

HIOKI

BATTERY HiTESTER BT3561A, BT3562A, BT3563A

NEW Preview

Renewal of HIOKI's world-leading battery tester



Designing automatic battery testing systems is easier and faster than ever before

- Double the total line resistance, so measurement errors are less likely to occur when using long measurement cables
- Stable operation regardless of increased total line resistance due to probe and relay degradation
- LAN is equipped as a standard for easy system design and layout, and excellent noise resistance for stable operation

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Lineup

Application		Acceptance inspection of general-purpose, small cells installed in a high-speed sorters	Fully automated production line testing of small cells for power motors or small packs of up to 60 V	Fully automated production line testing of large cells for xEVs or mid-size packsup of to 100 V	Fully automated production line testing of large packs for xEVs or large packs up of to 300 V
Model		3561, 3561-01	BT3561A	BT3562A	BT3563A
Appearance					
Measurement method		AC four-terminal method	AC four-terminal method	AC four-terminal method	AC four-terminal method
Measurement frequency		1 kHz ± 0.2 Hz	1 kHz ± 0.2 Hz	1 kHz ± 0.2 Hz	1 kHz ± 0.2 Hz
Measurement parameters	Resistance measurement ranges	3 m Ω	N/A	N/A	3.1000 m Ω , 0.1 $\mu\Omega$, 100 mA
		30 m Ω	N/A	31.000 m Ω , 1 $\mu\Omega$, 100 mA	31.000 m Ω , 1 $\mu\Omega$, 100 mA
		300 m Ω	310.00 m Ω , 10 $\mu\Omega$, 10 mA	310.00 m Ω , 10 $\mu\Omega$, 10 mA	310.00 m Ω , 10 $\mu\Omega$, 10 mA
		3 Ω	3.1000 Ω , 100 $\mu\Omega$, 1 mA	3.1000 Ω , 100 $\mu\Omega$, 1 mA	3.1000 Ω , 100 $\mu\Omega$, 1 mA
		30 Ω	N/A	31.000 Ω , 1 m Ω , 100 μA	31.000 Ω , 1 m Ω , 100 μA
		300 Ω	N/A	310.00 Ω , 10 m Ω , 10 μA	310.00 Ω , 10 m Ω , 10 μA
	Max. display, resolution, measurement current	3 k Ω	N/A	3.1000 k Ω , 100 m Ω , 10 μA	3.1000 k Ω , 100 m Ω , 10 μA
		Basic accuracy	3 m Ω range 30 m Ω range or more	N/A $\pm 0.5\%$ rdg. ± 5 dgt.	$\pm 0.5\%$ rdg. ± 10 dgt. $\pm 0.5\%$ rdg. ± 5 dgt.
	Voltage measurement ranges	6 V	N/A	6.00000 V, 10 μV	6.00000 V, 10 μV
		20 V	19.9999 V, 100 μV	N/A	N/A
		60 V	N/A	60.0000 V, 100 μV	60.0000 V, 100 μV
		100 V	N/A	N/A	N/A
		300 V	N/A	N/A	300.000 V, 1 mV
	Max. display, resolution	1000 V	N/A	N/A	N/A
	Basic accuracy		$\pm 0.01\%$ rdg. ± 3 dgt. ^{*1}	$\pm 0.01\%$ rdg. ± 3 dgt.	$\pm 0.01\%$ rdg. ± 3 dgt.
Response time ^{*2}			3 ms	10 ms	10 ms
Sampling period ^{*3}	Ω or V	4 ms, 12 ms, 35 ms, 150 ms	4 ms, 12 ms, 35 ms, 150 ms	4 ms, 12 ms, 35 ms, 150 ms	4 ms, 12 ms, 35 ms, 150 ms
	EX.FAST, FAST, MEDIUM, SLOW	7 ms, 23 ms, 69 ms, 252 ms	8 ms, 24 ms, 70 ms, 253 ms	8 ms, 24 ms, 70 ms, 253 ms	8 ms, 24 ms, 70 ms, 253 ms
Allowable total line resistance ^{*2,4} (within accuracy) Ranges: 3 m Ω , 30 m Ω , 300 m Ω , 3 Ω	SENSE line	N/A, N/A, 20 Ω , 20 Ω	N/A, 4 Ω , 30 Ω , 30 Ω	4 Ω , 4 Ω , 30 Ω , 30 Ω	4 Ω , 4 Ω , 30 Ω , 30 Ω
	SOURCE line	N/A, N/A, 20 Ω , 20 Ω	N/A, 4 Ω , 20 Ω , 40 Ω	4 Ω , 4 Ω , 20 Ω , 40 Ω	4 Ω , 4 Ω , 20 Ω , 40 Ω
Allowable total line resistance ^{*2,4} (error detection) Ranges: 3 m Ω , 30 m Ω , 300 m Ω , 3 Ω	SENSE line	N/A, N/A, 20 Ω , 20 Ω	N/A, 6 Ω , 30 Ω , 30 Ω	6 Ω , 6 Ω , 30 Ω , 30 Ω	6 Ω , 6 Ω , 30 Ω , 30 Ω
	SOURCE line	N/A, N/A, 20 Ω , 20 Ω	N/A, 6 Ω , 20 Ω , 200 Ω	6 Ω , 6 Ω , 20 Ω , 200 Ω	6 Ω , 6 Ω , 20 Ω , 200 Ω
Open terminal voltage Ranges: 30 m Ω or less, 300 m Ω , 3 Ω or more		N/A, 7 V, 7 V peak	25 V, 7 V, 4 V peak	25 V, 7 V, 4 V peak	25 V, 7 V, 4 V peak
Interface	LAN (TCP/IP, 10BASE-T/100BASE-TX)	N/A	✓	✓	✓
	RS-232C ^{*5} (Max. 38.4 kbps)	✓ (9.6 kbps fixed)	✓	✓	✓
	USB	N/A	N/A	N/A	N/A
	GP-IB	✓ (3561-01 Only)	N/A	N/A	N/A
	EXT. I/O (37-pin Handler interface)	✓	✓	✓	✓
	Analog output (DC 0 V to 3.1 V)	N/A	✓	✓	✓
Function	Contact check	✓	✓	✓	✓
	Zero adjustment (± 1000 counts)	✓	✓	✓	✓
	Pulse measurement	✓	✓	✓	✓
	Comparator	Hi/ IN/ Lo	Hi/ IN/ Lo	Hi/ IN/ Lo	Hi/ IN/ Lo
	Statistical calculations	Max. 30,000	Max. 30,000	Max. 30,000	Max. 30,000
	Delay	✓	✓	✓	✓
	Average	2 to 16 times	2 to 16 times	2 to 16 times	2 to 16 times
	Panel saving/loading	126	126	126	126
	Memory storage	400	400	400	400
	LabVIEW [®] driver ^{*6}	N/A	✓	✓	✓
Applicable standards		Safety: EN61010 EMC: EN61326 Class A	Safety: EN61010 EMC: EN61326 Class A	Safety: EN61010 EMC: EN61326 Class A	Safety: EN61010 EMC: EN61326 Class A
Effect of radiated radio-frequency electromagnetic field (10 V/m) ^{*7}		Resistant	Resistant	Resistant	Resistant
Effect of conducted radio-frequency electromagnetic field	10 V	N/A	Resistant	Resistant	Resistant
	0.15 MHz to 80 MHz, 80% AM	Resistant	Resistant	Resistant	Resistant
CE		✓	✓	✓	✓
CSA ^{*8}		N/A	Certification in progress	Certification in progress	Certification in progress

*1: rdg. stands for *reading*, dgt. stands for *digits* *2: Typical value *3: When the power supply frequency is 60 Hz

*4: Total line resistance = wiring resistance + contact resistance + DUT resistance *5: Available as printer I/F

*6: LabVIEW[®] Driver is a registered trademark of National Instruments Corporation *7: Test conditions were 80 MHz to 1 GHz at 10 V/m and 1 GHz to 6 GHz at 3 V/m, all at 80% AM

*8: Canadian Standards Association