

## KEYSIGHT TECHNOLOGIES (AGILENT HP)

# 8703A

The Keysight (Agilent/HP) 8703A is a high-performance Lightwave Component Analyzer (LCA) designed for characterizing high-speed optical, electro-optical, and electrical components. Operating with a swept modulation frequency from 300 kHz to 20 GHz, it precisely measures the frequency response, reflection, and transmission characteristics of lasers, LEDs, photodiodes, and electro-optic modulators at 1300 nm and 1550 nm wavelengths.

## SPECIFICATIONS

### General

|            |              |
|------------|--------------|
| Interfaces | HP-IB (GPIB) |
| Display    | Built-in CRT |

### Physical

|                       |                                         |
|-----------------------|-----------------------------------------|
| Power Supply          | 90 to 132 V / 198 to 264 V, 47 to 66 Hz |
| Operating Temperature | 0 °C to +55 °C °C                       |
| Dimensions (W×H×D)    | 425 mm × 222 mm × 546 mm mm             |

### System Performance & Measurement Modes

|                            |                                                                                                                    |
|----------------------------|--------------------------------------------------------------------------------------------------------------------|
| Measurement Configurations | E/O (Electrical-to-Optical), O/E (Optical-to-Electrical), O/O (Optical-to-Optical), E/E (Electrical-to-Electrical) |
| Modulation Frequency Range | 130 MHz to 20 GHz                                                                                                  |
| Operating Wavelengths      | 1300 nm or 1550 nm (configuration dependent)                                                                       |

### Configuration & Ordering Options

|                      |                                                                                                                  |
|----------------------|------------------------------------------------------------------------------------------------------------------|
| Laser Source Options | Option 100 (1300 nm internal DFB laser), Option 200 (1550 nm internal DFB laser), Option 300 (no internal laser) |
|----------------------|------------------------------------------------------------------------------------------------------------------|

### RF Specifications

|                         |      |
|-------------------------|------|
| RF Port Impedance       | 50 Ω |
| RF Frequency Resolution | 1 Hz |

### Optical Specifications

|                           |                       |
|---------------------------|-----------------------|
| Optical Connector Options | FC/PC, SC, ST, HMS-10 |
|---------------------------|-----------------------|

### Measurement

|                              |                                                   |
|------------------------------|---------------------------------------------------|
| Number of Measurement Points | 3, 11, 26, 51, 101, 201, 401, 801, 1601 per sweep |
|------------------------------|---------------------------------------------------|

### Receiver

|                          |                                            |
|--------------------------|--------------------------------------------|
| Selectable IF Bandwidths | 10 Hz, 30 Hz, 100 Hz, 300 Hz, 1 kHz, 3 kHz |
|--------------------------|--------------------------------------------|

## TECHNOLOGY

Lightwave Component Analysis

## APPLICATIONS

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### Characterization of high-speed optoelectronic and electrical components

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Generated by SpecAtlasHub (specatlashub.com). Specifications are compiled from available sources and are subject to change — verify critical values against the manufacturer before purchase.