Agilent 16800 Series Portable Logic Analyzers

Data Sheet

Quickly debug, validate, and optimize your digital system – at a price that fits your budget.

Features and benefits

- 250 ps resolution (4 GHz) timing zoom to find elusive timing problems quickly, without double probing

- 15" display, with available touch screen, allows you to see more data and navigate quickly

- View Scope – time-correlated measurements and displays of your logic analyzer and oscilloscope data let you effectively track down problems across the analog and digital portions of your design

- Eight models with 34/68/102/136/204 channels, up to 32 M memory depth and models with a pattern generator provide the measurement flexibility for any budget

- Application support for every aspect of today's complex designs – FPGA dynamic probe, digital VSA (vector signal analysis) and broad processor and bus support
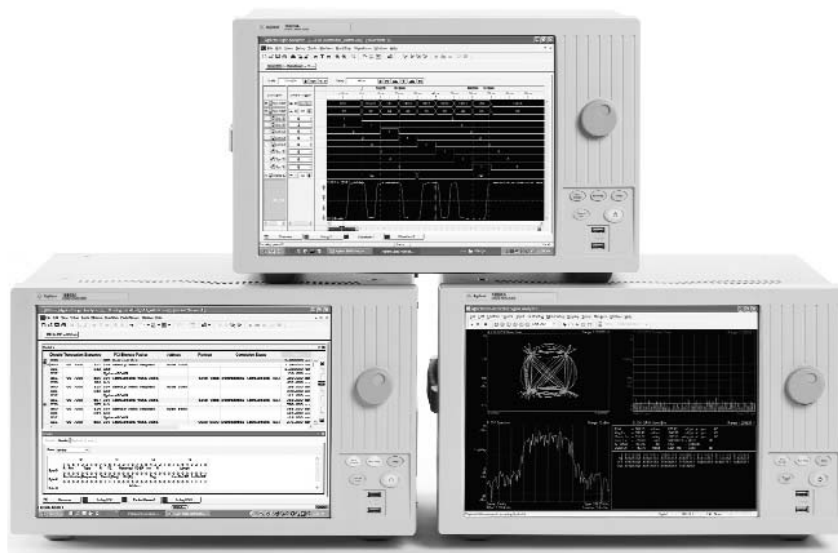
Agilent Technologies

Selection Guide for 16800 Series Portable Logic Analyzers

Agilent Model Number	16801A, 16821A[1]	16802A, 16822A[1]	16803A, 16823A[1]	16804A	16806A
Logic analyzer channels	34	68	102	136	204
Pattern generator channels[1]	48	48	48	N/A	N/A
High-speed timing zoom	4 GHz (250 ps) with 64 K depth	4 GHz (250 ps) with 64 K depth			
Maximum timing sample rate (Half/full ch)	1.0 GHz (1.0 ns) / 500 MHz (2.0 ns)	1.0 GHz (1.0 ns) / 500 MHz (2.0 ns)			
Maximum state clock rate	250 MHz with option 250	450 MHz with option 500 250 MHz with option 250			
Maximum state data rate	250 Mb/s with option 250	500 Mb/s with option 500 250 Mb/s with option 250			
Maximum memory depth	1 M with option 001 4 M with option 004 16 M with option 016 32 M with option 032	1 M with option 001 4 M with option 004 16 M with option 016 32 M with option 032			
Supported signal types	Single-ended	Single-ended			
Automated threshold/sample position Simultaneous eye diagrams, all channels	Yes	Yes			
Probe compatibility	40-pin cable connector	40-pin cable connector			

1 Pattern generator available with 16821A, 16822A and 16823A.

Choose from eight models to get the measurement capability for your specific application

Agilent Model Number	16821A, 16822A, 16823A	
	Half Channel	**Full Channel**
Maximum clock	300 MHz	180 MHz
Data channels	24	48
Memory depth in vectors	16 M	8 M
Logic levels supported	5 V TTL, 3-state TTL, 3-state TTL/CMOS, 3-state 1.8 V, 3-state 2.5 V, 3-state 3.3 V, ECL, 5 V PECL, 3.3 V LVPECL, LVDS	

Probes are ordered separately. Please specify probes when ordering to ensure the correct connection between your logic analyzer, pattern generator, and the device under test.

Models with a built-in pattern generator give you more measurement flexibility