine. Mainly measure capacity, loss, equivalent resistance, 4 channels capacitance leakage current, 2 channels open short. The standard RS232 and Handler interface, is more than sufficient for automation equipment. AT6810 Capacitance Integrated Tester is the instrumentation of sorting machine companies. It combines with AT610 Capacitance Meter and AT680 Current Leakage Meter. The all functions of open short detection AT68F make it easier to connect device and higher stability.

SPECIFICATIONS	
	AT6810 Capacitance Integrated Tester
Parameters	C,R, D,Q, 4 channels capacitance leakage current (LC1，LC2，LC3，LC4)，1 channels open circuit detection, 1 channel short circuit detection(SHORT)
Accuracy	Capacitance: 0.1%　Current leakage: 1%
Frequency	100Hz, 120Hz, 1kHz, 10kHz
Display Range	C: 0.01pF – 9999μF D: 0.0001 – 9.9999 Δ%: -9999% - 9999% Current：1nA~20mA
Source Resistance	30Ω, 100Ω
Range	Automatic and Manual with 6 ranges
Signal Level	0.1Vrms, 0.3Vrms 和 1Vrms
Speed	25t/s, 10t/s, 2t/s
Equivalent Circuit	Series and Parallel
Adjustment	Capacitance open circuit point frequency or sweep frequency correction; short circuit point frequency or sweep frequency correction; Leakage current open circuit correction
Comparator	Capacitance 5-bin sorting（sorting machine can customize 9-bin sorting），beep，GD/NG Leakage current LC1, LC2，LC3，LC4 1-bin respectively，1-bin for open circuit, 1-bin for short circuit
Impact Protection	1000V/10μF, 600V/80μF or 400V/150μF capacitance under electricity impact protection
Interface	RS-232C（for PC、touch panel or PLC communication），Handler interface
GENERAL FEATURES	
Power supply	Voltage: 198VAC～240VAC, Frequency: 50Hz, Power: Max 30VA
Size and weight	outer（mm）:360 (width)x70 (height)x240 (depth)　weight: 4kg
ORDERING INFORMATION	
Accessories	ATL501: Kelvin test clip　ATL601: test fixture ATL600: short slice　ATL108:232 communication cable ATL507: test clip　ATL603: test fixture

Battery Tester

AT520 AT520SE AT520L

AT520 is a kind of high-precision and high-stability battery tester. AT520 battery meter can be used to test contact resistance , battery internal resistance and voltage of battery simultaneously. AT520 applies to the product sorting and factory inspection of the battery produce line, Compatible with HIOKI 3560 and Agilent 4338B. All kinds of contact resistance, Li-battery, alkaline cell and lead accumulator degradation determination and estimate of lifetime, UPS test and lead accumulator factory inspection can be tested by AT520 series.

Meet GB5095,GJB1217 and IEC512-2 standard

SPECIFICATIONS			
	AT520	**AT520^{SE}**	**AT520^{L}**
Parameters	AC resistance, DC voltage, X, Z, θ, L,	AC resistance, DC voltage, θ	
Accuracy	Resistance: 0.3% Voltage: 0.05% Inductance: 1%	Resistance:0.5% Voltage: 0.1%	
Range	Resistance: 1μΩ - 3.2kΩ Voltage: 100μV - 60V DC Inductance: 10nH - 1H	Resistance:10μΩ-3.2Ω Voltage: 1mV - 60V DC	Resistance: 10μΩ - 32Ω Voltage: 1mV - 60V DC
Signal Source	AC 1kHz, open-circuit voltage < 20mV, measurement current: < 10mA		
Range	Automatic and manual with 6 ranges (AT520 AT520^{SE})		Automatic&manual,4ranges
Speed	20 t/s, 6 t/s, 1 t/s	15 t/s,6 t/s, 1 t/s	10 t/s,3 t/s, 1 t/s
Result Display	Show, ΔABS, Δ%, θ, sorting results	Show value, voltage and resistance display simultaneously	
Display Max	Resistance: 32,000, Voltage: 60,000	Resistance: 3,200 ($3^{2/3}$) , Voltage: 6,000	
Adjustment	Short-circuit correction for all range, REL function		
Comparator	30 groups record, NG-LO, GD-IN, NG-HI display and output. beep is adjustable (AT520 AT520^{SE})		1 group record, NG-LO, GD-IN,NG-HI display and output. Beep is adjustable
Trigger	Internal, manual, and external	Internal, manual, external (optional)	
Interface	RS232C Handler interface (PLC)	RS232C interface	
Others	Detection of damage test wire, four-color vacuum fluorescent screen VFD display, keypad lock and data hold function		
GENERAL FEATURES			
Power Supply	Voltage: 198V AC - 240V AC Frequency: 50Hz Power: Max 15VA		
Size	264mm (Width)x107mm (Height)x350mm (Depth) 4kg		
ORDERING INFORMATION			
Accessories	ATL505 Kelvin clip ATL108: RS232 communication cable		
Options	ATL506A: test probe ATL506 test bar		

NEW

AT526 is a brand-new design DC resistance meter with high precision and high stability, which adopts high-performance 32-bit ARM micro processor to control. 3.5 inches true-color LCD Chinese and English display and it is easy to operate. It is upgrade of AT520. It is high performance and intelligent instruments which is widely applied to test contact resistance, battery voltage and battery internal resistance. The brand-new AT526 can test all kinds of batteries. The sorting and beep settings apply to automation production line test. The USB interface is used to remote control and data acquisition and analysis and suitable for the volume production of batteries.

Specifications	
	AT526 Battery Meter(Battery Internal Resistance Meter)
Parameters	AC resistance, DC voltage
Accuracy	Resistance: 0.3% Voltage: 0.1%
Range	Resistance: 1μΩ - 3kΩ Voltage: 0.0001V - 50V DC
Signal Source	AC 1kHz, open-circuit voltage < 20mV, measurement current: < 10mA
Range	Automatic and manual with 6 ranges
Speed	20 t/s, 10 t/s, 2 t/s
Result Display	Show, ΔABS, Δ%, θ, sorting results
Display Max	Resistance: 30,000, Voltage: 50,000
Adjustment	Short-circuit correction for all range
Comparator	NG-LO, GD-IN, NG-HI display and output. beep is adjustable (AT520 AT520^{SE})
Trigger	Internal, manual, and external
Interface	RS232C Handler interface (PLC)
Others	Detection of damage test wire, true-color TFT display keypad lock and data hold function U flash disk data recording
GENERAL FEATURES	
Power Supply	Voltage: 85V AC - 240V AC Frequency: 50Hz Power: Max 15VA
Size	264mm (Width)x107mm (Height)x350mm (Depth) 4kg
ORDERING INFORMATION	
Accessories	ATL505: Kelvin clip ATL108: RS232 interface cable
Options	ATL506A: test probe ATL506 test bar

High Voltage Battery Internal Resistance Meter

AT520M AT520B AT520C

AT520B and AT520C are newly designed high voltage battery meter, which aims to measure voltage and internal resistance of battery with built-in current high voltage meter. It can test not only 0.1mΩ-300Ω internal resistance of battery, but also max 780V battery voltage simultaneously, suitable for all kinds of high voltage battery test, such as multi-section series connection of high voltage, Li-battery and internal resistance

SPECIFICATIONS			
	AT520M Battery Meter	**AT520B Battery Meter**	**AT520C Battery Meter**
Parameters	AC resistance, θ, DC voltage		
Accuracy	Resistance: 0.5% Voltage: 0.1%	Resistance: 0.5% Voltage: 0.3%	
Measurement Range	Resistance: 10μΩ～30Ω Voltage: 10mV~100V	Resistance: 0.1mΩ~300Ω Voltage: 10mV~780V	Resistance: 0.1mΩ~300Ω Voltage: 10mV~400V
Signal Source	AC 1kHz open-circuit voltage < 20mV measurement current: 1mA/0.1mA/10nA/5nA		
Range	Automatic or manual with 4 ranges		
Speed	20 times/second, 6 times/second, 1 time/second		
Result Display	Show, resistance and voltage		
Display Max	Resistance:3,200 Voltage: 1,000	Resistance:3,200 Voltage: 7,800	Resistance:3,200 Voltage: 4,000
Adjustment	Short-circuit correction for each range, REL function		
Comparator	1 group record, HI/IN/LOW/GD/NG sorting result display, beep is adjustable		
Trigger	Internal, Manual (External optional)		
Interface	RS-232C interface		
Optional Interface	Handler interface (PLC interface) (AT520B does not have)		
Others	Detection of damage test wire, four-color vacuum fluorescent screen VFD display, keypad lock and data hold function		
GENERAL FEATURES			
Power Supply	Voltage: 198V AC - 240V AC Frequency: 50Hz Power: Max 15VA		
Size	264mm (Width)x107mm (Height)x350mm (Depth) 4kg		
ORDERING INFORMATIONS			
Accessory	ATL505: Kelvin clip		
Options	ATL506A: test probe		

AT528 series handheld battery meter adopt high-performance 32-bit ARM micro processor, can be used to test voltage and internal resistance of battery, compatible with HIOKI 3554. Test the resistance 0.01mΩ – 2.2kΩ, 1 mV - 50V DC voltage with the resistance max reading of 3200dgt and voltage 5000dgt. Accuracy of 0.5% even the speed is under 10 times per second. The indication beat is controlled under 5 digits.AT528 can test open-circuit voltage accurately, adding automatic sorting function and beep set, is applied to automatic sorting system to complete production line test. Equipped with USB interface, can be used for remote control and data acquisition and analysis and is suitable for flow line inspect storage batteries.

SPECIFICATIONS		
	AT528 Handheld Battery Meter	**AT528L Handheld Battery Meter**
Parameters	AC resistance, DC voltage	
Accuracy	R: 0.5%±5dgt V: 0.5%±5dgt	R: 0.5%±5dgt V: 0.5%±5dgt
Measurement Range	R: 0.01mΩ – 2.2kΩ V: 0.0001 V- 50V	R: 0.1mΩ - 200Ω V: 0.001 V - 50V
Signal Source	AC: 1kHz Open-circuit Voltage: < 30mv Current: < 15mA	
Range	Automatic, Manual, Nominal. 6 ranges	Automatic, Manual, Nominal, 4 ranges
Speed	20 times/second, 10 times/second, 3 times/second	2 times/second
Result Display	ABS/PER/SEQ	
Display Max	Resistance: 3200 Voltage: 5000	
Max Resolution	Resistance: 0.01mΩ Voltage: 1mV	Resistance: 0.1mΩ Voltage: 1mV
Adjustment	Short-circuit correction for each range	
Comparator	Voltage compare separately, resistance compare separately, voltage and resistance combination compare GD/NG sorting result display, beep	
Trigger	Internal, Manual, Remote	
Test Terminal	4 terminal shielding (2 check terminal and 2 driving terminal) and external shielding ground section	
Interface	Build-in Mini-USB (virtual serial port); Charging Interface; U disc Interface	
Others	3.5 inches true-color 16M TFT-LCD display; Keypad lock; Data hold function; Compatible SCPI Order Set; Switch in both Chinese and English; Adjustable Background light; Auto power-off; 500 groups measured data saved with one key	
GENERAL FEATURES		
Power Supply (ATL909)	Input: 100-240V~50/60Hz 0.35A Output: 9V 1A DC	
Battery Parameters	8.4v, Li, 2200mAh rechargeable battery	
Working Time	≥ 8 hours	
Size	130.23mm (Width)*210.76mm (Height)*37.88mm (Depth)	
ORDERING INFORMATION		
Accessories	ATL501B 4-terminal Kelvin test clip; ATL909: DC adaptor; ATL202 portable bag; ATL804 Li-battery; *ATS528 data acquisition software *ATL506B 4-terminal test probe *ATL105Mini-USB communication cable Note: mark * means optional accessories	

AT851 battery aging meter can be widely used to test battery capacity, li-battery, aging of NI-NH battery, charger, switch power supply and aging of linear power supply. Can meet battery factories' requirements of testing various kinds of batteries and national standard battery lifetime testing function. AT851 has an independent electronic load that provides CC,CV,CP and CP working models. It supports the latest USB communication and traditional RS232C interfaces. SCPI makes computer programming easier.

Battery charge-discharge professional evaluation instrument

SPECIFICATIONS	
	AT851 Battery Aging Meter
Rated Input	300W, 120V, 30A
CC	0 ~ 3A, Resolution: 0.0001A; Accuracy: 0.05% 0 ~ 30A, Resolution: 0.001A; Accuracy: 0.1%
CV	0 ~ 18V, Resolution 0.001V; Accuracy: 0.05%, 0 ~ 120V, Resolution 0.01V; Accuracy: 0.05%,
CP	0 ~ 100W, Resolution: 0.001W; Accuracy: 1%, ＞100W, Resolution: 0.01W; Accuracy: 1%
CR	0.1 ~ 99Ω, Resolution: 0.01Ω；Accuracy: 1% 100 ~ 4kΩ, Resolution: 0.1Ω；Accuracy: 1%
Monitoring	Voltmeter accuracy:0.02%; ammeter accuracy: 0.1%; battery charging time: 0 - 1000 hours; battery power check: 0 - 999AH, battery rest time: 0 - 1000 hours; battery cycle times: 1 - 10000 times; speed: 3 times/second, 10 times/times
Short-circuit Test	Current about 30A, the internal resistance of about 40mΩ
Transition	10 files, 0.1Hz ~ 1kHz
List Test	10 documents, 100 steps / file
Test file	10 files, 20 steps / file
Trigger	Internal, BUS trigger, External,
Interface	RS232 and handler interface
Programmable Language	SCPI and simple communication protocol
Protection	Level 5 safety protection
Others	VFD display, 4W remote sensing capability, intelligent cooling
GENERAL FEATURES	
Power Supply	Voltage: 220V AC Frequency: 50Hz Power: 20VA (Max)
Size	216mm (Width)*88mm (Height)*300mm (Depth) 3kg
ORDERING INFORMATION	
Accessory	ATL509 test clip

AT512 is a high precision and wide measuring range resistance meter. High integration & scientific structure design make the case of AT512 not only light and handy, but also strong and quake-proof which makes AT512 suitable for laboratory, measuring room and site operation. AT512 has world-class test performance. Resistance from 0.1micro ohm to 110M ohm can be measured with the highest speed of 150 times per second and the accuracy of 0.01%.

SPECIFICATIONS	
	AT512 Precision Resistance Meter
Parameter	DC resistance
Accuracy	0.01%
Measurement Range	0.1μΩ-110MΩ
Signal Source	Current range: 1μA~1A
Range	Automatic and manual with 11 ranges
Speed	150 times/second, 10 times/second, 2 times/second
Result Display	Show, ABS、 % and sorting result
Display Max	104000
Adjustment	Open & short correction
Comparator	30 groups record, NG-LO, GD-IN, NG-HI display and output, adjustable beep and volume
Trigger	Internal, manual, external and remote
Interface	RS232C, Handler interface (PLC interface)
Test terminal	4 terminal shielding(2 check terminal and 2 driving terminal) and external shielding ground section
Temperature compensation	Accuracy: 0.2 °C Range: 0～80 °C
Others	Four-color vacuum fluorescent screen VFD display Keypad lock and data hold function
GENERAL FEATURES	
Power Supply	Voltage: 198V AC - 240V AC Frequency: 50Hz Power: Max 15VA
Size	External size: 264mm (Width)x107mm (Height)x350mm (Depth) Inside size: 216mm (Width)x88mm (Height)x323mm (Depth) 4kg
ORDERING INFORMATION	
Accessories	ATL501: Kelvin test clip ATL108: RS232 communication cable
Optional	ATL620: meter -resistance 4-terminal test fixture

AT510 series apply to various kinds of resistors, switches contact resistance, connector contact resistance, relay coils and contact resistance, transformers, inductors, motors, deflecting coiling resistance, welding contact conductor resistance, the metal riveting resistance of vehicles, boats, airplanes, printed circuit lines and crack detection and so on.

Rev D

SPECIFICATIONS			
	AT510 PRO	**AT510**	**AT510L**
Parameter	DC Resistance		
Accuracy	0.05%		0.1%
Measurement Range	1μΩ ~ 20MΩ	1μΩ ~ 3MΩ	1μΩ ~ 30kΩ
Measurement current	I-max:<1A Measuring Mode: High Current, Low Current and Pulse Current		I-max:<1A Measure Mode: High Current
Range	10 Automatic or Manual	9 Automatic or Manual	10 Automatic or Manual
Speed	60 times/second , 15 times/second , 2 times/second		15 times/second , 10 times/second , 2 times/second
Display	Show/ΔABS/Δ%/Sorting Results		
Display Max	30,000		
Adjustment	Short-circuit Zero-Adjust for each range. REL function		
Comparator	30 sets of measurement conditions, HI/IN/LOW/GD/NG display and output, adjustable beep and volume		1 group
Trigger	Internal ,Manual ,External or Remote Trigger		Internal ,Manual
Interface	RS-232C, Handler (PLC interface)		RS-232C interface
Test Lead	4 terminal shielding(2 check terminal and 2 driving terminal) and external shielding ground section		
Temperature compensation	Accuracy: 0.2 °C Range: 0 ~ 80 °C		None
Others	Four-color vacuum fluorescent screen VFD display; Keypad locks function. Data Hold function.		
GENERAL FEATURES			
Power supply	Voltage: 198VAC~240VAC Frequency: 50Hz Max Power: 15VA		
Size	Outside (mm) : 264 (width)x107(height)x350 (depth) Inside (mm) : 216(width)x88(height)x323(depth) 4kg		
ORDER ING INFORMATION			
Accessory	ATL501 Kelvin test clip ATL108: RS232 communication cable		
Options	ATL620 meter -resistance four-terminal fixture		

2013 NEW

AT516 is a brand-new design DC resistance meter with high precision and high stability, which adopts high-performance 32dgt ARM micro processor control. 3.5 inches true-color LCD Chinese and English display and it is easy to operate. AT516 can be applied to various kinds of resistors, switches contact resistance, connector contact resistance, relay coils and contact resistance, transformers, inductors, motors, deflecting coiling resistance, welding contact conductor resistance, the metal riveting resistance of vehicles, boats, airplanes, printed circuit lines and crack detection and so on.

Specifications	
	AT516 Resistance Meter
Parameters	DC resistance
Accuracy	0.05%
Measurement Range	1μΩ ~ 20MΩ
Measurement current	<1A max
Range	10 Automatic or Manual
Speed	80 times/second , 15 times/second , 2 times/second
Display	Show/ΔABS/Δ%/Sorting Results
Display Max	30,000
Adjustment	Short-circuit Zero-Adjust for each range. REL function
Comparator	13 build-in comparators, HI/IN/LOW/GD/NG display and output, adjustable beep and volume
Trigger	Internal ,Manual ,External or Remote Trigger
Interface	RS-232C, Handler (PLC interface)
Test Lead	4 terminal shielding(2 check terminal and 2 driving terminal) and external shielding ground section
Temperature compensation	Accuracy: 0.2 °C Range: 0 ~ 80 °C
Others	true-color TFT display data hold function Chinese and English menu
GENERAL FEATURES	
Power supply	Voltage: 198VAC~240VAC Frequency: 50Hz Max Power: 15VA
Size	Outside (mm) : 264 (width)x107(height)x350 (depth) Inside (mm) : 216(width)x88(height)x323(depth) 4kg
ORDER ING INFORMATION	
Accessory	ATL501 Kelvin test clip ATL108: RS232 communication cable
Options	ATL620 meter-resistance four-terminal fixture

AT2511A/AT511A is a resistance meter with high-cost performance and small volume, which can measure 10μΩ - 30kΩ, max reading 3000 dgt.

AT511 series adopt low current measurement, compatible with HIOKI 3540, is quite suitable for resistance measurement under low power conditions or factory inspection and product sorting based on its sorting function.

2013 NEW

SPECIFICATIONS		
	AT2511(AT511A)	**AT2511M**
Parameter	DC resistance	
Accuracy	0.3%	
Measurement Range	10μΩ～30kΩ	100μΩ～30kΩ
Signal Source	I - Max: < 100mA (micro current test, compatible HIOKI 3540)	
Range	Automatic and manual with 7 ranges	Automatic and manual with 6 ranges
Speed	3 times/second	
Result Display	show	
Max Reading	3000	
Adjustment	Short-circuit Zero-Adjust for each range	
Comparator	LOW, IN, HIGH display	None
Beep	GD, NG, OFF setting	None
Test Lead	4 terminal shielding(2 check terminal and 2 driving terminal) and external shielding ground section	
Others	LED display	
Applications	Small diameter coil (headset coil); resistance of sensor; Resistance test of protective device; ordinary transformer, inductor, motor, deflection coil winding resistance; all kinds of contact resistance; welding point contact resistance; mental defect detection	
GENERAL FEATURES		
Power Supply	Voltage: 198V AC - 240V AC Frequency: 50Hz Power: Max 15VA	
Size	225mm (Width)x83.5mm (Height)x199mm (Depth) 2kg	
ORDERING INFORMATION		
Accessory	ATL503: Kelvin test clip	

AT518 handheld DC milliohm meter adopts high-performance 32-bit ARM processor. It's a meter with high accuracy and wide measurement range. A long time, accurate and convenient measurements of passive components can be achieved on all occasions, with wide Measurement Range from 10μΩ to 20MΩ and maximum reading 20000. It can guarantee 0.05% accuracy even under the condition that the testing speed is under 15/s. its unique current testing mode can meet different testing requirements. AT518 is also equipped with Mini-USB interface to apply to remote control, data acquisition and analysis. AT518 series apply to various kinds of resistors, switches contact resistance, connector contact resistance, relay coils and contact resistance, transformers, inductors, motors, deflecting coiling resistance, welding contact conductor resistance, the metal riveting resistance of vehicles, boats, airplanes, printed circuit lines and crack detection and so on.

SPECIFICATIONS		
	AT518 Handheld DC Low Resistance Meter	**AT518L Handheld DC Low Resistance Meter**
Accuracy	0.05%	0.1%
Measurement Range	10μΩ～20MΩ	10μΩ～200KΩ
Signal Source	I-Max: <1A Current Mode: high current, low current	I-Max: <1A Current Mode: High Current
Range	Auto, manual, nominal with 10 ranges	Auto, manual, nominal with 7 ranges
Speed	30 t/s , 15t/s , 3t/s	3 t/s
Result Display	ABS, PER, SEQ compare way	
Max-Reading	20000 dgt	
Adjustment	Short-circuit Zero-Adjust for each range	
Comparator	Build-in sorting record, GD/NG sorting result display	
Trigger	Internal, Manual, Remote	Manual and Internal
Test Lead	4 terminal shielding(2 check terminal and 2 driving terminal) and external shielding ground section	
Temperature Compensation	Accuracy: 0.2 °C Measurement Range: 0～80°C	None
Interface	Build-in Mini-USB Interface (VCP)	
Others	3.5 inches true-color 16M TFT-LCD display; Keypad lock; Data hold function; Compatible SCPI Order Set; Switch in both Chinese and English; Adjustable Background light; Auto power-off	
GENERAL FEATURES		
Power Supply (ATL909)	Input: 100-240V～50/60Hz 0.35A Output: 9V 1A DC	
Battery Parameters	8.4V , Li , 2200mAh rechargeable battery	
Working Time	≥8 hours	
Size	Outside (mm) : 130.23 (Width)x210.76(Height)x37.88 (Depth) 650g	
ORDERING INFORMATION		
Accessories	ATL501B: four-terminal Kelvin Test clip ATL909: DC power adaptor ATL202: Carrying Case ATL804: Li- battery • ATL105: Mini-USB communicable cable • ATS518 data acquisition software (• means available accessories for AT518L)	

AT5110, AT5120 are brand new design wide range and multi-channel resistance meter with high accuracy, which can scan and test multi-channel of resistance and can set a comparator for each channel. AT5110 and AT5120 adopt high performance ARM micro processor control. The true-color 3.5 inches LCD can display multi channels of resistance simultaneously. Resistance range 1μΩ～30KΩ and max display result 30,000 digits. Its temperature compensation function can adapt different testing requirements. It can be applied to automation equipment. RS232C and Handler interface output 10 channels so as to improve the testing ability of production automation.

Specifications		
	AT5110 Multi-channel Resistance Meter	**AT5120 Multi-channel Resistance Meter**
Parameters	DC resistance	
Channel	10 channels	20 channels
Accuracy	0.05%	
Max Reading	30,000	
Measurement Range	1μΩ～30KΩ	
Signal Source	Max current：<1A	
Range	Automatic and manual	
Speed	Fast and low can be adjustable	
Correction	Short circuit zero correction within full range	
Trigger	Internal and remote	
Interface	RS-232C interface （SCPI instruction set, Handler (PLC) interface）	
Temperature compensation	Accuracy: 0.2℃, temperature range: 0-80℃	
Test Lead	Four-terminal shield for each channel（including 2 detection element and 2 driving element）and other	
Other	True-color TFT-LCD display; can set resistance bound Temperature compensation；Keyboard lock	
General Features		
Power supply	voltage：198VAC～250VAC frequency：50Hz power：max 15VA	
Size and weight	Outer size（mm）: 264 (width)x107(height)x350 (depth) Inner size：216(width)x88(height)x323(depth) Weight: 4kg	
Ordering Information		
Accessories	ATL503 Kalvin clip 10 pcs,	ATL503 Kalvin clip 20 pcs,

Under the condition of without using of an external voltage source. AT682/AT683x has high-cost performance and provides the shortest response time which completely surpasses simulation meter.

New revision AT6830 provides additional 500mA precharging interface. Precharging source is available for sorting machine. New AT6833 up to 1000V

Rev 11

SPECIFICATIONS			
	AT682/AT682SE	**AT683**	**AT6830/6833**
Parameters	Leakage current and insulation resistance		Insulation resistance
Output Voltage	AT682, AT683: (NC)1V～1000VDC AT682SE：10V，25V，50V，75V，100V，125V，250V，500V，750V，1000V AT6830: 50V，100V，250V，400V，500V AT6833: 50V，100V，250V，400V，500V, 1000V		
Accuracy	<10G: 3% ≥10G: 5% ≥100G: 10%		
Measurement Range	10kΩ~1TΩ (10^4~10^{12}Ω) 10V: 10kΩ~10GΩ 100V：100kΩ~100GΩ 1000V：1MΩ~1000GΩ	100kΩ~10TΩ 10V: 100kΩ~100GΩ 100V：1MΩ~1TΩ 1000V：10MΩ~10TΩ	50kΩ~500GΩ (10^4~10^{11}Ω) 50V: 50kΩ~50GΩ 500V：500kΩ~500GΩ AT6833:1000V：1MΩ~1000GΩ
Display Max	9999		
Range	Automatic and Manual		
Speed	55 times/second，15 times/second，3 times/second		
Adjustment	Open-circuit Zero-Adjust for each range		
Result Display	Show, current, resistance, peak value, sorting results		Show
Charging Timer	999.9s		None
Comparator	30 sets record，GD/NG Beep：GD、NG、OFF setting.		1 set record, HI/LO NG beep
Interface	RS-232C interface Handler interface (AT682SE optional interface)		
Others	VFD 4 color high-definition screen, keypad-lock , data hold		Precharging: 500mA
GENERAL FEATURES			
Power Supply	AT682/AT682SE AT683:Voltage:198VAC～240VAC Frequency:50Hz Power: Max 30VA AT6830:Voltage:198VAC～240VAC Frequency:50Hz Power:200VA (AT6830)		
Size	AT682/AT682SE AT683:(mm)264(Width)x107(Height)x350(Depth) 5kg AT6830:(mm) 445 (Width)x129 (Height)x351 (Depth) 8kg		
ORDERING INFORMATION			
Accessories	ATL507: Test Clip ATL108：RS232 communication cable		

Under the condition of without using of an external voltage source, AT680 has high-cost performance Build-in 1V- 650V arbitrary voltage output. 7 ranges can test leakage current 1nA~20mA, max reading 9999, and speed can reach 55 times/second. It provides the best solution for automatic production.

New revision AT6832 provides additional 1.5A precharging interface. Precharging source is available for sorting machine.

SPECIFICATIONS

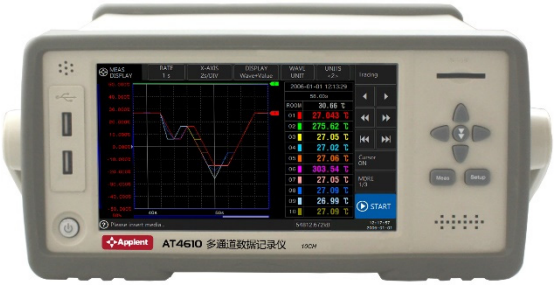
	AT680	AT680SE	AT6832
Parameters	Leakage current and insulation resistance	Leakage current	
Accuracy	1%	2%	1%
Output Voltage	NC 1V ~ 650VDC		10V ~ 170VDC
Measurement Range	I: 1nA~20mA R:1kΩ~325GΩ	I:10nA~20mA	I: 0.1uA~20mA unaged current: 160 mA
Max Reading	9999	1999	9999
Range	Automatic and Manual	Manual	Automatic and Manual
Charging Current	200mA (MAX)		500Ma(MAX)/1.5A (MAX)
Speed	55t/s 15t/s 3t/s	3t/s	20t/s
Result Display	Show, current, resistance, peak value, and sorting result	Show	
Charging Timer	999.9s		
Comparator	30 sets record，GD/NG	1 set record，GD/NG	
Beep	GD、NG、OFF setting and volume setting		None
Interface	RS-232C and Handler	None	RS-232C and Handler
GENERAL FEATURES			
Power Supply	Voltage：198VAC ~ 240VAC Frequency：50Hz Power：Max 50VA		Voltage：198VAC ~ 240VAC Frequency：50Hz Power：200VA
Size	AT680 AT680SE(mm): 264 (Width)x107(Height)x350 (Depth) 5kg AT6832(mm):445 (Width)x129 (Height)x351 (Depth) 8kg		
ORDERING INFORMATION			
Accessories	ATL507: Test clip ATL603: Test fixture ATL108: RS232 interface cable	ATL507: Test clip ATL603: Test fixture	ATL507: Test clip ATL108: RS232 interface cable

AT45 series multi-channel temperature meter adopt high-performance ARM micro processor, can collect multi-channel temperature data simultaneously and response quickly. AT45 series have the function of checking broken thermocouple, high/low beep function and communication transmission. 128 channels' temperature data can be extended, compatible with various temperature sensors. Support RS-232 communication, realize data acquisition, analysis and print through the standard computer software. Has USB disk storage and store real-time sampling data. The users can adjust data for each channel independently.

SPECIFICATIONS			
	AT4508/AT4808	**AT4516**	**AT4532**
Graduation	Thermocouple：J/K/T/E/S/N/B		
Accuracy	0.2%+1℃		
Measurement Range	-200°C~1300°C (Varying depend on graduation)		
Resolution	0.1℃		
Channels	8 channels ; 128 channels are available	16 channels ; 128 channels are available	32 channels ; 128 channels are available
Speed	Fast：100ms/channel Medium：500ms/channel Low：1s/channel		
Correction	Error correct for each channel		
Comparator	High/low beep Individual setting high/low value for each channel		
Interface	RS232C interface U-disc interface		
Software	ATS45 data acquisition function		
CJC	Accuracy：0.5℃		
Others	TFT-LCD true-color LCD display，broken thermocouple check function		
GENERAL FEATURES			
Power Supply	Voltage：85VAC～260VAC Frequency：50Hz/60Hz Power：10VA		
Battery Parameters	(**AT4808**) 8.4V，Li， 2200mAh rechargeable battery. Working Time: ≥8 hours		
Size	216mm(Width)x88mm(Height)x300mm(Depth) 3kg		
ORDERING INFORMATION			
Accessories	AT4508/AT4808: T thermocouple 8 pcs(2m/pc) AT4516: T thermocouple 16 pcs(2m/pc) AT4532: T thermocouple 32 pcs(2m/pc)		

2013 升级版，促销

SPECIFICATIONS			
	AT4310	AT4320	AT4340
Graduation	Thermal Resistance PT100/Cu50, Thermocouple: J/K/T/E/S/N/B		
Accuracy	Thermal Resistance 0.1%±0.1℃，Thermocouple: 0.5%±0.5℃		
Range	-200°C~1300°C（Varying depend on graduation ）		
Resolution	0.1°C		
Channels	Internal Resistance: 5 ; Thermocouple : 10 channels (AT4310) Thermal Resistance: 10;Thermocouple : 20 channels (AT4320) Thermal Resistance: 20;Thermocouple : 40channels (AT 4340) Any scanning channel can be closed		
Speed	Fast: 100ms/channel Medium: 500ms/channel Low: 1s/channel		
Correction	Error correction for each channel		
Comparator	High & low beep		
Interface	RS232C interface U-disc interface		
Software	ATS4320 Data acquisition software (Rev 2)		
CJC	Accuracy: 0.5℃		
Others	Broken thermocouple check function		
GENERAL FEATURES			
Power Supply	AT410:Voltage: 198VAC～240VAC Frequency: 50Hz Power: Max 10VA (AT410) AT43X:Voltage: 85VAC～260VAC Frequency: 50Hz Power: 10VA		
Size	AT410(mm):160(Width)x80(Height)x167(Depth) Weight: 1kg AT43X(mm):216(Width)x88(Height)x300(Depth) Weight: 3kg		
ORDER INFORMATION			
Accessories	AT4310:T thermocouple 10 pcs; ATN4 terminal box AT4320:T thermocouple 20 pcs; AT4340:T thermocouple 40 pcs		



2012 NEW!

AT4600 series data recorder adopt high-performance ARM micro processor, can independently and blend collect the data of multi-channel temperature, voltage and resistance simultaneously. High/low beep function and communication transmission. Can be extended to 40 channels temperature data. Be compatible with various temperature sensors. With 1ms quick respond and stable data. Have the function of checking broken thermocouple, support RS-232 communication, realize data acquisition, analysis and print through the standard computer software. Have network communication and USB disk storage and store real-time sampling data. The users can adjust data for each channel independently.

SPECIFICATIONS			
	AT4610	**AT4620**	**AT4640**
Parameters	Thermocouple：J/K/T/E/S/N/B Thermal resistance: PT100 DCV Resistance	Thermocouple J/K/T/E/S/N/B Thermal resistance: PT100 DCV Resistance	Thermocouple J/K/T/E/S/N/B
Accuracy	0.1% (@1s Sample Rate)		
Measurement Range	-270°C~2000°C（Varying depend on graduation） Voltage：0.0005mV~120V Resistance：0.001Ω~220.00Ω		
Speed	10ms/10-channel		
Correction	Error correct for each channel		
Comparator	High/low beep Individual setting high/low value for each channel		
Interface	RS232C interface 4-USB-disc interface		
Options	USB communication interface LAN communication interface		
Software	ATS46 data acquisition Software		
Protection	Max 300 VAC		
CJC	Accuracy：0.1℃		
Others	7 inches TFT-LCD with touch screen, true-color LCD display，broken thermocouple check function		
GENERAL FEATURES			
Power Supply	Voltage：85VAC～260VAC Frequency：50Hz/60Hz Power：30VA		
Size	290mm(Width)x130mm(Height)x360mm(Depth) 5kg		
ORDERING INFORMATION			
Accessories	T thermocouple 10 pcs(2m/pc)	T thermocouple 20 pcs(2m/pc)	T thermocouple 40 pc(2m/pc)

AT420x handheld multi-channel temperature meter adopts high-performance ARM micro processor, can collect multi-channel temperature data simultaneously and response quickly. AT4208 has the function of broken thermocouple checking, high/low beep function and communication transmission. Ultra-low power consumption and high density SMD assembly technology. True-color TFT liquid crystal display, keypad and touch screen double control. It is Li-battery powered. USB communication. Switch in both English and Chinese.

The standard computer software can realize the data analysis.

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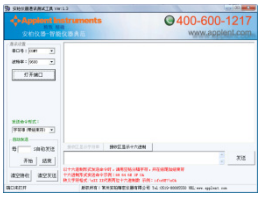
SPECIFICATIONS			
	AT4202	**AT4204**	**AT4208**
Graduation	Thermocouple：J/K/T/E/S/N/B		
Accuracy	0.2%+1℃		
Range	-200°C~1300°C (variation depend on graduation)		
Resolution	0.1°C		
Channel	2 channels	4 channels	8 channels
Speed	Fast：100ms/channel Medium：500ms/channel Low：1s/channel		
Correction	Error correction for each channel		
Comparator	High & low beep function		
Interface	Mini-USB interface		
Option	USB-DISK Interface Micro-SD Card Interface		
Software	ATS42 data acquisition software		
Cold Junction Compensation	Accuracy：0.5℃		
Others	2.8 inches True-color 16M TFT-LCD LCD display, touch screen, USB communication, compatible SCPI instruction set, switch in both English and Chinese ; adjustable back light; automatic power off		
GENERAL FEATURES			
Power Supply	Input：100-240V~50/60Hz 0.35A Output：9V 1A DC		
Battery Parameters	8.4V, Li, 1400mA rechargeable battery		
Charging time	Single continuous charging time: Max 200Mins		
Working Time	Brightness 30%≥14 hours, Brightness 50%≥12 hours, Brightness 100%≥9 hours		
Size	Outside (mm)：90 (Width)x190(Height)x31 (Depth) 400g		
ORDERING INFORMATION			
Accessories	T thermocouple 2/4/8 pcs(2m/pc) ATL909: DC power adaptor ATL805: Lithium battery ATL105Mini-USB communication cable ATS42 data acquisition software		

AT8511/8512 DC Electronic load makes multiple processors work together to provide superior speed and performance. It offers four load modes (CC, CV, CP, CR) and can edit files for some comprehensive test.AT8511/8512 has strong processors system, no matter multi-model or multi-document handling or PC communication. Dynamic testing function, listing testing function and integrated testing function make it have wide testing application. Equipped with instrument internal documents editing or computer operation software, it is easier to edit files. Except testing usual linear and switch power supply, AT8511/8512 can test battery chargers and batteries better and can meet diversification requirements of power supply factories.

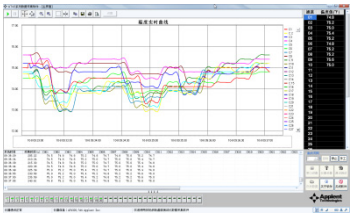
SPECIFICATIONS		
	AT8511 DC Electronic Load	**AT8512 DC Electronic Load**
Input Rating	150W、120V、30A	300W、120V、30A
CC	0~3A, Resolution: 0.0001A, Accuracy: 0.05% 0~30A, Resolution:0.001A, Accuracy: 0.1%	
CV	0~18V, Resolution: 0.001V, Accuracy: 0.05% 0~120V, Resolution: 0.01V, Accuracy: 0.05%	
CP	0~100W, Resolution: 0.001W, Accuracy: 1% ＞100W, Resolution: 0.01W, Accuracy: 1%	
CR	0.1~99Ω, Resolution: 0.01Ω, Accuracy: 1% 100~4kΩ, Resolution: 0.1Ω, Accuracy: 1%	
Accuracy	V: 0.05% , I: 0.1%	
Short Circuit	Current ≈30A, Resistance ≈40mΩ	
Transition	10 files, Frequency: 0.1Hz~1kHz	
List Test	10 files,100 steps/file	
Test File	10 files, 20 steps/file	
Battery Test	Capacity: 999AH max	
Interface	RS232C	
Optional	RS485	
Software	ATS8512 data acquisition software (Rev 2)	
Protect	Five level Security protect	
Others	VFD Display , 4W Remote sensing capability , Intelligent cooling	
GENERAL FEATURES		
Power supply	Voltage: 220V AC Frequency: 50Hz Max Power: 20VA	
Size	264(width)x107(height)x350(depth)mm Weight: 4kg	
ORDER INFORMATION		
Accessory	ATL509 Test Cable	

Applent RS232 Test Tool V3.0



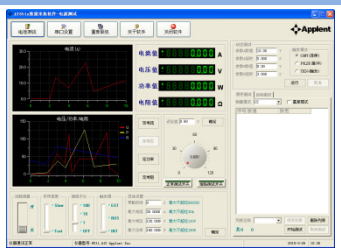
- Apply to serial interface communication instruments and all Applent supported series
- Send order forms setting
- Timing automatic sending function
- Support hexadecimal display

ATS43X/ATS45X Data Acquisition Software V2.0



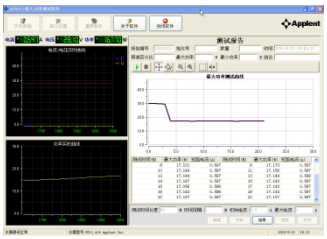
- Data acquisition and chart display function
- Time format and temperature unit setting
- Configurable trigger sampling period
- ACCESS database saving
- Export to EXCEL file and chart printing
- Apply to AT43/45/48 series temperature meter

ATS8511/ATS8512 Data Acquisition Software



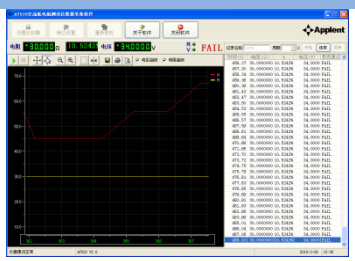
- Data acquisition and chart display function
- V/C/P/R parameter display simultaneously
- Control the instruments completely
- Transition testing and list testing function
- Export to EXCEL file and chart printing
- Apply to AT85 series electronic load meters

ATS85 Maximum Power Test Software



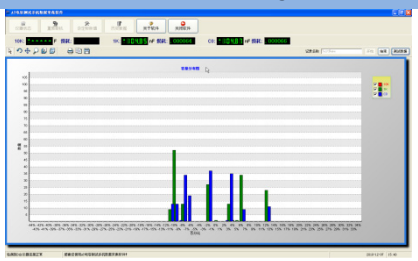
- Real-time data acquisition and chart display function
- Automatic tracking the battery max power
- Standard test report printing
- Support history report inquiry
- Export to EXCEL file and chart printing
- Apply to AT85 series electronic load meters

ATS510/ATS520 Data Acquisition Software

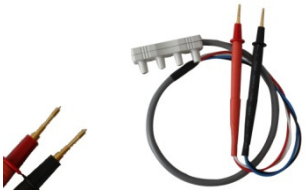
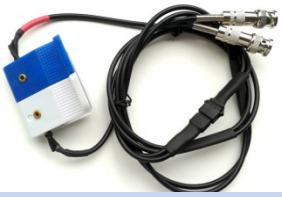


- Data acquisition and chart display function
- Independent sorting setting
- Support multiple data pattern
- Export to EXCEL file and chart printing
- Apply to AT510/AT520 resistance meters

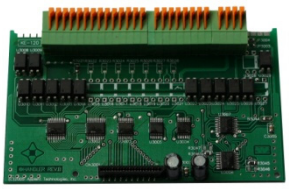
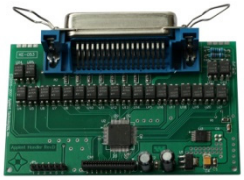
ATS817 Capacitor Sorting Software



- Data acquisition and bar chart showing
- Capacitance and loss simultaneously display
- Show capacitor sorting allocation plan vividly
- Support three instruments communication simultaneously
- Export to EXCEL file and chart printing
- Apply to AT610/AT817A/AT817

ATL501 Kelvin Test Clip	ATL501A Four-terminal Kelvin Test Box	ATL501B Four-terminal Kelvin Test Clip
ATL501C Four-terminal Kelvin Test Clip	ATL502 Kelvin Clip	ATL503 Kelvin Clip
		
ATL505 Kelvin Clip	ATL506A Test Probe	ATL506B Four-terminal Test Probe
ATL507 Three-terminal Test Clip	ATL508 Patch Test Clip	ATL508A Patch Test Clip
ATL508B Tweezers Test Fixture	ATL509 Two-terminal Test Clip	ATL601 Test Fixture
		
ATL608 Patch Test Fixture	ATL501D meter-resistance test clip	ATL505B test clip

ATL603 Test Fixture	ATL620 M-Resistance Four-terminal Fixture	ATL609 Test Fixture
ATL600 Short Slice (Gold or Silver	ATL600A Short Slice (Gold or Silver Plating)	AT4508 8 Channels Thermocouple Test Line
AT4808 8 Channels Thermocouple Test	ATN4508 8 Channels Thermometer	ATN4A Thermocouple Junction Box
ATN4 Thermal Resistance/Thermocouple	ATN2 USB Pin Board	ATL103 USB Communication Cable
ATL104 8 Channels Thermometer Mode Communication	ATL105Mini-USB Communication Cable	ATL106 Mini-USB-232 Communication Cable
ATL108 RS232 Communication	L909 DC Power Adapter	ATL908 Multi-purpose Outlet

		
ATL804 Lithium Battery	**ATL805 Lithium Battery**	**ATN510 Handler Interface**
		
ATN610 Handler Interface	**ATL202 Carrying Case**	**ATL201 Hand Bag**

Applent Instruments

www.applent.com

Applent Instruments Inc.

Address: Lanlin Dangnan Industrial Park, Changzhou, JS, China.

TEL : (+86) 0519-88805550 , 89966117 89966227 89966337

FAX : (+86)0519-89966550

Email: sales@applent.com

http://www.applent.com