KEYSIGHT TECHNOLOGIES (AGILENT HP)

1662C

The Keysight 1662C (originally HP/Agilent 1662C) is a benchtop logic analyzer offering 68 channels for comprehensive state and timing analysis. Designed with a built-in 9-inch color CRT display, the 1662C provides timing speeds up to 500 MHz and a state speed up to 100 MHz, making it a reliable tool for hardware integration and digital troubleshooting.

SPECIFICATIONS

General

Interfaces	HP-IB (GPIB), RS-232C, Centronics Parallel Printer Port, PS/2-style keyboard/mouse
Display	9-inch color CRT, 640 x 480 resolution

Physical

Power Supply	115/230 V AC auto-ranging, 48-66 Hz, 200 VA maximum
Operating Temperature	0 °C to +50 °C °C
Dimensions (W×H×D)	358 mm x 190 mm x 445 mm mm
Weight	11.8 kg

Measurement Capabilities

State and Timing Channels	68

State Analysis

Maximum State Analysis Rate	100 MHz
Minimum State Clock Pulse Width	3.5 ns
State Setup / Hold Time	3.5 ns / 0 ns
Number of State Clocks	4
Number of Clock Qualifiers	4
Time Tagging Resolution	8 ns or 0.01% (whichever is greater)
Minimum State Clock Period	10 ns

Timing Analysis

Maximum Conventional Timing Rate (Full Channel)	250 MHz
Maximum Conventional Timing Rate (Half Channel)	500 MHz
Maximum Transitional Timing Rate (Full Channel)	125 MHz
Maximum Transitional Timing Rate (Half Channel)	250 MHz
Minimum Glitch Width Detected	3.5 ns

Memory & Acquisition

Memory Depth (Full Channel)	4 KB per channel
Memory Depth (Half Channel)	8 KB per channel

Storage

Floppy Disk Drive	3.5-inch 1.44 MB double-sided high-density
Supported Floppy Disk Formats	MS-DOS, LIF

Triggering

Trigger Sequence Levels	12 levels
Pattern Recognizers	10 pattern recognizers
Range Recognizers	2 range recognizers
Edge/Glitch Recognizers	2 edge/glitch recognizers
Trigger Occurrence Counter	Up to 1,048,575 occurrences
Number of Timers	2

Environmental

Operating Altitude Limit	4,600 m (15,000 ft)
Relative Humidity Range	Up to 90% non-condensing at 40 °C

Input Characteristics

Input Impedance	100 kΩ ±2% in parallel with ~8 pF
Maximum Input Voltage	±40 V peak
Minimum Input Voltage Swing	500 mV peak-to-peak
Threshold Setting Range	-6.0 V to +6.0 V in 50 mV steps
Threshold Accuracy	±(100 mV + 3% of setting)
Input Dynamic Range	±10 V

Architecture

Number of Pods	4

Inputs & Outputs

External Trigger Input	BNC, TTL compatible
External Trigger Output	BNC, TTL compatible

Interfaces

Programmable Control Language	SCPI

TECHNOLOGY

Logic Analysis

APPLICATIONS

Digital circuit troubleshooting, embedded system debugging, and bus analysis