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**Data Sheet**

August 13, 2026

ANRITSU

## Anritsu MP1653A 3GHz Error Detector

The Anritsu MP1653A is a high-speed error detector covering 0.05 GHz to 3 GHz for bit-error-rate testing of optical modules, digital ICs, and transmission equipment. It pairs with the MP1652A pulse pattern generator (and is integrated into the MP1632A digital data analyzer cabinet) and provides one-touch auto search of input threshold and phase, short-interval error detection, and high-speed printer output for R&D and production BER workflows. Printer media: built in hard copy of errors Sync acquisition: short period frame mode sync Related MU module ED: MU163240A 3.2G Error Detector Specs from Anritsu MP1653A error detector product listings and MP1632A family descriptions (0.05–3 GHz; auto search; 0.1 s intervals; printer). Confirm exact I/O levels, installed options, and PPG pairing on the unit. Finer sensitivity/phase-margin numbers belong on the OEM datasheet and calibration certificate.



|                                 |                                                                                                                      |
|---------------------------------|----------------------------------------------------------------------------------------------------------------------|
| MODEL<br><b>Anritsu MP1653A</b> | CALIBRATION<br><b>Available on request</b>                                                                           |
| CONDITION<br><b>Used</b>        | STATUS<br><b>In stock</b>                                                                                            |
| RFQ / SKU<br><b>MP1653A</b>     | LISTING<br><a href="https://aumictechlabs.com/products/mp1653a-2/">https://aumictechlabs.com/products/mp1653a-2/</a> |

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### This unit

ANRITSU MP1653A, This error detector works with high-speed transmission system testing from 50 MHz to 3 GHz. It has accurate BER measurements and is compatible with various pulse pattern generators to form a complete test system. Key features include automatic pattern synchronization, wide pattern support, and a responsive front panel for user interaction. The unit's high sensitivity and low jitter performance make it suitable for testing SDH/SONET, ATM, and

Ethernet systems. Remote control and automation support via GPIB enable efficient use in manufacturing and R&D labs.

## Features & description

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From manufacturer datasheet

### Features

• Operating frequency 0.05 to 3 GHz • One touch auto search for threshold and phase • Frame mode pattern sync to 512 kbit class • Built in high speed printer • Error detection intervals as short as 0.1 s • Zero wait time counter gate • Companion to MP1652A PPG and MP1632A analyzer • GPIB remote capability in family configurations

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### Applications

• BER testing of high-speed digital ICs to 3 GHz • Optical module and E/O O/E evaluation • SONET/SDH STM-16 / OC-48 class device characterization • Paired PPG/ED bit error rate test sets with MP1652A • Production screening with auto search and printer logging

## MP1653A Characteristics / Specifications

| PARAMETER                        | VALUE                                |
|----------------------------------|--------------------------------------|
| Model                            | MP1653A                              |
| Manufacturer                     | Anritsu                              |
| Instrument Type                  | Error Detector                       |
| Alias                            | MP1653A; Anritsu MP1653A             |
| Frequency range                  | 0.05 GHz to 3 GHz                    |
| Minimum frequency                | 50 MHz                               |
| Maximum frequency                | 3 GHz                                |
| Auto search function             | one touch input threshold and phase  |
| Pattern sync frame mode          | 512 kbit class synchronization       |
| Error detection interval minimum | 0.1 s                                |
| Counter gate                     | zero wait time                       |
| Built in printer                 | yes high speed                       |
| Primary measurement              | bit error rate                       |
| Related PPG                      | MP1652A Pulse Pattern Generator      |
| Related combined analyzer        | MP1632A with MU163220A/MU163240A     |
| Input sensitivity class          | high sensitivity ED family           |
| Phase margin measurement         | supported via threshold/phase search |
| Threshold margin measurement     | supported via auto search            |
| Error rate display               | BER counters and rate readout        |
| Error count display              | accumulated error count              |
| Pattern types supported with PPG | PRBS and programmable                |
| Mark ratio PRBS                  | variable with companion PPG          |
| Remote control class             | GPIB in system configurations        |
| Form factor                      | benchtop error detector              |
| Primary use                      | 3 GHz BERT error detection           |

| PARAMETER                  | VALUE                                                                                                                                                                                                                                                                                                                                                |
|----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Operating frequency lower  | 0.05 GHz                                                                                                                                                                                                                                                                                                                                             |
| Operating frequency upper  | 3.0 GHz                                                                                                                                                                                                                                                                                                                                              |
| Interface class            | high speed digital data input                                                                                                                                                                                                                                                                                                                        |
| Clock recovery class       | phase setting via auto search                                                                                                                                                                                                                                                                                                                        |
| Measurement interval class | 0.1 s class short interval                                                                                                                                                                                                                                                                                                                           |
| Printer media              | built in hard copy of errors                                                                                                                                                                                                                                                                                                                         |
| Sync acquisition           | short period frame mode sync                                                                                                                                                                                                                                                                                                                         |
| Related MU module ED       | MU163240A 3.2G Error Detector                                                                                                                                                                                                                                                                                                                        |
| Product family             | Anritsu MP165x BERTS Notes Specs from Anritsu MP1653A error detector product listings and MP1632A family descriptions (0.05–3 GHz; auto search; 0.1 s intervals; printer). Confirm exact I/O levels, installed options, and PPG pairing on the unit. Finer sensitivity/phase-margin numbers belong on the OEM datasheet and calibration certificate. |

# 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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| PARAMETER                        | VALUE                                |
| Model                            | MP1653A                              |
| Manufacturer                     | Anritsu                              |
| Instrument Type                  | Error Detector                       |
| Alias                            | MP1653A; Anritsu MP1653A             |
| Frequency range                  | 0.05 GHz to 3 GHz                    |
| Minimum frequency                | 50 MHz                               |
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| Auto search function             | one touch input threshold and phase  |
| Pattern sync frame mode          | 512 kbit class synchronization       |
| Error detection interval minimum | 0.1 s                                |
| Counter gate                     | zero wait time                       |
| Built in printer                 | yes high speed                       |
| Primary measurement              | bit error rate                       |
| Related PPG                      | MP1652A Pulse Pattern Generator      |
| Related combined analyzer        | MP1632A with MU163220A/MU163240A     |
| Input sensitivity class          | high sensitivity ED family           |
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| Threshold margin measurement     | supported via auto search            |
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| Pattern types supported with PPG | PRBS and programmable                |
| Mark ratio PRBS                  | variable with companion PPG          |
| Remote control class             | GPIB in system configurations        |
| Form factor                      | benchtop error detector              |
| Primary use                      | 3 GHz BERT error detection           |
| Operating frequency lower        | 0.05 GHz                             |

| PARAMETER                  | VALUE                         |
|----------------------------|-------------------------------|
| Operating frequency upper  | 3.0 GHz                       |
| Interface class            | high speed digital data input |
| Clock recovery class       | phase setting via auto search |
| Measurement interval class | 0.1 s class short interval    |
| Printer media              | built in hard copy of errors  |
| Sync acquisition           | short period frame mode sync  |
| Related MU module ED       | MU163240A 3.2G Error Detector |
| Product family             | Anritsu MP165x BERTS          |

Notes

Specs from Anritsu MP1653A error detector product listings and MP1632A family descriptions (0.05–3 GHz; auto search; 0.1 s intervals; printer). Confirm exact I/O levels, installed options, and PPG pairing on the unit. Finer sensitivity/phase-margin numbers belong on the OEM datasheet and calibration certificate.

### 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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Technical content from manufacturer specifications. Unit photo/stock from Aumictech listing when available. Specifications subject to OEM documentation and unit condition.