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SCPI COMMAND REFERENCE

TH2838 Series

Complete SCPI command reference for the TH2838 series precision LCR meter — 18 command subsystems and the IEEE-488.2 common command set, with syntax, parameters and examples. Companion to the TH2838 Series Operation Manual.

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SECTION 1

Interfaces & Syntax Conventions

TH2838 accepts SCPI (Standard Commands for Programmable Instruments) commands over four physical interfaces. Select the active interface under [SYSTEM] → SYSTEM SETUP → BUS MODE.

Interface	Notes
RS232C	Standard; baud rate 9,600–115,200 bps, set under SYSTEM SETUP.
USB	USBTMC (USBTMC-USB488, USB 2.0) or USBCDC virtual COM port.
LAN	Standard, 10/100BaseT Ethernet.
GPIB (IEEE-488)	Optional interface board; set the bus address under SYSTEM SETUP → GPIB ADDR.

1.1 Data formats

Notation	Meaning
NR1	Integer, e.g. `123`
NR2	Fixed-point number, e.g. `12.3`
NR3	Floating-point number, e.g. `12.3E+5`
NL	Carriage return, decimal 10
^END	IEEE-488 EOI (end-of-message) signal

1.2 Syntax conventions

Symbol	Meaning
UPPERcase	Commands mix upper/lower case; the upper-case letters are the shortest valid abbreviation (e.g. `DISPlay` may be sent as `DISP`). Numeric-boolean commands also accept 1/0 for ON/OFF.
[ ]	Optional node or parameter — the instrument applies a default if omitted.
{ }	Encloses a set of parameter choices.
|	Separates alternative parameter values.
< >	Required value placeholder — not sent literally.
<n>	An indexed/numbered instance (e.g. a sweep-point, spot or bin number).

A query is formed by appending “?” to the command node, e.g. `FREQuency?`. Most set commands accept `MIN`/`MAX` in place of a value to jump to that parameter's minimum/maximum.

SECTION 2

Result Data Format

On <MEAS DISPLAY>, <BIN NO.> and <BIN COUNT> pages, FETCh? and RS232 auto-return results use:

```
SN.NNNNNESNN,SN.NNNNNESNN,SN,SN[N]<NL^END> <DATA A> <DATA B> <Status> <BIN No.>
```

<DATA A>/<DATA B> (primary/secondary result) use a 12-character signed-exponential ASCII form (S:±, N:0–9, E:exponent sign).

Status	Meaning
-1	No data in the buffer
0	Normal measurement data
+1	Analog LCR unbalanced
+2	A/D converter not ready
+3	Signal source overloading
+4	Constant level cannot be achieved

<BIN No.> (2–3-digit ASCII, only when COMP is ON): 0 = out of tolerance, 1–9 = BIN1–BIN9, 10 = auxiliary bin.

On <LIST SWEEP>, the fourth field is the per-point compare judgement instead:

Judge	Meaning
-1	Below the low limit
0	Pass (within limits)
+1	Above the high limit

(0 is also returned when the list-sweep comparator is OFF.)

SECTION 3

DISPlay Subsystem

Sets the active display page, the custom measurement-item label, and the result font.

Command	Parameters	Description
`DISPlay:PAGE <page>`	MEASurement, BNUMber, BCOunt, LIST, MSETup, CSETup, LTABle, LSETup, TSSEtup, TSMEas, SYSTem, FLISt	Sets the active display page. Query `DISPlay:PAGE?` returns the page's full display name, e.g. `<LCR MEAS DISP>`.
`DISPlay:LINE "<string>"`	ASCII string, max. 16 characters	Sets the current measurement-item label (used as the default file name on save). Query returns the current string.
`DISPlay:RFONt <font>`	LARGe (12 ms/meas), TINY (5 ms/meas), OFF (no on-screen display, bus read-back only)	Sets the measurement-result display font/size. Query returns the current font.

> Example: `DISP:PAGE MEAS` — opens the LCR measurement display page.

SECTION 4

FREQuency / VOLTage / CURRent / AMPLitude / OUTPut

4.1 FREQuency subsystem

Command	Parameters	Description
`FREQuency <value>|MIN|MAX`	NR1/NR2/NR3 + Hz/kHz/MHz; MIN=20 Hz, MAX=2 MHz (1 MHz on TH2838A)	Sets the test frequency. Query `FREQuency?` returns NR3.

> Example: `FREQ 1KHZ` — sets the frequency to 1000 Hz.

4.2 VOLTage subsystem

Command	Parameters	Description
`VOLTage <value>|MIN|MAX`	NR1/NR2/NR3 + V; MIN=5 mV, MAX=2 V (20 V on TH2838H)	Sets the AC test voltage. Query returns NR3.

4.3 CURRent subsystem

Command	Parameters	Description
`CURRent <value>|MIN|MAX`	NR1/NR2/NR3 + A; MIN=50 µA, MAX=20 mA (100 mA on TH2838H)	Sets the AC test current. Query returns NR3.

4.4 AMPLitude subsystem

Command	Parameters	Description
`AMPLitude:ALC ON|OFF|1|0`	Boolean	Enables/disables auto level control (constant-voltage/current). Query returns NR1.

4.5 OUTPut subsystem

Command	Parameters	Description
`OUTPut:DC:ISOLation ON|OFF|1|0`	Boolean	Enables/disables the DC-bias-source isolation function (bias-current isolation, §3.6.3 of the Operation Manual). Query returns NR1.

SECTION 5

BIAS Subsystem

Sets the internal DC bias state, voltage, current and auto-polarity function.

Command	Parameters	Description
`BIAS:STATe ON|OFF|1|0`	Boolean	Enables/disables DC bias output. Query returns NR1.
`BIAS:VOLTage <value>|MIN|MAX`	NR1/NR2/NR3; MIN=−10 V, MAX=+10 V (±40 V on TH2838H)	Sets the internal bias voltage. Query returns NR1 (see note below).
`BIAS:CURRent <value>|MIN|MAX`	NR1/NR2/NR3; MIN=−100 mA, MAX=+100 mA	Sets the external bias current. Query returns NR3.
`BIAS:POLarity:AUTO ON|OFF|1|0`	Boolean (1=AUTO, 0=FIX)	Enables/disables automatic bias-polarity detection for varactor-diode testing (§3.6.11 of the Operation Manual).

> Examples: `BIAS:STATe 0` (bias off) · `BIAS:VOLT MIN` (bias 0 V) · `BIAS:POL:AUTO 1` (auto polarity).

SECTION 6

FUNCtion Subsystem

Sets the measurement function/range, source monitoring, deviation display and step delay.

Command	Parameters	Description
`FUNCtion:IMPedance <func>`	CPD, CPQ, CPG, CPRP, CSD, CSQ, CSRS, LPD, LPQ, LPG, LPRP, LPRD, LSD, LSQ, LSRS, LSRD, RX, ZTD, ZTR, GB, YTD, YTR, RPQ, RSQ, DCR	Sets the measurement function (primary–secondary parameter pair). Query returns the function code.
`FUNCtion:IMPedance:RANGe <value>`	0.1–100000 + OHM/KOHM (15 ranges; 0.1 Ω only on TH2838H above 2 V)	Sets the impedance range. Query returns the current range.
`FUNCtion:IMPedance:RANGe:AUTO ON|OFF|1|0`	Boolean	Enables/disables auto-ranging. Query returns NR1.
`FUNCtion:DCResistance:RANGe <value>`	10–100000 + OHM/KOHM (13 ranges)	Sets the DCR range. Query returns the current range.
`FUNCtion:DCResistance:RANGe:AUTO ON|OFF|1|0`	Boolean	Enables/disables DCR auto-ranging. Query returns NR1.
`FUNCtion:SMONitor:VDC ON|OFF|1|0`	Boolean	Enables/disables DC voltage monitoring. Query returns NR1.
`FUNCtion:SMONitor:IAC ON|OFF|1|0`	Boolean	Enables/disables current monitoring. Query returns NR1.
`FUNCtion:DEV<n>:MODE ABSolute|PERCent|OFF`	<n>=1 (primary) or 2 (secondary)	Sets the deviation-display mode for the primary/secondary parameter. Query returns ABS/PERC/OFF.
`FUNCtion:DEV<n>:REFerence <value>`	NR1/NR2/NR3; <n>=1 or 2	Sets the deviation reference (nominal) value. Query returns NR1.
`FUNCtion:DEV<n>:REFerence:FILL`	<n>=1 or 2	Measures the connected reference part live and copies the result in as the deviation reference value.
`FUNCtion:StepDELay <value>|MIN|MAX`	NR1/NR2/NR3 + s; MIN=0 s, MAX=60 s	Sets the step-delay time (§3.6.7 of the Operation Manual). Query returns NR3.

> Examples: `FUNC:IMP RX` (function R–X) · `FUNC:IMP:RANG 1KOHM` · `FUNC:DEV1:MODE ABS` · `FUNC:SDEL 5S`.

SECTION 7

LIST Subsystem

Configures the up-to-201-point list sweep: per-point frequency/level/bias, sweep mode, per-point limits and delay.

Command	Parameters	Description
`LIST:FREQuency <v>[,<v>*]`	Up to 201 values, NR1/NR2/NR3 + Hz; 20 Hz–1/2 MHz per model	Clears and sets the sweep-point frequency list. Query returns the list as NR3 values.
`LIST:VOLTage <v>[,<v>*]`	Up to 201 values, NR1/NR2/NR3 + V; 5 mV–2 V	Clears and sets the sweep-point voltage list. Query returns the list.
`LIST:CURRent <v>[,<v>*]`	Up to 201 values, NR1/NR2/NR3 + A; 50 µA–100 mA	Clears and sets the sweep-point current list. Query returns the list.
`LIST:BIAS:VOLTage <v>[,<v>*]`	Up to 201 values, NR1/NR2/NR3 + V	Clears and sets the sweep-point DC-bias-voltage list. Query returns the list.
`LIST:BIAS:CURRent <v>[,<v>*]`	Up to 201 values, NR1/NR2/NR3 + A	Clears and sets the sweep-point DC-bias-current list. Query returns the list. An external TH1779A bias source extends available current.
`LIST:MODE SEQuence|STEPped`	—	Sets the sweep trigger mode (one-trigger-sweeps-all vs. one-trigger-per-point). Query returns SEQ/STEP.
`LIST:BAND<n> <param>[,<low>,<high>]`	<n>=1–201; <param>=A (primary), B (secondary), OFF	Sets the compare parameter and high/low limits for sweep point n. Query returns <param>,<low>,<high>.
`LIST:DELay [<d1>,<d2>…<d201>]`	Seconds (s) or milliseconds (ms), default s	Sets the per-point settle delay. Query returns the list.
`LIST:CLEar:ALL`	—	Clears all 201 sweep points' setup data.

> Examples: `LIST:FREQ 1E3,2E3,3E3,4E3` (points 1–4 = 1/2/3/4 kHz) · `LIST:BAND1 A,10,20` · `LIST:BAND3 OFF` · `LIST:DEL 1,1` (1 s delay on points 1–2) · `LIST:MODE SEQ`.

SECTION 8

APERture / TRIGger / FETCh? / RS232 Auto-Return

8.1 APERture subsystem

Command	Parameters	Description
`APERture FAST|MEDium|SLOW[,<value>]`	Speed + optional average count, NR1, 1–255	Sets the measurement speed (FAST ≈130/s, MEDium ≈11/s, SLOW ≈4/s) and averaging count. Query returns speed + NR1.

> Example: `APER MED,55` — MEDium speed, 55-reading average.

8.2 TRIGger subsystem

Command	Parameters	Description
`TRIGger[:IMMediate]`	—	Triggers one measurement.
`TRIGger:SOURce <src>`	INTernal, EXTternal, BUS, HOLD	Sets the trigger source. Query returns INT/EXT/BUS/HOLD.
`TRIGger:DELay <value>|MIN|MAX`	NR1/NR2/NR3 + s; 0–60 s, 1 ms resolution	Sets the trigger delay. Query returns NR3.

> Example: `TRIG:SOUR BUS` then `TRIG` then `FETC?` — software-triggered read.

8.3 FETCh? subsystem

Command	Parameters	Description
`FETCh[:IMP]?`	—	Returns the last measurement result (see Section 2 for the data format).
`FETCh:SourceMONitor:VAC?`	—	Returns the monitored AC voltage.
`FETCh:SourceMONitor:IAC?`	—	Returns the monitored AC current.

8.4 RS232 Auto-Return

Command	Parameters	Description
`RS232:PRINT <0|OFF|1|ON>`	Boolean; not saved across power-off	ON: automatically pushes the current result over RS232C when each test completes, in the same format as `FETCh?`. OFF: disables automatic push.

> Examples: `RS232:PRINT 0` (disable) · `RS232:PRINT 1` (auto-return results on completion).

SECTION 9

CORRection Subsystem

Open/short/load correction: full-frequency (51 fixed points) and per-spot (up to 201 points) single-point correction.

Command	Parameters	Description
`CORRection:LENGth <value>`	0, 1, 2 or 4 + M	Sets the correction cable length. Query returns NR1.
`CORRection:OPEN`	—	Executes full-frequency open correction (51 preset points).
`CORRection:OPEN:STATe ON|OFF|1|0`	Boolean	Enables/disables open correction. Query returns NR1.
`CORRection:SHORt`	—	Executes full-frequency short correction (51 preset points).
`CORRection:SHORt:STATe ON|OFF|1|0`	Boolean	Enables/disables short correction. Query returns NR1.
`CORRection:LOAD:STATe ON|OFF|1|0`	Boolean	Enables/disables load correction. Query returns NR1.
`CORRection:LOAD:TYPE <func>`	Same function codes as FUNCtion:IMPedance	Sets the load-correction test function. Query returns the function code.
`CORRection:SPOT<n>:STATe ON|OFF|1|0`	<n>=1–201	Enables/disables single-point correction at spot n. Query returns NR1.
`CORRection:SPOT<n>:FREQuency <value>`	<n>=1–201; NR1/NR2/NR3 + Hz/kHz/MHz, 20 Hz–2 MHz	Sets spot n's correction frequency. Query returns NR3.
`CORRection:SPOT<n>:OPEN`	<n>=1–201	Executes open correction at spot n's frequency.
`CORRection:SPOT<n>:SHORt`	<n>=1–201	Executes short correction at spot n's frequency.
`CORRection:SPOT<n>:LOAD:STANdard <A>,<B>`	<n>=1–201; NR1/NR2/NR3	Sets the standard reference values for load correction at spot n. Query returns NR3,NR3.
`CORRection:SPOT<n>:DISP`	<n>=1–201	Shows spot n's single-point calibration data on the User Calibration page.
`CORRection:SPOT<n>:DATA:SET <openA>,<openB>,<shortA>,<shortB>,<loadA>,<loadB>`	<n>=1–201; NR3 each	Directly writes spot n's open/short/load correction data. Query `CORRection:SPOT<n>:DATA?` reads it back.
`CORRection:USE:DATA?`	—	Returns the open/short/load correction data for all 201 spots as one comma-separated list.
`CORRection:CLEar`	—	Clears all correction data at every correction point.

> Examples: `CORR:LENG 1M` · `CORR:SPOT1:FREQ 2KHZ` · `CORR:SPOT1:LOAD:STAN 100.7,0.0002`.

SECTION 10

COMParator Subsystem

Bin-sort comparator: master on/off, tolerance/sequential limit tables, auxiliary bin, swap mode and bin counts.

Command	Parameters	Description
`COMParator[:STATe] ON|OFF|1|0`	Boolean	Enables/disables the comparator function. Query returns NR1.
`COMParator:MODE <mode>`	ATOLerance, PTOLerance, SEQuence	Sets the limit mode: absolute tolerance, percentage tolerance, or sequential. Query returns ATOL/PTOL/SEQ.
`COMParator:TOLerance:NOMinal <value>`	NR1/NR2/NR3 (valid in tolerance mode only)	Sets the nominal value for tolerance-mode comparison. Query returns NR3.
`COMParator:TOLerance:BIN<n> <low>,<high>`	<n>=1–9; low<high or an error is raised	Sets bin n's high/low limits in tolerance mode. Query returns <low>,<high>.
`COMParator:SEQuence:BIN <lo1>,<hi1>,<hi2>…<hi9>`	Up to 9 high limits following BIN1's low limit	Sets all bin limits in sequential mode (each bin's high limit is the next bin's low limit). Query returns the full list.
`COMParator:SLIMit <low>,<high>`	NR1/NR2/NR3; low<high	Sets the secondary-parameter high/low limit. Query returns NR3,NR3.
`COMParator:Auxiliary BIN ON|OFF|1|0`	Boolean	Enables/disables the auxiliary bin. Query returns NR1.
`COMParator:SWAP ON|OFF|1|0`	Boolean	Swaps which of the primary/secondary parameters uses the 9-bin table vs. the single secondary limit. Query returns NR1.
`COMParator:BIN:CLEar`	—	Clears every limit on the limit-table setup page.
`COMParator:BIN:COUNt[:STATe] ON|OFF|1|0`	Boolean	Enables/disables the bin-count tally. Query returns NR1.
`COMParator:BIN:COUNt:DATA?`	—	Returns <BIN1>...<BIN9>,<OUT>,<AUX> counts (NR1 each).
`COMParator:BIN:COUNt:CLEar`	—	Clears all bin-count results to zero.

> Examples: `COMP ON` · `COMP:TOL:BIN1 -5,5` · `COMP:SEQ:BIN 10,20,30,40,50` · `COMP:ABIN ON`.

SECTION 11

Mass MEMory Subsystem

Loads and stores instrument setup files in internal non-volatile memory (40 slots).

Command	Parameters	Description
`MMEMory:LOAD:STATe <value>`	NR1, 0–39	Loads the setup file in the given slot.
`MMEMory:STORe:STATe <value>[,"<string>"]`	NR1 slot 0–39; optional ASCII name, max. 16 characters	Stores the current setup to the given slot. If the name is omitted, a default file name is used.

> Examples: `MMEM:LOAD:STAT 1` · `MMEM:STOR:STAT 1,"Resistor meas"`.

SECTION 12

TSSE Subsystem

Configures the <TRACE SWEEP> graphical sweep and reads back resonance-search results (fs, fp, Ct, Dt, Kp, Qm and full sweep data). At ≈30 commands, this is the largest single subsystem in the TH2838 command set.

Command	Parameters	Description
`TSSE:MODE <mode>`	FREQ, VOLT, CURR, BVOL, BCUR	Sets the swept quantity: frequency, voltage, current, bias voltage or bias current.
`TSSE:SWEE SING|CONT`	—	Sets single-trigger or continuous sweep mode.
`TSSE:SWEE <start>,<end>`	NR1/NR2/NR3, format/unit per TSSE:MODE	Sets the sweep range.
`TSSE:FORM LIN|LOG`	—	Sets linear or logarithmic sweep coordinates.
`TSSE:SCAL AUTO|HOLD`	—	AUTO: fits the scale once then reverts to HOLD. HOLD: fixed scale.
`TSSE:POIN <value>`	NR1: 51, 101, 201, 401 or 801	Sets the number of sweep points.
`TSSE:A <min>,<max>`	NR1/NR2/NR3, unit per primary parameter	Sets the primary-parameter (A) coordinate min/max.
`TSSE:B <min>,<max>`	NR1/NR2/NR3, unit per secondary parameter	Sets the secondary-parameter (B) coordinate min/max.
`TSSE:LIMI ON|OFF`	Boolean	Shows/hides the max/min extreme-value markers.
`TSSE:DIV:A <value>`	NR1/NR2/NR3	Sets the per-division span of the A-axis.
`TSSE:DIV:B <value>`	NR1/NR2/NR3	Sets the per-division span of the B-axis.
`TSSE:CTDT:FREQ <value>`	NR1/NR2/NR3 + Hz/kHz/MHz	Sets the frequency used for the static Ct/Dt measurement.
`TSSE:CTDT:VOLT <value>`	NR1/NR2/NR3 + V	Sets the voltage level used for the static Ct/Dt measurement.

12.1 Resonance / sweep-result queries

Command	Returns	Description
`TSSE:FETC FS?`	<value> (NR1/2/3 + k/M)	Resonant frequency fs (Zmin).
`TSSE:FETC FP?`	<value> (NR1/2/3 + k/M)	Anti-resonant frequency fp (Zmax).
`TSSE:FETC CT?`	<value> (+ m/µ/n/p)	Static capacitance Ct at the configured CtDt frequency.
`TSSE:FETC DT?`	<value>	Static dissipation Dt.
`TSSE:FETC KP?`	<value>	Electromechanical coupling factor Kp (see Operation Manual §3.5).
`TSSE:FETC QM?`	<value>	Mechanical quality factor Qm.
`TSSE:FETC FSP?`	<value> (+ m/µ/n/p)	The difference fp−fs.
`TSSE:FETC ALIM?`	<max>,<point1>,<min>,<point2>	Max/min of the primary-parameter sweep result and their sweep-point indices.
`TSSE:FETC BLIM?`	<max>,<point1>,<min>,<point2>	Max/min of the secondary-parameter sweep result and their sweep-point indices.
`TSSE:FETC RESULT?`	<A1>,<B1>,<A2>,<B2>…<An>,<Bn>	Primary/secondary result at every sweep point (n = configured point count).
`TSSE:FETC POINT?`	<v1>,<v2>…<vn>	The swept-quantity value at every sweep point.

> Example: with 51 points swept by frequency, `TSSE:FETC POINT?` returns each point's frequency, e.g. 110, 120…610 (Hz).

12.2 Curve sorting limits

Command	Parameters	Description
`TSSE:LIMI:SET:STAT ON|OFF`	Boolean	Master switch for curve-sweep sorting.
`TSSE:LIMI:SET:FS:STAT ON|OFF`	Boolean	Enables/disables sorting on resonant frequency fs.
`TSSE:LIMI:SET:FS <low>,<high>`	NR1/NR2/NR3 + k/M	Sets the fs sorting range.
`TSSE:LIMI:SET:ZMIN:STAT ON|OFF`	Boolean	Enables/disables sorting on minimum impedance Zmin.
`TSSE:LIMI:SET:ZMIN <low>,<high>`	NR1/NR2/NR3	Sets the Zmin sorting range.
`TSSE:LIMI:SET:CT:STAT ON|OFF`	Boolean	Enables/disables sorting on static capacitance Ct.
`TSSE:LIMI:SET:CT <low>,<high>`	NR1/NR2/NR3 + m/µ/n/p	Sets the Ct sorting range.
`TSSE:LIMI:SET:DT:STAT ON|OFF`	Boolean	Enables/disables sorting on static dissipation Dt.
`TSSE:LIMI:SET:DT <low>,<high>`	NR1/NR2/NR3	Sets the Dt sorting range.

> Examples: `TSSE:LIMI:SET:FS 100,1k` (fs limit 100 Hz–1 kHz) · `TSSE:LIMI:SET:CT 100n,1m`.

SECTION 13

SYSTem Subsystem

Command	Returns	Description
`SYSTem:SN?`	<value> (NR1)	Returns the instrument's serial number.

SECTION 14

IEEE-488.2 Common Commands

Command	Returns	Description
`*RST`	—	Resets the instrument to its default state.
`*TRG`	—	Triggers a measurement and sends the result to the output buffer.
`*CLS`	—	Clears the standard event status register and the service request status register.
`*IDN?`	<maker>,<model>,<firmware>, <HW version>	Returns instrument identification, e.g. Tonghui, TH2838, VER1.0.0, Hardware Ver A5.0.
`*TST?`	0 (NR1) if no error	Runs an internal self-test and returns the summed error-code result.
`*ESE <value> / *ESE?`	<value> (NR1)	Sets/queries the standard event status enable register (bit map below).
`*ESR?`	<value> (NR1)	Queries the standard event status register contents (bit map below).
`*SRE <value> / *SRE?`	<value> (NR1)	Sets/queries the service-request enable register (bit map below).
`*STB?`	<value> (NR1)	Queries the status byte register; does not clear it (bit map below).
`*OPC / *OPC?`	ASCII “1” (query)	Sets the OPC bit once all pending operations complete; the query returns “1” when done.

Standard event status register (*ESE / *ESR?)

Bit	Meaning	Bit	Meaning
7	Power On (PON)	3	Device Dependent Error (DDE)
6	User Request (URQ)	2	Query Error (QYE)
5	Command Error (EME)	1	Request Control (RQC)
4	Execution Error (EXE)	0	Operation Complete (OPC)

Status byte register (*SRE / *STB?)

Bit	Meaning
7	Operation Status Register summary bit
6	RQS (Request Service)
5	Standard Event Status Register summary bit
4	MAV (Message Available)
3–0	Always 0

> Examples: `*RST` · `*IDN?` · `*TRG` then `*OPC?` to wait for completion.

APPENDIX

Contact & Registration

> This reference covers the SCPI command set as documented in the TH2838 Series Operation Manual (Ver.2.1, English). Techmize/Tonghui reserve the right to change performance, function and firmware without notice; contact Techmize using the details below if the manual and the instrument's actual command set appear inconsistent.

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Related documents

Document	Contents
TH2838 Series Datasheet	Model comparison, full specification table, standard/optional accessories, basic-accuracy chart
TH2838 Series Operation Manual	Installation, safety, front/rear panel, display & measurement setup, system setup, operation examples, performance specifications, HANDLER interface

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