

KEYSIGHT TECHNOLOGIES (AGILENT HP)

34947A

The Keysight 34947A (formerly Agilent 34947A) is a high-performance microwave switch module designed for the 34980A Multifunction Switch/Measure Unit. Featuring three independent, unterminated SPDT (1x2) coaxial switches, it provides bi-directional routing of RF and microwave signals up to 26.5 GHz. It is highly configurable, offering option-dependent frequency ranges, low insertion loss, exceptional isolation, and high power handling capability up to 50W. The module is ideal for multi-band receiver/transmitter testing and general-purpose microwave signal routing.

SPECIFICATIONS

General

Interfaces	Controlled via 34980A Mainframe (GPIB, USB, LAN/LXI)
Display	Status displayed on 34980A mainframe front panel
Mainframe Compatibility	Keysight 34980A

Physical

Power Supply	Powered directly from 34980A mainframe backplane
Operating Temperature	0 °C to 55 °C °C
Dimensions (W×H×D)	38.1 mm × 88.9 mm × 254 mm mm
Weight	0.29 kg

RF & Microwave Performance

Switch Configuration	Three independent 1x2 (SPDT) unterminated switches
Frequency Range (Option 001)	DC to 4 GHz
Frequency Range (Option 002)	DC to 20 GHz
Frequency Range (Option 003)	DC to 26.5 GHz
Characteristic Impedance	50 Ω
RF Connector Type	SMA (female)
Signal Path	Bi-directional
Input Power Rating (CW)	1 W
Insertion Loss Repeatability	0.03 dB (typical)

Switching & Actuation Characteristics

Actuation Type	Latching
Switching Speed	< 15 ms
Operating Life	5,000,000 cycles

Control, Driver & Communication Interfaces

Status Feedback	State readback capability via mainframe software query
Command Set Support	SCPI (via 34980A mainframe)

Physical & Mechanical Properties

Required Mainframe Slot Width	1 slot
External Switch Mounting Option	Not supported

Environmental & Reliability

Storage Temperature Range	-40 °C to 70 °C
Operating Humidity Range	Up to 80% RH at 40 °C (non-condensing)

Compliance & Ordering Information

Environmental Compliance	RoHS compliant
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Configuration

Internal Switch Model (Option 001)	Agilent 8762A (DC to 4 GHz)
Internal Switch Model (Option 002)	Agilent 8762B (DC to 20 GHz)
Internal Switch Model (Option 003)	Agilent 8762C (DC to 26.5 GHz)

Safety

Maximum Safety Voltage	42 V
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RF Performance

Peak Power Rating	100 W (10 µs maximum pulse width)
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Power & Control

Switch Drive Voltage	24 V nominal
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TECHNOLOGY

Coaxial Latching Switch

APPLICATIONS

RF and Microwave Signal 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.