
PC Link Software
LE-PC300F

Instruction Manual

Chapter 1 Before Using the Product.....2

Chapter 2 Introduction.....3

Chapter 3 Before Start-up3

Chapter 4 Data Window4

Chapter 5 Environment Setting.....6

Chapter 6 Remote monitor12

Chapter 7 Bit Error Rate Test (BERT)17

Chapter 8 Key Emulation.....18

Chapter 9 Text Conversion.....19

Chapter 10 Waveform Monitor Data22

Chapter 11 Connecting Multiple Analyzers23

Chapter 12 Specifications.....25

Chapter 1 Before Using the Product

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Chapter 2 Introduction

Thank you for your purchase of LINEEYE's PC link software.

- To use it correctly, you are advised to read and understand this together with the instruction manual for analyzer thoroughly.

- Keep this instruction manual.

General Description

This software allows the analyzers such as the LE-1200/LE-2200/3200/7200 to start measurement via PC and to store the monitored data on the PC via the AUX port (serial) or a memory card.

Product Components

After unpacking, check that the components listed below are complete.

<input checked="" type="checkbox"/> CD-ROM (software)	1
<input checked="" type="checkbox"/> Instruction Manual (This booklet)	1

If there is any component missing, contact your dealer or our company.

Chapter 3 Before Start-up

Installation Guide

1. Insert the included CD-ROM into the CD-ROM drive.
2. Select "RUN" from the "START" menu.
3. Input the "D (specify the CD drive):\setup" in command line and click the "OK."
4. The setup program will start. Follow the setup instructions.
You need the serial number when installing. You can find the serial number on the side of the box that contains LE-PC300F (or on the card packed up with LE-PC300F).
5. After "Install Shield Wizard Complete" appears, click "Finish."

Uninstallation Guide

1. Click on the "Add/Remove programs" from control panel.
2. Select the "LEPC300F" from the list, then click the "Add/Remove" button.

Analyzer setting

1. Connect your analyzer to the circuit you would like to measure.
2. Connect your analyzer and a PC by the included cable (LE2-8V)
3. Set the AUX port of your analyzer as follows.
(Fixed length of data is 8-bit)

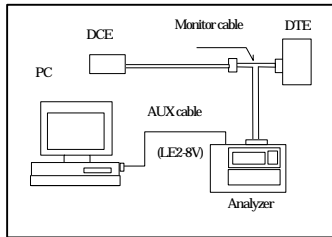
<Ex>

Usually, set transmission speed to 115200bps.

Set data length to 8-bit.

Recommended that parity be set to NONE.

Set X-CONT (flow control) to OFF.



AUX COND	*SELECT*
SPEED : 115200	0:9600
CHAR BIT : 8	1:19200
PARITY : NONE	2:38400
X-CONT : OFF	3:57600
	4:115200
	5:230400

Notice

- * Make sure to set your analyzer before starting LE-PC300F.
- * Do not turn off power supply of your analyzer when it is connecting.

Chapter 4 Data Window

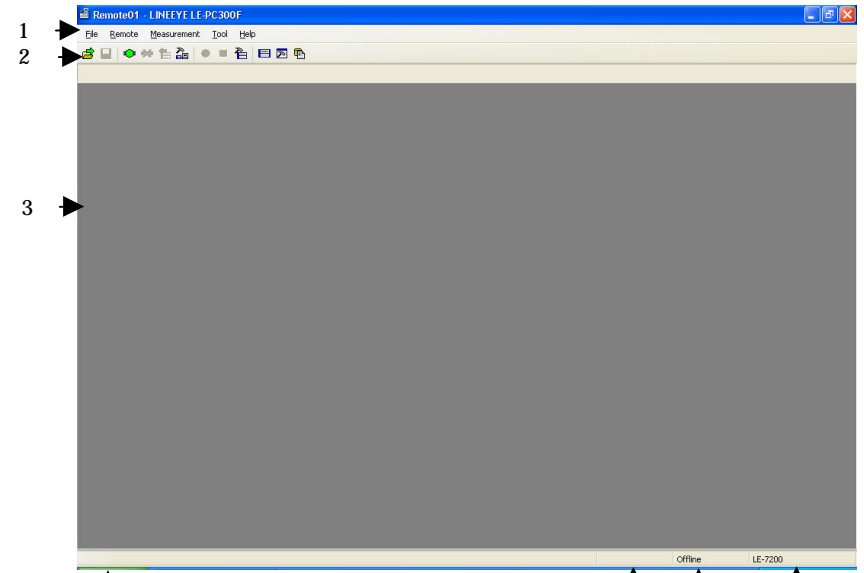
Data Window of LE-PC300F link software

Starting LE-PC300F PC link software

Start "LE-PC300F" from the "Start" of Windows.

Usually, the following display will appear.


Data Window



1. Menu
Can perform various operations.
2. Tool Bar
Can perform various operations.
3. Data display part
Displays measurement data.
4. Data position display part
Displays data position in Data display part. The number of loss of data is displayed on the remote monitor.
5. Various state display part
Displays such as the measurement state.
6. Connection state display part
Displays the remote connection state between LE-PC300F and your analyzer.
7. Model name display part
Displays the model name of your analyzer being set at the time of offline, and one of your analyzer being connected at the time of online.

Chapter 5 Environment Setting

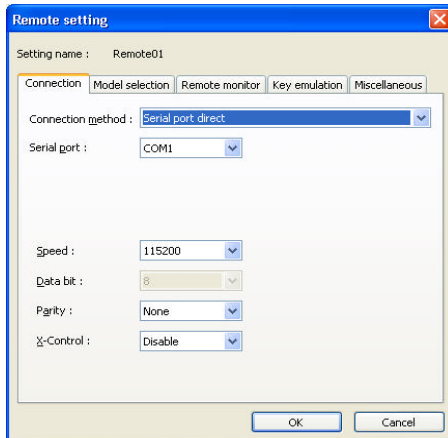
Remote Setting

Click  on the tool bar of the data window (or "Remote Setting" of the "Remote" menu) to perform the remote setting.

The remote setting consists of "Connection," "Model selection," "Remote monitor," "Key emulation" and "Miscellaneous."

■ Connection

Sets the remote connection.



Connection method

Select the connection method from the following.

"Serial port direct"

When connecting your analyzer to the serial port of the PC or USB-serial converter (LE-US232B).

"Via SI-60" When connecting through SI-60 *1

"Via FA-11" When connecting through FA-11 *2

"Via FA-21" When connecting through FA-21 *2

*1 To learn more about the converter setting, read the instructions manual included to the converter. Dsub25 (male)-9 (male) Converter (when using LE2-8V), or LE2-8M is required.

*2 You can use the type which converts serial data into a TCP packet as it is. However, every LAN-Serial converter is not guaranteed.

(LINEEYE does not support connection except SI-60.)

Henceforth, the required setting depends on connection methods you selected.

"Serial Port" ("Serial port direct")

Selects the serial port of the PC connected.

"Speed" ("Serial port direct," "Via SI-60," "Via FA-11," "Via FA-21")

Sets up according to the speed of the AUX port setting of your analyzer.

"Data bit" ("Serial port direct," "Via SI-60," "Via FA-11," "Via FA-21")

Fixed number of data bit is 8, so you cannot change it. Make sure that the AUX port setting of your analyzer is 8bit as well.

"Parity" ("Serial port direct," "Via SI-60," "Via FA-11," "Via FA-21")

Sets up the communication data parity between your analyzer and a PC. Usually, set "None."

"X-Control" ("Serial port direct," "Via SI-60," "Via FA-11," "Via FA-21")

Sets up whether to perform the flow control of X control systems between your analyzer and a PC. Usually, set "None."

"Host name" ("Via SI-60," "Via FA-11," "Via FA-21")

Set the host name or IP address of a LAN-serial converter to use.

"Data port" ("Via SI-60")

Sets the port number for sending and receiving the serial data. If you leave it blank, it automatically is set, so usually keep blank.

If the router or the firewall causes the port number to be changed, it needs to be set.

"Control port" ("Via SI-60")

Set the port number of SI-60. Usually, keep the port number blank. If the router or the firewall causes the port number to be changed, it needs to be set.

“Command port” (“Via FA-11,” “Via FA-21”)

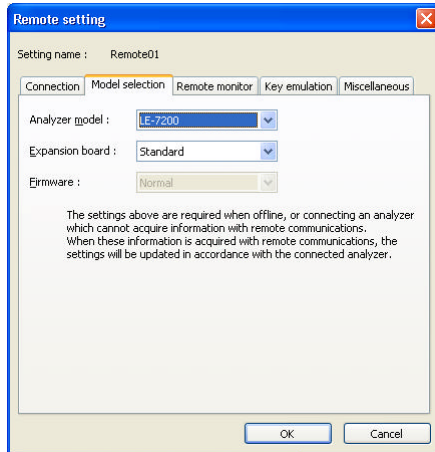
Sets the command port numbers of FA-11 and FA-21.

“Serial port” (“Via FA-21”)

Select which port you use from 2 serial ports of FA-21.

■ Model selection

Performs the setting about your analyzer used. Mainly, it is used at the time of offline. However in the case of that there is information which is not received by remote communication at the time of online, it is used as it is set. In addition, if the information is received by remote communication, these settings are automatically changed following the setting.



“Analyzer model”

Selects the model name of a target analyzer.

“Expansion board”

Selects the expansion board which is equipped with a target analyzer.

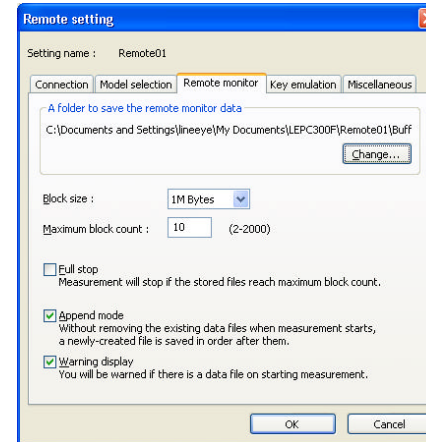
“Firmware”

Set s when you use optional firmware on a target analyzer.

It is for expansion of future use. Not available now.

■ Remote monitor

Sets the remote monitor.



A folder to save remote monitor data

The folder is to save data received from your analyzer by the remote monitor function.

To change the setting, click the “Change...” button.

Then, the window to select a folder appears.

Select the proper folder to click the “Ok” button.

The file name for saving data is saved from “0000000.DT” in numerical order.

* Recommends to specify an exclusive folder.

*Specify a drive which has enough capacity.

(When it does not have enough capacity, a PC may not operate correctly)

“Block size”

Sets up the data capacity per file. You can select from “1M Bytes” “2M Bytes” “4M Bytes” or “8M Bytes”

“Maximum block count”

Sets up the maximum block count of a file to save. You can set from 2 to 2000. When the number of the data file is over this setting, the data file with a small number file is deleted.

“Full stop”

If the stored files reach maximum block count when checking, measurement will automatically stop.

“Append mode”

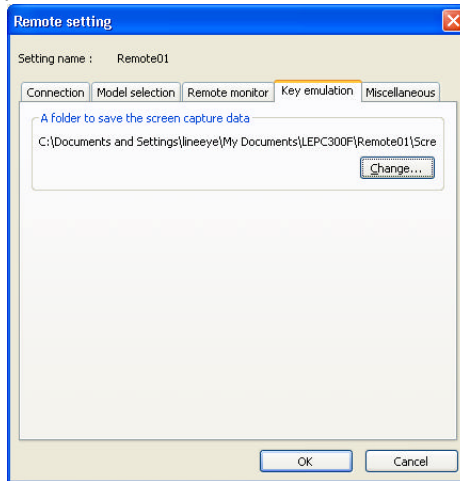
When checking and measurement starts, a newly-created file is saved in order after them without removing the existing data files. If the numbers of the whole data files are over the maximum block count setting even in the append mode, a data file with a small number file (data files were saved on former measurement included) is deleted.

“Warning display”

When checking, you will be warned if there is a data file on starting measurement.

■ “Key emulation”

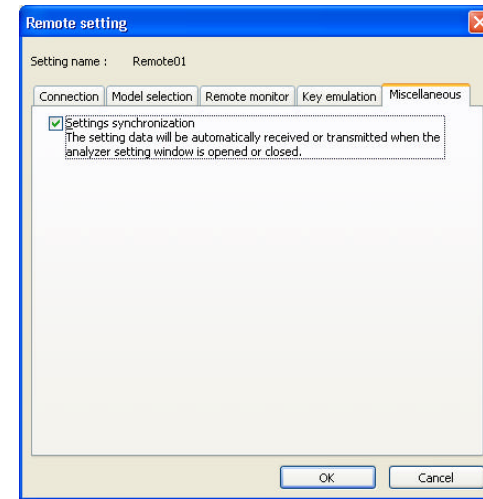
Sets the key emulation.



A folder to save the screen capture data

A folder to save a screen image when you save it on the key emulation screen. Click the “Change” button to set then the folder setting window appears. If you change the setting, also select a folder you would like to set, and click “OK”.

■ “Miscellaneous”




Settings synchronization

Transmits and receives contents of the setting automatically at the time of the opening and closing the analyzer setting window when you check.

Chapter 6 Remote monitor


This function allows to start measurement of your analyzer and to record measurement data on PC HDD displaying in real time.

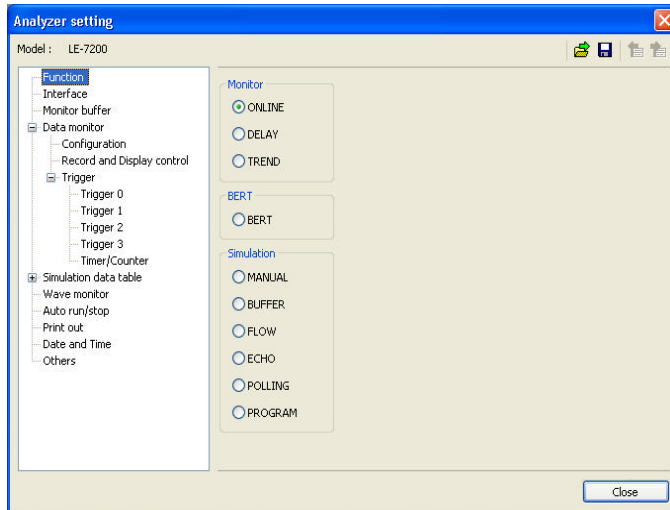
Connection

After finishing setting the system requirements (remote setting), click  on the tool bar of the window (or click "Connect" of the remote menu) to connect with your analyzer.



At the time of completing the connection with your analyzer, the connection state display part of the data window displays "Stopping", and the model display part displays the model name of the analyzer connected.

Analyzer setting


Click  on the toolbar of the data window to set your analyzer (or click "Analyzer setting" of the measurement menu).

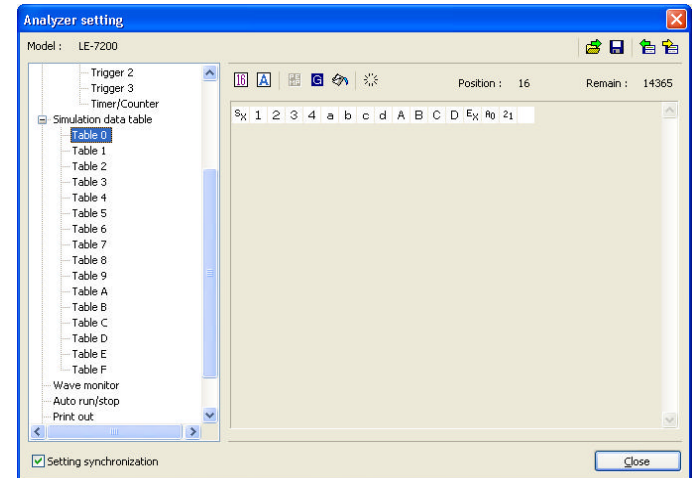



On the analyzer setting window, every time you select the setting developed on a tree (on the left), the contents of the setting (on the right) are changed. Depending on necessity, set each.


Click  to send the setting contents to your analyzer. On the other hand, click  to receive the present setting contents of your analyzer.


Simulation data setting

Click  on the toolbar of the data window to select the simulation data table you would like to set (or click "Analyzer setting" of the measurement menu).




 : Changes the data to the hexadecimal display or ASCII display.

 : Changes the input to the hexadecimal or ASCII.


 : The character which is focused is set to the parity error (or the multi processor bit).

 : Inputs BCC (or FCS).





 : The data from “Begin data” to “End data” is inputted by the number of characters of “Data size.”

“Start data”>“End data” : Inputs the number of characters of “Data size” while performing “+1” from “Begin data.”



“Start data”>“End data” : Inputs the number of characters of “Data size” while performing “-1” from “Begin data.”


 : Delete all the data in the table.

Run measurement

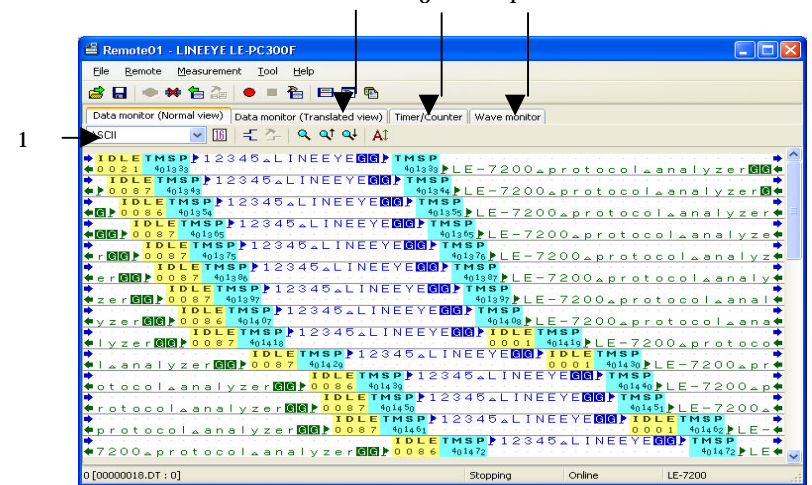
Click  on the toolbar of the data window (or click “Run measurement” of the measurement menu) to measure. After measurement starts, “Measuring” is displayed on the state display part, and data received from your analyzer is displayed one by one. You can change character size (click ) and character code, display in hexadecimal (click ) , and pause while measuring (click ).

Stop measurement

To stop measurement, click  on the toolbar of the data window (or click “Stop measurement” of the measurement menu). After stopping measurement, you can perform such as scroll. Data is automatically saved in the folder you specified on the remote setting. To save with another name, click  (or click “Save data file” of the file menu).





At the time of stopping measurement, the last file opens. To display all files, click  (or click “Open data file” of the file menu) to select a file to display.

Re mote monitor screen 2 3 4




Switch screen display

There are the following methods to switch the screen display.

- Change display code Select a character code from the drop down list which displays character codes.
- Hexadecimal number display Click .
(Displayed in hexadecimal number including special characters.)
- Control line information display Click . To change control line information you would like to display, click  to open the control line information setting window, and set up.
- Translated view To switch the screen into the translated view screen, click the data monitor (translated view) tab (marked above 2). Click  to switch the screen into the packet translated view if the packet translation is possible when the translation is displayed. Click the data monitor (normal view) tab to switch the screen into the original display screen.


- Timer / Counter To switch the screen into the timer / counter display screen, click the timer / counter display tab (marked above 3).
- Wave monitor display To switch the screen into the wave monitor display screen, click the wave monitor display tab (marked above 4).

Read the measurement data

Click  on the toolbar of the data window (or click "Open data file" of the file menu) to select a file of the measurement data.

When two or more files are opened, they are displayed as continuous data.

Search Data

Click  to set the search conditions on the data search window.

-Search conditions

- "Trigger" Data which meets the trigger conditions
- "Error" Parity error/Framing error/BCC error/FCS error/Break/Abort/Short frame error (Data which meets what was checked).
- "Character" The data length of a maximum of eight characters. (Can specify don't care and bit mask.)
- "Idle time" Idle time more than the appointed time.
- "Time stamp" The designated time stamp. (Can specify don't care.)

-Search operation

- "Display" Met data is displayed at a head.
- "Calculation" The number of data met is displayed.


* To learn more details of the search condition, read the instruction manual included your analyzer.

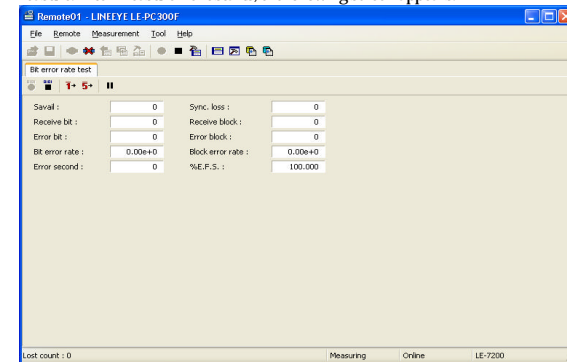
Click  (the direction of the data head) or  (Back of the data) to search and calculate data.

Chapter 7 Bit Error Rate Test (BERT)


When selecting bit error rate test (BERT), you can monitor quality of communication lines in remote place.

Run measurement


Click  on the toolbar of the data window (or click "Run measurement" of the measurement menu) to measure. After measurement starts, the following screen appears.





 : Stars BERT.


 : Stops BERT. (The test pattern is continuously output.)


 : Outputs error of 1 bit.

 : Outputs continuous error of 5 bits.

 : Pause on updating display.

 : In the case of BERT of the repeat mode, multiple results can be received and converted into CSV after measurement stops. Converted results are saved as BERTDATA.csv.


 : Converts BERT results of the repeat mode saved on the analyzer (saved on CF card etc.) into CSV.

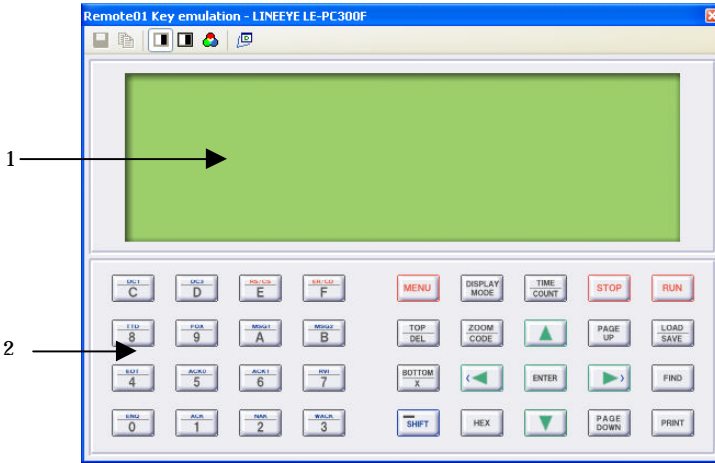
 : Saves BERT results. In the repeat mode, perform "Text conversion" to save the history as the CSV file, because only the latest result is saved.

Chapter 8 Key Emulation

This function allows to perform the remote control from a place far from your analyzer or from a remote place.

Run key emulation


Click  on the toolbar of the data window (or click "Key emulation" of the tool menu).





1. Displays the screen of your analyzer being connected.
2. Emulate the key of your analyzer.


Capture of the screen image


You can save the screen display image of the connected analyzer in a bitmap (BMP) file format.

 : Captures the present screen display as a bitmap file.

 : Copies the present screen display to the clipboard.

 : Creates a bitmap file in a monochrome mode.


 : Creates a bitmap file in a monochrome mode (with an outer frame).

 : Creates a bitmap file in a color mode.

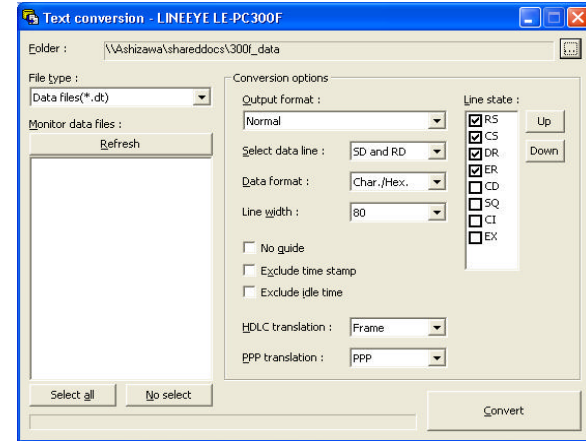
Chapter 9 Text Conversion

This function allows to convert the data which is measured on the remote monitor, and which is saved on such as a memory card and HDD into a text file.

Text conversion function setting

Click  on the toolbar of the data window (or click "Text conversion" of the menu).

The following text conversion window opens.



-Folder

Specify a folder which has the data you would like to convert into text.

-The kind of file

Selects from "Data files" and "Analyzer's auto save files."

-Refresh

Refresh the file information in the specified folder.

-Monitor data file

Selects a file you would like to convert from the list display. It is selected by clicking the file. To cancel the selection, click the file again. (You can select two or more files, and also select and cancel all of the files.)

-Output format

Selects a format you will convert from the following.

"Normal print" (Print format of your analyzer)

"Normal print with line state" (Print format of your analyzer which includes control line information)

“Translated print (designated at the time of measurement)” (Translated print format of your analyzer)

“CSV format processing unit: Data (normal)” (Every data divided.)

“CSV format processing unit: Frame” (Every frame divided.)

-The number of characters per line

Selects the number of characters displayed per line from “40” “80” and “136”.

-Data format

Selects the data format to convert from the following.

“Char. /Hex.” (Displays the character code and the hexadecimal number value.)

“Char. Only” (Only characters are displayed.)

“Hexadecimal” (Only the hexadecimal number is displayed.)

-No guide

If “No guide” is checked, converts such as the communication condition without no guide (data only)

-Exclude time stamp

If “Exclude time stamp” is checked, delete the time stamp to convert.

-Exclude idle time

If “Exclude idle time” is checked, delete the idle time to convert.

-Select data line

Selects the data to convert from “SD and RD,” “SD only” and “RD only.”

-HDLC translation

At the time of HDLC, selects the translation format to convert from “Frame” and “Packet.”

-PPP translation

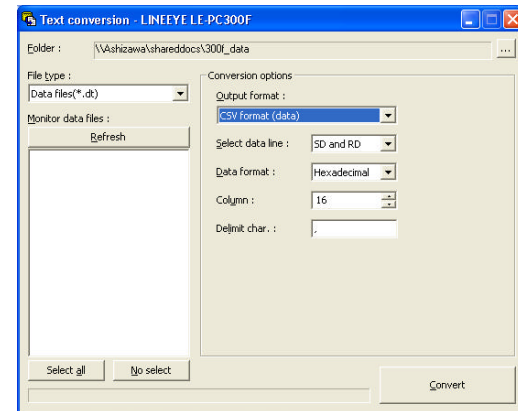
At the time of PPP, selects the translation format you convert from “PPP” and “DUMP.”

-Line state

At the time of “Normal print and Line state,” check the control line displayed with.

You can change a turn to display, by clicking “up” and “down” button.

If the CSV conversion is selected, the following window appears.



-Select data line

Selects from “SD and RD,” “SD only” and “RD only.”

-Data format

Selects from “Hexadecimal,” “Decimal” and “Character.”

-Column

Set the range between 1 and 255.

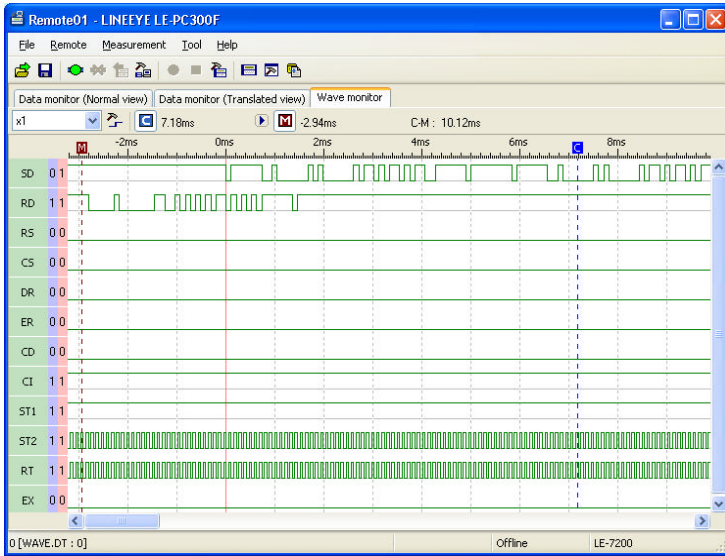
-Delimit char.

Set the delimit character such as “,”

Perform Text Conversion

Click “Convert.” A converted file is saved in a folder which contains its source file.

Chapter 10 Waveform Monitor Data



-Display magnification change

Select the magnification you would like to display from the drop down list which is displayed.



-Cursor display

Click . The cursor is displayed near the center of the screen.

-Marker display

Click . The marker is displayed near the center of the screen.

-Time measurement

Drag  and  on the screen of the wave monitor to the position you would like to measure. "C-M:*ms" shows the time between the cursor and the marker (eg. The image above indicates C-M: 74ms).


-Signal display order setting

Click  to set the order to display on the signal standard setting.

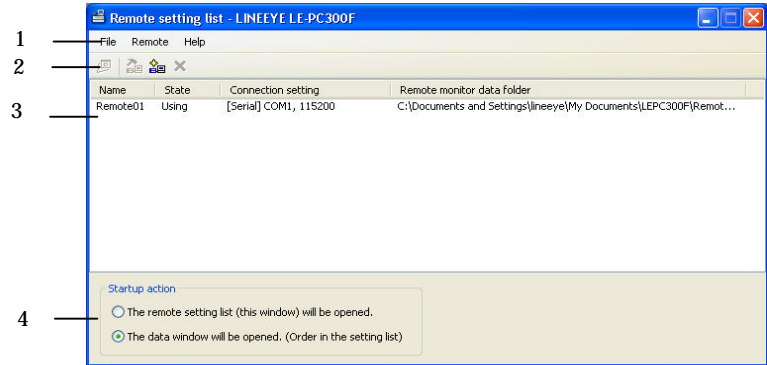
Chapter 11 Connecting Multiple Analyzers

To connect multiple analyzers at the same time, adding the necessary setting for each is required

Adds the remote setting on the remote setting list window.


To open the remote setting list window, click  from the toolbar of the window (or click "remote setting list" of the tool menu).

Remote Setting List Window



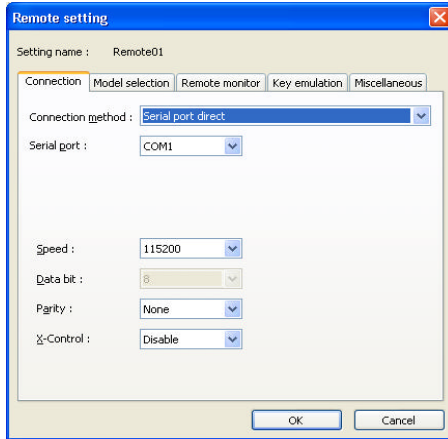
1. Menu
Performs each operation.
2. Toolbar
Performs each operation.
3. Remote Setting List
Displays the remote setting.
4. Option Setting
Selects how to operate when starting.

Adding the Remote Setting

To add a new setting to the list, click  on the toolbar of the remote setting window (or, click "new setting" of the remote menu.). And the remote setting window opens then set necessary items. (For more information about each item of the remote setting, read "Chapter 5 Environment setting.")


* For plural remote settings, make sure not to specify the same folder as location saving the remote monitor data.

When opening this setting window from the remote setting list window, you can rename the setting name. (It does not allow you to rename the setting name when the window opened from the data window.)




Those instructions guide you to add the remote setting for the number of analyzers you wish to connect.

Opening the Data Window

To open the selected data window for remote setting, select the specific remote setting from the list of the remote setting list window (multiple selections possible) to click  on the toolbar (or, click the "open data window" of the file menu).

Deleting the Remote Setting

It allows you to delete unnecessary remote setting.

At first, select the remote setting you wish to delete from the list of the remote setting list window (multiple selections possible) to click  on the toolbar (or, click "delete setting" of the remote menu). Then, the deletion confirmation appears and the selected setting will be deleted by clicking the "OK" button.

However, if the remote settings opening their windows are included with multiple selections, you cannot delete them. If you end the application with all the remote settings deleted, a new setting (default setting) will be automatically added when you start the application next.

Operation Setting of When Starting

You can select operation of when LE-PC300F starts from the following:

"The remote setting list (this window) will be opened"

The remote setting list window opens. If the window has already opened, it will be displayed in front.

"The data window will be opened. (Order in the setting list)"

The data window will be opened in order according to the remote setting list. If all data windows for the remote setting have already opened, the operation is the same with "The remote setting list (this window) will be opened."

Chapter 12 Specifications

Applicable analyzers	LE-7200, LE-3200, LE-2200, LE-1200 *1	
Connection	Serial or LAN connection (Supports the LAN-serial converters SI-60 and FA-11)	
NO. of analyzers to be connected	Multiple analyzers can be connected and controlled simultaneously. (No. of connectable analyzers depends on the performance of the PC.)	
Key emulation function	Displays the analyzer's display and keys on the PC screen, and can perform the analyzer remote control.	
Measurement condition setting function	Measurement conditions (communications parameters, trigger and simulation data) can be edited and set.	
Remote monitor Function	Starts/stops measurement with an analyzer, displays the measurement data on the PC screen, and records data continuously.	
	Recording mode	Fixed buffer mode: Measures data up to the specified size and stop automatically.
		Ring buffer mode: Records the latest data of the specified size endlessly.
Recording capacity	Max. 16 GB: Can be specified up to 2,000 files in the unit of 1/2/4/8 MB.	

=MEMO=

Display modes	Standard display	Displays communications data, idle time, time stamp and data line status.	
	Translation display	Translates and displays protocols such as SDLC, X.25 and LAPD.	
	Waveform monitor display	Enlarges and reduces waveform. (Can measure time, and rearrange signals.)	
	Character codes	ASCII, EBCDIC, JIS7, JIS8, Baudot, Transcode, IPARS, EBCD, EBCDIK, HEX (in hexadecimal including error codes)	
Search function	Finds and displays the data that matches the search key.		
	Search key	Specified data string (max. 8 characters, don't care and bit mask can also be specified)	
		Error (parity, framing, BCC, break/abort, short frame: individual error type can be specified)	
		Idle time beyond a specified duration	
		specific time stamp (don't care can also be specified)	
Text-CSV conversion function	Specified number of recorded files can be converted to text or CSV format all together.		
Screen image capture function	Analyzer's display shown by key emulation can be saved to bitmap files.		
System requirements	PC	DOSV	CPU: Pentium3 1GHz or faster
			RAM: 256 MB or more (recommended) HDD: 5 MB + free space on the measurement data area
	OS	Windows 98/98SE/ME/2000/XP (Internet Explorer needs more than 4.01.)	
Composition	CD (software) x 1, instruction manual x 1		

*1 You cannot use in combination with OP-SB7F or OP-FW10.



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