

Logic Analyzers **SL-4650/4651/4640A/4641A/4122**



SL-4650/4651

Max. 1 GHz, max 112 CH, 65536 bits/ch

The SL-4650/4651 are upgraded versions (1 GHz) of the SL-4640A/4641A series. With asynchronous measurement, the maximum sampling rate is 1 GHz with 16 CH (8 CH with 1 GHz clock rate) and 65536 bits/ch. Optional 100 MHz (async measurement), 48 CH or 40 MHz (sync measurement), 96 CH capabilities can be added, allowing 8-bit to 32-bit μ P disassemble support and 4-time axis display. Superior performance and expandability plus digital storage scope functions such as max. 200 MS/s, 2 CH make these multi-purpose analyzers ideal for professional use.



SL-4640A/4641A

Max. 400 MHz, max. 112 CH, 16384 bits/ch

The SL-4640/4641 have a maximum sampling rate of 400 MHz, 16 CH and 16348 bits/ch. Optional 100 MHz (async measurement), 48 CH or 40 MHz (sync measurement), 96 CH capabilities can be added, allowing 8-bit to 32-bit μ P disassemble support and 4-time axis display. Superior performance and expandability plus digital storage scope functions such as max. 200 MS/s, 2 CH make these multi-purpose analyzers ideal for professional use.



SL-4122

100 MHz, 16 CH, 4096 bits/ch

Rapid developments in digital equipment such as microprocessors (μ P) make it important that troubleshooting equipment designed to cope with the unique problems peculiar to digital systems be flexible and up-to-date. With the SL-4122 — which offers a sampling rate of 100 MHz (10 ns), 16 CH and 4096 bits/ch, you can choose from either parallel data analysis or serial data analysis. At the same time, you can automate your troubleshooting procedures with the convenient remote control function.

Major features and performance

Model names	SL-4651	SL-4650	SL-4641A	SL-4640A	SL-4122
Timing (asynchronous) measurement Internal clock/channel Memory length	1 GHz/8 CH 65536 bits/ch 500 MHz/16 CH 32768 bits/ch 200 MHz/16 CH 16384 bits/ch OPT SL-233 50 MHz/48 CH, 100 MHz/24 CH, 4096 bits/ch SL-233 – 234 50 MHz/96 CH, 100 MHz/48 CH, 4096 bits/ch 2 ns at 200 MHz	1 GHz/8 CH 65536 bits/ch 500 MHz/16 CH 32768 bits/ch 200 MHz/16 CH 16384 bits/ch OPT SL-233 50 MHz/48 CH, 100 MHz/24 CH, 4096 bits/ch SL-233 – 234 50 MHz/96 CH, 100 MHz/48 CH, 4096 bits/ch 2 ns at 200 MHz	400 MHz/8 CH 200 MHz/16 CH 16384 bits/ch	400 MHz/8 CH 200 MHz/16 CH 16384 bits/ch	100 MHz/16 CH 50 MHz/32 CH 4096 bits/ch
Glitch detection ability			OPT SL-233 50 MHz/48 CH, 100 MHz/24 CH, 4096 bits/ch SL-233 – 234 50 MHz/96 CH, 100 MHz/48 CH, 4096 bits/ch 3 ns at 200 MHz	OPT SL-233 50 MHz/48 CH, 100 MHz/24 CH, 4096 bits/ch SL-233 – 234 50 MHz/96 CH, 100 MHz/48 CH, 4096 bits/ch 3 ns at 200 MHz	10 ns (at 50 MHz)
State (sync) measurement External clock/channel Memory length Others	OPT SL-233 40 MHz/48 CH SL-233 + SL-234 40 MHz/96 CH 4096 bits/ch 100 MHz timing Measurable	OPT SL-233 40 MHz/48 CH SL-233 + SL-234 40 MHz/96 CH 4096 bits/ch 100 MHz timing Measurable	OPT SL-233 40 MHz/48 CH SL-233 + SL-234 40 MHz/96 CH 4096 bits/ch 100 MHz timing Measurable	OPT SL-233 40 MHz/48 CH SL-233 + SL-234 40 MHz/96 CH 4096 bits/ch 100 MHz timing Measurable	10 MHz/32 CH 4096 bits/CH
Analog waveform measurement Clock/channel Memory length Resolution	OPT SL-232 200 MHz/ 1 CH 100 MHz/2 CH 8192 words/CH 8 bits	OPT SL-232 200 MHz/ 1 CH 100 MHz/2 CH 8192 words/CH 8 bits	OPT SL-232 200 MHz/ 1 CH 100 MHz/2 CH 8192 words/CH 8 bits	OPT SL-232 200 MHz/ 1 CH 100 MHz/2 CH 8192 words/CH 8 bits	—
Measurement and results	4 types of timing, states (2 analyzers), and analog waveforms are simultaneously measured and displayed in relation to time.	4 types of timing, states (2 analyzers), and analog waveforms are simultaneously measured and displayed in relation to time.	4 types of timing, states (2 analyzers), and analog waveforms are simultaneously measured and displayed in relation to time.	4 types of timing, states (2 analyzers), and analog waveforms are simultaneously measured and displayed in relation to time.	Display switchable between timing and state display.
Disassemble support (mnemonic display) probe, software are optional.	Microprocessor system, 8 - 32-bit system, interface bus system, GP-IB, SCSI	Microprocessor system, 8 - 32-bit system, interface bus system, GP-IB, SCSI	Microprocessor system, 8 - 32-bit system, interface bus system, GP-IB, SCSI	Microprocessor system, 8 - 32-bit system, interface bus system, GP-IB, SCSI	Microprocessor system, 8-bit system, interface bus system, GP-IB
Serial data analysis	OPT	OPT	OPT	OPT	OPT
Battery backup function	Data, setup conditions	Data, setup conditions	Data, setup conditions	Data, setup conditions	Data, setup conditions
External recording media	Memory card	Memory card	Memory card	Memory card	—
Display	Color	Monochrome	Color	Monochrome	Monochrome
External color CRT output	Digital RGB Analog RGB	Digital RGB Analog RGB	Digital RGB Analog RGB	Digital RGB Analog RGB	Digital RGB
Interface	Standard Video output Parallel GP-IB RS-232-C	Standard Video output Parallel GP-IB RS-232-C	Standard Video output Parallel GP-IB RS-232-C	Standard Video output Parallel GP-IB RS-232-C	Standard Video output OPT Parallel GP-IB RS-232-C
Remote control	GP-IB RS-232-C	GP-IB RS-232-C	GP-IB RS-232-C	GP-IB RS-232-C	OPT GP-IB RS-232-C

SL-4122 options

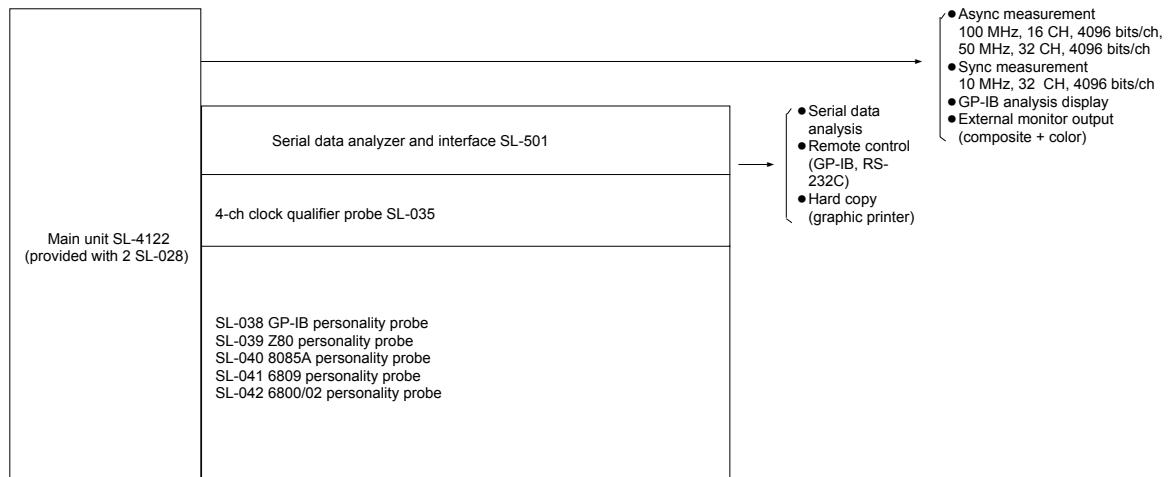


Table for SL-4650/4651/4640A/4641A options

Main unit	Acquisition module	Disassemble software	Personality probe	Analog Acquisition module
SL-4650/4651 (SL-054 x 2) SL-4640A/4641A (SL-047 x 2)	Basic acquisition module SL-233 (SL-037 x 3)			
			(A) : Asynchronous measurement 1 GHz/500 MHz, 8/16 CH (SL-4650/4651) 400/200 MHz, 8/16 CH (SL-4640A/4641A)	+ (D) : analog waveform measurement (2 CH)
			(B) : (A) + 48 CH async (50 MHz)/sync (40 MHz) measurement or 24 CH async (100 MHz) measurement	+ (D) →
			SL-038	+ (D) →
			SL-039	+ (D) →
			SL-040	+ (D) →
			SL-041	+ (D) →
			SL-042	+ (D) →
			SL-043	+ (D) →
			SL-044P	+ (D) →
			SL-045	+ (D) →
			SL-051	+ (D) →
			SL-050	+ (D) →
			SL-050	+ (D) →
			SL-050	+ (D) →
	Add-on acquisition module SL-234 (SL-037 x 3)		(C) + serial data (RS-232-C) analysis (either transmission or reception) (C) (A) + 96 CH async (50 MHz)/sync (40 MHz) measurement or 48 CH asynchronous (100 MHz) measurement	+ (D) →
			SL-046	+ (D) →
			SL-050	+ (D) →
			SL-050	+ (D) →
				SI-232 21170-06-66 (SS-0042 x 2)