

**Aumictech**

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**Data Sheet**

August 12, 2026

FLUKE

## Fluke MDA-550 Series III

The Fluke MDA-550 Series III Motor Drive Analyzer is a comprehensive tool for testing and troubleshooting motor drives. It offers detailed analysis of voltage, current, frequency, and harmonics, enabling technicians to quickly identify and resolve issues in motor drive systems. Its advanced features and user-friendly interface make it ideal for both field and lab use.



MODEL

**Fluke MDA-550**

CALIBRATION

**Available on request**

CONDITION

**Used**

STATUS

**In stock**

RFQ / SKU

**MDA-550**

LISTING

<https://aumictechlabs.com/products/mda-550-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

### This unit

The Fluke MDA-550 Series III is a 4-channel motor drive analyzer that combines motor drive analysis, waveform measurement, and data logging into a single portable instrument. Built for field and lab troubleshooting of inverter-type motor drive systems, it delivers guided test sequences, preset measurement profiles, and graphical connection diagrams to streamline setup and ensure repeatable results. The device captures electrical behavior from power input through motor terminals, supporting single-phase and three-phase configurations. An integrated report generator produces documented "as-found" and "as-left" reports for rapid job closure and compliance tracking.

**Technical Specifications**

| Measurement Capability                                      |
|-------------------------------------------------------------|
| 4-channel analyzer with 500 MHz bandwidth                   |
| DC voltage accuracy: $\pm(1.5\% + 6 \text{ counts})$        |
| True-RMS voltage accuracy: $\pm(1.5\% + 10 \text{ counts})$ |
| DC to 60 Hz; $\pm(2.5\% + 15 \text{ counts})$               |
| 60 Hz to 20 kHz; $\pm(5\% + 20 \text{ counts})$             |
| 20 kHz to 1 MHz; $\pm(10\% + 20 \text{ counts})$            |
| 1 MHz to 25 MHz                                             |
| Maximum voltage measurement: 1000 V with 10:1 or 100:1      |

probe Resolution: 1 mV / 10 mV with 10:1 or 100:1 probe PWM, peak, and modulation voltage measurement supported DC bus voltage, voltage unbalance, and current unbalance analysis included Safety & Environmental 600 V CAT IV / 1000 V CAT III rated 1000 V CAT III / 600 V CAT IV at service entrance and downstream Maximum floating voltage: 1000 V CAT III / 600 V CAT IV VPS421 probe rated to 2000 V between tip and reference Operating temperature: 0–40 °C Pollution degree 2 per IEC 61010-1Key Features Input and output current measurement with unbalance detection Voltage unbalance assessment at drive input DC bus ripple and voltage level trending Guided troubleshooting workflows reduce setup time Portable design for HVAC/R, motor repair, and manufacturing environmentsTypical Applications Inverter drive diagnostics and commissioning Motor circuit troubleshooting Power quality assessment at motor terminals Field service and preventive maintenance Motor repair and rewind verificationCompatibility & Integration Accepts VPS410-II (1000 V working voltage) and VPS421 (2000 V working voltage) probes. BNC input rated 300 V CAT IV.

## Features & description

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From manufacturer datasheet

### Features

- Guided motor-drive measurement profiles • 4 channels, 500 MHz ScopeMeter architecture • Harmonics to 51st; spectrum bands to 500 MHz class • Shaft voltage event analysis • Report capture (~50 screens typical) with USB/WiFi/FlukeView-2 • CAT IV 600 V / CAT III 1000 V

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### Applications

- Variable-frequency drive and motor troubleshooting • DC bus voltage/ripple, unbalance, and harmonics • Voltage modulation and shaft-voltage discharge analysis • General 500 MHz industrial scope/meter measurements

## MDA550 Characteristics / Specifications

| PARAMETER                         | VALUE                                                                                                                                                                 |
|-----------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Model                             | MDA-550                                                                                                                                                               |
| Manufacturer                      | Fluke                                                                                                                                                                 |
| Instrument Type                   | Motor Drive Analyzer                                                                                                                                                  |
| Alias                             | MDA-550; MDA-550 Series III; Fluke MDA-550-III                                                                                                                        |
| Channels                          | 4                                                                                                                                                                     |
| Bandwidth class                   | 500 MHz                                                                                                                                                               |
| Frequency meter range             | 1.000 Hz to 500 MHz                                                                                                                                                   |
| Frequency accuracy                | +/- (0.5% + 2 counts)                                                                                                                                                 |
| Harmonics                         | DC to 51st                                                                                                                                                            |
| Spectrum ranges                   | 1-9 kHz; 9-150 kHz (20 MHz filter); up to 500 MHz voltage modulation                                                                                                  |
| Safety                            | CAT IV 600 V / CAT III 1000 V                                                                                                                                         |
| Max voltage any terminal to earth | 1000 V                                                                                                                                                                |
| BNC input directly                | 300 V CAT IV                                                                                                                                                          |
| Voltage probe factors             | 1:1, 10:1, 100:1, 1000:1, 20:1, 200:1                                                                                                                                 |
| Current clamp scale factors       | 0.1 to 400 mV/A class                                                                                                                                                 |
| Report screens typical            | about 50                                                                                                                                                              |
| Transfer                          | USB stick, mini-USB, or WiFi + FlukeView-2 Notes Specs from Fluke MDA-550 Series III technical data. Confirm included probes/clamps/SVS-500 shaft set on the listing. |
| Bandwidth                         | class: 500 MHz                                                                                                                                                        |

# 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                                                                                                                | MDA-550                                                              |
| Manufacturer                                                                                                         | Fluke                                                                |
| Instrument Type                                                                                                      | Motor Drive Analyzer                                                 |
| Alias                                                                                                                | MDA-550; MDA-550 Series III; Fluke MDA-550-III                       |
| Specifications                                                                                                       |                                                                      |
| PARAMETER                                                                                                            | VALUE                                                                |
| Channels                                                                                                             | 4                                                                    |
| Bandwidth class                                                                                                      | 500 MHz                                                              |
| Frequency meter range                                                                                                | 1.000 Hz to 500 MHz                                                  |
| Frequency accuracy                                                                                                   | +/- (0.5% + 2 counts)                                                |
| Harmonics                                                                                                            | DC to 51st                                                           |
| Spectrum ranges                                                                                                      | 1-9 kHz; 9-150 kHz (20 MHz filter); up to 500 MHz voltage modulation |
| Safety                                                                                                               | CAT IV 600 V / CAT III 1000 V                                        |
| Max voltage any terminal to earth                                                                                    | 1000 V                                                               |
| BNC input directly                                                                                                   | 300 V CAT IV                                                         |
| Voltage probe factors                                                                                                | 1:1, 10:1, 100:1, 1000:1, 20:1, 200:1                                |
| Current clamp scale factors                                                                                          | 0.1 to 400 mV/A class                                                |
| Report screens typical                                                                                               | about 50                                                             |
| Transfer                                                                                                             | USB stick, mini-USB, or WiFi + FlukeView-2                           |
| Notes                                                                                                                |                                                                      |
| Specs from Fluke MDA-550 Series III technical data. Confirm included probes/clamps/SVS-500 shaft set on the listing. |                                                                      |

### 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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NIST-traceable calibration · SAM registered ·  
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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.