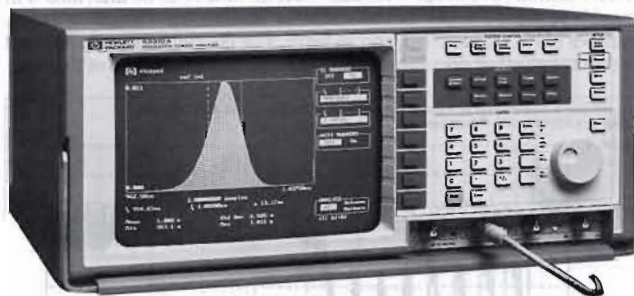


Modulation Domain Analyzers

Modulation Domain and Time Interval Analyzers

HP 53310A
HP E1725C
HP E1740A
HP E1741A
HP E1742A
HP E1743A
HP E1747A
HP E1748A

- 200 ps rms single-shot resolution, 1 ps with averaging
- DECT, CT2, CT3 mobile communications measurements
- Easy to use



HP 53310A

HP 53310A Modulation Domain Analyzer

Affordability and Ease of Use

The most affordable modulation domain analyzer, the HP 53310A, includes many innovations for ease of use. Characterization of modulation and jitter is easy with built-in analysis. Parameters such as peak-to-peak deviation, carrier frequency, and modulation rate are all quickly and automatically displayed. Jitter analysis is simplified with automated mean, standard deviation, and probability functions. Key features of this frequency and time interval analysis product include:

Automated setup: A single button can set up the HP 53310A for measurement. Signals are automatically evaluated.

Single-touch measurements: Peak-to-peak deviation, carrier frequency, and modulation rate are easily and quickly measured for quantifying modulation. The Save/Recall function stores up to 10 measurement steps for fast repeat operations.

Built-in statistics: Mean, standard deviation, and probability function buttons simplify jitter analysis.

Softkey-driven menus: Measurement parameters and analysis functions are easily selected while viewing measurement data.

Large display: The expanded screen displays measurement results clearly and aids analysis.

Low cost: The HP 53310A is priced to fit budget-constrained projects and departments.

Product Features

The HP 53310A offers powerful analyzer features:

Dual timebases: Main timebase and window timebase allow data capture while viewing measurement details in the window.

Auto or triggered operation: Select auto triggering, edge triggering (rising or falling), or a unique feature: measurement value triggering (frequency or time interval). Value triggering can eliminate the need for and expense of external sync signal generation, shortening project time and lowering costs.

Display vs. time or histogram: Select appropriate views.

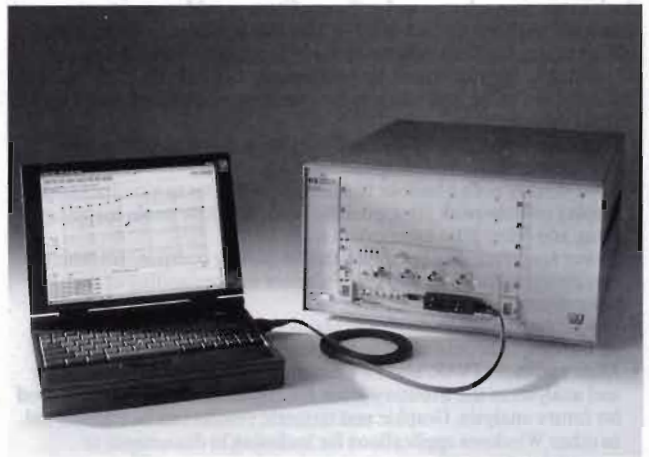
Fast histograms: Up to 16 million measurements per acquisition.

Automated measurements: Autoscale selects appropriate setup parameters; built-in analysis functions eliminate calculations.

Specifications and Ordering Information

See page 129 for key specifications and ordering details.

- Highest performance HP TIA
- Fast histograms, statistics, and window margin analysis
- Analyze data storage devices
- Study and identify clock jitter
- Analyze jitter in SONET/SDH networks



HP E1725C

HP E1725C Time Interval Analyzer

The HP E1725C time interval analyzer (TIA) combines a fast measurement sampling rate with a large memory and advanced analysis capabilities. Optional software packages, purchased separately or as options with the HP E1725C system, tailor the instrument to meet a variety of demanding application areas.

Configured with the HP E1741A time interval analyzer software, the HP E1725C is tailored for the characterization of high-speed data storage devices. HP offers several options to address other applications involving jitter analysis.

Versatile Design and Operation

Tailored for benchtop use, the HP E1725C system integrates a high performance time interval analyzer with an external portable computer based on the Intel Pentium processor. The MS[®]-Windows interface streamlines setup and offers complete control of measurement and analysis parameters. Measurements are carried out and stored in the instrument's 512K of memory. Built-in histograms, window margin analysis, and statistics functions speed access to many results.

For customers who desire a VXI solution, HP offers the HP E1740A time interval analyzer card. The HP E1725C benchtop instrument and HP E1740A VXI TIA card offer equivalent measurement capabilities, and the software packages that run on the HP E1725C can be purchased as add-on products for the HP E1740A.

Advanced Analysis Software

The current HP E174XA software solutions address four application areas described in the two previous pages of this catalog. These applications and corresponding software include:

- Data storage and test: HP E1741A and HP E1747A
- SONET/SDH tributary jitter analysis: HP E1742A
- Clock jitter analysis: HP E1743A
- Multiple-channel network synchronization measurement: HP E1748A

Specifications and Ordering Information

See page 129 for key specifications and ordering details.

Modulation Domain Analyzer Specification Highlights

Model	Frequency range (extension)	Single-shot freq. res. (1s gate)	Time interval resolution (single-shot/averaging)	Maximum continuous meas. rate (meas/s)	Memory size	Output meas/s	Analysis and display
HP 53310A	200 MHz (2.5 GHz)	10 digits	200 ps/1ps	2.5 M	8000 (32,000 w/Option 001)	GPIB: to 7,500	Frequency and time vs. time; auto-scale (setup); large display; jitter analysis; simple triggering; digital RF communications (Option 031)
HP E1740A HP E 1725C	150 MHz	10 digits	100 ps/1ps	80 M	512K	6,500; VXI shared memory available	Frequency, time interval, time stamps, histogram, statistics, and window margin analysis. Additional analysis and display capability available using the HP E174xA software.

Ordering Information

HP 53310A Modulation Domain Analyzer	Price	Opt 002 Replace 6-slot card cage with HP E1401A 13-slot mainframe	+\$4,300
Opt 001 Extended Measurement Memory (4 x)	\$11,500	Opt 141 Time Interval Analyzer Software	+\$2,600
Opt 010 High Stability Oven Timebase	+\$520	Opt 147 Timing Pattern Analysis Software	+\$2,600
Opt 030 2.5 GHz Channel C	+\$1,990	Opt 242 SONET/SDH Tributary Jitter Analyzer Software	+\$2,600
Opt 031 Digital RF Communications Analysis/High Resolution 2.5 GHz Input	+\$1,785	Opt 243 Clock Jitter Analyzer Software	+\$2,600
Opt 305 Phase Analysis Software	+\$5,200	Opt 248 Multiple-channel Network Synchronization Software	+\$3,800
Opt W30 3-Year Extended Repair Service (see page 70)	+\$510	Opt W32 3-Year Service	+\$595
Opt W32 3-Year Calibration Service (see page 70)	+\$235	Opt W50 5-Year Return Repair Service	+\$470
Opt W34 3-Year Standards Compliant Cal Service	+\$595	Opt W52 5-Year Return Calibration Service	+\$1,195
Opt W50 5-Year Return Repair Service	+\$715		
Opt W52 5-Year Return Calibration Service	+\$470		
Opt W54 5-Year Standards Compliant Cal Service	+\$1,195		
	+\$1,435		

Available Separately

HP 53305A Phase Analysis Software	\$510	Available Separately	
HP E1725C Time Interval Analyzer	\$33,000	HP E1740A Time Interval Analyzer Module	\$18,360
Includes HP E1740A TIA module, HP E1406A Command Module, HP OmniBook portable computer, MS-Windows 98 MS-DOS 6.22, National Instruments PCMCIA-GPIB kit, and 4 oscilloscope probes.		Opt W32 3-Year Return Calibration Service (see page 70)	+\$185
		Opt W50 5-Year Return Repair Service	+\$425
		Opt W52 5-Year Return Calibration Service	+\$380
		HP E1741A Time Interval Analyzer Software	\$2,600
		HP E1742A SONET/SDH Tributary Jitter Analyzer Software	\$2,600
		HP E1743A Clock Jitter Analyzer Software	\$2,600
		HP E1747A Timing Pattern Analysis Software	\$2,600
		HP E1748A Multiple-channel Network Synchronization Software	\$3,800



Product/Website

HP 53310A www.hp.com/go/53310a

Product/Website

HP E1740A www.hp.com/go/e1740a

Product/Website

HP E1725C www.hp.com/go/e1725c