TH2836

Economy High-Frequency LCR Digital Bridge

A high-frequency LCR bridge built on automatic-balancing-bridge technology, testing from 4 Hz to 8.5 MHz — the widest frequency reach in the Techmize LCR digital bridge line. Four-terminal-pair test configuration extends low-impedance measurement capability well beyond conventional five-terminal designs, making it well suited to ferrite cores, RF chip components and high-frequency material characterisation at an economical price point.



400(W) × 132(H) × 425(D) mm · 15 kg

- **4 Hz – 8.5 MHz** test frequency, 1 mHz resolution
- **0.05% basic accuracy**, four-terminal-pair test configuration
- Fast test speed: **5.6 ms** (Fast mode)
- 7" TFT LCD, 800×480 resolution
- 10-point multi-parameter list sweep
- External DC bias extendable to **400 A** via up to eight TH1779A bias current sources
- Automatic varactor-diode polarity detection
- One-key screen capture and one-key data logging
- 10-bin sorting with sound/light alarm
- SCPI & MODBUS protocols; compatible with other well-known international brands

Key specifications

Frequency	Basic accuracy	AC signal level	DC bias (built-in)	Test speed (Fast)
4 Hz – 8.5 MHz	0.05%	5 mV–2 Vrms	0–±10 V / ±100 mA	5.6 ms

Applications

Passive components

Capacitors, inductors, magnetic cores, resistors, piezoelectric devices, transformers, chip components and network components.

Materials characterisation

Dielectric constant and loss angle of plastics and ceramics; permeability and loss angle of ferrite and amorphous magnetic materials; dielectric constant, conductivity and C-V characteristics of semiconductor and LCD materials.

Semiconductor & other components

Parasitic-parameter analysis of LED driver ICs, transistors and integrated circuits; varactor-diode C-V characteristics; impedance evaluation of PCBs, relays, switches, cables and batteries.

Technical specifications

Parameter	TH2836
Display	7" TFT LCD, 800×RGB×480
AC measurement parameters	Cp/Cs, Lp/Ls, Rp/Rs, |Z|, |Y|, R, X, G, B, θ, D, Q, Vac, Iac
DC measurement parameters	RDC, Vdc, Idc
Test frequency	Range 4 Hz – 8.5 MHz · Resolution 1 mHz
AC voltage	4 Hz–1 MHz: 5 mV–2 Vrms | 1 MHz–8.5 MHz: 5 mV–1 Vrms (100 µV res.)
AC current	4 Hz–2 MHz: 50 µA–20 mArms | 2 MHz–8.5 MHz: 50 µA–10 mArms (1 µA res.)
RDC test voltage	100 mV – 2 V (100 µV res.)
DC bias (built-in)	Voltage 0–±10 V (100 µV res.) · Current 0–±100 mA (1 µA res.)
External DC bias	Controls up to eight TH1779A bias current sources, up to 400 A
Test terminal configuration	Four-terminal pair
Cable length	0 m, 1 m standard (2 m or 4 m optional)
Output impedance	100 Ω
Measurement speed	Fast 5.6 ms · Medium 120 ms · Slow 230 ms
Highest accuracy	1 kHz / 1 MHz: 0.05% | 2 MHz: 0.1% | 5 MHz: 0.5% | 8.5 MHz: 1.0%
Display range	Cs/Cp 0.00001 pF–9.99999 F | Ls/Lp 0.00001 µH–99.9999 kH | D 0.00001–9.99999 | Q 0.00001–99999.9
— R, Rs, Rp, X, Z	0.001 mΩ – 99.9999 MΩ
— G, B, Y	0.00001 µS – 99.9999 S
— θr / θd / Δ%	-3.14159–3.14159 rad | -179.999°–179.999° | ±(0.000%–999.9%)
List sweep	10 points — measurement parameter, test frequency, AC voltage/current, DC bias voltage/current
Graph sweep	Via optional PC software (not built into the front-panel display)
Comparator	10-bin sorting, sound/light PASS/FAIL alarm
Storage	Internal: 40 setting files · USB: 500 setting files, data logs, screen captures
Warm-up time	60 minutes
Input voltage	198–242 VAC, 47–63 Hz (100–120 VAC range also selectable)
Power consumption	80 VA
Dimensions (W×H×D)	400 × 132 × 425 mm
Weight	15 kg

Interfaces

RS232	USB Host	USB Device	Handler	LAN	SCPI / MODBUS	GPIB
standard	standard	standard	standard	standard	standard	optional

Standard accessories

Item	Description
—	EU power cable (Schuko, CEE 7/7)
TH26010	Gold-plated short-circuit board
TH26011BS	Four-terminal-pair test fixture
TH26048	Four-terminal-pair test fixture

Optional test fixtures

Item	Description
TH26007A	Toroidal-core test fixture
TH26008A	SMD component test fixture
TH26009B	SMD component test tweezers
TH26077	Dielectric test fixture

More fixtures available on request — ask your Techmize contact or authorized distributor.

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