



IT5240 Insulation Resistance Simulator

2000 VDC programmable resistance for BMS insulation monitoring validation



From Manual Switching to Automation

Simulate a wide resistance range at up to 2000 VDC for BMS R&D, HIL, certification and battery PACK EOL testing.

56 Ohm - 111 MOhm

From insulation faults to small leakage currents.

- Resistance accuracy: 1% $\pm$ 57 Ω
- Temperature coefficient: 100 ppm/ $^{\circ}$ C

2000 Vdc

Rated / earth withstand voltage

1% $\pm$ 57 Ω

Resistance accuracy

LAN-RS485-CAN-IO

Multi-bus remote control

High-Voltage BMS Insulation Validation

A wide resistance range, high-voltage withstand capability and programmable remote control replace manual resistor-box switching. Use the IT5240 independently or with PV2600 for repeatable, logged and scalable automated tests.

01 Wide Range & Accuracy

56 Ω -111 M Ω covers insulation faults and small leakage currents. Accuracy of 1% $\pm$ 57 Ω and a 100 ppm/ $^{\circ}$ C coefficient support long-term stability.

02 2000 VDC Withstand

Rated for 0-2000 VDC, with 2000 VDC withstand from both input terminals to earth. Suitable for 800 V and higher-voltage platforms.

03 Protection & Automation

Fixed 37 mA OCP. Switching and programming response $\leq$ 500 ms. Standard LAN, RS485 and CAN for system integration.

Typical Test Applications

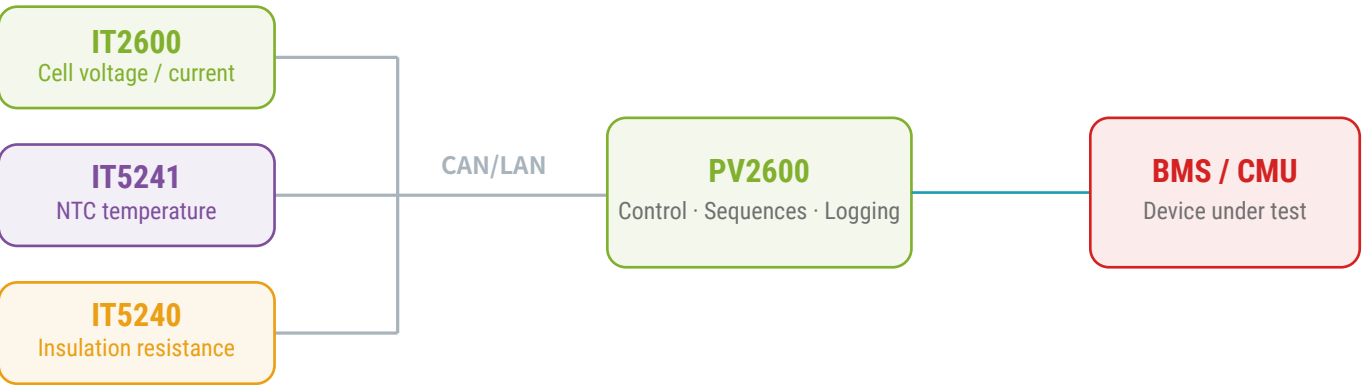
R&D · Algorithm Debugging · Certification · Production

Integrated BMS Testing & Specifications

Use the IT5240 independently or coordinate it with IT2600 and IT5241 through PV2600.

Three BMS Input Types. One Software Platform.

Simulate cell voltage, temperature and insulation resistance for automated BMS / CMU validation.



Interfaces

- **LAN** SCPI / Modbus TCP/IP
- **RS485** Modbus RTU
- **CAN** Custom protocol
- **Digital I/O** synchronized resistance setting
- **PV2600** resistance setup, sequences and logging without coding.

IT5240 Technical Specifications

Electrical Performance & Protection			Interfaces, Environment & Mechanics		
Parameter	Specification	Notes	Parameter	Specification	Notes
Rated voltage	0-2000Vdc		LAN	SCPI / Modbus TCP/IP	Port 1 / Port 2
Rated current	0-35mA		RS485	Modbus RTU	One active
Rated power	0-70W		CAN	Custom protocol	
Resistance range	56Ω-111MΩ		Operating temperature	0-40 °C	
Resistance accuracy	1% ±57Ω		Digital I/O	Digital input/output	Sync. setting
Temp. coefficient	100ppm/ °C		IP rating	IP20	
Min. safe resistance	57.15kΩ	At 2 kV	Safety standard	IEC 61010	
Switching time	≤500ms	OCP when energized	Cooling	Forced-air cooling	
Programming response	≤500ms		Unit dimensions	450(D) × 214(W) × 43.5(H) mm	
Protection	OCP	Fixed at 37 mA	Overall dimensions	500(D) × 236(W) × 57(H) mm	
+ input to earth	2000Vdc		Net weight	4.05 kg	
- input to earth	2000Vdc				

IT2600 + IT5241 + IT5240 + PV2600