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Data Sheet

August 14, 2026

AGILENT / KEYSIGHT

Agilent / Keysight E1347A 16-Channel T/C Low-Offset Relay Multiplexer

Agilent E1347A 16 Channel Thermocouple Low Offset Relay Multiplexer The Agilent/Keysight E1347A isaB-size, 1-slot, register-based VXI thermocouple multiplexer. OEM datasheet 5965-5603E lists the same low-offset reed switching as E1345A (under 4 μ V) plus a built-in thermistor reference junction for cold-junction compensation, with 16-channel 3-wire or 8-channel 4-wire topologies. Thermocouple temperature scanning into E1326B/E1411B multimeters and compensated low-level voltage multiplexing in Series BVXI systems. The Agilent/Keysight E1347A isaB-size, 1-slot, register-based VXI thermocouple multiplexer. OEM datasheet 5965-5603E lists the same low-offset reed switching as E1345A (under 4 μ V) plus a built-in thermistor reference junction for cold-junction compensation, with 16-channel 3-wire or 8-channel 4-wire topologies. Thermocouple temperature scanning into E1326B/E1411B multimeters and compensated low-level voltage multiplexing in Series BVXI systems. Low thermal offset reed relays under 4 μ V 16 channel 3 wire or 8 channel 4 wire modes



MODEL

**Agilent / Keysight
E1347A**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

E1347A

LISTING

<https://aumictechlabs.com/products/e1347a-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The Agilent/Keysight E1347A is a 16-channel thermocouple low-offset relay multiplexer for precision temperature measurement in demanding test environments. This B-size, 1-slot VXI

module features low-thermal offset reed relays with built-in thermistor reference junction compensation. It supports both 3-wire and 8-channel 4-wire configurations, scanning up to 600 channels/second when integrated with compatible Keysight DMMs such as the E1326B or E1411B.

Technical Specifications

Module Type: General-purpose reed relay multiplexer
VXI Form Factor: B-size, 1-slot
Channel Count: 16 channels
Configurations: 16-channel 3-wire or 8-channel 4-wire multiplexing
Relay Type: Reed relays with break-before-make action
Thermal Offset: $<4\ \mu\text{V}$ (differential, Hi-Lo)
Relay Life: 10^8 operations minimum (no load); 10^7 operations minimum (rated load)
Relay Behavior: Open on power down; open on power up
Reference Junction Accuracy: $0.3\ ^\circ\text{C}$ ($18\text{--}28\ ^\circ\text{C}$ operating range)
Scanning Rate: 600 channels/second typical
Maximum Voltage: 120 Vdc / 120 Vrms (any terminal to any other terminal or chassis)
Maximum Current: 50 mA per channel common (non-inductive)
Maximum Power: 1 VA per channel
Closed Channel Resistance: $100\ \Omega \pm 10\%$
Screw Terminal Wire Gauge: 16–26 AWG (0.5–1.5 mm diameter)

Key Features

- Integrated thermistor reference junction for cold junction compensation
- Low-thermal offset design ($<4\ \mu\text{V}$) minimizes measurement error in precision thermocouple applications
- Switches high, low, and guard on all 16 channels for flexible circuit topologies
- Compatible with Keysight E1326B and E1411B DMMs for automated temperature and voltage/current measurement
- Two- and four-wire resistance measurement capable when paired with compatible VXI instrumentation

Typical Applications

- Automated thermocouple data acquisition and temperature monitoring
- Multi-channel precision voltage and current measurement
- Resistance measurement (2-wire and 4-wire configurations)
- High-reliability switching in laboratory and production test environments

Compatibility & Integration

The E1347A integrates into B-size VXI mainframes (e.g., Agilent E1300B or E1301B) via analog bus cable. C-size mainframe operation requires the E1403C active adapter. One analog bus cable is supplied for connecting adjacent slot modules. The module shares its component card (E1345-66201) with E1343A, E1345A, E1346A, E1355A, and E1356A models, with differences in terminal block configuration only.

E1347A Characteristics / Specifications

PARAMETER	VALUE
Channel Topologies	16×3 wire or 8×4 wire
Reference Junction	built-in thermistor
Relay Type	reed relays
Maximum Voltage Any Terminal	120 V rms or 170 V peak
Maximum Current Per Channel	50 mA non inductive
Maximum Power Per Channel	1 VA
Maximum Thermal Offset Differential Hi Lo	4 uV
Closed Channel Resistance	100 ohm plus/minus 10 percent
Insulation Resistance Between Any Two Points	1e9 ohm
Minimum Bandwidth Minus 3 dB 50 Ohm	10 MHz with protection resistors shorted
Scanning Rate Typical	600 channels/s
Relay Life Rated Load	1e7 operations
Screw Terminal Wire Size	16 to 26 AWG
VXI Device Type	register based A16 slave only
Module Size	B
Slots Occupied	1
Connectors	P1
Shared Memory	None
Component Card	E1345-66201
Functionally Related Model	E1345A without TC junctionCSize Compatibility: requires E1403C
Analog Bus Cable	yes for DMM scanning
Operating Temperature Class	0 to 55 C
Bandwidth	Minus 3 dB 50 Ohm: 10 MHz with protection resistors shorted
Operating temperature	Class: 0 to 55 C

E1347A Specifications

PARAMETER	VALUE
Applications	Thermocouple temperature scanning into E1326B/E1411B multimeters and compensated low-level voltage multiplexing in Series B VXI systems.
Built in thermistor reference junction	Low thermal offset reed relays under 4 uV
Channel scanning with Agilent DMMs	Shares E1345-66201 component card with E1345A
Technical Specifications	Channel Topologies: 16×3 wire or 8×4 wire

General Specifications & Supplementary Characteristics

PARAMETER	VALUE
Operating temperature	Class: 0 to 55 C
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Operating Temperature Class	0 to 55 C Notes Values from Agilent E1347A datasheet 5965-5603E and shared E1345A/E1347A service/user manuals. Confirm thermocouple types programmed in the scanning multimeter for installed system accuracy.

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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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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30-day returns
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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.