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**Data Sheet**

August 15, 2026

AGILENT / KEYSIGHT

# Agilent / Keysight E5070B 3GHz ENA RF Network Analyzer

Interfaces: GPIB LAN USB host USB USBTMC VGA parallel handler I/O Line Power Voltage: 90 to 132 VAC or 198 to 264 VAC auto switched Warmup Spec: 90 minutes after turn-on for warranted specs From Agilent ENA E5070B/E5071B data sheet 5988-3780EN. Dynamic range may be limited to 90 dB at particular frequencies below 350 MHz due to spurious residuals. Agilent / Keysight E5070B ENA RF Network Analyzer 300 kHz to 3 GHz The Agilent E5070B is an ENA Series RF network analyzer covering 300 kHz to 3 GHz with integrated 2-, 3-, or 4-port S-parameter test set options. OEM ENA data sheet 5988-3780EN rates system dynamic range of 122 dB from 1.5 to 3 GHz and 120 dB from 3 MHz to 1.5 GHz in 10 Hz IFBW, with maximum test port input of +10 dBm to 3 GHz and crosstalk of -120 dB from 3 MHz to 3 GHz. RF multiport S-parameter production test, filter and balanced-device characterization, and automated handler-based component test with ECal.



MODEL

**Agilent / Keysight  
E5070B**

CALIBRATION

**Available on  
request**

CONDITION

**Used**

STATUS

**In stock**

RFQ / SKU

**E5070B**

LISTING

<https://aumictechlabs.com/products/e5070b-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

## This unit

The Agilent/Keysight E5070B is a 3 GHz RF network analyzer engineered for precise S-parameter characterization across component development, validation, and production environments.

Operating from 300 kHz to 3 GHz with 125 dB dynamic range and 9.6  $\mu$ s/point sweep speed, it delivers fast multiport measurements without compromising accuracy. The instrument supports configurable 2-, 3-, or 4-port architectures with balanced measurement capability for differential and mixed-mode device testing.

**Technical Specifications**  
Frequency Range: 300 kHz to 3 GHz  
Dynamic Range: Up to 125 dB (at 10 Hz IFBW); 108 dB (at 3 kHz IFBW)  
Sweep Speed: 9.6  $\mu$ s/point  
Trace Noise: 0.001 dB rms  
Port Configuration: 2, 3, or 4 ports (configurable)  
Source Power Output: -15 dBm to +10 dBm standard; -50 dBm to +10 dBm with attenuators; 0 dBm maximum  
Level Accuracy (10 MHz–3 GHz):  $\pm 0.650$  dB at 0 dBm  
Level Linearity (10 MHz–3 GHz):  $\pm 0.75$  dB across -15 dBm to +10 dBm range

**Key Features**  
S-parameter and mixed-mode S-parameter measurements  
Fixture embedding/de-embedding and matching circuit correction  
Frequency-offset mode for frequency-translated device analysis  
Port characteristic impedance conversion  
Time-domain analysis capability  
Integrated balanced measurement support for SAW filters and differential amplifiers  
Visual Basic for Applications programming environment  
SCPI and COM interface support

**Typical Applications**  
Component characterization in R&D and manufacturing; multiport device validation; balanced and differential circuit analysis; frequency-translated device testing.

**Compatibility & Integration**  
LAN and GPIB connectivity. Compatible with Measurement Wizard Assistant (MWA) software. Supports industry-standard calibration kits (85032F, 85033E, 85092C, 85093C) and multiport test sets (E5091A, E5092A). Instrument weight: 17.5 kg (2-port), 19.5 kg (4-port).

## E5070B Characteristics / Specifications

| PARAMETER                                           | VALUE                                                           |
|-----------------------------------------------------|-----------------------------------------------------------------|
| Model                                               | E5070B                                                          |
| Instrument Type                                     | ENA RF network analyzer                                         |
| Frequency Range                                     | 300 kHz to 3 GHz                                                |
| System Dynamic Range 300 Khz To 3 Mhz 10 Hz Ifbw    | 110 dB                                                          |
| System Dynamic Range 3 Mhz To 1.5 Ghz 10 Hz Ifbw    | 120 dB                                                          |
| System Dynamic Range 1.5 To 3 Ghz 10 Hz Ifbw        | 122 dB                                                          |
| System Dynamic Range 3 Mhz To 1.5 Ghz 3 Khz Ifbw    | 95 dB                                                           |
| System Dynamic Range 1.5 To 3 Ghz 3 Khz Ifbw        | 97 dB                                                           |
| Maximum Test Port Input 300 Khz To 3 Ghz            | +10 dBm                                                         |
| Damage Level Rf                                     | +20 dBm                                                         |
| Damage Level Dc Source Attenuator 0 Db              | plus or minus 14 VDC                                            |
| Crosstalk 3 Mhz To 3 Ghz                            | -120 dB                                                         |
| Corrected Directivity 3 Mhz To 3 Ghz Type N 85032F  | 49 dB                                                           |
| Corrected Source Match 3 Mhz To 3 Ghz Type N 85032F | 41 dB                                                           |
| Corrected Load Match 3 Mhz To 3 Ghz Type N 85032F   | 49 dB                                                           |
| Port Configuration Options                          | 214 2-port 314 3-port 414 4-port                                |
| Display                                             | 10.4 inch color LCD                                             |
| External Reference Input                            | 10 MHz plus or minus 10 ppm typical at 0 dBm plus or minus 3 dB |
| Internal Reference Output                           | 10 MHz sine 0 dBm plus or minus 3 dB into 50 ohm typical        |
| Interfaces                                          | GPIB LAN USB host USB USBTMC VGA parallel handler I/O           |

| PARAMETER                  | VALUE                                         |
|----------------------------|-----------------------------------------------|
| Line Power Voltage         | 90 to 132 VAC or 198 to 264 VAC auto switched |
| Line Power Frequency       | 47 Hz to 63 Hz                                |
| Va Max                     | 350 VA max                                    |
| Operating Temperature Spec | 5 C to 40 C                                   |
| Warmup Spec                | 90 minutes after turn-on for warranted specs  |
| Card Geometry              | benchtop ENA RF analyzer                      |
| Operating temperature      | Spec: 5 C to 40 C                             |

# General Specifications & Supplementary Characteristics

| PARAMETER                  | VALUE                                                                                                                                                                                          |
|----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Operating temperature      | Spec: 5 C to 40 C                                                                                                                                                                              |
| Operating Temperature      | Spec: 5 C to 40 C                                                                                                                                                                              |
| Operating Temperature Spec | 5 C to 40 C                                                                                                                                                                                    |
| Warmup Spec                | 90 minutes after turn-on for warranted specs                                                                                                                                                   |
| Card Geometry              | benchtop ENA RF analyzer Notes From Agilent ENA E5070B/E5071B data sheet 5988-3780EN. Dynamic range may be limited to 90 dB at particular frequencies below 350 MHz due to spurious residuals. |

# 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                                                                                                                                                                                                                                                                                                                                               | E5070B                                                          |
| Instrument Type                                                                                                                                                                                                                                                                                                                                     | ENA RF network analyzer                                         |
| Frequency Range                                                                                                                                                                                                                                                                                                                                     | 300 kHz to 3 GHz                                                |
| System Dynamic Range 300 KHz To 3 Mhz 10 Hz Ifbw: 110 dB<br>System Dynamic Range 3 Mhz To 1.5 Ghz 10 Hz Ifbw: 120 dB<br>System Dynamic Range 1.5 To 3 Ghz 10 Hz Ifbw: 122 dB<br>System Dynamic Range 3 Mhz To 1.5 Ghz 3 Khz Ifbw: 95 dB<br>System Dynamic Range 1.5 To 3 Ghz 3 Khz Ifbw: 97 dB<br>Maximum Test Port Input 300 KHz To 3 Ghz: +10 dBm |                                                                 |
| Specifications                                                                                                                                                                                                                                                                                                                                      |                                                                 |
| PARAMETER                                                                                                                                                                                                                                                                                                                                           | VALUE                                                           |
| Damage Level Rf                                                                                                                                                                                                                                                                                                                                     | +20 dBm                                                         |
| Damage Level Dc Source Attenuator 0 Db                                                                                                                                                                                                                                                                                                              | plus or minus 14 VDC                                            |
| Crosstalk 3 Mhz To 3 Ghz                                                                                                                                                                                                                                                                                                                            | -120 dB                                                         |
| Corrected Directivity 3 Mhz To 3 Ghz Type N 85032F: 49 dB<br>Corrected Source Match 3 Mhz To 3 Ghz Type N 85032F: 41 dB<br>Corrected Load Match 3 Mhz To 3 Ghz Type N 85032F: 49 dB                                                                                                                                                                 |                                                                 |
| Specifications                                                                                                                                                                                                                                                                                                                                      |                                                                 |
| PARAMETER                                                                                                                                                                                                                                                                                                                                           | VALUE                                                           |
| Port Configuration Options                                                                                                                                                                                                                                                                                                                          | 214 2-port 314 3-port 414 4-port                                |
| Display                                                                                                                                                                                                                                                                                                                                             | 10.4 inch color LCD                                             |
| External Reference Input                                                                                                                                                                                                                                                                                                                            | 10 MHz plus or minus 10 ppm typical at 0 dBm plus or minus 3 dB |
| Internal Reference Output                                                                                                                                                                                                                                                                                                                           | 10 MHz sine 0 dBm plus or minus 3 dB into 50 ohm typical        |
| Interfaces                                                                                                                                                                                                                                                                                                                                          | GPIB LAN USB host USB USBTMC VGA parallel handler I/O           |
| Line Power Voltage                                                                                                                                                                                                                                                                                                                                  | 90 to 132 VAC or 198 to 264 VAC auto switched                   |
| Line Power Frequency                                                                                                                                                                                                                                                                                                                                | 47 Hz to 63 Hz                                                  |
| Va Max                                                                                                                                                                                                                                                                                                                                              | 350 VA max                                                      |
| Operating Temperature Spec                                                                                                                                                                                                                                                                                                                          | 5 C to 40 C                                                     |

| PARAMETER     | VALUE                                        |
|---------------|----------------------------------------------|
| Warmup Spec   | 90 minutes after turn-on for warranted specs |
| Card Geometry | benchtop ENA RF analyzer                     |

Notes

From Agilent ENA E5070B/E5071B data sheet 5988-3780EN. Dynamic range may be limited to 90 dB at particular frequencies below 350 MHz due to spurious residuals.

### 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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<https://aumictechlabs.com>

NIST-traceable calibration · SAM registered ·  
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.