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Data Sheet

August 15, 2026

AGILENT / KEYSIGHT

Agilent/Keysight E1686A

The HP E1686A isaDS1/DS3 transceiver VXI module with LED indicator card for the 75000 Series 90. OEM catalog listings describe PDH tributary transceiver functions alongside E1686B 2/8/34/139 Mb/s transceiver. DS1 and DS3 electrical tributary add/drop and transceiver duties in Series 90 SONET payload tests. Related Cept Transceiver: E1686B 2/8/34/139 Mb/s From HP E1686A catalog identity (DS1/DS3 Transceiver, LED Indicator Card, VXI). Line build-out and coding belong on the E1686A data sheet. DS1 and DS3 electrical tributary add/drop and transceiver duties in Series 90 SONET payload tests. Related Cept Transceiver: E1686B 2/8/34/139 Mb/s From HP E1686A catalog identity (DS1/DS3 Transceiver, LED Indicator Card, VXI). Line build-out and coding belong on the E1686A data sheet.

**MODEL****Agilent / Keysight
E1686A****CALIBRATION****Available on
request****CONDITION****Used****STATUS****In stock****RFQ / SKU****E1686A****LISTING**<https://aumictechlabs.com/products/e1686a-2/>

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SAM registered

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NAICS 423690 · 811210 · 541380

This unit

The Keysight E1686A is a C-size, double-slot VXI module that functions as an independent DS1/DS3 transceiver for telecom signal acquisition and testing. It transmits and receives DS3 and DS1/E1 signals simultaneously, with integrated DS3 channelization to source and measure DS1 signals embedded within DS3 payloads. The module also performs basic DS2 measurements and handles E1 signal insertion and measurement within DS3 streams. Technical Specifications The E1686A operates as a message-based VXI instrument supporting SCPI command control. It generates and detects frame-based alarms, introduces payload and overhead bit errors for

testing, and provides all necessary frame rates, patterns, and line codes for DS1, DS2, DS3, and E1 signal handling. Dual independent interfaces DS3 (TX, RX, Clock In) and DS1/E1 (TX, RX, Clock In) - enable concurrent signal operations. Shared clock outputs and TTL trigger outputs support synchronization across multiple test channels and external systems.

Key Features

- C-size, double-slot form factor for VXI chassis integration
- Independent DS3 and DS1/E1 transmit and receive paths
- DS3 channelization with embedded DS1/E1 signal sourcing and measurement
- Alarm generation and detection
- Payload and overhead bit error insertion
- Front-panel LED status indicators for TX, RX, and clock health on both DS3 and DS1/E1 interfaces
- Clock Out and Trig Out TTL connectors for external synchronization

Typical Applications

- DS1/DS3 transceiver testing in telecom equipment development
- Embedded signal validation within DS3 multiplexed streams
- Frame-based error injection for robustness testing
- Multi-channel signal acquisition in VXI test systems
- Legacy telecom infrastructure characterization and maintenance

Compatibility & Integration

The module complies with VXIbus standards and supports VXIplug&play for plug-and-play integration. SCPI messaging enables seamless control within automated test frameworks. As a legacy product, direct manufacturer support is limited; availability is typically through third-party suppliers.

E1686A Characteristics / Specifications

PARAMETER	VALUE
Model	E1686A
Instrument Type	DS1/DS3 transceiver
Ds1 Rate	1.544 Mb/s
Ds3 Rate	44.736 Mb/s
Card Format	C-size VXI
Partner Platform	HP 75000 Series 90
Related Cept Transceiver	E1686B 2/8/34/139 Mb/s
Related Vt Generator	E1683A
Related Spe Generator	E1681A
Related Analyzer	E1676B
Manufacturer	HP Agilent Keysight
Use Case	DS1/DS3 tributary transceiver
Standards Family	Bell DS1/DS3
Remote Control	Series 90 controller
System Role	PDH transceiver
Form Factor	C-size VXI module
Bus	VXI
Indicators	LED indicator card
Slot Family	Series 90 VXI
Hierarchy Low	DS1
Hierarchy High	DS3
Related Optical Lif	E1662A
Mapping Class	DS1/DS3 into VT/SPE

E1686A Specifications

PARAMETER	VALUE
HP Agilent E1686A DS1/DS3 Transceiver	Overview
Applications	DS1 and DS3 electrical tributary add/drop and transceiver duties in Series 90 SONET payload tests.
Key Features	DS1 and DS3 transceiver
LED indicator card	Series 90 VXI module
Technical Specifications	Model: E1686A
Notes	From HP E1686A catalog identity (DS1/DS3 Transceiver, LED Indicator Card, VXI). Line build-out and coding belong on the E1686A data sheet.

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

788 S 500 E, Pleasant Grove, UT 84062
sales@aumictech.com · +1 (484) 841-9341
<https://aumictechlabs.com>

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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.