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Data Sheet
August 14, 2026

AGILENT / KEYSIGHT

Agilent/Keysight 70843C – Lightwave Signal Analyzer Module

Agilent 70843C 12.5 Gb/s Error Performance Analyzer The HP/Agilent 70843C is the pattern-generator and error-detector used in 71612-class 12.5 Gb/s error performance analyzer systems. OEM 70843 operations coverage lists 0.1 to 12.5 Gb/s bit rate with options UHF (BERT), UHG (pattern generator), UHH (error detector), and UHJ (error location analysis). High-speed serial BER testing of optical and electrical links, 12.5 Gb/s error performance analysis, and MMS-based pattern generation or error detection without a 70004A display when operated remotely via GPIB. The HP/Agilent 70843C is the pattern-generator and error-detector used in 71612-class 12.5 Gb/s error performance analyzer systems. OEM 70843 operations coverage lists 0.1 to 12.5 Gb/s bit rate with options UHF (BERT), UHG (pattern generator), UHH (error detector), and UHJ (error location analysis). High-speed serial BER testing of optical and electrical links, 12.5 Gb/s error performance analysis, and MMS-based pattern generation or error detection without a 70004A display when operated remotely via GPIB.

MODEL **Agilent / Keysight 70843C**	CALIBRATION **Available on request**
CONDITION **Used**	STATUS **In stock**
RFQ / SKU **70843C**	LISTING **https://aumictechlabs.com/products/70843c-2/**

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NAICS 423690 · 811210 · 541380

This unit

The Agilent/Keysight 70843C Lightwave Signal Analyzer Module is a instrument module engineered for precision signal analysis in optical communications testing. Operating across bit rates from 0.1 Gbps to 12.5 Gbps, it functions as an error performance analyzer, pattern generator, and error detector. The module integrates into the 71612C Bit Error Ratio measurement and analysis system and supports remote operation via HP-IB control.Technical Specifications Bit Rate Range: 0.1 Gbps to 12.5 Gbps Pattern Generator/Error Detector: PRBS patterns 2^7-1 to 2^31-1 Transition Time: Less than 30 ps Jitter (data and data output): Less than 20 pspp Data Output Amplitude: 0.5V to 2Vpp Output Voltage Levels: High +1.5V to Low -3.5V Form Factor: Rackmount configurationKey Features The module delivers fast transition times and minimal jitter performance essential for high-speed signal integrity verification. Programmable PRBS pattern support from 2^7-1 through 2^31-1 enables comprehensive pattern-based testing across diverse protocols and standards. Dual functionality as both pattern generator and error detector streamlines test setup and reduces hardware requirements for BER measurement campaigns.Typical Applications Error performance analysis in optical and electrical bit-error-rate testing. Pattern generation for receiver sensitivity and eye-diagram measurements. Error detection in link validation and production test environments. Multi-protocol testing across telecom, datacom, and custom signal formats operating within the supported bit-rate window.Compatibility & Integration The 70843C is designed as a core module within the 71612C Bit Error Ratio measurement and analysis system. It can be deployed as a standalone component or integrated into an HP MMS system II cabinet with PSU and control firmware for complete BERT, pattern generator, or error detector functionality. Remote operation via HP-IB allows integration into automated test environments and network-based measurement setups. Rackmount configuration with /1CM and /1CP options ensures flexible deployment in standard test racks.

70843C Characteristics / Specifications

PARAMETER	VALUE
Model	70843C
Instrument Type	Error performance analyzer BERT
Bit Rate Range	0.1 Gb/s to 12.5 Gb/s
Bit Rate Alternate Listing	1 Gb/s to 12.5 Gb/s also listed on some 70843C option UHF product summaries
Rise Time 10 To	less than 30 ps on 12 Gb/s class 70843 product listings
Prbs Patterns	2^7-1, 2^10-1, 2^15-1, 2^23-1, 2^31-1 on the 71612/70843 family
User Pattern Length	variable length user pattern from 1 bit to 8 Mbits on the 71612 family
Zero Substitution	supported on the 71612/70843 family
Variable Mark Density	supported on the 71612/70843 family
Data Output Amplitude	ECL or variable 0.5 V to 2 V peak-to-peak into 50 ohm on the 71612 family
Jitter Family	less than 20 ps peak-to-peak on the 71612/70843 family
Jitter At 10 Gb/s Family	less than 15 ps peak-to-peak on the 71612/70843 family
Data Input Sensitivity Family	less than 50 mV peak-to-peak typical at 10 Gb/s on the 71612 family
Decision Threshold Range Family	+1 V to -3 V on the 71612 family
Decision Threshold Resolution Family	1 mV on the 71612 family
Termination Voltage Family	selectable 0 V or -2 V nominal on the 71612 family
Gpib Address Factory	18 (column part of HP-MSIB switch)
MSIB Address Factory	row 0, column 18
Host Display Optional	Agilent 70004A display not required for remote GPIB operation
Related System	Agilent 71612 12.5 Gb/s error performance analyzer
Cabinet	Agilent Technologies MMS system II cabinet with PSU and control hardware
Rise Time	10 To 90: less than 30 ps on 12 Gb/s class 70843 product listings

70843C Specifications

PARAMETER	VALUE
Agilent 70843C 12.5 Gb/s Error Performance Analyzer	Overview
Key Features	Combined pattern generator and error detector in one 70843 cabinet
Error location analysis with option UHJ	GPIB remote operation; factory MSIB address row 0 column 18
Technical Specifications	Model: 70843C

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.

Performance Analyzer

Overview
The HP/Agilent 70843C is the pattern-generator and error-detector used in 71612-class 12.5 Gb/s error performance analyzer systems. OEM 70843 operations coverage lists 0.1 to 12.5 Gb/s bit rate with options UHF (BERT), UHG (pattern generator), UHH (error detector), and UHJ (error location analysis).

Applications
High-speed serial BER testing of optical and electrical links, 12.5 Gb/s error performance analysis, and MMS-based pattern generation or error detection without a 70004A display when operated remotely via GPIB.

Key Features
Combined pattern generator and error detector in one 70843 cabinet
PRBS patterns 2^7-1 through 2^31-1 plus user patterns on the 71612 family
Sub-30 ps transition time class of the 12 Gb/s error performance analyzers
Error location analysis with option UHJ
GPIB remote operation; factory MSIB address row 0 column 18

Technical Specifications

Technical Specifications

PARAMETER	VALUE
Model	70843C
Instrument Type	Error performance analyzer BERT
Bit Rate Range	0.1 Gb/s to 12.5 Gb/s
Bit Rate Alternate Listing	1 Gb/s to 12.5 Gb/s also listed on some 70843C option UHF product summaries
Rise Time 10 To 90	less than 30 ps on 12 Gb/s class 70843 product listings
Prbs Patterns	2^7-1, 2^10-1, 2^15-1, 2^23-1, 2^31-1 on the 71612/70843 family
User Pattern Length	variable length user pattern from 1 bit to 8 Mbits on the 71612 family
Zero Substitution	supported on the 71612/70843 family
Variable Mark Density	supported on the 71612/70843 family
Data Output Amplitude	ECL or variable 0.5 V to 2 V peak-to-peak into 50 ohm on the 71612 family
Jitter Family	less than 20 ps peak-to-peak on the 71612/70843 family
Jitter At 10 Gb/s Family	less than 15 ps peak-to-peak on the 71612/70843 family
Data Input Sensitivity Family	less than 50 mV peak-to-peak typical at 10 Gb/s on the 71612 family
Decision Threshold Range Family	+1 V to -3 V on the 71612 family
Decision Threshold Resolution Family	1 mV on the 71612 family
Termination Voltage Family	selectable 0 V or -2 V nominal on the 71612 family

Option Uhf: 0.1 to 12.5 Gb/s error performance analyzer (BERT)
Option Uhg: 0.1 to 12.5 Gb/s pattern generator
Option Uhh: error detector
Option Uhj: error location analysis (bit BER, block BER, error location capture)

Specifications

PARAMETER	VALUE
Gpib Address Factory	18 (column part of HP-MSIB switch)
MSIB Address Factory	row 0, column 18
Host Display Optional	Agilent 70004A display not required for remote GPIB operation
Related System	Agilent 71612 12.5 Gb/s error performance analyzer
Cabinet	Agilent Technologies MMS system II cabinet with PSU and control hardware

Notes
Bit-rate and option rows from Agilent 70843 operations coverage for 71612 12.5 Gb/s error performance analyzers (70843C declaration covering all options) and 70843C option UHF/UHJ product summaries. Pattern, jitter, threshold, and amplitude rows are the published 71612/70843 family figures also used on 70843B; confirm any C-only differences on the installed option label.

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

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