

Keysight CX3300 Series Device Current Waveform Analyzer

CX3322A 2-Ch
CX3324A 4-Ch

Quick Reference



Preparing the Instrument for Use

To position the instrument:

1. Secure the space where it will have sufficient clearance for airflow around the back and sides.
Minimum clearances for bench operation are 25 mm along the sides and 75 mm along the back.
2. Optional. Flip down tabs behind the front feet for easier display viewing and measurement terminal access.
3. Position the instrument.

To turn the instrument ON:

1. Connect the power cord from AC input connector to an AC power outlet at your site.
2. Press the Standby switch.

To connect the CX1100 other than the CX1152A to the analog input channel:

1. Attach the connector of the CX1100 to the desired channel.
2. Fasten the screws on the connector to assure the contact.

NOTE: Connecting the CX1102A Current Sensor to the CX3324A

Connect the Primary and Secondary connectors to the contiguous channels 1 and 2, 2 and 3, or 3 and 4 respectively.

To connect a passive probe:

1. Attach the CX1151A passive probe interface adapter to the desired channel.
2. Fasten the screws on the adapter to assure the contact.
3. Connect the probe to the BNC connector on the adapter.

Front Panel Keys and Indicators

Up/Down/Left/Right	Supports setup or marker operation.
Enter	Sets the value.
Tab	Changes the active entry field in a dialog box.
Escape	Cancels the last operation or closes menu or dialog box.
Tools	Displays/switches the tool palette; Measurement, Function, Trigger, or others.
View	Switches the active view; Main Waveform, graph view, or data view.
Menu	Displays/switches the dialog box; Setting, Analysis, Data Logger, or Configuration.
Multi Purpose	Performs the user specified function. Initially, QuickSave is specified.
Run Control:	
Run/Stop	Starts/stops waveform acquisition in Scope mode. Stops waveform recording in Data Logger mode.
Single	Makes a single acquisition. Starts waveform recording in Data Logger mode.
Auto/Arm'd/Trig'd	Shows the trigger status; Auto, Arm'd (armed), or Trig'd (triggered). Effective only for Scope mode.
Horizontal:	
Knob (large)	Turning the knob changes the scale. Pressing it sets the fine mode ON/OFF.
Knob (small)	Turning the knob changes the offset. Pressing it sets zero offset.
Zoom	Enables or disables the horizontal zoom.
Auto Scale	Acquires waveform and sets the optimum scale automatically.
High Reso	Enables or disables the high resolution mode of acquisition.
Clear Display	Clears the graph in the active view.
Default Setup	Applies the default setup.
Trigger:	
Knob	Turning the knob changes the trigger level. Pressing it reduces the level to half.
Source	Switches the trigger source; analog input channel 1, 2, 3, 4, or Aux.
Slope	Switches the trigger slope; positive, negative, or either.
Sweep	Switches the trigger sweep; Auto or Trig'd (triggered).
Menu	Opens the Setting dialog box and displays the Trigger setup (Setting > Trigger).
Vertical:	
1 / 2 / 3 / 4	Enables or disables the analog input channel and shows the channel status ON/OFF.
LED	Indicates the channel effective for the vertical control and the graph scaling.
Knob (large)	Turning the knob changes the scale. Pressing it sets the fine mode ON/OFF.
Knob (small)	Turning the knob changes the offset. Pressing it sets zero offset.
Zoom	Enables or disables the vertical zoom.
Touch Panel	Enables or disables the touch panel.



1 / 2 / 3 / 4 key and LED

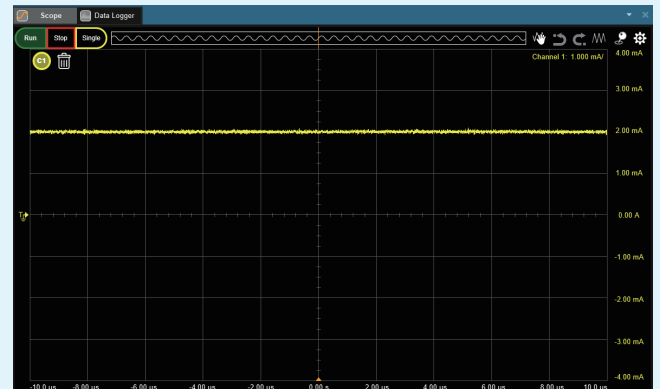
Pressing the key changes the channel status as shown below. Where, # is 1, 2, 3, or 4 associated with the analog input channel. Vertical control and graph scaling are effective for the channel indicated by the lit LED (ON). Graph displays the data for the channels in the ON status.



Performing Measurement

The following procedure is available for the CX3300 connected to the CX1101A/CX1102A/CX1103A current sensor. The procedure monitors the Calibration Output signal. If you use the other sensor, refer to *Keysight CX3300 User's Guide*.

1. Connect the current sensor to the Aux Out terminal by using the following accessories.
 - Coaxial cable (BNC plug to BNC plug), furnished with the CX3300
 - Adapter (SMA plug to BNC jack), furnished with the current sensor
2. Press the 1 (yellow), 2 (green), 3 (blue), or 4 (red) key associated with the channel connected to the Aux Out terminal and enable the channel.
3. Press the Menu key several times to open the Configuration dialog box.
The Menu key is located above the Horizontal control on the front panel.
4. Set the following conditions on the Configuration dialog box (Configuration > Calibration Output).
 - Output State: ON
 - Source Shape: DC
 - Source Mode: Current
 - Current: 2 mAThe 2 mA DC current is applied from the Aux Out terminal.
5. Click the close (x) button located in the upper right corner on the Configuration dialog box to close the dialog box.
6. Press the Run key to start waveform acquisition.
7. Use the Vertical control knob to adjust the vertical scale.
You will see 2 mA DC current on the graph.



Sidebar

About CX3300	Opens the About dialog box which displays the software revision, serial number, and so on.
Setting	Opens the Setting dialog box used for acquisition, trigger, and channel setups.
Analysis	Opens the Analysis dialog box used for analysis, function, and marker setups.
Data Logger	Opens the Data Logger dialog box used for the waveform recording, playback, and other setups.
Layout	Shows/hides the menu used for setting ON/OFF of Analysis Views.
Application Launcher	Shows/hides shortcut to Power and Current Profiler and Waveform Trend Analyzer.

Auto Save	Shows/hides the auto save tool bar at the bottom of Main Waveform.
Save	Opens the Save dialog box used for saving data.
Load	Opens the Load dialog box used for loading data.
Help	Shows/hides shortcut to Data Sheet, User's Guide, Online Help, etc.
Utilities	Shows/hides shortcut to Configuration, Demo Wizard, Show Desktop, Close Window, etc.

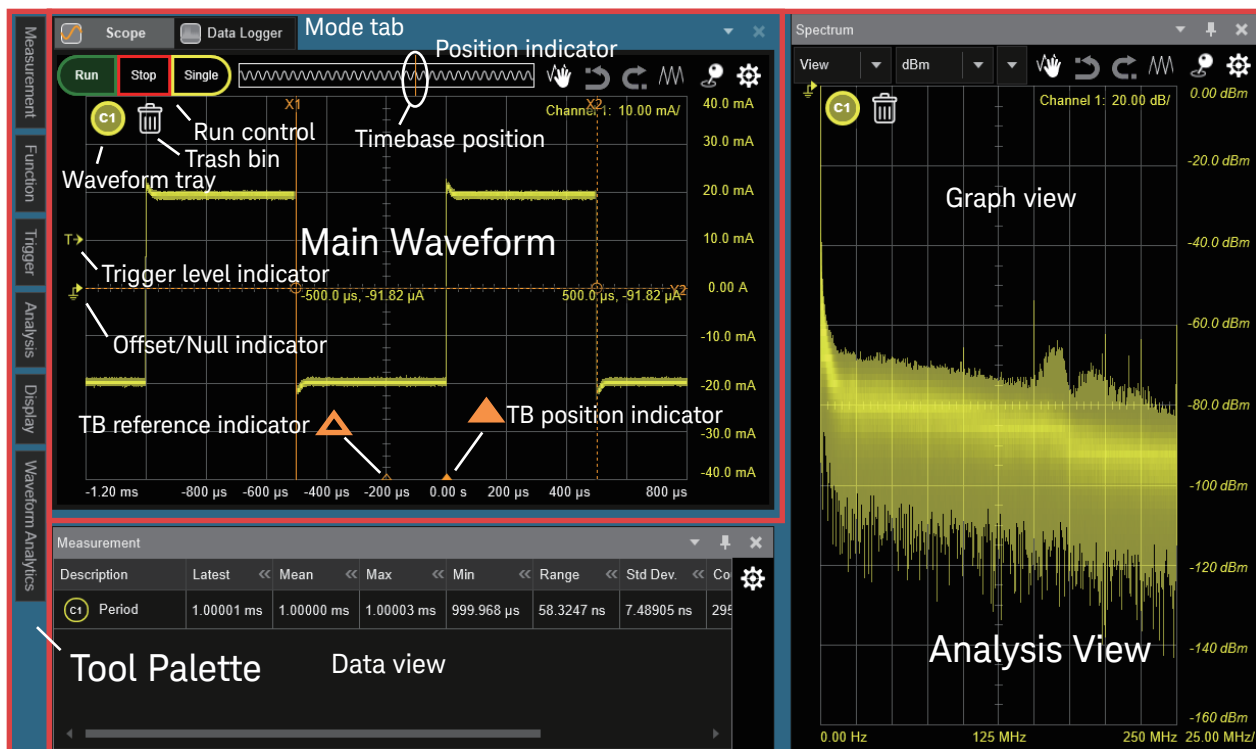
Indicator Tray	Shows the status information such as the LAN status and the front panel lock status.
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Summary Bar

H	Shows the horizontal summary; scale (s/), offset (s), high resolution mode ON (HR) or OFF (none), sampling rate (Sa/s), and number of samples (pts).
T	Shows the trigger setup summary; trigger type, slope/polarity/window/condition, trigger sweep, trigger source, and trigger (high) level.
D	Shows the pulse symbol which indicates the graph scale (small/medium/large) for displaying the digital channel waveform.
1 / 2 / 3 / 4	Shows the analog channel setup summary; vertical scale, offset, sensor setup information, bandwidth, and measurement range.

Clicking a box opens/closes the mini dialog box relative to it; Horizontal, Trigger, Digital, or an analog channel.





Main Waveform

Mode tab	Switches the operation mode; Scope or Data Logger.
Run control	Controls waveform acquisition. Same as the Run/Stop/Single key.
Waveform tray and trash bin	Displays the icons for the waveforms on the graph. Dropping the icon into the trash bin deletes the waveform from the graph and sets the channel status to OFF. Clicking the icon selects the channel effective for vertical control and graph scaling.
Position indicator	Waveform expresses all of the memory data. Square surrounds the data displayed on the graph. Orange vertical line indicates the timebase position. Moving the square changes data on the graph.
Trigger level indicator	Indicates the trigger level setting.
Offset/Null indicator	Indicates the vertical zero position when Null is OFF or the null position when Null is ON.
TB position indicator	Indicates the timebase (zero second) position.
TB reference indicator	Indicates the timebase reference position.
Move / Zoom	Switches the function; Move or Zoom.
Undo	Cancels the last move/zoom operation.
Redo	Cancels the last Undo.
Waveforms	Shows/hides the menu used for selecting the display layout; single, dual, or zoom display.
Marker	Shows/hides the menu used for switching display ON or OFF of markers on the graph.
Setting	Opens the Makers mini dialog box for quick setup.

Analysis View

Graph view	Initially placed on the right next to the Main Waveform. Displays analysis graph.
Data view	Initially placed on the bottom of the Main Waveform. Displays measurement and statistical data.

Tool Palette

Measurement / Function / Trigger / Analysis / Display / Waveform Analytics

Clicking the button shows/hides the menu which provides the icons associated with it.

To apply the feature of the icon, drag and drop it on the waveform.

For more information on GUI and the other documents available for this instrument, see the CX3300 online help opened by using the Help icon.