

KEITHLEY

3706

The Keithley 3706 is a six-slot system switch mainframe with an integrated high-performance digital multimeter (DMM) option, part of the Series 3700. It provides scalable, instrument-grade switching and multi-channel measurement solutions, optimized for automated testing and data acquisition applications.

SPECIFICATIONS

General

Display	Graphic vacuum fluorescent display (VFD), monochrome
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General System Specifications

System Type	System Switch Mainframe with Integrated DMM
Number of Slots	6
Integrated DMM Resolution	Up to 7.5 digits (26-bit)
Integrated DMM Measurement Functions	DCV, ACV, DCI, ACI, Frequency, Period, 2-wire Ohms, 4-wire Ohms, 3-wire RTD Temperature, 4-wire RTD Temperature, Thermocouple Temperature, Thermistor Temperature, Continuity
LXI Compliance Class	Class C

Integrated Digital Multimeter (DMM) Specifications

DC Voltage Ranges	100 mV, 1 V, 10 V, 100 V, 1000 V
AC Voltage Ranges	100 mV, 1 V, 10 V, 100 V, 750 V

Measurement Performance

Triggering Modes	Internal, External, Bus, Timer
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Connectivity & Interfaces

Digital I/O Lines	6 TTL-compatible lines
Trigger Link Interface	6 lines

Programming & Software

Programming Language Compatibility	SCPI
Remote Control Capabilities	Test Script Processor (TSP) scripting, SCPI commands, IVI drivers

Environmental & Safety

Operating Humidity Range	5% to 80% RH, non-condensing (up to 35 °C); 5% to 50% RH, non-condensing (35 °C to 50 °C)
Storage Temperature Range	-25 °C to +65 °C
Operating Altitude	Up to 2000 m
Pollution Degree	2
Safety Compliance	EN 61010-1, UL 61010-1, CAN/CSA C22.2 No. 61010-1
EMC Compliance	EN 61326-1, FCC Part 15 Class A, ICES-003 Class A
Calibration Interval	1 year

Physical & Power

Rack Mount Kit	Optional
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Integrated DMM

Thermocouple Types Supported	K, J, T, E, N, R, S, B
RTD Types Supported (2-, 3-, 4-wire)	100 Ω (Pt385, Pt392), 1000 Ω (Pt385)

Interfaces

Ethernet Port Speed	10/100BASE-T
GPIB Standard	IEEE 488.1, IEEE 488.2

Power

AC Line Voltage Range	100 V - 240 V
AC Line Frequency Range	50 Hz - 60 Hz

Switching System Performance

Mainframe Max Switch Voltage	±300 VDC, 300 VAC peak
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TECHNOLOGY

Data Acquisition (DAQ)

APPLICATIONS

Automated Test, Data Acquisition, Functional Test, Burn-in and Accelerated Life Testing, Environmental Monitoring, Failure Analysis, Automotive Testing

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