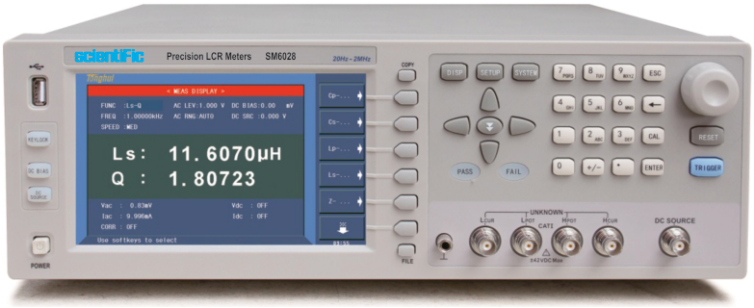
Precision LCR Meters
SM6028



Advance Features

Features

- High accuracy
- High stability
- High speed: Up to 5.6ms
- High resolution:7- inch, 800×600
- High power:
  Signal source :
  Voltage up to 20Vrms (SM6028H)
  Current up to 100mA (SM6028H)
  DC bias :
  Voltage up to ± 40V (SM6028H)
  Current up to 100mA
  Up to 120A with 6 sets of SM6027 DC Bias Current Source
  with external DC Bias interface
- Independent Voltage Source: ±10V programmable output
- 201 Points List Sweep Function
- Multi-parameter Graphic Sweep Function
- Arithmetical operation
- 10 bins sorting, sorting result with sound and light alarm
- Huge storage space:
  Internal: 100 groups of setting files, 10 groups of gif image files
  External: 100 groups of setting files through USB storage
- Interfaces: USB HOST, USB DEVICE, LAN, HANDLER,
  Optional :GPIB, SCANNER , external DC BIAS control interface
- Support SCPI commands

Model		SM6028	SM6028H	SM6028A
Test Signal Source				
Frequency	Range	20Hz to 2MHz		20Hz to 1MHz
	Resolution	0.1mHz : 20.0000Hz to 99.9999Hz		
		1mHz : 100.000Hz to 999.999Hz		
		10mHz : 1.00000kHz to 9.99999kHz		
		0.1Hz : 10.0000kHz to 99.9999kHz		
		1Hz : 100.000kHz to 999.999kHz		
		10Hz : 1.00000MHz to 2.00000MHz		
Output impedance		100Ω ± 1% @ 1kHz		
AC test signal	Rated value (ALC OFF):	Set the voltage as the Hcur voltage when the test terminal is open Set the current as the Hcur current when the test terminal is short		
	Constant value (ALC ON:)	Keep the voltage in DUT the same as the set value Keep the current in DUT the same as the set value		
AC Signal	Voltage range	5mVrms to 2Vrms	F≤ 1MHz 5mVrms to 20Vrms F > 1MHz 5mVrms to 15Vrms	5mVrms to 2Vrms
	Resolution	100µVrms : 5mVrms to 0.2Vrms		
		200µVrms : 0.2Vrms to 0.5Vrms		
		500µVrms : 0.5Vrms to 1Vrms		
		1mVrms : 1Vrms to 2Vrms		
		2mVrms : 2Vrms to 5Vrms		
		5mVrms : 5Vrms to 10Vrms		
		10mVrms : 10Vrms to 20Vrms		

Model		SM6028	SM6028H	SM6028A
AC Signal	Current Range	50μArms to 20mArms	50μArms to 100mArms	50μArms to 20mArms
	Resolution	1μArms : 50μArms to 2mArms		
		2μArms : 2mArms to 5mArms		
		5μArms : 5mArms to 10mArms		
		10μArms : 10mArms to 20mArms		
		20μArms : 20mArms to 50mArms		
		50μArms : 50mArms to 100mArms		
Rdc test	Voltage range	100mV to 2V		
	Resolution	100μV		
	Current range	0mA to 20mA		
	Resolution	1μA		
DC Bias	Voltage range	0V to ± 10V	0V to ± 40V	0V to ± 10V
	Resolution	100μV : 0V to 5V		
		1mV : 5V to 10V		
		2mV : 10V to 20V		
		5mV : 20V to 40V		
	Current range	0mA to ± 100mA		
	Resolution	1μA : 0A to 50mA		
		10μA : 50mA to 100mA		
Voltage source	Voltage range	-	-10V to 10V	-
	Resolution	-	1mV	-
	Current range	-	-45mA to + 45mA	-
	Output Impedance	-	100Ω	-
Test Parameter		Cp-D, Cp-Q, Cp-G, Cp-Rp, Cs-D, Cs-Q, Cs-Rs Lp-D, Lp-Q, Lp-G, Lp-Rp, Lp-Rdc, Ls-D, Ls-Q, Ls-Rs, Ls-Rdc, Rdc R-X, Z-θd, Z-θr, G-B, Y-θd, Y-θr, Vdc-Idc		
Mathematics function		A (X+B)+C, X : test parameter, A,B,C : input parameters		
Equivalent circuit		Series, parallel		
Deviation measurement		Absolute deviation Δ compared with the nominal value Percentage deviation Δ% compared with nominal value		
Calibration function		OPEN, SHORT, LOAD		
Range selection		AUTO, HOLD		
Range	LCR	100mΩ, 1Ω, 10Ω, 20Ω, 50Ω, 100Ω, 200Ω, 500Ω, 1kΩ, 2kΩ, 5kΩ, 10kΩ, 20kΩ, 50kΩ, 100kΩ, total 15 ranges		
	Rdc	1Ω, 10Ω, 20Ω, 50Ω, 100Ω, 200Ω, 500Ω, 1kΩ, 2kΩ, 5kΩ, 10kΩ, 20kΩ, 50kΩ, 100kΩ, total 15 ranges		
Trigger mode		INT, MAN, EXT., BUS		
Trigger delay		0s to 999 s, resolution 100μs		
Test terminal configuration		Four-pair		
Test cable length		0m, 1m		
Test average		1 to 255 times		

Test time (ms)	Speed	20Hz	100Hz	1kHz	10kHz	100kHz	1MHz	2MHz
	Fast	330	100	20	7.7	5.7	5.6	5.6
	Med	380	180	110	92	89	88	88
	Long	480	300	240	230	220	220	220

Model	SM6028	SM6028H	SM6028A
Test display range a = 1 x 10^{-18}; E = 1 x 10^{18}			
Cs, Cp	± 1.000000 aF to 999.9999 EF		
Ls, Lp	± 1.000000 aH to 999.9999 EH		
D	± 0.000001 to 9.999999		
Q	± 0.01 to 99999.99		
R, Rs, Rp, X, Z, Rdc	± 1.000000 aΩ to 999.9999 EΩ		
G, B, Y	± 1.000000 aS to 999.9999 ES		
Vdc	± 1.000000 aV to 999.9999 EV		
Idc	± 1.000000 aA to 999.9999 EA		
θ r	± 1.000000 a rad to 3.141593 rad		
θ d	± 0.0001 deg to 180.0000 deg		
Δ %	± 0.0001% to 999.9999%		
t	-99.99°C to 1000.00°C		
Basic Test Accuracy	0.05%		
List Sweep			
Sweep points	Up to 201 points		
Sweep parameter	Test frequency, AC Voltage, AC current, DC BIAS voltage, DC BIAS current		
Trigger Mode	SEQ, STEP		
List sweep comparator	Set one pair of lower limit and upper limit for each sweep point.		
List sweep time tag	In SEQ mode, set the trigger point to 0, by defining the time, the test start time can be recorded at each measurement point.		
Graph sweep analysis			
Sweep points	51, 101, 201, 401 or 801		-
Sweep trace	Primary or secondary parameters		-
Display range	Auto, Hold		-
Coordinate scale	Logarithm, linearity		-
Sweep parameter	Test frequency, ACV, ACI, DCV BIAS / DCI BIAS, DC voltage source		-
Sweep result display	Maximum value / minimum value of primary / secondary parameter, primary / secondary value of the setting point		-
Sweep graph storage	Sweep graphs can be saved to the interior FLASH, external USB storage or PC.		-
Comparator			
Bin sorting	9 BIN, OUT_OF_BINS, AUX_BIN, LOW_C_REJECT		
	HIGH, IN, LOW		
Bin limit setup	Absolute value, deviation value, percentage deviation value		
Bin count	0 to 999999		
PASS / FAIL Indication	When the primary parameter is one of the 9 BINs and the secondary parameter is IN, the PASS light on the front panel is ON or FAIL light is ON.		
Test auxiliary function			
Data buffer storage function	201 test result can be read in batches		
Storage/Calling function	100 groups of test setting files in the internal nonvolatile memory 0 to 99 100 groups of test setting files in the USB storage 0 to 99		
Keyboard lockout function	Front panel keys can be locked		

Model		SM6028	SM6028H	SM6028A
General Specifications				
Display		7 inch 800 x 600		
Operating Conditions		0°C - 50°C, ≤ 90% RH		
Supply		230V ± 10 %, 50Hz AC		
Dimensions (W X H X D)		400 x 132 x 425 mm		
Weight		15kg		
Interface		USB, RS232C, HANDLER, LAN, USB Host, GPIB (optional), DCI (optional)		
Safety Standards		CE		
Accessories	Standard	4 Terminal Pair Kelvin Test Clip Leads (SMA26011BS), 4 Terminal Component Test Fixture (SMA26005C), Glided Shorting Plate (SMA26010)		
	Optional	Terminal Pair Patch Test Fixture (SMA26108C), SMD Test Fixture (SMA26008A), Magnetic Ring Test Fixture (SMA26007A), SMD Component Test Tweezers (SMA26009B), Small Pitch Test Fixture (SMA26047), GPIB Control Cable (SMA26033)		

Subject to Change

Standard Accessories


4 Terminal Pair Kelvin Test Clip Leads
SMA26011BS


4 Terminal Component Test Fixture
SMA26005C


Glided Shorting Plate
SMA26010

Optional Accessories


Terminal Pair Patch Test Fixture
SMA26108C


SMD Test Fixture
SMA26008A


Magnetic Ring Test Fixture
SMA26007A


SMD Component Test Tweezers
SMA26009B


Small Pitch Test Fixture
SMA26047


GPIB Control Cable
SMA26033

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