ADCMT®

Measuring Instruments

Selection Guide 2011/2012

http://www.adcmt-e.com

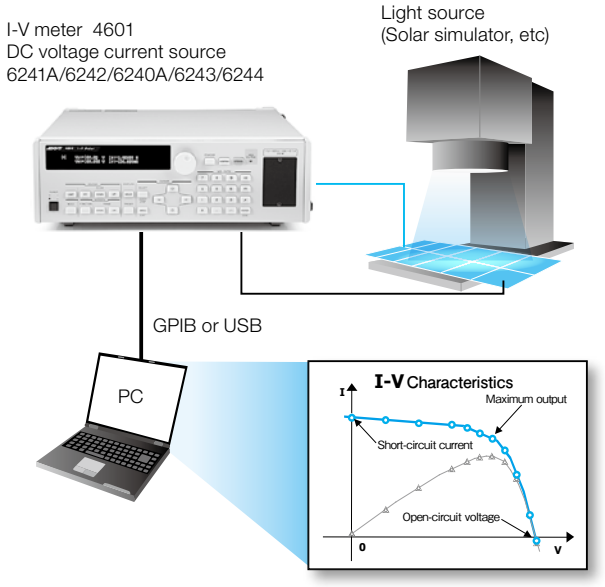
ADC CORPORATION

For Evaluations of Solar Cells and Secondary Cells

In terms of CO_2 reduction, the development of solar cells and rechargeable batteries as alternative energy to fossil fuel is very important. To improve their performance, prototypes need to be precisely evaluated.
ADC has a wide range of DC voltage current sources that can be used for from evaluation of solar cells to screening in production lines. In addition, systems that automatically load measurement data are available.

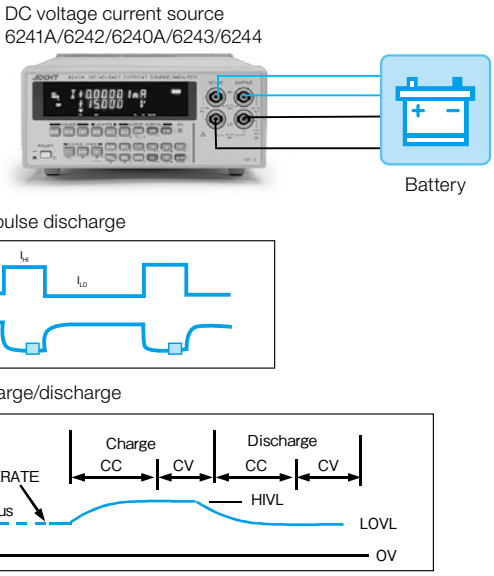
Solar Cell Characteristic Evaluation

Out measuring instruments are suitable for solar cell characteristic evaluation such as maximum power, short-circuit current and open-circuit voltage.
Not only the high-speed I-V meter 4601 but also various models are available depending on the power capacity.



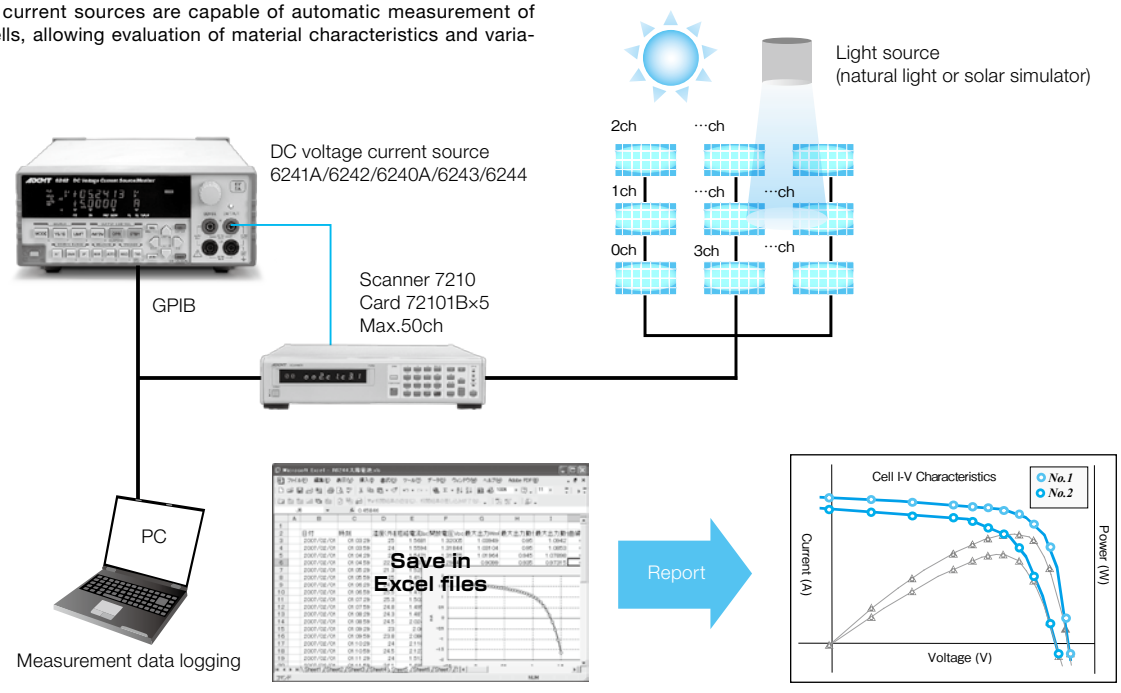
Mobile Phone Battery Evaluation

A single DC voltage current source is capable of charge/discharge test by bipolar output. In current sink operation, battery capacity evaluation is available. As for pulse discharge, the minimum pulse width of 50ms and the setting resolution of 1ms can be set, allowing the evaluation of mobile phone batteries (6241A/6242).



Multi-channel Solar Cell Characteristic Evaluation

The DC voltage current sources are capable of automatic measurement of multiple solar cells, allowing evaluation of material characteristics and variation with time.



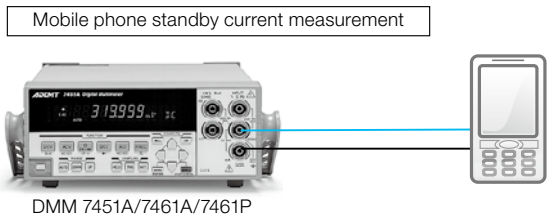
For Tests and Evaluations of Energy Control Circuits and Electronic Components

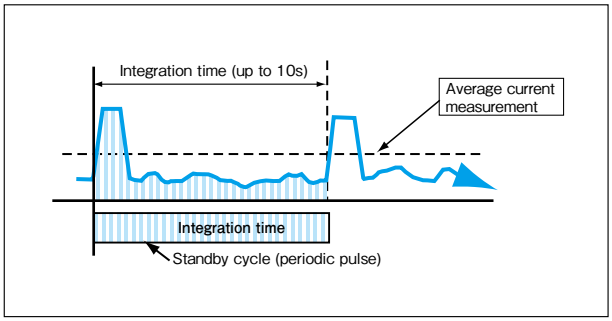
Electronic components and circuits used in CO_2 reduction equipment must be controlled precisely. The digital multimeters play key roles in it. The 7451A/7461A/7461P measures the average current of a pulse signal using the variable integration time function and the 7352A/7352E measures the input and output of a network by 2-channel synchronous measurement.

Precise Measurement of Pulse Signal Average

–Variable Integration Time–

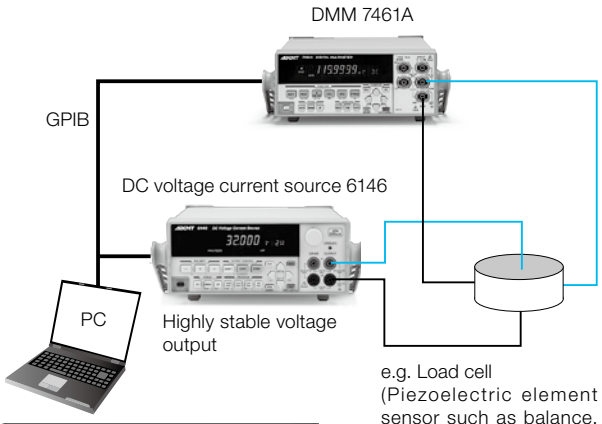
The 7451A/7461A/7461P can set the integration time for measurement arbitrarily.
By adjusting the integration time to the pulse signal cycle, it measures precisely average values of pulsed waveforms such as standby current of a mobile phone.

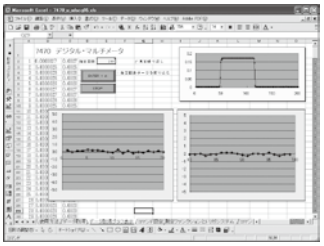




Highly Stable Measurement of Sensor Output

The high-accuracy digital multimeter 7461A with 6½-digit display resolution is suitable for inspections or quality control of various precision sensors. When a highly stable power supply is required such as for load cells, the DC voltage current source 6146 is applicable.



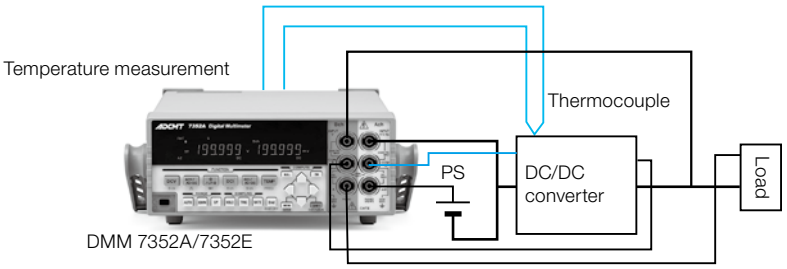


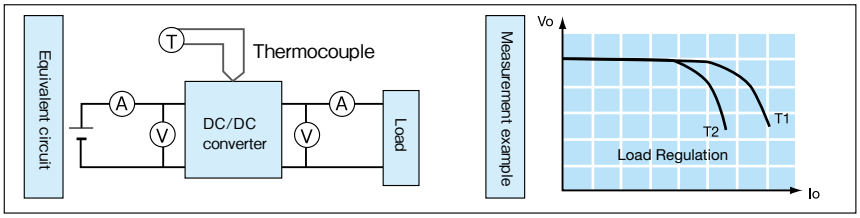
Dispersion in load cell measurement with weight or without weight

DC/DC Converter Evaluation

Five types of measurements: input voltage/current on Ach, output voltage/current on Bch and temperature on rear TEMP are available using the 7352A/7352E.

The input and output characteristics, load regulation, conversion efficiency, and rise in temperature of a DC/DC converter can be evaluated by a single unit.



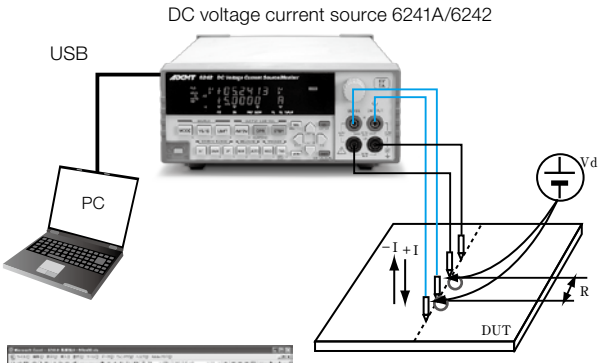


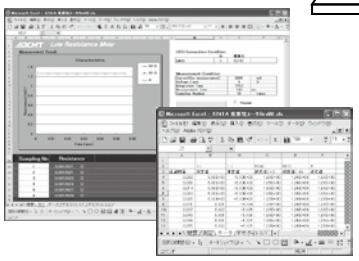
For Test and Evaluations of Electronic Materials Used in Energy Saving Equipment

CO_2 reduction materials have various characteristics. Fully measuring these characteristic leads to stable development of products. To conduct insulation test or static electricity test of various materials including sheet, liquid, block and power, ADC offers high-performance digital electrometers and sample boxes that fit various samples.

Conductive Plastic and Connector Low Resistance Measurement

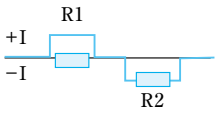
The 6241A/6242 can measure the contact resistance of conductive plastics or connectors easily with a resolution of open-circuit voltage 10μV as shown below.
As the thermal electromotive force (Vd) generated on the contact section that may cause a error in low-resistance measurement can be cancelled by switching the polarity of measurement current, high-precision results are obtained.





Low resistance meter (sample program)

The average of two measurements is the measurement result.
R= (R1+R2)/2

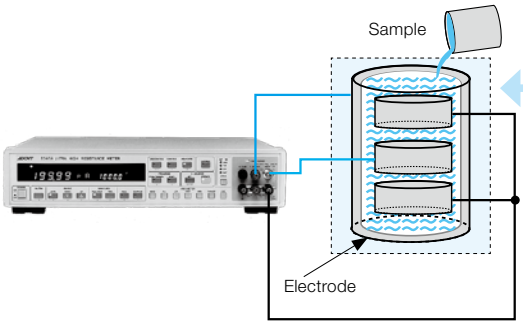


Measurement timing

Liquid Sample Volume Resistivity Measurement

The volume resistivity of liquid can be measured by using the digital electrometer and the resistivity chamber for liquid sample 12707.
This accessory requires only 0.8cc of sample for measurement.

■Liquid volume resistivity measurement



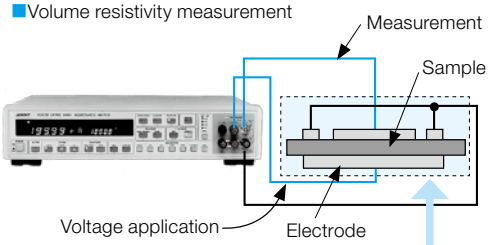
<Applicable Electrometer>
Digital ultra high resistance
/micro current meter 8340A
(8240A needs an external power supply.)

12707
For liquid sample

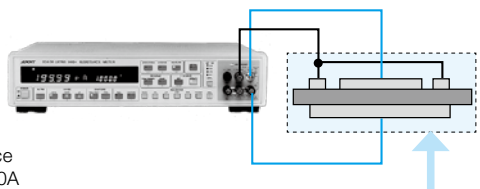
Insulation Material Volume/Surface Resistivity Measurement

According to JIS K6911"Testing Methods for Thermosetting Plastics," the digital electrometer can measure the volume or surface resistivity of sheet insulation materials in combination with the resistivity chamber 42, 12704A or 12702A/B.

■Volume resistivity measurement



■Surface resistivity measurement



Digital ultra high resistance
/micro current meter 8340A
(8240A needs an external power supply.)

42
For sheet sample

12702A/B
For sheet sample
Pressure applicable to the sample

12704A
For sheet sample
Conductive rubber used

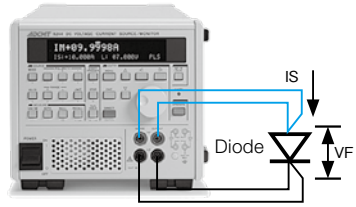
For Tests and Evaluations of LEDs or Other Diodes and Semiconductor Devices

There are various types of semiconductor devices. Particularly, LED lights receive much attention as CO_2 reduction devices because of their power saving and long life characteristics.
Our DC voltage current sources are developed from years of semiconductor test experiences, and have functions and performance to evaluate their characteristics precisely and easily. In addition, free automatic measurement software can be downloaded from our website.

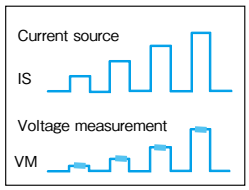
Diode Temperature Dependence Evaluation

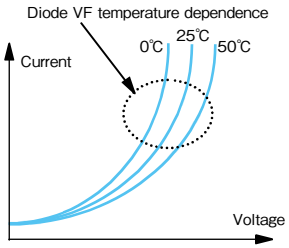
The I-V characteristics of power diodes are difficult to measure correctly because of self-heating effect.
To avoid this, the DC voltage current sources measure the characteristics applying pulse current.
By using the current pulse sweep function and voltage measurement in synchronous with pulses, precise VF characteristic test with large current is available.

■Current pulse sweep is effective.
(ISVM mode)



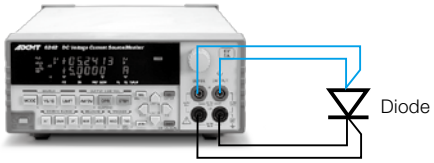
Applicable DC voltage current source
6243/6244/6241A/6242/6240A



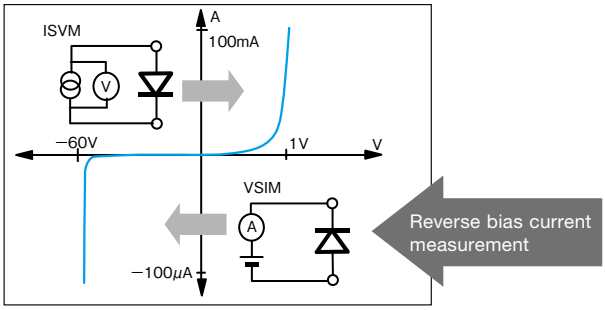


Diode Leak Current Measurement

The DC voltage current sources are capable of ISVM (current source voltage measurement) and VSIM (voltage source current measurement).
Diode I-V characteristics are measured by ISVM. In addition, micro leak current (up to 10fA: depending on the model) can be measured by applying reverse voltage to diodes by VSIM.

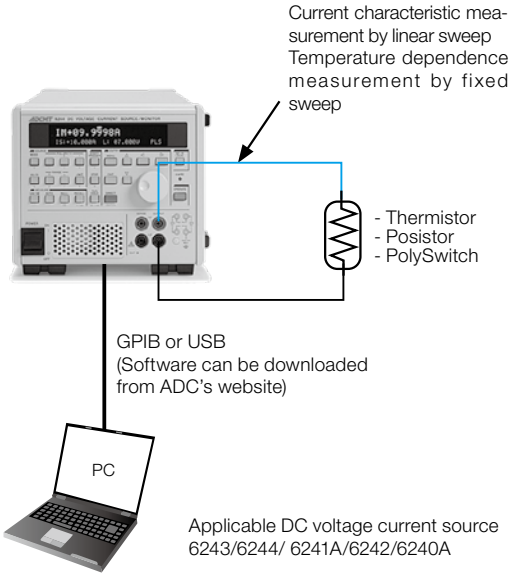


Applicable DC voltage current source
6243/6244/6241A/6242/6240A



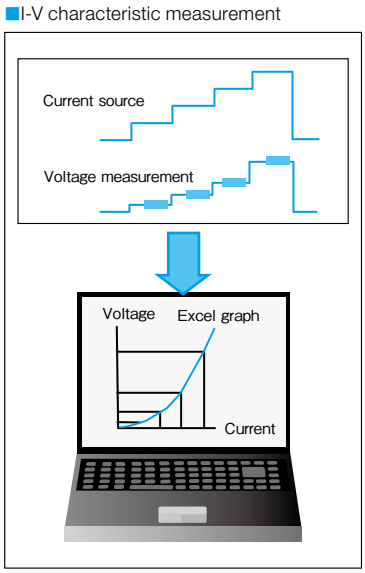
Temperature Dependence Device I-V Measurement

Some devices such as thermistor, posistor and PolySwitch generate heat by receiving current. The DC voltage current sources can measure not only the IV characteristic of these devices but also their temperature dependence by generating constant current and measuring the device resistance change with time.
The measured data is graphed on Excel by using the software downloaded from ADC's website.

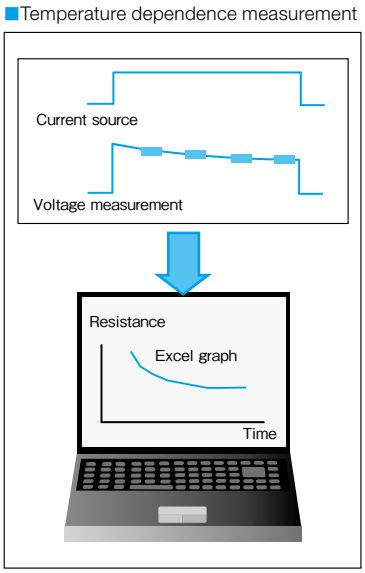


Applicable DC voltage current source
6243/6244/ 6241A/6242/6240A

■I-V characteristic measurement



■Temperature dependence measurement



Digital Multimeters

7351A/7351E/7351E+03

5½-digit

5½-digit DMM that realizes general-purpose applications, low price and high throughput

- Realizes 5½-digit DMM with a price of 4½-digit
- Highest throughput in the class
  FAST: 140 readings/sec. (Max. display of 19999)
  MED: 40 readings/sec. (Max. display of 199999)
- High measurement accuracy of 110ppm (2VDC range)
- Wide range of current measurement
  Three ranges: 200mA, 2000mA, 10A

7451A/7461A

5½-digit/6½-digit CE

High-performance and low-cost DMM with new functions

- Two models available by use
  5½-digit display (7451A)
  6½-digit display (7461A)
- Fast sampling : 5,000 times/sec. (7451A)
  20,000 times/sec. (7461A)
- Variable integration time:
  100µs (7451A)/10µs (7461A) to 10s
- Two-channel input for DC voltage measurement

7461P

New

6½-digit CE

Thermal DMM capable of temperature measurement with a resolution of 0.001°C

- Measurement of DC voltage/current, AC voltage/current, resistance and temperature using a Pt sensor
- Fast sampling: 20,000 times/sec.
- Data memory: up to 20,000 data
- Digital output capable of remote control of external devices for system use
- Variable integration time: 10µs to 10s

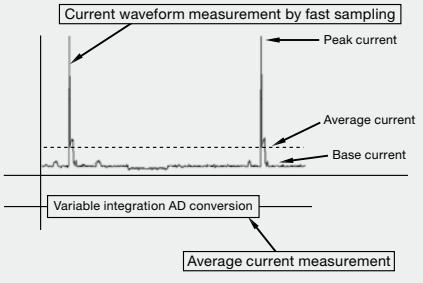
	7351E+03	7351E	7351A	7451A	7461A	7461P
Maximum display	199999			319999	1199999	
Sampling rate (readings/sec.)	140max			5,000max	20,000max	
Variable integration	–			✓	✓	
DC voltage	1µV to 1000V			1µV to 1000V	100nV to 1000V	
Accuracy (typical value)	0.011 %/year			0.01 %/year	0.0035 %/year	
DC current	1µA to 10A			10nA to 3A	1nA to 3A	
Resistance	1mΩ to 200MΩ			100µΩ to 300MΩ	100µΩ to 100MΩ	
Four-wire resistance	–			✓	✓	
AC voltage (True RMS)	1µV to 700V			1µV to 700V	100nV to 700V	
AC voltage frequency range	20Hz to 100kHz			20Hz to 300kHz	20Hz to 300kHz	
AC current (True RMS)	1µA to 10A			10nA to 3A	1nA to 3A	
Calculation functions	✓			✓	✓	
Rear input	–			✓	✓	
Temperature	–			–	–	Pt100(−200℃ to +850℃)/JP t100
Interface	USB, RS232	USB	USB, GPIB	USB, GPIB	USB, GPIB	
Comparator output	✓	–	✓	✓	✓	✓*
External trigger input	✓	–	✓	✓	✓	
Maximum memory	–			10,000	10,000	20,000
Dimensions (W)x(H)x(D)mm	212×88×340					
Weight (kg)	3.4 or less					

*The output form is selectable from comparator output and digital output.

Application — Stand-by current measurement for a mobile phone

With the stand-by current of mobile phones, the peak current flows at a certain interval while standing by, and the constant current flows at other times.
The 7461A/7461P and the7451A are capable of current waveform measurement including the peak current measurement with the fast measurement at the maximum rate of 20,000 and 5,000 samplings per second, respectively. These models are also capable of accurate average current measurement, by using variable integration time of up to 10 seconds.

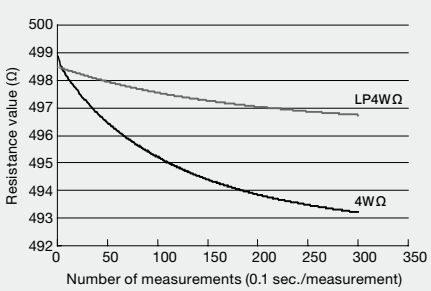
Current waveform measurement and average current measurement



Application — Resistance measurement of thermistor by low-power resistance measurement

The 7461A/7461P and the 7451A are equipped with the low-power resistance measurement function as a standard. This enables measurement with reduced effect from self-heating, even with thermistor and other thermosensitive elements.
When a thermistor is measured with the LP4WΩ function that utilizes the measurement function, the current for measurement would be 100µA, which is 1/10 the normal value 4WΩ. Therefore, measurement would be possible with small change in resistance.

Thermistor resistance measurement



7352A/7352E

5½-digit TWIN

5½-digit DMM with built-in twin AD converter that enables two-channel synchronous measurement

- Completely independent two-input, twin-AD converter that creates the new measurement environment
- Double the conventional throughput with synchronous Ach and Bch measurement
- 5½-digit dynamic range for both Ach and Bch
- Wider current measurement range, capable of voltage-temperature parallel measurement
  Ach: 10pA-2A Bch: 100μA-10A

	7352A/7352E	
	Ach	Bch
Maximum display	199999	199999
Sampling rate (times/sec.)	140max	140max
DC voltage	1μV to 1000V	1μV to 200V
Accuracy (typical value)	0.011%/year	
DC current	10pA to 2A	100μA to 10A
Resistance	1mΩ to 200MΩ	—
AC voltage (True RMS)	1μV to 700V	—
AC voltage Frequency range	20Hz to 100kHz	—
AC current (True RMS)	1nA to 2A	100μA to 10A
Calculation functions	✓	✓
Rear input temperature	K(CA) : −50℃ to 1370℃ T(CC) : −50℃ to 400℃	
Interface	7352A : USB,GPIB,RS232C 7352E : USB	
External trigger input	7352A : ✓ 7352E : —	
Dimensions (W)x(H)x(D)mm	212×88×340	
Weight (kg)	3.7 or less	

Digital Electrometers

8240

For evaluation and testing of semiconductor and electronic components
Low-cost type with GPIB interface

- Wide current measurement range:
  10fA to 20mA
- High input impedance of voltage measurement:
  10^{13}Ω or more
- High-speed voltage measurement with driving guard

8340A

High-speed and highly accurate measurement for 10^{-14}A, 3 x 10^{16}Ω
Maximum voltage source of +1000V

- Current measurement: 10fA to 19.999mA
- Resistance measurement: 10Ω to 3 x 10^{16}Ω
- High-speed charge and discharge are possible
- High-speed measurement: 100 readings/sec.
- Voltage source: 0 to +1000.0V
- Floating measurement is possible for 1100VDC

		8240	8340A
Number of digits		4½-digit	
Measurement function	Voltage	✓	N/A
	Current	✓	✓
	Resistance	N/A	✓
	Electrical Charge	N/A	N/A
Voltage/Current measurement resolution		10μV/10fA	—/10fA
Resistance measurement	Measurement range	—	10Ω to 3×10^{16}Ω
Voltage source	Range/maximum current	—	+2.5mV to +1000V/±10mA
Interface	GPIB/single-wire signal	✓	✓
	Handler	N/A	✓
	D/A output/ analog output	N/A / ✓	✓ / N/A

DC Voltage / Current Sources / Monitors

6240A

Cost-effective source/monitor, capable of 5½-digit measurement and 4A pulse generation

- Source measurement range
  Voltage: 0 to ±15V; current: up to ±4A (1A with DC)
- Measurement at 5½-digit and resolution of 10μV/10nA
- Source/sink possible at ±4A at intervals of up to 20ms
- Pulse measurement with the minimum pulse width of 500μs

6241A/6242

High performance source/monitor capable of pulse generation and measurement with the minimum pulse width of 50μs

- Wide range of generation and measurement functions
  Voltage: 0 to ±32V; current: 0 to ±500mA (6241A)
  Voltage: 0 to ±6V; current: 0 to ±5A (6242)
- High source/measurement resolution
  Source: 10μV/1nA Measurement: 1μV/100pA
- Two-slope linear sweep function
- GPIB/USB interfaces as a standard

		6240A	6241A	6242
Number of digits for generation		4½-digit		
Output method		Bipolar		
Maximum output (high) Minimum resolution (low)	Voltage	±15V/1A	±32V/0.5A	±6V/5A
		100μV	10μV	10μV
	Current	±4A/10V(DC: ±1A/15V)	±0.5A/32V	±5A/6V
		100nA	1nA	1nA
Number of digits for measurement		5½-digit		
Basic accuracy (typical range)		0.025%	0.02%	
Minimum measurement resolution	Voltage	10μV	1μV	1μV
	Current	10nA	100pA	100pA
Maximum measurement range of resistance/ minimum resolution		7.5MΩ/2μΩ	1.6GΩ/2μΩ	304MΩ/0.2μΩ
Pulse application/ measurement		✓		
Minimum pulse width		500μs	50μs	
Interface		GPIB	USB/GPIB	

DC Voltage / Current Sources / Calibrators

6146

4½-digit DC voltage/current source for calibration of electronic circuits and devices

- Wide dynamic range
  Voltage: ±32.000V/Current ±220.00mA
- High resolution of 1μV /100nA steps
- High accuracy with 1 year guarantee
  Voltage: ±0.025%/Current: ±0.03%
- Synchronous operation of multiple units
- 6144-compatible mode

6156

5½-digit DC voltage/current source as calibrator or secondary battery simulator

- Wide dynamic range
  Voltage: ±32.0000V/Current ±220.000mA
- High resolution of 100nV/10nA steps
- High accuracy with 1 year guarantee
  Voltage: ± 0.015%/Current ± 0.02%
- Synchronous operation of multiple units
- Thermal electromotive force output function

6166

High-accuracy and highly stable 6½-digit working standard with bipolar output

- Wide dynamic range and high resolution
  Voltage: ±10nV to ±1200V
  Current: ±1nA to ±120mA
- High accuracy: ±35ppm (1-year guarantee)
- High stability: ±5ppm/24hrs
- Thermal electromotive force output function

		6146	6156	6166
Number of digits for generation		4½-digit	5½-digit	6½-digit
Maximum output (high) Minimum resolution (low)	Voltage	±32V/220mA	±32V/220mA	±1200V/12mA
		1μV	100nV	10nV
	Current	±220mA/32V	±220mA/32V	±120mA/120V*
		100nA	10nA	1nA
Accuracy (typical range)	Voltage	0.025%	0.015%	0.0035%
	Current	0.03%	0.02%	0.0055%
Thermal electromotive force output		—	−200℃ to 1820℃, resolution of 0.1℃	−220℃ to 1820℃, resolution of 0.1℃
Settling time		10ms	10ms	1s or less
Output noise (typical range)		3mVp-p	3mVp-p	3mVp-p
Interface		GPIB/USB/BCD-parallel (option)	GPIB/USB/BCD-parallel (option)	GPIB/USB/BCD-parallel (option)

* OPT20 enables the maximum compliance voltage in the 1mA and 10mA range to be changed from ±120V to ±1200V

6243/6244

Source/monitor optimum for evaluating electronic circuits (components), with flexible generation and measurement

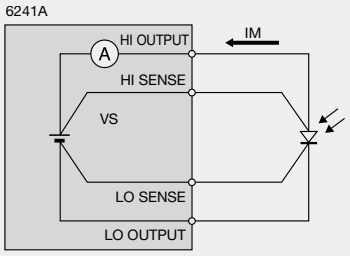
- Wide range of generation and measurement
  Voltage: 0 to ±110V; current: 0 to ±2A (6243)
  Voltage: 0 to ±20V; current: 0 to ±10A (6244)
- Measurement at 5½-digit and resolution of 1µV/100pA (6243) and 1µV/1nA (6244)
- Pulse measurement with the minimum pulse width of 1ms

		6243	6244
Number of digits for generation		4½-digit	
Output method		Bipolar	
Maximum output (high) Minimum resolution (low)	Voltage	±110V/0.5A	±20V/4A
		10µV	10µV
	Current	±2A/32V	±10A/7V
		1nA	10nA
Number of digits for measurement		5½-digit	
Basic accuracy (typical range)		0.03%	
Minimum measurement resolution	Voltage	1µV	1µV
	Current	100pA	1nA
Pulse application/ measurement		✓	
Minimum pulse width		1ms	
External interface		GPIB	

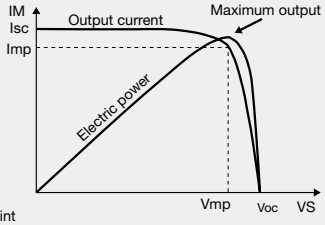
Application Evaluation of solar cells

The conversion efficiency of solar cells is affected by duration of bias application. Therefore, measurement by pulse application would be effective for obtaining the true conversion efficiency. Using the pulse sweep function of the 6241A/6242, the I-V curve can be measured at high speed. Furthermore by varying the pulse width, the changes in characteristics caused by the duration of application can be measured easily. Also, the two-slope linear sweep that enables the step width to be switched during measurement enables measurement in small steps from the vicinity of Vmp to Voc

Connection diagram



Light I-V characteristics



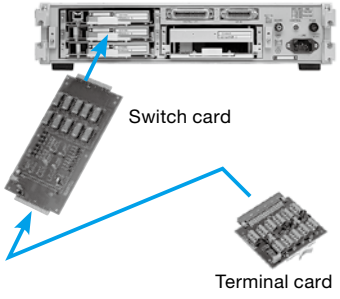
Isc: Short-circuit current
Voc: Open-circuit voltage
Imp: Current at the peak power point
Vmp: Voltage at the peak power point

Scanner

7210

For automatic measurement systems
1µV low-thermal electromotive force
0.1pA minute electric current

- Digital signal input/output functions
- 10^7 times of switching is guaranteed at 1000V/ 5mA
- Increase is possible up to five slots or less



	Card name		Number of channels	Maximum rated values at contacting point		Voltage between terminals	Number of exclusive slots	Applicable terminal card
				Voltage	Current			
Multiplexer card	72101A	General-purpose	10 channels; 3 wires/channel	100V	0.5A	200V	1	72109A/E
	72101B	General-purpose	10 channels; 4 wires/channel	40V	1A	200V		72109A/E
	72101E	High insulation resistance	10 channels; 3 wires/channel	100V	200mA	200V	1	Unified structure with switch card
	72101G	High voltage	10 channels; 2 wires/channel	1kV	5mA	1kV	2	
	72101H	Long-life high-voltage	20 channels; 3 wires/channel	300V	2A	500V		
	72101J	Minute electric current	10 channels; 2 wires/channel	200V	1A	400V	2	
Actuator	72102A	General-purpose	10 channels; 2 wires/channel	100V	0.5A	200V	1	72109A/E
	72102C	Long-life high-voltage		300V	1A	500V	2	Unified structure with switch card
	72102H	Long-life high-voltage	20 channels; 2 wires/channel	300V	2A	500V	2	
Matrix	72103A	General-purpose	4×4 channels; 4 wires/channel	100V	0.5A	200V	1	72109A/E
	72103B	General-purpose		40V	1A	200V		
Transfer	72106A	General-purpose	10 channels; transfer contact point	30V	100mA	100V	1	72109A/E

Optical Power Meters

These are most suitable optical power meters for R&D and production of LDs, optical pickups, and drivers for optical discs.
You may choose from the three types of mainframes and nine sensors, to suit your needs.

8230E

- Low-priced general-purpose sensors and high power sensors are available
- USB interface

8230

- Wide lineup of sensors are available for each application
- Automated system may be configured easily with USB

8250A

- A desk-top type; equipped with GPIB and USB
- Wide lineup of sensors are available for each application

Optical Sensors

Applicability table for the nine product types of sensors, from low-priced general-purpose ones to those compatible with high power and blu-ray, to suit your needs

			Wavelength/ calibrated wavelength (nm)	Photoreception power/ area	8250A	8230	8230E
General-purpose sensor	Thin type	82311	390 to 1100/780	1nW to 50mW/9.5□	✓	✓	✓
	(Option: OPT8230E+11)				—	—	✓
	Cylindrical	82321	390 to 1100/780	1nW to 50mW/8.5φ	✓	✓	✓
High power sensor	Thin type	82313	390 to 1100/650	10nW to 200mW/8.5φ	✓	✓	✓
	Cylindrical	82323	390 to 1100/650	10nW to 200mW/8.5φ	✓	✓	✓
Blue-violet sensor	Thin type	82312	390 to 450/405	10nW to 100mW/10□	✓	✓	N/A
	Cylindrical	82322	390 to 450/405	10nW to 100mW/8.5φ	✓	✓	
Three-wavelength sensor	Thin type	82314A	390 to 900/405	10nW to 100mW/10□	✓	✓	
	Thin-type large-area	82314W	390 to 900/405	10nW to 100mW/18□	✓	✓	
	Cylindrical	82324A	390 to 900/405	10nW to 100mW/8.5φ	✓	✓	

✻In addition to the calibrated wavelength indicated, calibration with additional wavelengths (405, 650, 780nm) is possible as an option.
✻The wavelenght sensitivity of the 82311 and the 82321 is corrected by using the typical values. Correction by measurement is possible with the 82311 as an option. However, this is not possible with the OPT8230E+11.

Optical Wavelength Meter

8471

Optical wavelength measurement with high accuracy of 2ppm and high resolution of 0.001nm and at high speed of 0.1 second

- High-speed sampling: 10 times/sec
- High-sensitivity measurement: -35dBm (1200nm to 1600nm)
- Maximum and minimum values and deviation displays
- Stores up to 10,000 data sets
- Optimal for wavelength adjustment of LDs for DWDM due to high-speed sampling
- Available as a wavelength standard for calibration of spectroscopes or optical spectrum analyzers due to high accuracy
- Capable of automated measurement of LD wavelength-temperature and wavelength-current characteristics

Optical Spectrum Analyzer

8341

For high-speed and high-accuracy wavelength measurement of LDs for optical discs

- Method: Fourier spectroscopy with Michaelson interferometer
- Wavelength range: 350 to 1000nm
  Wavelength accuracy: ±0.05nm (standard), ±0.01nm (option)
  Wavelength resolution: 0.05nm (standard), 0.01nm (option)
  Optical input: FC-type connector, GI fiber, sensitivity: -55dBm
- Coherence analysis length: 10.3mm (standard), 41.4mm (option)
  Resolution: 0.001mm
- Throughput: 2sec. or less (standard), 0.5sec. (option)
- Interface: GPIB, USB, Ethernet
- Dimensions and weight: 424(W) x 132(H) x 500(D) mm, 16kg or less

Solar Cell Test and Evaluation Instruments

4601

I-V Meter for production lines

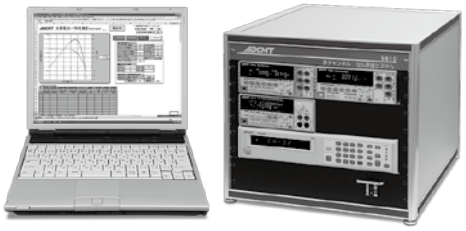
High-speed and high-accuracy measurement of solar cell I-V characteristics in three modes

- High-speed measurement at 100 points in 5ms
- Applicable to various solar cells by 50µs to 6s per point
- Sampling modes for short-pulse, middle-pulse and long-pulse light
- Three-slope linear sweep function to measure finely around Isc, Pmax and Voc

	4601	
Voltage source/ voltage measurement	Voltage source/measurement Voltage source/measurement range Voltage source resolution Voltage measurement resolution	-1V to +300V 300V/50V/5V 10mV/1mV/100µV 1mV/100µV/10µV
Current limit/ current measurement	Current limit/measurement Current limit/measurement range Current measurement resolution	-10.2A to +0.1A 10A/3A/300mA/30mA/3mA/300 µA 100 µA/10 µA/1 µA/100nA/10nA/1A
Maximum load power	300W (sink)	+30V/-10A to +300V/-1A
Reference cell measurement range	Synchronous with I-V measurement	300mA/30mA/3mA
Temperature measurement	Terminal 1, Terminal 2	Thermocouple type T/ Pt100/JPt100/AD590
Maximum measurement point	2,000 points	
Measurement speed	50µs/point to 6s/point (in the sweep source/measurement mode)	
Measurement data memory	4,000 data x 3	

SS9610

Multi-Channel PV Cell Evaluation System



For next-generation solar cell evaluation Optimal for conversion efficiency evaluation and exposure test

- Long-time evaluation of the conversion efficiency and the degradation characteristic necessary for R&D
- I-V characteristic evaluation by 0 V crossing output from the source monitor
- Selectable source monitors depending on the source voltage and measurement current ranges
- Shutter control for light source such as solar simulator (The digital I/O of the scanner or the contact signal output of the 7461P is used.)
- 10 channels standard, expandable to 50 channels Customizable to more than fifty channels by adding the scanner
- Maximum five inputs measurements such as actinometer, thermometer, hygrometer and anemometer by using multimeters

SB9700

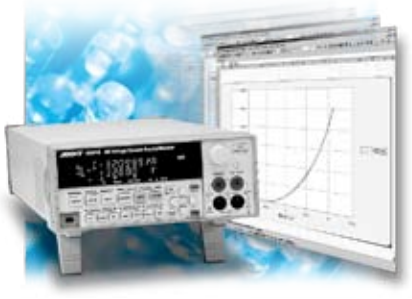
Li-ion battery charge/discharge test system

For charge/discharge test corresponding to JIS-compliant "Secondary lithium cells"

- Capable of charge/discharge test compliant with JIS C8711 "Secondary lithium cells for portable applications"
- Capable of cycle test by CC/CV discharge and CC discharge using a single unit of DC voltage current source
- Overcharge/overdischarge prevented by the limiter function
  Setting the limiter voltage to CV voltage switches CC charge to CV discharge automatically. Setting the limiter voltage to cutoff voltage prevents overdischarge below the cutoff voltage.
- Protected batteries by the suspend function
  Setting the suspend voltage to discharge cutoff voltage prevents unexpected discharge at measurement start, after measurement end or during pause.

6241A/6242 applied

LED/organic EL diode I-V characteristic evaluation system



High-precision I-V characteristic measurement of LEDs/organic EL diodes by pulse sweep function

- I-V characteristic evaluation of LEDs or organic EL diodes is available by installing the free software on a PC and connecting it with the DC voltage current source/monitor via USB or GPIB.
- All settings are available from the PC, and data can be loaded into Excel sheets and displayed as an I-V characteristic graph.
- The diode self-heating characteristic can be evaluated by the pulse sweep function.
- Characteristic changing points can be measured in fine steps.

	6241A	6242
Output current	0 to ±500mA (resolution 1nA)	0 to ±5A (resolution 1nA)
Output voltage	0 to ±32V (resolution 10µV)	0 to ±6V (resolution 10µV)
Voltage measurement	0 to ±32V (resolution 1µV)	0 to ±6V (resolution 1µV)
Current measurement	0 to ±500mA (resolution 100pA)	0 to ±5A (resolution 100pA)

About ADC Corporation

ADC Corporation is a manufacturer specialized in testing and measurement that became an independent firm by management buyout from ADVANTEST in April 2003. We have developed mother technologies to measure electric and physical quantities accurately, by combining our analog measurement technologies developed for over 50 years with digital technologies, and provided general measuring instruments that support many cutting-edge technologies.
Our mission is to pursue the essence of generic measuring instruments by developing innovative measurement technologies using accumulated analog technologies so as to contribute to the development of cutting-edge technologies continuously. In keeping with the mission, we will be growing with our customers by quick decision-making and flexible customer support.

Corporate Profile

Company name	ADC Corporation
House mark	ADCMT
Founded	July 1, 1971
Respresentative Director and President	Isamu Inaba
Capital	90 million yen
Head Office	Tokyo, Japan
Higashimatsuyama Office (R&D Center)	Saitama, Japan

Higashimatsuyama Office (R&D Center)

Head Office

Sales support

Website

Our products are described in more detail on our website. The features, application examples and specifications are shown for each product, and downloading of brochures is also possible.

Software downloading

You can download sample programs for automation, USB driver, LabVIEW driver and sample programs from our website, when using our products as a part of automated systems.

Quality assurance

Measurement results are guaranteed

With highly accurate digital measuring instruments, even a minute discrepancy with the national standards could pose a problem. ADC Corporation has periodically maintained and managed the in-house standard equipment and periodically traced the national standards.

Acquired ISO9001 certificate

ADC Corporation has obtained ISO9001 quality management system certificate. Using the system, we have implemented continuous improvement activities for further enhancement of customer satisfaction.

Warranty and maintenance

Warranty

In order to supply highly reliable products, we prevent mixing of defective products beforehand under stringent inspection system, at the same time designing products with backup of reliability design and technical standards. The products we deliver are guaranteed for a specified period, pursuant to our in-house standards.

Maintenance

We have established a thorough after-sales system so that you can use your measuring instruments securely over a long period even when they failed. Furthermore, we have configured a service network in order to offer prompt services, and have strived to secure maintenance parts and hand down technologies.

ADCMT® **ADC CORPORATION**

E-mail : kcc@adcmt.com URL : http://www.adcmt-e.com

Head Office
Shoei Bldg, 3-6-12, Kyobashi, Chuo-ku,
Tokyo 104-0031, Japan
Phone: +81-3-6272-4433 Fax: +81-3-6272-4437

Higashimatsuyama Office (R&D Center)
77-1, Miyako, Namegawa-machi, Hiki-gun,
Saitama 355-0812, Japan
Phone: +81-493-56-4433 Fax: +81-493-57-1092