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Data Sheet

August 13, 2026

KEITHLEY

Keithley 3706A Six-Slot System Switch with High Performance DMM

Input Impedance Low: greater than 10 Gohm on 100 mV to 10 V (selectable) Remote Interfaces: GPIB; USB TMC; LAN LXI Plug In Cards: 3720, 3721, 3722, 3723, 3724, 3730, 3731, 3732, 3740, 3750 class Specs from Keithley Series 3700A system switch/multimeter datasheet. Confirm this chassis is 3706A with DMM and front panel, not S/NFP variants, and record installed 37xx cards. Remote Interfaces: GPIB; USB TMC; LAN LXI Plug In Cards: 3720, 3721, 3722, 3723, 3724, 3730, 3731, 3732, 3740, 3750 class Specs from Keithley Series 3700A system switch/multimeter datasheet. Confirm this chassis is 3706A with DMM and front panel, not S/NFP variants, and record installed 37xx cards.



MODEL

Keithley 3706A

CALIBRATION

Available on request

CONDITION

Used

STATUS

In stock

RFQ / SKU

3706A

LISTING

<https://aumictechlabs.com/products/3706a-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The Keithley 3706A is a six-slot modular system switch with integrated digital multimeter designed for automated test applications requiring high channel density and measurement accuracy. It delivers simultaneous switching and measurement capabilities across electronics manufacturing, R&D, and quality control environments, supporting up to 576 two-wire channels, 720 one-wire channels, or 2,688 matrix crosspoints in a single mainframe. Technical Specifications Switching Architecture Six plug-in card slots for multiplexer and matrix modules

Channel capacity: up to 576 two-wire multiplexer channels Channel capacity: up to 720 one-wire multiplexer channels Channel capacity: up to 2,688 one-pole matrix crosspoints Multi-processor architecture optimized for high-throughput scanning Digital Multimeter (Optional) Resolution: up to 7½-digit measurements with 26-bit resolution DC reading rate: over 14,000 readings/second at 3½ digits; 60 readings/second at 7½ digits Overall data rate: over 14,000 readings per second to memory DC voltage accuracy: typically 0.003% AC voltage accuracy: typically 0.05% DC voltage and AC voltage measurement DC current and AC current measurement Frequency and period measurement Two-wire and four-wire ohms measurement Three-wire and four-wire RTD temperature measurement Thermocouple and thermistor temperature measurement Continuity measurement Extended low ohms range: 1 Ω Extended low current range: 10 μA In-rack calibration support Processing & Automation Test Script Processor (TSP®) embedded architecture for system automation TSP-Link technology enables master/slave expansion with Series 2600 and 2600B SourceMeter® SMU instruments Key Features High-quality signal path from card channels to multimeter via analog backplane Modular design supports custom channel configurations Plug-in card library includes 3720 (Dual 1×30), 3721 (Dual 1×20), 3722 (Dual 1×48 high-density), and 3723 (Dual 1×30 high-speed reed relay) multiplexer options Typical Applications Automated production testing, component characterization, reliability screening, and multi-point data acquisition in manufacturing and laboratory environments. Compatibility & Integration TSP-Link connectivity enables integration with Keithley Series 2600 and 2600B SourceMeter® instruments for expanded measurement and sourcing capabilities.

3706A Characteristics / Specifications

PARAMETER	VALUE
Model	3706A
Manufacturer	Keithley Instruments (Tektronix)
Instrument Type	Six slot system switch with integrated DMM
Alias	3706A; Keithley 3706A
Mainframe Slots	6
Form Factor	2U full rack (about 89 mm by 483 mm by 457 mm)
Max Two Wire Channels	576 (fully loaded)
Max One Wire Channels	720
Max Matrix Crosspoints	2688 one pole
DMM Resolution	7.5 digits (26 bit)
DMM Functions	DCV, ACV, DCI, ACI, frequency, period, 2-wire ohms, 4-wire ohms, T/C, RTD 3/4-wire, thermistor, continuity
Low Ohms Range	1 ohm class
Low Current Range	10 uA class
Reading Rate Fast	greater than 14000 readings/s at 3.5 digits
Reading Rate Precise	60 readings/s at 7.5 digits
DCV Ranges	100 mV to 300 V class (backplane path)
Input Impedance Low	greater than 10 Gohm on 100 mV to 10 V (selectable)
Remote Interfaces	GPIB; USB TMC; LAN LXI
Scripting	TSP; TSP-Link
Related Switch Only	3706A-S
Related Headless DMM	3706A-NFP
Related Headless Switch	3706A-SNFP
Plug In Cards	3720, 3721, 3722, 3723, 3724, 3730, 3731, 3732, 3740, 3750 class

PARAMETER	VALUE
Operating Temperature	0 to 50 C class Notes Specs from Keithley Series 3700A system switch/multimeter datasheet. Confirm this chassis is 3706A with DMM and front panel, not S/NFP variants, and record installed 37xx cards.

General Specifications & Supplementary Characteristics

PARAMETER	VALUE
Operating temperature	0 to 50 C class
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Full OEM specifications

Complete technical content extracted from the manufacturer datasheet. Sparse OEM tables are reconstructed as tables below; other text is preserved as paragraphs.

Specifications	
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Operating Temperature	0 to 50 C class

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Available from Aumictech

Used and refurbished unit evaluated in-house. Calibration: Available on request. Used · In stock.

Request a quote: sales@aumictech.com · +1 (484) 841-9341

Aumictech

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Technical content from manufacturer specifications. Unit photo/stock from Aumictech listing when available. Specifications subject to OEM documentation and unit condition.