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Data Sheet

August 13, 2026

AGILENT

Agilent 83427A & 86037-80004 Chromatic Dispersion Test set (LOT)

Agilent 83427A & 86037-80004,"Combines advanced chromatic dispersion testing capabilities with accessories for full system characterization. Provides high-resolution measurements critical to fiber optic communication. Ideal for testing dispersion in optical networks and verifying compliance in long-haul fiber systems. Enables comprehensive analysis during product development and system qualification."



MODEL

**Agilent 83427A /
86037-80004**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

**83427A / 86037-
80004**

LISTING

[https://aumictechlabs.c
om/products/83427a-8
6037-80004-2/](https://aumictechlabs.com/products/83427a-86037-80004-2/)

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The Agilent 83427A & 86037-80004 Chromatic Dispersion Test Set is a complete measurement system for characterizing chromatic dispersion in fiber optic communication networks. The 83427A delivers high-resolution dispersion analysis across the C-band, making it essential for long-haul system qualification and product development phases. This LOT configuration bundles the test set with controller units, software, cart, and monitor to create a fully integrated workstation for optical dispersion characterization. Technical Specifications Wavelength Range: 1520 nm to 1570 nm Measurement Bandwidth: 2.5 GHz Receiver Input Range: -45 dBm to -3 dBm Dynamic Range: +42 dBKey Features Agilent 83427A primary measurement engine for chromatic

dispersion testing 86037-80004 controller module enabling full system characterization
Integrated workstation with dedicated computer, software, and peripherals C-band operation
optimized for long-haul fiber systems -45 dBm minimum receiver sensitivity supports low-power
optical signalsTypical Applications Product development and fiber optic system qualification
Long-haul transmission system validation Dispersion characteristic analysis of optical
components and installed fiber Network compliance and performance verificationCompatibility &
Integration The LOT includes system controller units (H132, H133), enabling integrated dispersion
analysis workflows. Operating temperature range: 25°C $\pm$ 5°C. Power supply options available for
100/120 VAC and 220/240 VAC operation with corresponding fuse specifications (0.315 A or 0.16
A, 250 V). Grounded electrical connection required with ground-to-neutral voltage less than 2.5
VAC. Adequate ventilation and clearance around the unit are necessary for proper thermal
management.

Features & description

From manufacturer datasheet

Features

- Instrument grade receiver and modulator in one test set
- Designed for HP Agilent 86037A/B Chromatic Dispersion systems
- Stable accurate optical signal recovery for CD analysis
- Single band and dual band system configurations supported
- Wavelength options include 1300/1550 nm class Opt 114 listings
- Near-end measurement architecture for fiber and components

Applications

- Chromatic dispersion measurement of fiber-optic cables
- Dispersion compensating device and grating evaluation
- Near-end CD tests with both DUT ends at one location
- Service replacement of 86037-series optical test-set assemblies

83427A8603780004 Characteristics / Specifications

PARAMETER	VALUE
Model	83427A
Manufacturer	Agilent / Hewlett Packard / Keysight
Instrument Type	Chromatic Dispersion Test Set
Alias	83427A; 86037-80004; HP 83427A; Agilent 83427A
Host system	86037A / 86037B Chromatic Dispersion Test System
Function	optical receiver and modulator test set
Measurement type	chromatic dispersion near end
DUT classes	fiber cables; dispersion compensating devices; gratings; optical components
Wavelength option listing example	1300/1550 nm Opt 114
System wavelength accuracy class 86037B	0.1 nm
Access requirement	both ends of DUT at same location
System variants	single band and dual band
Optical role	stable accurate recovery of optical signal
Related system	86037A
Related system later	86037B
Related successor analyzer family	86038A/B Optical Dispersion Analyzer
Assembly identity	86037-80004
Form	optical test set module/chassis for 86037 system
Primary bands telecom class	1300 nm and 1550 nm optioned
Publication class	HP 86037B Chromatic Dispersion Test System User Guide
Protection note	use only as specified with intact safety means
Measurement theory chapter	chromatic dispersion theory and management in 86037B guide
Intended operators	optical component and fiber test engineers
Calibration practice	follow 86037 system verification procedures Notes Identity from HP/Agilent 83427A Chromatic Dispersion Test Set listings for 86037A/B

PARAMETER

VALUE

systems; 86037-80004 is the related assembly identity on this listing. Detailed numeric CD accuracy tables live in the 86037B specifications chapter—confirm band options and assembly marking on the unit.

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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Manufacturer	Agilent / Hewlett Packard / Keysight
Instrument Type	Chromatic Dispersion Test Set
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Related system later	86037B
Related successor analyzer family	86038A/B Optical Dispersion Analyzer
Assembly identity	86037-80004
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Primary bands telecom class	1300 nm and 1550 nm optioned
Publication class	HP 86037B Chromatic Dispersion Test System User Guide
Protection note	use only as specified with intact safety means
Measurement theory chapter	chromatic dispersion theory and management in 86037B guide
Intended operators	optical component and fiber test engineers
Calibration practice	follow 86037 system verification procedures
Notes	
Identity from HP/Agilent 83427A Chromatic Dispersion Test Set listings for 86037A/B systems; 86037-80004 is	

the related assembly identity on this listing. Detailed numeric CD accuracy tables live in the 86037B specifications chapter-confirm band options and assembly marking on the unit.

Available from Aumictech

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

Request a quote: 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.