RA3100 software Ver.2.4.0 (2026/3)

[Additional Functions]

1. PDF file output
   - The Y-T waveform can be output to a file in the PDF format on the playback screen.
   - PDF files are managed on the file management screen of the unit.

2. Statistical calculation
   - Statistical calculation can be performed for the recording data on the playback screen.
   - The calculation results can be output to a file in the CSV format.

3. CSV output of FFT analysis
   - The analysis results can be output to a file in the CSV format.

4. Customization of recording mode
   - The recording operation can be changed with a combination of settings.
   - The "STOP trigger" and "Repeat recording" items have been added.

5. STOP trigger
   Stops recording when a trigger is detected.

6. Repeat recording (MFG mode only)
   Automatically starts recording after recording ends.

7. Insertion of scale values
   Channel scale values can be inserted in the text of the header, annotations, and footer.

8. Communication commands
   - S54: STOP trigger configuration and querying (analog input signal)
   - S55: STOP trigger configuration and querying (logic input signal)

[Improved Functions]

1. The sampling speed can now be changed in the recording settings.

2. The recording mode can now be selected from a palette.

3. The display resolution has been improved for the display maximum and minimum.

4. The signal names can now be changed on the playback screen.

5. The X-axis view can now be enlarged at a fixed zoom ratio on the playback screen.

6. Mark lines can now be displayed on the thumbnail waveform.

7. Scale values that do not match the grid position are now displayed in red.

8. Y-T waveform printing
   - The X-axis (time axis) can now be enlarged when printed on the playback screen.
   - The page numbers can now be printed.

[Specifications Changed]

1. Some of the background color has been changed to make it easier to identify the measurement, recording, and playback screens.

2. Communication commands
   - S01: Common recording configuration and querying
     The recording mode can now be customized.

[Bugs Fixed]

1. Bug where the date of the current recording is displayed as the date on the playback screen for playback while recording with the X-axis set to display the date.

2. Bug where the process will not finish if recording data is imported after all recording data is deleted.

3. Bug where a value over 100 seconds can be set as the trigger filter time with a communication command.

4. Other minor bug fixes

RA3100 software Ver.2.3.3 (2025/12)

[Bugs Fixed]

1. In very rare cases, when FFT analysis measurement is ON, changing the SSD recording sampling speed may result in failure to operate properly.

2. The control bar may show an incorrect sampling speed during recording.

RA3100 software Ver.2.3.2 (2025/10)

[Bugs Fixed]

1. In very rare cases, a system error may occur at the start/stop of recording or printing, and when changing header/footer settings.

RA3100 software Ver.2.3.1 (2025/8)

[Improved Functions]

1. Auxiliary lines of the amplitude axis can now be displayed in the Y-T waveform display.

2. When the Y-T waveform display is compressed on the X-axis, the amount of cursor movement now depends on the compression ratio.

[Bugs Fixed]

1. When the X-axis notation is "time", the X-axis scale may not be printed correctly in the Y-T waveform printout on the playback screen.

2. When the CH name print position is "zero point" and wave display is OFF, the CH name is printed in Y-T waveform printing.

3. Other minor bug fixes

RA3100 software Ver.2.3.0 (2025/7)

[Additional Functions]

1. Compress X-axis of Y-T waveform
   This function enables compressed viewing and compressed printing of the X-axis (time axis) on the playback screen.

2. Display scale of Y-T waveform
   This function enables the scale of the Y-axis (amplitude axis) to be always displayed for each divided graph.

3. Print channel marks
   This function enables channel marks to be printed near the input waveform.

4. Delete then save recorded data

When the number of recorded items has reached the limit or the SSD has no free capacity, this function enables the recorded data to be saved by automatically deleting old recorded data.

5. Search max. - min.
   This function enables the max. value and min. value of the recorded data to be searched for all channels at once. The search function has also been renewed to accommodate this function.

6. Communication commands
   - S53: Delete then save recorded data configuration and querying
   - I08: Error status readout

[Improved Functions]

1. Printing of signal names
   Either the center of the display range or the zero point of the input signal can now be selected as the print position.

2. Data list for file management
   Pages are now displayed per 100 items to speed up the list refresh process.

3. Retention of displayed sub menu
   The sub menu is now displayed during startup and when recording starts.

4. Automatic ending of memory recording
   For memory recording only, recording now automatically ends when recording is complete for all memory blocks.

5. Communication commands
   - S36: Print parameter configuration and querying
     P13: Added signal name print position
     P14: Added channel marks

   - S37: Header, footer, and annotation configuration and querying
     P1: Added the "F: All" setting to the text types
     P2: Added the "F: All lines" setting to the line number

   - I07: Recording configuration error readout
     bit 20: Added recorded data size upper limit when using the function for deleting then saving recorded data

[Specifications Changed]

1. The recording device selection key (PRINTER/SSD/MEMORY) in the side menu has been changed.

2. The [Select all] and [Release all] keys were removed from file management and changed to a checkmark (☑) operation in the data list.

3. The thumbnail zoom ratio on the playback screen is now fixed to "1/All".

[Bugs Fixed]

1. Bug where printing is not possible if multiple print or feed start/stop commands overlap

2. Bug where the starting waveform for pen recording may be missing if the feeding speed is set to an arbitrary speed of 10 mm/s or faster

3. Bug where the trigger is printed in an incorrect position on the waveform printout from memory recording.

4. Bug where the FFT increment count is changed to "1" if the recorded data is played or restored

5. Bug where all measurement channels are changed to "SHEET1" if the measurement mode is changed to MFG after playing recorded data

6. Bug where the X-axis may be missing for the cursor value when the X-axis is set to the date and the language is set to Korean or Traditional Chinese

7. Bug where measurement may not be performed correctly if the measurement mode of the RA30-108 (2ch frequency module) is set to the rotation speed mode and the pulse count per revolution is set to 2 or higher

8. Other minor bug fixes

RA3100 software Ver.2.2.4 (2025/3)

[Specifications changed]

1. The maintenance screen is disabled during printing.

[Bugs fixed]

1. Inputting an external clock signal may not display or print the input waveform.

2. The communication command 'S43: Waveform area division configuration and querying ' causes misalignment between the graph and waveform positions on the waveform monitor.

3. Fixed other minor bugs.

RA3100 software Ver.2.2.3 (2025/2)

[Bugs fixed]

1. RA30-108 (2-channel frequency module) may overrange and fail to measure correctly when the measurement mode is Rotation speed mode and Pulse/Rev. is 2 or more.

RA3100 software Ver.2.2.2 (2025/1)

[Bugs fixed]

1. The UI app may terminate abnormally when X-Y waveform or FFT analysis measurement is ON and recording.

RA3100 software Ver.2.2.1 (2024/11)

[Additional functions]

1. Communication commands
   - I12: Used memory block count readout

[Bugs fixed]

1. Print density may become lighter depending on chart speed.

RA3100 software Ver.2.2.0 (2024/10)

[Additional functions]

1. CSV file output
   - The recorded data for memory recording can be output to a file in the CSV format when recording is finished.
   - The recorded data can be output to a file in the CSV format on the playback screen.
   - CSV files are managed on the file management screen of the main unit.

2. Support for any chart speeds
   The chart feed speed can be set to a custom value of 1 to 100 mm/s or 1 to 100 mm/min.

3. Batch execution of single channel functions
   The zero-cancel, TEDS readout, BAL execution, and bridge check functions can now be executed for all channels at once.

4. Customization of digital display
   The digital display can now be customized to display the slot or channel and change the layout. Signal names can also be displayed for each channel number.

5. Cursor function on playback screen
   A cursor function has been added to the side menu to enable the simultaneous display of the measured value at the cursor position and thumbnail waveform for all channels.

6. Communication commands
   - S52: CSV format configuration and querying
   - E32: Saved data deletion

[Improved functions]

1. Displayed units for sampling speed
   The sampling speed can now be displayed as a frequency or period.

2. Cursors A and B are now displayed for the thumbnail waveform.

[Specifications changed]

1. The way the chart speed key is displayed when "PEN REC" is selected for the control bar has been changed.

2. The order of the list displayed on the file management screen has been changed to descending order of creation date/time.

3. Communication commands
   - S02: Memory recording configuration and querying
     This command now supports CSV file output.
   - S04: Printer recording configuration and querying
     This command now supports custom chart speeds.
   - S36: Print parameter configuration and querying

The data range of the recording speed has been changed.

- S38: Chart speed key configuration and querying
  This command has been removed.
- E01: Zero cancel; E22: BAL execution; E23: Bridge check; E24: TEDS readout
  When "F" is specified for a slot or channel, now the command will only be executed for channels with measurement enabled.
- I10: Recording data count readout
  The CSV data count has been added.

[Bugs fixed]

1. Fixed a bug where the screen view range (green frame) of the thumbnail waveform was not displayed in the correct position.

2. Fixed a bug where the trigger of a thumbnail waveform was not displayed in the correct position when "1/All" was selected for the thumbnail waveform in memory recording.

3. Fixed a bug where the date/recording name, trigger/mark, time axis, and recording speed were printed with the print settings of the playback screen when performing pen recording with the playback screen displayed.

4. Fixed a bug where the recording speed was printed as 2 kS/s when printing between cursors with recording data recorded with a sampling speed of 5 kS/s or 10 kS/s.

5. Fixed a bug where the A.A.F setting of the RA30-101 would be disabled during startup or when restoring settings.

6. Fixed other minor bugs.

RA3100 software Ver.2.1.3 (2024/8)

[Bugs fixed]

1. Incorrect logic waveforms may be printed after 2000 samples (20 div).

RA3100 software Ver.2.1.2 (2024/7)

[Bugs fixed]

1. Pressing the FEED key on the control bar within 100 milliseconds may cause a printer error system error.

RA3100 software Ver.2.1.1 (2024/6)

[Bugs fixed]

1. In rare case, the remaining paper amount monitor (PAPER) may show an incorrect value for the remaining paper amount when printing.

RA3100 software Ver.2.1.0 (2024/4)

[Additional functions]

1. The RA30-113 (4ch voltage module) is now supported.

2. Communication commands
   - M13: RA30-113 (4ch voltage module) configuration and querying
   - S51: Date and time configuration and querying
   - E27: Recorded data deletion

[Specification changed]

1. The [Measurement mode] and [Create a config file] buttons have been deleted from the settings menu screen displayed during playback.

[Bugs fixed]

1. In rare cases, a printer error system error may occur if feeding (idle feeding of recording paper) is performed immediately after real-time waveform printing in the R&D mode.

2. When settings are changed by the following communication commands, the setting values on the setting screen are not updated.
   - S21:Start-trigger configuration and querying (analog input signal)
   - S22:Start-trigger configuration and querying (logical input signal)
   - S24:Memory-trigger configuration and querying (analog input signal)
   - S25:Memory-trigger configuration and querying (logical input signal)

3. Fixed other minor bugs.

RA3100 software Ver.2.0.1 (2024/4)

[Bugs fixed]

1. When the RA30-109 (2ch acceleration module) is installed, recording settings are not restored

correctly.

2. When real-time waveform printing is performed in the MFG mode after performing pen recording, recording may not terminate correctly and the PRINT key may remain lit.

3. An NAK response may be received when the "E15: Execute adjust paper feed" or "E16: Execute print header, footer and annotation" communication command is sent immediately after recording is finished.

4. When creating a settings file, if a file with the same name but different case characters already exists, it is overwritten without user confirmation

5. When a file is updated using data recorded with a version of the software earlier than version 1.3.0, the graph settings are updated with invalid values and the Y-T waveform is not displayed correctly.
6. In rare cases, recording may not stop with the START/STOP IN signal of the RA30-112 (remote control module).

7. In very rare cases, the next recording may not start if it is started within one second of the previous recording when the MFG mode is set and the recording time is set to the maximum time.

8. Fixed other minor bugs.

RA3100 software Ver.2.0.0 (2024/2)

[Additional functions]

1. Measurement mode
   An "R&D mode" for R&D personnel and "MFG mode" for the manufacturing industry are available.
   - R&D mode
     Functions for researchers, such as memory recording and FFT can be used (functions equivalent to Ver. 1.x.x).
   - MFG mode
     Improved response time for recording start/end, and new data transfer function available.
     However, there are limitations on recording mode, waveform display, playback function, and some functions.

2. FTP server
   Recorded data, image data, and setting data stored in the main unit can be retrieved via LAN.

3. Data transfer (MFG mode only)
   Transfers measurement data sampled by the main unit via LAN.

4. Config file creation
   Creates a single file containing all settings for the main unit and modules.

5. Communication commands
   - S48: Switching measurement mode
   - S49: Setting TRIG key assignment
   - S50: Setting data transfer
   - E29: Manual control of data transfer
   - I09: Obtaining physical value calculation coefficient
   - I10: Obtaining number of records
   - I11: Obtaining data transfer status

[Improved functions]

1. Improved response speed of recording start/end (MFG mode only).

2. Improved response speed of pen recording start/end.

3. Redesigned setting menu screen to improve convenience, including for some existing functions and additional functions.

4. Enabled feed (idle feeding of recording paper) by TRIG key on the operation panel.

5. Added the display of the number of items in recorded/image/setting data lists.

6. Communication commands
   - S command / M command
     Setting values of the main unit can be obtained.
   - S22: Setting start trigger (logic input signal)
     Channel number setting can also be specified for CHA and CHB.
   - S25: Setting memory trigger (logic input signal)
     Channel number setting can also be specified for CHA and CHB.
   - I05: Reading main unit status
     Added "5: Printing stopped" to status.
   - I07: Reading a recording setting error

"bit 18: Recording mode setting error" is added to status.

[Specification changed]

1. Eliminated automatic transition from record screen to playback screen after recording

2. Changed format of recorded data.
   The recorded data of Ver.1.x.x needs to be updated to the new file format.

[Bugs fixed]

1. Recorded data may be corrupted in cases of very short recording times of up to 500 milliseconds.

2. The Saving dialog box may not close after recording.

3. When the number of Y-T waveform channels is 18 channels or more, printing may not work smoothly.

4. When feed (idle feeding of recording paper) is performed after test printing, it may not be performed correctly.

5. When the data type of SSD recording is P-P, the data size of one sampling in the recording information XML file is set to Normal value.

6. A printer malfunction may occur when printing or feeding is performed while finishing recording.

7. Fixed other minor bugs.

RA3100 software Ver.1.4.5 (2023/10)

[Additional functions]

1. Printer version display in Version Management.

[Bug fixed]

1. System error in printer error may occur after all printing is complete.

RA3100 software Ver.1.4.4 (2023/8)

[Bug fixed]

1. The screen does not transition to the record screen, even when recording is started on the playback

screen.

2. The PRINT key remains lit when it is pressed while no recording data is selected on the playback screen.

3. The Y- T waveform may not be displayed when recording at a sampling speed of 2 kS/s or greater with window recording.

4. The PRINT key remains lit when recording is stopped while printing the waveform between cursors.

5. When printing the waveform between cursors with the remote screen (web browser), printing cannot be done unless the control bar is "CURSOR".

6. Other minor bugs fixed.

RA3100 software Ver.1.4.3 (2023/6)

[Bug fixed]

1. Data recorded by SSD recording or memory recording may be corrupted and playback may not be possible.

RA3100 software Ver.1.4.2 (2023/5)

[Improved functions]

1. Add pen record start/stop and feed start/stop to operation history.

[Bug fixed]

1. Some recorded data cannot use the cursor function in playback mode.

2. Header, annotation and footer on YT waveform cannot be printed with annotation print key and print text print key on control bar.

3. A printer error will occur when performing a short feed if the printer is left for 1 hour and 20 minutes or longer after printing or feeding.

4. If the sampling speed is set to "Ext." and the synchronous clock signal is not input for 1 hour and 20 minutes or longer, it does not print even if the synchronous clock signal is input.

5. Printing between cursors cannot be stopped with the RA3100 operation panel STOP key on the web browser.

RA3100 software Ver.1.4.1 (2023/3)

[Improved functions]

1. Display maximum/ display minimum setting range changed to 10 times the measurement range.

[Bug fixed]

1. When you change the channel display maximum/display minimum with waveform inversion ON using a communication command, the positive and negative.

2. Make an error response when there is no waveform inversion parameter in the channel display setting command.

3. The UI app terminates abnormally when the interval time in the recording settings is changed from 1 day to 0 days.

4. An incorrect recording time may be displayed when the recording mode in the recording settings is changed from interval recording to normal recording.

5. The printer status is not displayed correctly on the maintenance screen.

6. Recording may not end normally if the recording time is less than 1 second.

7. Other minor bug fixed.

RA3100 software Ver.1.4.0 (2022/12)

[Additional functions]

1. Support for new modules
   - RA30-104 2ch AC strain module
   - RA30-107 2ch High voltage module
   - RA30-108 2ch Frequency module
   - RA30-109 2ch Acceleration module

2. Waveform inversion function

Displays the waveform and digital value by inverting the positive/negative of the measured value.

3. Web server function
   The screen display and operation of the main unit can be performed remotely from a web browser on a PC, etc.

4. Module update function
   Updates modules installed only in the main unit.

5. Communication commands
   - E17: TRIG output command
   - E18: MARK output command
   - E19: PRINT control command

[Improved functions]

1. Added prefix selection in numeric input
   You can enter numbers with prefixes such as k, m, etc.

2. Print start/stop response time

[Specification changed]

1. Change of communication command
   - ACK response
     Changed response timing
   - S30: channel display
     Added parameter P12 with the addition of waveform inversion function
   - S32: physical quantity conversion
     Changed the data range of parameters P4 to P9
   - I05: Get RA3100 status
     Changed response contents of ACK response

[Bug fixed]

1. Deleted automatic backlight OFF function

2. If printing continues for a long time at a sampling speed of 20S/s (chart speed of 2mm/s) or less, printing may occasionally stop.

3. When pen record printing is started with the PRINT IN signal of the RA30-112 remote control

module, "0" may not be printed on the time axis of printing.

4. When using physical value conversion, the zero point position of scale value printing is not printed at the correct position

5. When the gain is negative in physical value conversion, the YT waveform, trigger threshold line, and search threshold line are not displayed correctly, and display maximum and display minimum cannot be entered.

6. Thumbnails are not displayed when the recorded data is 1GByte or more and the thumbnail magnification is "1/whole".

7. Cursor values may not be displayed correctly on the playback screen after recording ends

8. When the number of samples between cursors A and B is large, the maximum, minimum, and average values between AB are not displayed.

9. When daylight saving time is ON, the start time of recording is not set correctly.

10. Fixed other minor bugs