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**Data Sheet**

August 15, 2026

AGILENT / KEYSIGHT

## Agilent/Keysight J1421A

HP Agilent J1421A SpectralBER 10 Gb/s Clock Source Module The Agilent J1421A is the message-based C-size double-slot VXI clock-source module for the SpectralBER 10 Gb/s DWDM system. OEM SpectralBER literature states J1421A supplies a clock signal at 10 Gb/s (and optionally 2.5 Gb/s) for J1422B transmitter modules and is used with J1420B receivers. J1426A (2 MHz MTS) or J1427A (1.5 Mb/s BITS) single-slot modules insert a 155.52 MHz reference clock into J1421A. 10 Gb/s (optional 2.5 Gb/s) clocking of SpectralBER DWDM transmitters and receivers. The Agilent J1421A is the message-based C-size double-slot VXI clock-source module for the SpectralBER 10 Gb/s DWDM system. OEM SpectralBER literature states J1421A supplies a clock signal at 10 Gb/s (and optionally 2.5 Gb/s) for J1422B transmitter modules and is used with J1420B receivers. J1426A (2 MHz MTS) or J1427A (1.5 Mb/s BITS) single-slot modules insert a 155.52 MHz reference clock into J1421A. 10 Gb/s (optional 2.5 Gb/s) clocking of SpectralBER DWDM transmitters and receivers. Instrument Type: SpectralBER 10 Gb/s clock source

**MODEL****Agilent / Keysight  
J1421A****CALIBRATION****Available on  
request****CONDITION****Used****STATUS****In stock****RFQ / SKU****J1421A****LISTING**<https://aumictechlabs.com/products/j1421a-2/>

NIST-traceable cal

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NAICS 423690 · 811210 · 541380

### This unit

The Agilent/Keysight J1421A is a clock source module for high-speed digital testing within VXI instrumentation systems. It generates precise clock signals at 10 Gb/s and 2.5 Gb/s, with clock offset capability of  $\pm 20$  ppm. The module accepts multiple external reference sources - 156 MHz,

622 MHz, and 2.5 GHz - and external clock inputs at 10 GHz and 2.5 GHz. It can slave to a 156 MHz clock recovered from a J1420B Receiver module, making it essential for network analysis and bit error rate testing applications requiring stable, synchronized timing signals.

**Technical Specifications**

**Product Type:** Clock Source VXI Module

**Form Factor:** C-size, two-slot VXI module

**Register-Based:** Yes

**Clock Generation:** 10 Gb/s and 2.5 Gb/s outputs

**Clock Offset:**  $\pm 20$  ppm

**External Reference Source Input:** 156 MHz, 622 MHz, 2.5 GHz

**External Clock Input:** 10 GHz, 2.5 GHz

**Slaving Capability:** 156 MHz recovered clock from J1420B Receiver module

**Key Features**

- Dual clock generation at industry-standard data rates for high-speed testing
- Multiple reference input options for flexible system synchronization
- Fine clock offset tuning for precision measurements
- Direct integration with Agilent/Keysight receiver modules via slaving capability

Part of the SpectralBER Clock Source product family

**Typical Applications**

- Bit Error Rate (BERT) testing on high-speed digital signals
- Network analyzer clock sourcing
- Synchronization within VXI-based instrumentation systems

**Compatibility & Integration**

The J1421A integrates into standard VXI chassis and works with the J1420B Receiver module for clock recovery and synchronization. Its register-based architecture enables straightforward control and configuration within larger test systems.

## J1421A Characteristics / Specifications

| PARAMETER              | VALUE                                                                         |
|------------------------|-------------------------------------------------------------------------------|
| Model                  | J1421A                                                                        |
| Instrument Type        | SpectralBER 10 Gb/s clock source                                              |
| Clock Rate             | 10 Gb/s                                                                       |
| Form Factor            | message-based C-size VXI                                                      |
| Slot Width             | two VXI slots                                                                 |
| Factory Default Slots  | 1 and 2 in the 10 Gb/s example layout                                         |
| Related Transmitter    | J1422B                                                                        |
| Related Receiver       | J1420B                                                                        |
| Related Mts Reference  | J1426A 2 MHz MTS, 155.52 MHz insert                                           |
| Related Bits Reference | J1427A 1.5 Mb/s BITS, 155.52 MHz insert                                       |
| Host Command           | E1406A Command Module                                                         |
| Mainframe              | C-size VXI                                                                    |
| Control                | SCPI, Universal Instrument Drivers, Soft Front Panel                          |
| Manufacturer           | Agilent Keysight HP                                                           |
| Use Case               | 10 Gb/s SpectralBER system clock                                              |
| Literature             | Agilent SpectralBER System Installation and System Reference Manual<br>J1421A |
| Family                 | SpectralBER 10 Gb/s                                                           |
| Cabling                | semi-rigid cable to transmitter; transmitter to the right of clock source     |
| Documentation Type     | OEM SpectralBER installation manual                                           |
| Brand Lineage          | HP Agilent Keysight SpectralBER                                               |
| System Role            | 10 Gb/s clock source                                                          |
| Laser Class Note       | used with Class I J1422B transmitter                                          |

# J1421A Specifications

| PARAMETER                  | VALUE                                                                                |
|----------------------------|--------------------------------------------------------------------------------------|
| Applications               | 10 Gb/s (optional 2.5 Gb/s) clocking of SpectraIBER DWDM transmitters and receivers. |
| Key Features               | 10 Gb/s clock, optional 2.5 Gb/s                                                     |
| Drives J1422B transmitters | Syncs J1420B receivers                                                               |
| Technical Specifications   | Model: J1421A                                                                        |

# 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                |                                                                            |
|-------------------------------|----------------------------------------------------------------------------|
| Specifications                |                                                                            |
| PARAMETER                     | VALUE                                                                      |
| Model                         | J1421A                                                                     |
| Instrument Type               | SpectralBER 10 Gb/s clock source                                           |
| Clock Rate                    | 10 Gb/s                                                                    |
| Optional Clock Rate: 2.5 Gb/s |                                                                            |
| Specifications                |                                                                            |
| PARAMETER                     | VALUE                                                                      |
| Form Factor                   | message-based C-size VXI                                                   |
| Slot Width                    | two VXI slots                                                              |
| Factory Default Slots         | 1 and 2 in the 10 Gb/s example layout                                      |
| Related Transmitter           | J1422B                                                                     |
| Related Receiver              | J1420B                                                                     |
| Related Mts Reference         | J1426A 2 MHz MTS, 155.52 MHz insert                                        |
| Related Bits Reference        | J1427A 1.5 Mb/s BITS, 155.52 MHz insert                                    |
| Host Command                  | E1406A Command Module                                                      |
| Mainframe                     | C-size VXI                                                                 |
| Control                       | SCPI, Universal Instrument Drivers, Soft Front Panel                       |
| Manufacturer                  | Agilent Keysight HP                                                        |
| Use Case                      | 10 Gb/s SpectralBER system clock                                           |
| Literature                    | Agilent SpectralBER System Installation and System Reference Manual J1421A |
| Family                        | SpectralBER 10 Gb/s                                                        |
| Cabling                       | semi-rigid cable to transmitter; transmitter to the right of clock source  |
| Documentation Type            | OEM SpectralBER installation manual                                        |
| Brand Lineage                 | HP Agilent Keysight SpectralBER                                            |
| System Role                   | 10 Gb/s clock source                                                       |

## PARAMETER

## VALUE

**Laser Class Note**

used with ClassIJ1422B transmitter

## Notes

From Agilent SpectralBER installation/reference manual (J1421A two-slot 10 Gb/s clock, optional 2.5 Gb/s, J1426A/J1427A 155.52 MHz reference insert). Clock jitter, SMA levels, and 2.5 Gb/s option codes are in the J1421A clock-source specification document.

### Available from Aumictech

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

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

#### Aumictech

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