LINEEYE

Communication analyzer with touch panel and color LCD

Supports RS-232C, RS-422/485, TTL (UART, I2C, SPI)

Multi-protocol analyzer *LE-3500XR*

NEW

Arbitrary speed up to 2 Mbps
100MB buffer memory
Up to 32GB auto save function
PROGRAM simulation
Wi-Fi remote control

The screen can be scrolled by swiping. The key operation is also available.

MODBUS standard compatible, CAN/CAN FD/CXPI/LIN optional.

• Multi interface / Multi-Protocol supported

Equipped with RS-232C, RS-422/485, TTL (1.8/2.5/3.3/5V) measurement ports.

Standard support:

ASYNC (start-stop synchronization), SYNC/BSC, HDLC/SDLC, PPP(ASYNC), I2C, SPI, BURST, MODBUS

Optional support:

CAN FD/CAN, CXPI, LIN, X.20/21, RS-449, V.35, RS-530, Current loop, High speed CC-LINK

Expandable by replacing the board or adding a dedicated cable

• Monitor, simulation, BERT available

Many test functions and modes are available that are suitable for analysis purposes and test scenes.

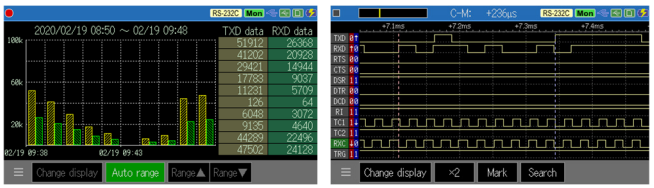
• Safe and reliable Auto-Save function

The measurement log file can be continuously recorded for a long time into a SDHC card or a USB flash drive. Even if the battery runs out suddenly, the log file being written is safely closed and measurement is completed, so valuable records can be reliably saved.

DUT speed (bps)	Estimated continuous recording time *	
	100MB Main memory only	32GB SDHC card Using SD-32GX
9600	Approx. **6**hrs.	Approx. **80**days
115.2K	Approx. **28**min.	Approx. **6.5**days
1M	Approx. **200**sec.	Approx. **20**hrs.

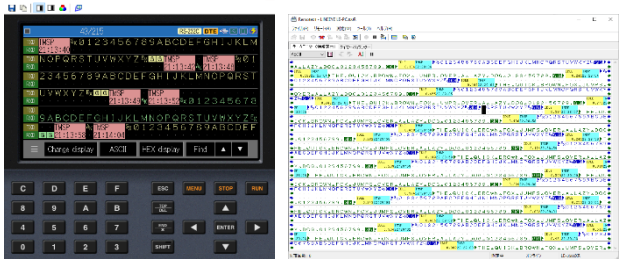
*: When 1 kilobyte data is repeatedly transmitted by full duplex with intervals of 1m second idle time for each.

• Convenient Statistical analysis function and logic analyzer function



• Utilize measurement data on a PC

Includes PC link software (light version). Wi-Fi connection between analyzer and PC is also available.



LE-3500XR specifications

Standard measurement port	RS-232C, RS-422/485, TTL (1.8V/2.5V/3.3V/5V level)
Expansion measurement port	CAN, CAN FD, CXPI, LIN, X.20/21, RS-449, V.35, RS-530, current loop
Standard protocol	ASYNC, SYNC/BSC, HDLC/SDLC, PPP(ASYNC), I2C, SPI, MODBUS, BURST
Expansion protocol	CAN, DeviceNet*1, CAN FD, CXPI, LIN, CC-LINK*1
Capture memory	100 MB *2 Can be split into 2
Measurable speed	50bps ~ 2.048Mbps (Available with 4 significant figures)
Line signaling mode	NRZ, NRZI, FM0, FM1
Data display code	ASCII, EBCDIC, JIS, Baudot, Transcode, IPARS, EBCD, EBCDIK, HEX
Measurement condition setting	Protocol, data/parity/stop bit, sync clock, frame end, address filter, bit transmission order, bit polarity, etc. can be specified according to the DUT
Online monitor function	Raw data display, protocol translation display, error display, bit shift display possible
Error check function	Parity, Fleming, Break, BCC, Abort, Short frame, Non-ACK (I2C)
Idle time measurement	Resolution 1 msec., 10 msec., 100 msec., and OFF can be specified up to 999.9 sec
Time stamp record	Minimum 10 msec. (day:minute:second.10m sec.), 6 time units and OFF can be specified
Line status record	Record RTS, CTS, DTR, DSR, DCD, RI, TRGIN (external trigger input) signals together with send/receive data
Interval timer	2, Maximum count 999999 (Resolution 1msec., 10msec., 100msec.)
General counter	2, Maximum count 999999
Data counter	Maximum count for SD/RD is 4294967295
Trigger function	4 sets of trigger conditions and actions can be specified External trigger (1 input, 2 outputs)
Trigger condition	Communication error, communication data string of up to 8 characters (don't care and bit mask can be specified), idle time longer than specified time, matching timer/counter value, logical state of control line and external input
Trigger action	Stop measurement/test (offset number can be specified), enable trigger condition, timer control, counter control, buzzer sound, file save, specified character string transmission, pulse output to external terminal
Monitor conditions auto setting	Automatic setting of measurement conditions such as speed (up to 460.8Kbps) and data frame *3
Auto run/stop function	Specified time RUN/STOP (Hourly/Daily/Monthly repeatable), Power-on RUN setting possible
Auto save function	Automatically save a specified number of communication log files in external storage with a specified file size. Ring record, automatic stop at maximum size can be specified
Delay time function	Measures and displays the interval of change in the interface signal line. (current/min/max/average, resolution: 0. 1ms)
Voltage measurement function	RS-232C input range ±18V TTL input range -1V to 6V, resolution 0.1V
Statistical analysis function	Communication data, frame, and trigger match count are aggregated for each specified period (1 to 24 minutes) and displayed as a graph
Logic analyzer function	1KHz to 20MHz sampling, zoom display, cursor time measurement, signal order swap
Simulation function	Data can be sent to the test target while checking the received data
Test data table	Transmit test data 160 types (16K data) can be registered, BCC/LRC automatic calculation, parity error data can be registered
Test mode	6 modes (MANUAL, FLOW, ECHO, POLLING, BUFFER, PROGRAM) selectable
Bit error rate test	Measures line quality such as bit error rate and block error rate according to ITU-T G.821 *4
File management	Save, load and delete measurement data and measurement conditions
Remote control	PC link software (light version *5) included Measurement data display, recording, text/CSV conversion
LCD display	4.3 inch TFT color LCD (480x272dot) With touch panel
LED display	Line state display, power/charge display
External interface	USB2.0 (Standard A /micro-B each 1), SDHC card slot, Wi-Fi 802.11 b/g/n *6
External storage	SDHC card and USB memory *7 Up to 32GB
Power supply	USB bus power, built-in lithium-ion battery Battery operating time: About 7 hours *8
Temperature range	Operating temperature: 0-40°C Storage temperature: -10-50°C
Dimension, mass	190 (W) x 153 (D) x 38 (H) mm, About 550g
Accessories	Monitor cable for DSUB 25-pin (LE-25M1), Monitor cable for DSUB 9-pin (LE-009M2), DSUB25pin-9pin conversion adapter, 5 wires TTL prove cable (LE-5LS), micro USB cable, USB charger (LE-P2USB), carrying bag (LEB-01), Utility CD, quick start guide, and warranty

*1: Raw data display only. The optional OP-FW10XR is required for high-speed CC-LINK. *2: Communication data, idle time, time stamp, and line status consume 4-8 bytes of memory for each capture. *3: Automatic setting is available only for ASYNC, SYNC/BSC, HDLC/SDLC. If the communication data amount is small or there are many errors, the automatic setting cannot be performed correctly. *4: Only available in ASYNC and SYNC modes. *5: Some functions of the product version PC link software LE-PC300R are limited. *6: It can be shipped with the Wi-Fi function disabled due to the radio law of each country. Please contact our sales department for details. *7: Operation of SDHC cards other than LINEEYE option is not supported. *8: According to our measurement conditions.

Option

Item name	Model number	Remarks
Expansion kit for CAN FD/CAN/CXPI	OP-SB7XC	
Expansion kit for CAN FD/CAN/LIN	OP-SB7XL	
HDLC/SPI Firmware to speed up	OP-FW10XR	*1
Expansion board for RS-530	OP-SB10N	
Expansion kit for current loop comm.	OP-SB1C	
Expansion kit for TTL/I2C/SPI	OP-SB5GL	
5 wires TTL prove cable	LE-5LS	*2
X.21 monitor cable	LE-25Y15	*3
RS-449 monitor cable	LE-25Y37	*3
V.35 monitor cable	LE-25M34	*3
RS-530 cable	LE-25S530	*3
USB charger	LE-P2USB	*2
PC link software	LE-PC300R	*4
PC link software (For OP-SB7XC/7XL)	LE-PC7XCL	*4
3.81mm pitch terminal block (5 POS.)	LA-5ETB45	*5
16GB SDHC card	SD-16GX	
32GB SDHC card	SD-32GX	

*1: Speed up to 10 Mbps *2: Same as the attached one. *3: OP-SB10N required.
*4: Full edition with no functional restrictions *5: Same as the one set to the analyzer.

SAFETY WARNING

Read the instruction manual provided with the product before use and use the product as explained in that manual. Using the product in ways not guaranteed in the manual, connecting it to systems outside of the specified ranges and remodeling can all cause trouble and damage. LINEEYE CO., LTD. will assume no responsibility whatsoever for trouble or damage arising because of unauthorized ways of use.

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