

KEYSIGHT TECHNOLOGIES (AGILENT HP)

34904A

The Keysight 34904A is a 4x8 Matrix Switch module designed for the 34970A and 34972A Data Acquisition/Switch Units. It features 32 two-wire crosspoints, offering a flexible connection path to connect multiple instruments to various points on a device under test (DUT) simultaneously. Multiple modules can be combined to build larger matrices, with up to 96 crosspoints supported in a single mainframe.

SPECIFICATIONS

General

Interfaces	Internal backplane interface to mainframe, built-in screw terminal blocks
Display	None (status displayed on mainframe front panel)

Physical

Power Supply	Powered directly by 34970A/34972A mainframe backplane
Operating Temperature	0°C to 55°C °C
Weight	0.35 kg kg

Switching Specifications

Matrix Configuration	4 rows x 8 columns (2-wire)
Total Crosspoints	32
Switch Type	Armature Latching
Maximum Switching Voltage	300 V (DC or AC RMS)
Maximum Switching Current	1 A
Maximum Carrying Current	1 A
Maximum Switching Power	50 W
Volt-Hertz Limit	1 x 10 ⁷ V-Hz
Initial Contact Resistance	< 1.0 Ω
End-of-Life Contact Resistance	< 3.0 Ω
Thermal Offset (typical)	< 3 μV

RF / AC Performance

AC Bandwidth (-3 dB)	10 MHz (typical into 50 Ω)
Crosstalk at 100 kHz	< -75 dB (typical)
Crosstalk at 1 MHz	< -55 dB (typical)
Crosstalk at 10 MHz	< -35 dB (typical)
Capacitance Row to Col (open)	80 pF
Capacitance Row to Shield (open)	< 150 pF (typical)
Capacitance Col to Shield (open)	< 150 pF (typical)

Reliability

Mechanical Lifetime	100,000,000 operations
Electrical Lifetime	100,000 operations (at rated load)

Physical & Connection

Compatible Mainframes	Agilent / Keysight 34970A, 34972A
Slots Occupied	1

Environmental

Operating Humidity	80% R.H. at 40°C (non-condensing)
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Connectivity

Connector Type	Screw terminals
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Performance

DC Isolation	> 10 GΩ (channel-to-channel, channel-to-earth, at 25 °C / 40% RH)
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Isolation & Resistance

Insulation Resistance	10 GΩ at 25 °C (40% RH) / 100 MΩ at 40 °C (90% RH)
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TECHNOLOGY

Armature Latching Switch Matrix

APPLICATIONS

Data Acquisition and Automated Routing

Generated by SpecAtlasHub (specatlashub.com). Specifications are compiled from available sources and are subject to change — verify critical values against the manufacturer before purchase.