

TekExpress® A-PHY

Compliance Test Specification

Application Help

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In North America, call 1-800-833-9200.

Worldwide, visit www.tek.com to find contacts in your area.

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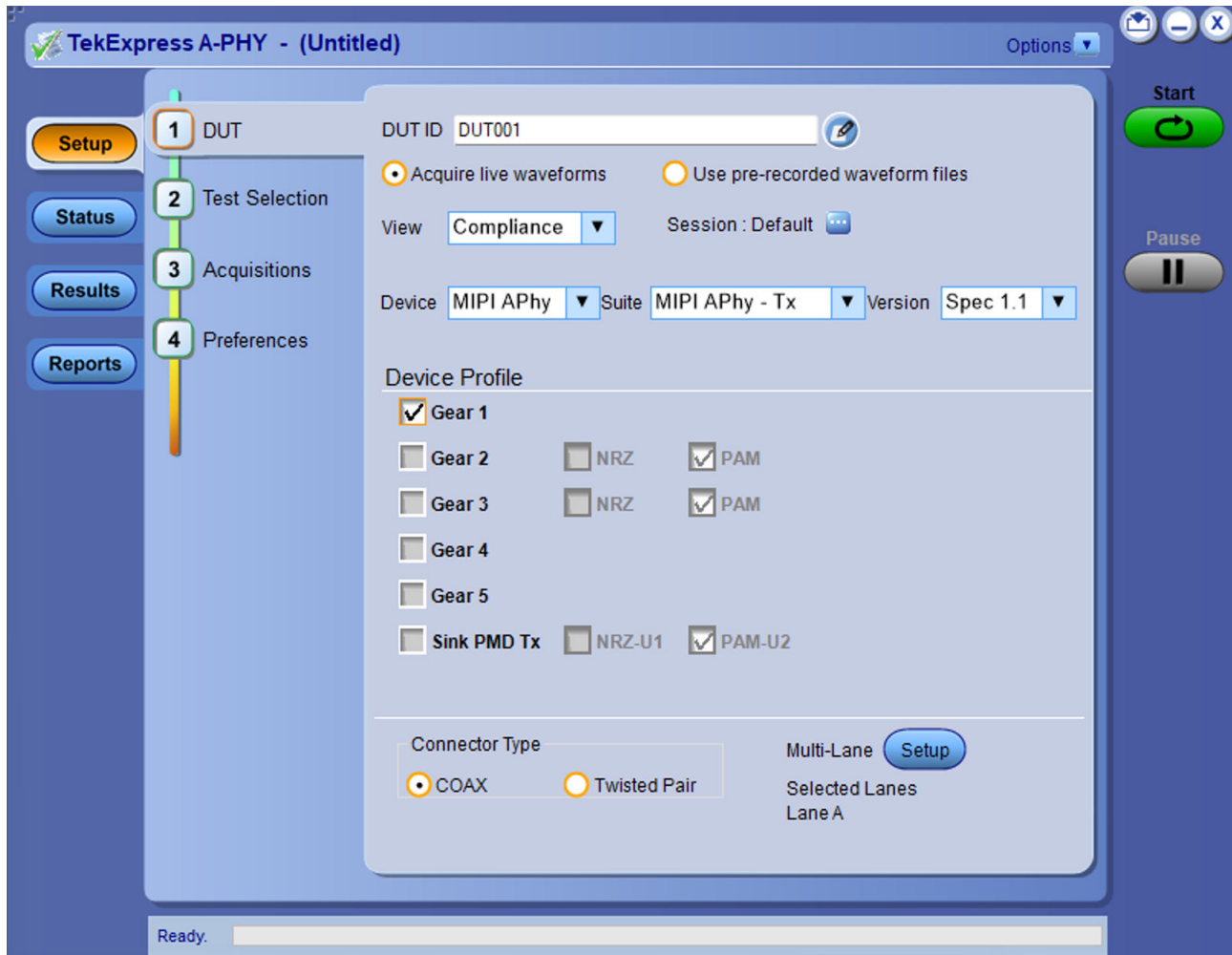
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Welcome

The Tektronix TekExpress A-PHY (Opt. 6-CMAPHY / 7-CMAPHY) offers a complete physical layer test solution for transmitter conformance and characterization as defined in the MIPI A-PHY v1.1 specifications. The TekExpress A-PHY automated test solution, along with a Tektronix 7 Series DPO / 6 Series MSO / 6 Series B MSO, provides an easy way to test, debug and characterize the electrical and timing measurements of A-PHY data links.



Key Features

- Fully automated solution: Performs A-PHY transmitter testing with a single-button click across different Gears and Sink PMD TX.
- Allows selection of individual tests or groups of tests.
- Supports analysis of live or pre-acquired waveforms.
- Supports multi-gear A-PHY operation (NRZ and PAM4) with data rates up to 32 Gbps.
- Enables PAM4 eye diagram analysis using long random patterns for improved BER confidence.
- Provides BER-based eye mask testing with extrapolation from 10^{-6} to 10^{-12} .
- Performs jitter decomposition (RJ/DJ) and total jitter measurement.

Getting help and support

Product documents

Use the product documents for more information on the application functions, understand the theory of operation, how to remotely program or operate the application, and do other tasks.

TekExpress Application documents

To learn about	Use this document
How to use the application	TekExpress A-PHY Help
How to remotely control the instrument	PDF version can be downloaded from www.tek.com . Compiled HTML (CHM) version is integrated with the application. Press F1 key from the keyboard to start the help. Tektronix Part Number: 077-xxxx-xx

Conventions

This application help uses the following conventions:

- The term "Application," and "Software" refers to the TekExpress A-PHY Application.
- The term "DUT" is an abbreviation for Device Under Test.
- The term "select" is a generic term that applies to the two methods of choosing a screen item (button control, list item): using a mouse or using the touch screen.
- A **Note** identifies important information.

Icons used in the help

Icon	Description
	This icon identifies important information
	This icon identifies conditions or practices that could result in loss of data.
	This icon identifies additional information that will help you use the application more efficiently.

Technical support

Tektronix values your feedback on our products. To help us serve you better, please send us your suggestions, ideas, or comments on your application or oscilloscope. Contact Tektronix through mail, telephone, or the Web site. See Contacting Tektronix at the front of this document for contact information.

When you contact Tektronix Technical Support, please include the following information (be as specific as possible):

General information

- All instrument model numbers
- Hardware options, if any
- Modules used
- Your name, company, mailing address, phone number, FAX number
- Please indicate if you would like to be contacted by Tektronix about your suggestion or comments.

Application specific information

- Software version number
- Description of the problem such that technical support can duplicate the problem
- If possible, save the setup files for all the instruments used and the application
- If possible, save the TekExpress setup files, log.xml, *.TekX (session files and folders), and status messages text file

Getting started

Hardware requirements

Supported oscilloscope models

Pre-requisite

Refer ReadMe/Release notes for the latest version details.

Supported oscilloscopes

- DPO714AX Oscilloscope
- MSO6/6B Series with bandwidth up to 10 GHz (as per CTS).

Recommended accessories

BIAS-TEE and SMA cable

Recommended Connectors

Rosenberger and Mini-Circuits (T)

Software license requirements

This section describes the software licensing requirements to install and use the application.

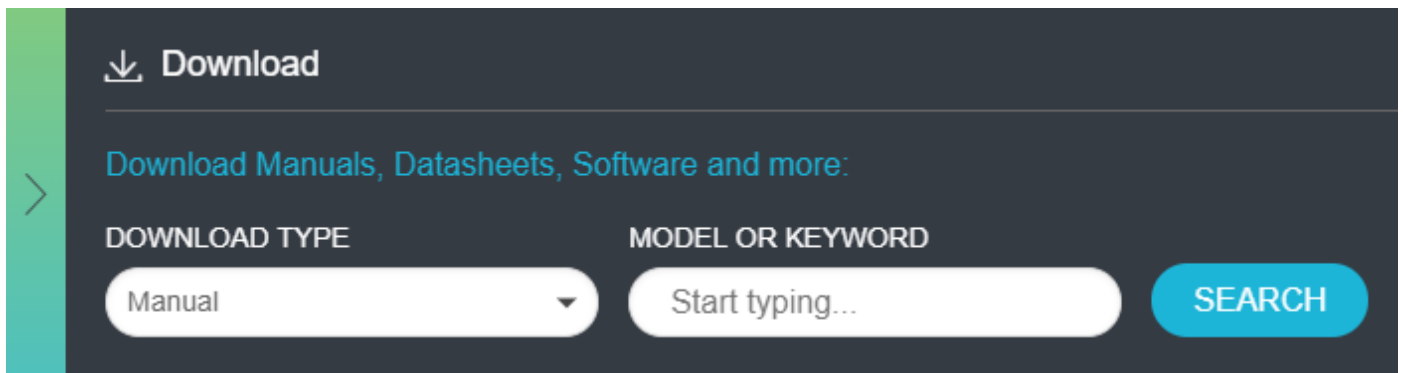
Software license requirements for MSO 6 Series, and 6 Series B MSO or 7 Series DPO

- **CMAPHY**: Automated Compliance Solution using TekExpress Framework
- **DJA**: Advanced Jitter and Eye Analysis Software
- **AFG**: Internal AFG

Downloading and installing the software

Complete the following steps to download and install the latest TekExpress A-PHY application.

1. Go to www.tek.com.
2. Click **Downloads**. In the Downloads menu, select DOWNLOAD TYPE as Software and enter the application name in the MODEL OR KEYWORD field and click **SEARCH**.



Tek Download

3. Select the latest version of software and follow the instructions to download the software. Copy the executable file into the oscilloscope.
4. Double-click the executable and follow the on-screen instructions.
The software is installed at C:\Program Files\Tektronix\TekExpress\TekExpress A-PHY.
5. Select **Application/Analyze > TekExpress A-PHY** from the Oscilloscope menu, to open the application.

Activate the license

To activate the license, access the oscilloscope's help documentation, navigate to the License Activation section, and follow the on-screen instructions using the oscilloscope interface.

View software version and license key details

To view version information of the application, click **Options > About TekExpress**.



File name extensions

The TekExpress A-PHY software uses the following file name extensions:

File name extension

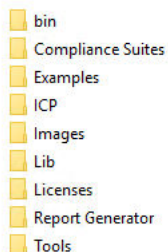
File name extension	Description
.TekX	Application session files (the extensions may not be displayed)
.py	Python sequence file
.xml	Test-specific configuration information (encrypted) files Application log files
.csv	Test result reports Plot data
.mht	Test result reports (default) Test reports can also be saved in HTML format
.pdf	Test result reports Application help document
.xslt	Style sheet used to generate reports
.png	Captured images

Application directories

The TekExpress A-PHY application files are installed at the following location:

C:\Program Files\Tektronix\TekExpress\TekExpress A-PHY

The application directory and associated files are organized as follows:



The following table lists the default directory names and their usage:

Application directories and usage

Directory names	Usage
Bin	Contains application libraries
Compliance Suites	Contains test suite specific files
Examples	Contains various support files
ICP	Contains instrument and application specific interface libraries
Images	Contains images of the application
Lib	Contains utility files specific to the application
Licenses	Contains all the license files
Report Generator	Contains style sheets for report generation
Tools	Contains instrument and application specific files

Setting up the test environment

Calibrate the Oscilloscope

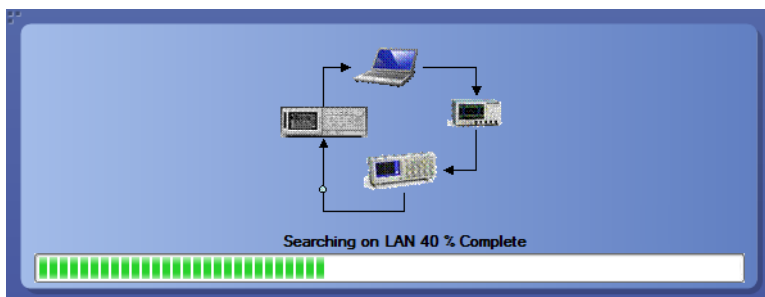
Search instruments connected to the application

Use the TekExpress Instrument Control Settings dialog box to search the instruments (resources) connected to the application. The application uses TekVISA to discover the connected instruments.

NOTE: The instruments required for the test setup must be connected and detected by the application, before running the test.

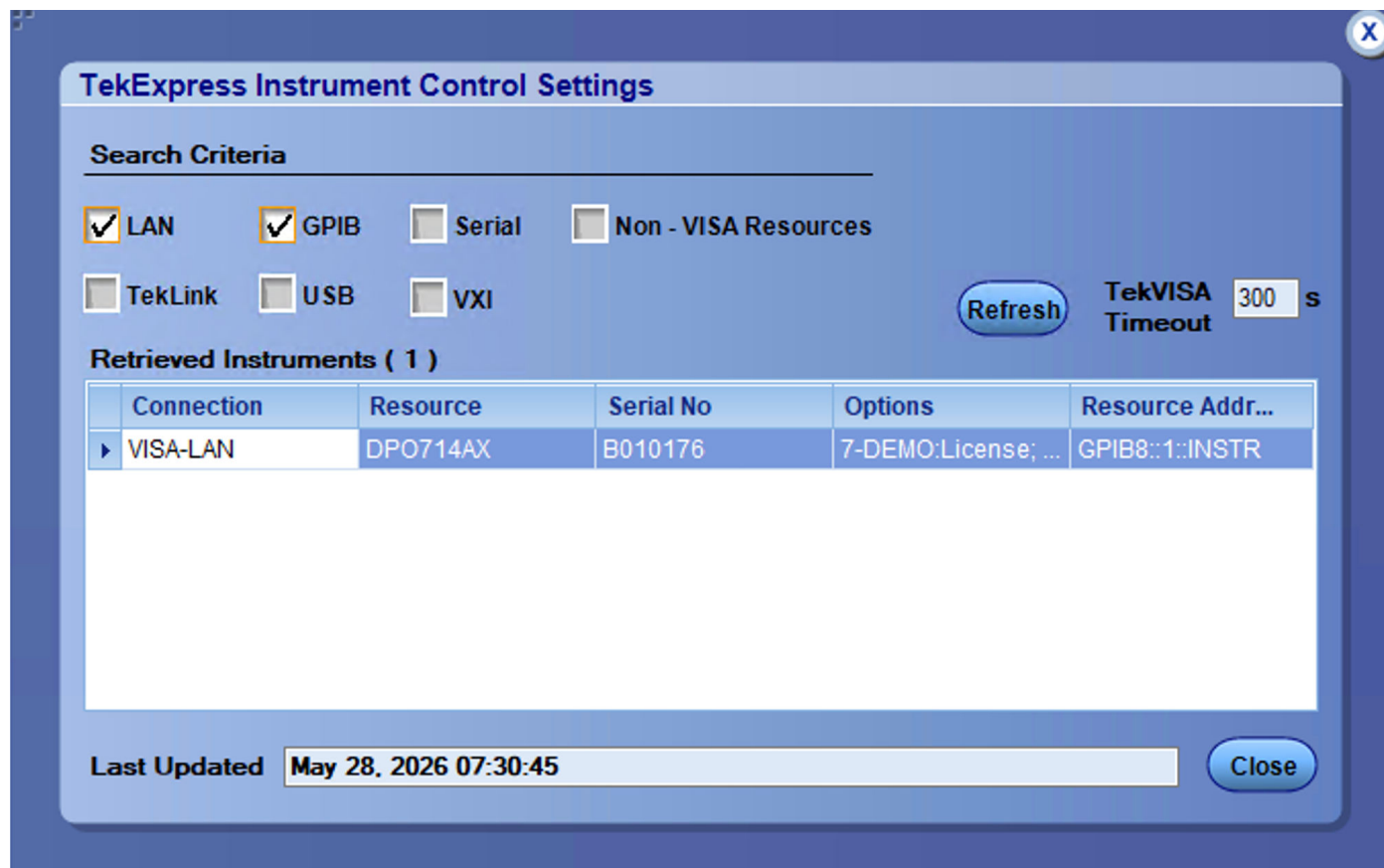
To refresh the list of connected instruments:

1. Select **Options > Instrument Control Settings**.
2. In the **Search Criteria** section of the **Instrument Control Settings** dialog box, select the connection types of the instruments to search. Instrument search is based on the VISA layer, but different connections determine the resource type, such as LAN, GPIB, and USB. For example, if you choose LAN, the search will include all the instruments supported by the TekExpress that are communicating over the LAN.
3. Click **Refresh**. The TekExpress application searches for the connected instruments.



Search status of the instruments connected to LAN

4. When the search is complete, a dialog box lists the instrument-related details based on the search criteria. For example, for the Search Criteria as LAN and GPIB, the application displays all the LAN and GPIB instruments connected to the application.



The details of the instruments are displayed in the Retrieved Instruments table. The time and date of instrument refresh is displayed in the Last Updated field.

Compensate the signal path (Prerequisite)

Use the following procedure to compensate the internal signal acquisition path. Perform this procedure if the ambient temperature has changed more than 5 °C (9 °F) since you performed the last signal path compensation. Perform the signal path compensation once a week. Failure to do so may result in the instrument not meeting warranted performance levels.

1. Power on and wait for the instrument to complete its warm up period before continuing with this procedure.
2. Disconnect any probes you have connected to the input channels.
3. Set the instrument to Menu mode.
4. Select Instrument Calibration from the Utilities menu.
5. Note any instructions that appear in the resulting control window.
6. Click Run SPC to begin the procedure. The procedure may take several minutes to complete.
7. Verify that the Status changes to Compensated after the procedure is complete. If the Calibration Status field indicates anything other than Compensated, see Signal Path Compensation Status for information on the readout and recommended action.

NOTE: When making measurements at vertical scale settings less than or equal to 5 mV, you should perform the signal path compensation at least once a week. Failure to do so may result in the instrument not meeting warranted performance levels at those volts/div settings.

Running tests

[Set DUT parameters](#) (on page), [select tests](#) (on page), [set acquisition parameters](#) (on page), [set configuration parameters](#) (on page), [set preferences parameters](#) (on page), and click **Start** to run the tests. While tests are running, you cannot access the Setup or Reports panels. To monitor the test progress, switch between the Status panel and the Results panel.

While tests are running, the other applications will be displayed at the background. If you want the TekExpress A-PHY application to run in the foreground select Keep On Top from the TekExpress Options menu.

The application displays report when the tests execution is complete.

Prerun checklist

1. Make sure that the instruments are warmed up (approximately 20 minutes) and stabilized.
2. Perform compensation: In the oscilloscope main menu, select **Utilities > Instrument Compensation**. Click **Help** in the compensation window for steps to perform instrument compensation.

View test results

When a test completes, the application switches to the Results panel, which shows a summary of test results.

Each test result occupies a row in the Results table. By default, results are displayed in summary format, with the measurement details collapsed. You can change the view in the following ways:

- To view the results grouped by lane, test, or data rate, select the corresponding item from the Preferences menu.
- To expand all tests listed, select View Results Details from the Preferences menu.
- To expand and collapse tests, use the plus and minus buttons to the left of the test rows.
- To collapse all expanded tests, select **Preferences > View Results Summary**.
- To enable or disable the wordwrap feature, select **Preferences > Enable Wordwrap**.
- To expand the width of a column, place the cursor over the vertical line that separates the column from the one to the right. When the cursor changes to a double-ended arrow, hold down the mouse button and drag the column to the desired width.
- To sort the test information by column, click the column head. When sorted in ascending order, a small up arrow is displayed. When sorted in descending order, a small down arrow is displayed.

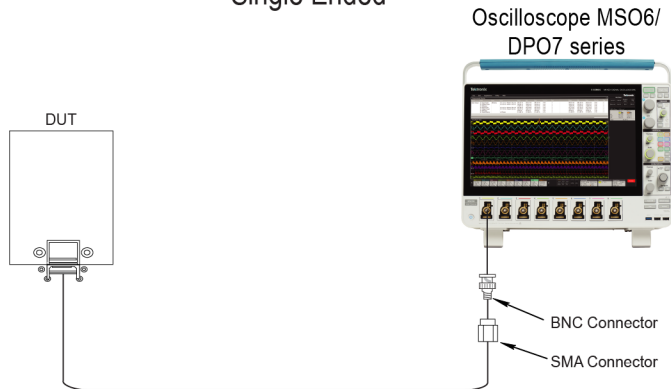


- To clear all test results displayed, click **Clear** ()

Equipment connection diagram

Standard

Single Ended

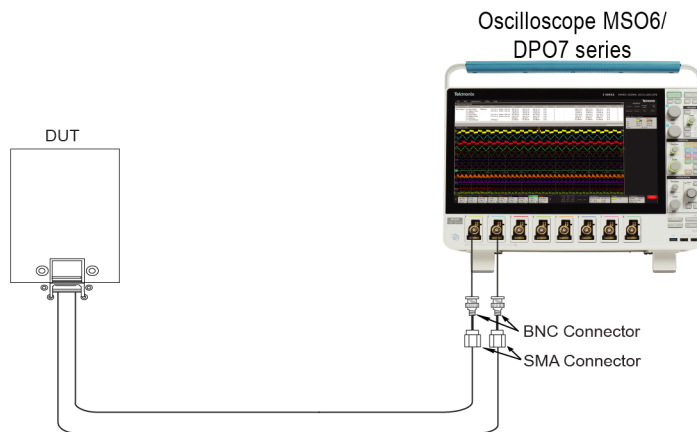


Note:

- For better results, the DUT and the Oscilloscope should have common grounding.
- DPO7 series also supports a TCA-SMA connector instead of BNC.

1948-000

Differential Signalling

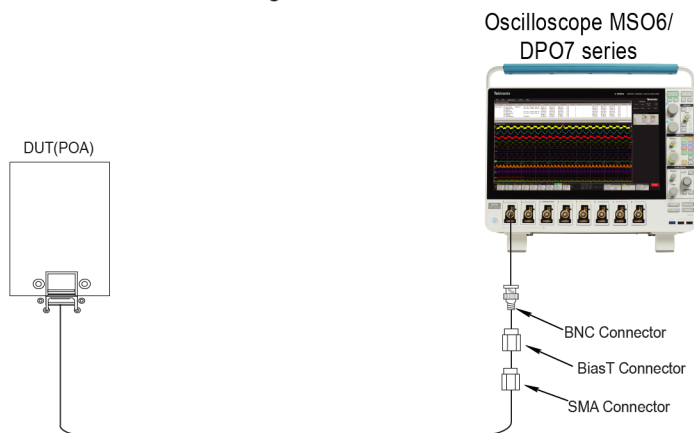


Note:

- For better results, the DUT and the Oscilloscope should have common grounding.
- DPO7 series also supports a TCA-SMA connector instead of BNC.

1948-001

Single Ended

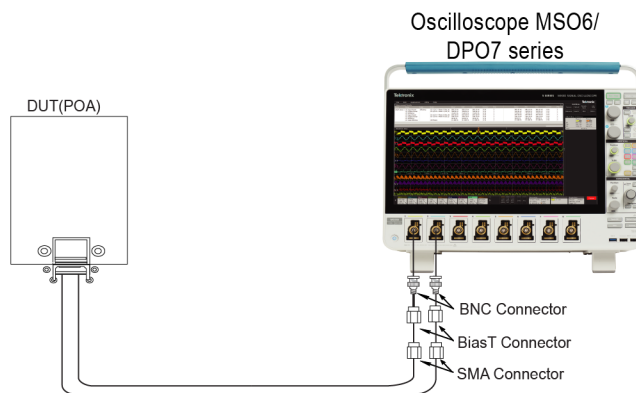


Note:

- For better results, the DUT and the Oscilloscope should have common grounding.
- DPO7 series also supports a TCA-SMA connector instead of BNC.

1948-002

Differential Ended



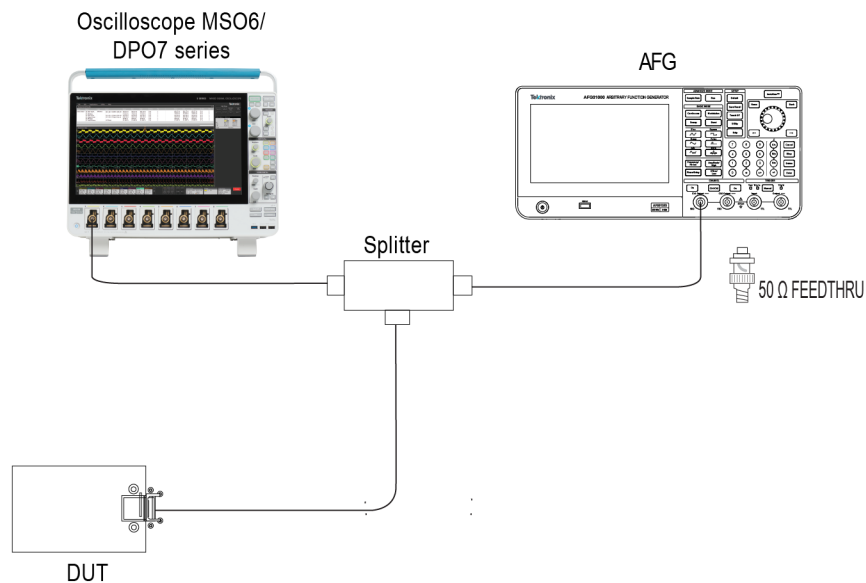
Note:

- For better results, the DUT and the Oscilloscope should have common grounding.
- DPO7 series also supports a TCA-SMA connector instead of BNC.

1948-003

AFG Disturber

External AFG Single Ended with 1-Way Splitter Connector

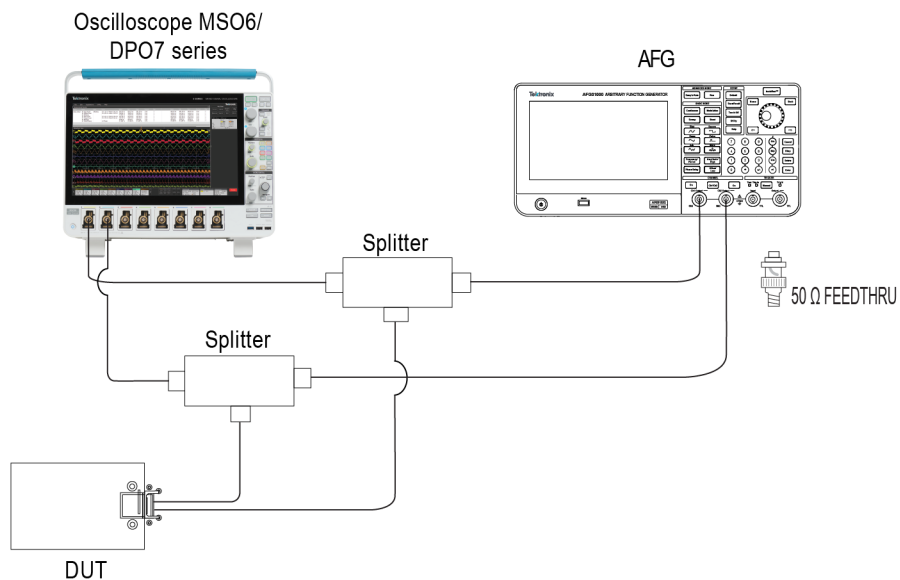


Note:

- For better results, the DUT and the Oscilloscope should have common grounding.
- DPO7 series also supports a TCA-SMA connector instead of BNC.

1948-004

External AFG Differential Ended with 2-Way Splitter Connector

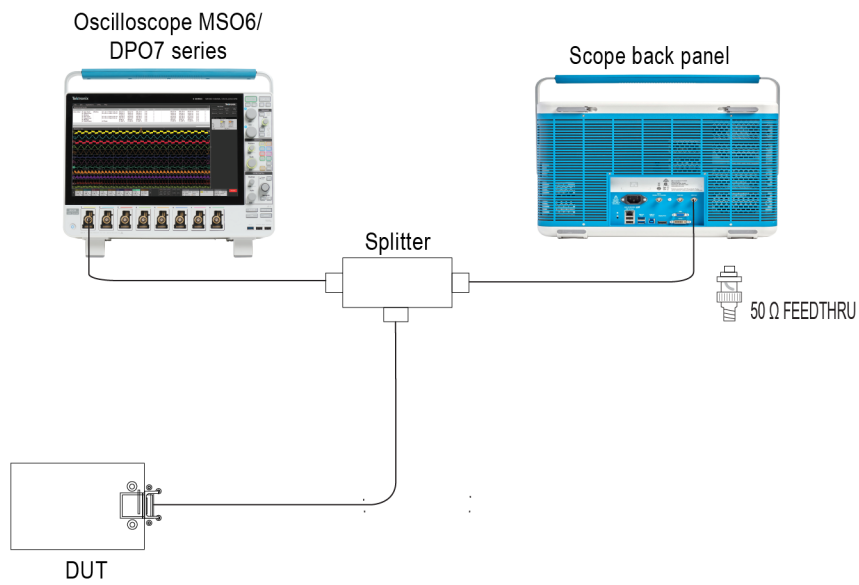


Note:

- For better results, the DUT and the Oscilloscope should have common grounding.
- DPO7 series also supports a TCA-SMA connector instead of BNC.

1948-005

Internal AFG Single Ended with 1- Way splitter



Note:

- For better results, the DUT and the Oscilloscope should have common grounding.
- DPO7 series supports a TCA-SMA connector instead of BNC.

1948-006

AFG Calibration

Internal AFG Calibration - Direct AFG connection to scope Single Ended

Oscilloscope MSO6/
DPO7 series



Scope back panel

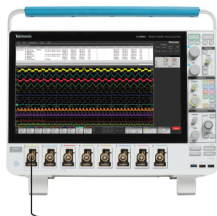


Note: DPO7 series also supports a TCA-SMA connector instead of BNC.

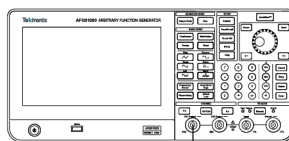
1948-008

External AFG Calibration - Direct AFG connection to scope Single Ended

Oscilloscope MSO6/
DPO7 series



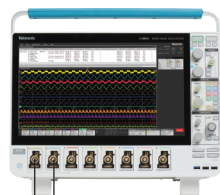
AFG



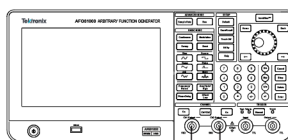
Note: DPO7 series also supports a TCA-SMA connector instead of BNC.

1948-009

External AFG Calibration - Direct AFG connection to scope Differential Ended

Oscilloscope MSO6/
DPO7 series

AFG



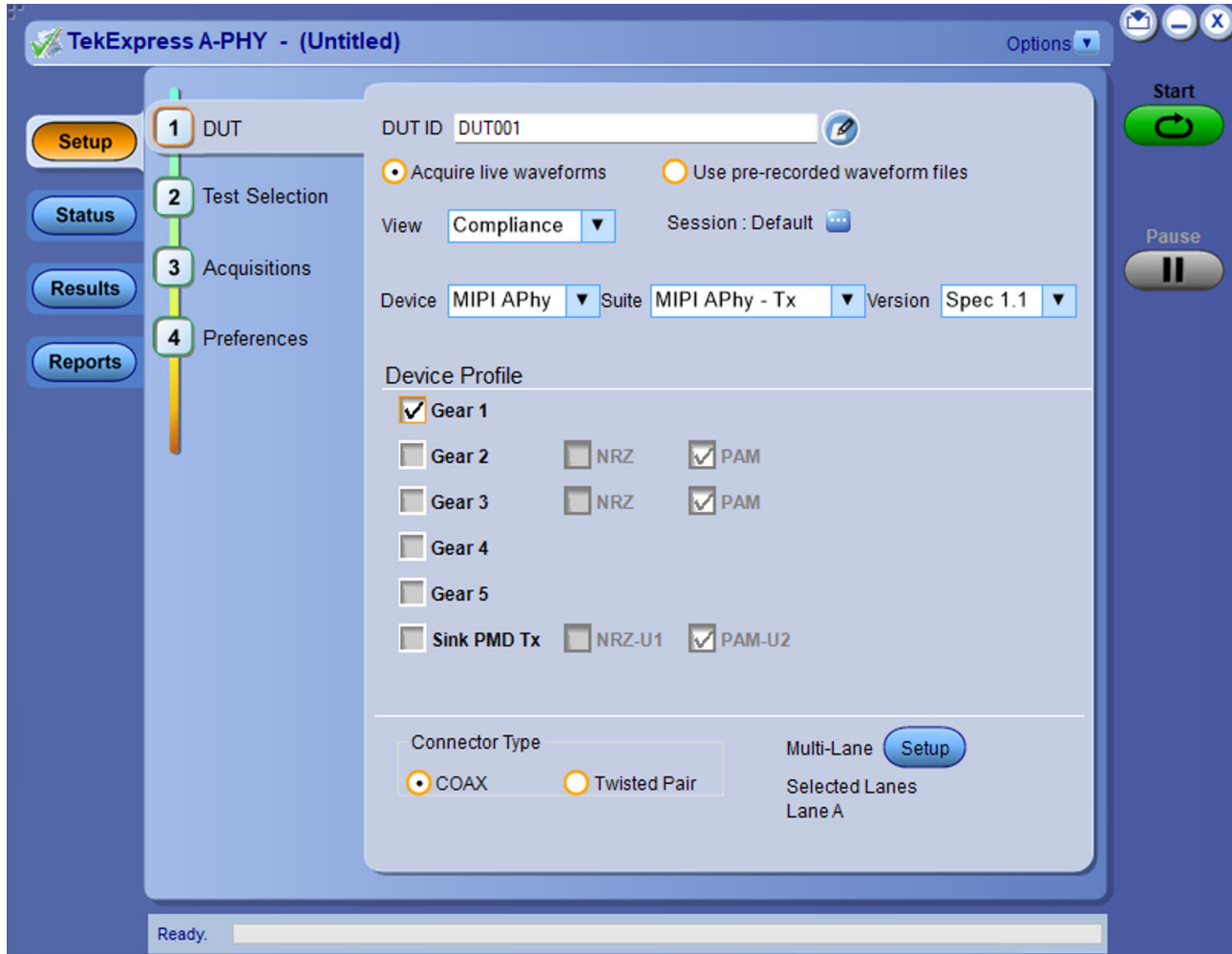
Note: DPO7 series also supports a TCA-SMA connector instead of BNC.

1948-010

NOTE: The connection diagrams applies to all supported oscilloscopes listed in the hardware requirements section.

Starting the application

To start the TekExpress A-PHY, select from the oscilloscope menu bar **Applications/Analyze > TekExpress A-PHY**



DUT tab

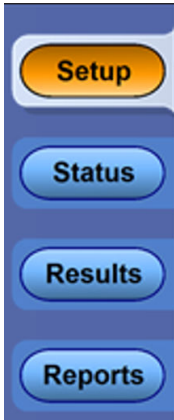
During start, a "My TekExpress" folder is created in the Documents folder of the current user and gets mapped to "X" drive. When the application is closed properly, the "X" drive gets unmapped. Session files are then stored inside the X:A-PHY folder. If this file is not found, the application runs an instrument discovery program to detect connected instruments before starting TekExpress A-PHY.

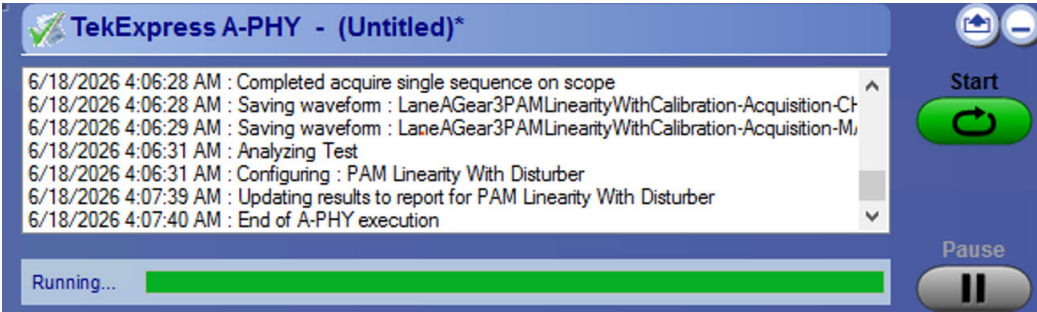
To keep the application on top of any application, select **Keep On Top** from the options menu. If the application goes behind the oscilloscope application, select **Applications/Analyze > TekExpress A-PHY** to bring the application to the front.

Application controls

This section describes the application controls with functionality and its details.

Application control description

Item	Description
Options menu Options 	Menu to display global application controls.
Test panel 	Controls that open tabs for configuring test settings and options.
Start / Stop button  	Use the Start button to start the test run of the measurements in the selected order. If prior acquired measurements are not cleared, then new measurements are added to the existing set. The button toggles to the Stop mode while tests are running. Use the Stop button to abort the test.
Pause / Continue button 	Use the Pause button to pause the acquisition. When a test is paused, this button changes as Continue .
Clear button 	Use the Clear button to clear all existing measurement results. Adding or deleting a measurement, or changing a configuration parameter of an existing measurement, also clears measurements. This is to prevent the accumulation of measurement statistics or sets of statistics that are not coherent. This button is available only on Results panel . NOTE: This button is visible only when there are results data on the panel.
Application window move icon 	Place the cursor over the top of the application window to move the application window to the desired location

Item	Description
Minimize icon 	Minimizes the application.
Close icon 	Close the application.
Mini view / Normal view  	Mini view displays the run messages with the time stamp, progress bar, Start / Stop button, and Pause / Continue button. The application moves to mini view when you click the Start button. 

Options menu functions

To access the **Options** menu, click  in the upper-right corner of the application. It has the following selections:

Options ▾

Default Test Setup

Open Test Setup

Save Test Setup

Save Test Setup As

Open Recent >

Instrument Control Settings

Keep On Top

Email Settings

Help

About TekExpress

Options menu settings

Menu	Function
Default Test Setup	Opens a new test setup with default configurations.

Menu	Function
Open Test Setup	Opens a previously saved test setup. Displays the list of previously saved test setup file names. Make the selection and click OK to open the test setup.
Save Test Setup	Saves the current test configurations with the specified file name.
Save Test Setup As	Saves the current test setup with a different file name or file type.
Open Recent	Displays the recently opened test setup file names. Make the selection and click OK to open the test setup.
Instrument control settings	Detects, lists, and refreshes the connected instruments found on the specified connections (LAN, GPIB, USB, Serial, Non-VISA Resources, TekLink, and VXI).
Keep On Top	Always keeps the TekExpress A-PHY application on top of all the applications.
Email settings	Configures email options for test run and result notifications.
Help	Displays the TekExpress PCI Express A-PHY help.
About TekExpress	Displays the application name, version, and hyperlink to end the user license agreement.

Configure email settings

Use the **Email Settings** utility to get notified by email when a measurement completes or produces any error condition. Follow the steps to configure email settings:

Email Settings

Recipient e-mail Address(es)

Note: Separate Email addresses with a comma

Sender's Address

Email Attachments

☒ Reports

☒ Status Log ☒ Last 20 Lines ☐ Full Log

Server Configuration

SMTP Server SMTP Port

Login

Password

☐ Enable SSL

Email Configuration

Max Email Size (MB) Number of Attempts to Send

Timeout (Sec)

☐ Email Test Results When complete or on error

Test Email Apply Close

Email settings window

1. Select **Options > Email Settings** to open the Email Settings dialog box.
2. (Required) For **Recipient email Address(es)**, enter one or more recipient email addresses. To include multiple addresses, separate the addresses with commas.
3. (Required) For **Sender's Address**, enter the email address used by the instrument. This address consists of the instrument name, followed by an underscore, followed by the instrument serial number, then the @ symbol, and the email server ID. For example: user@yourcompany.com.
4. (Required) In the **Server Configuration** section, type the SMTP Server address of the Mail server configured at the client location, and the SMTP Port number, in the corresponding fields.
If this server requires password authentication, enter a valid login name, password, and host name in the corresponding fields.

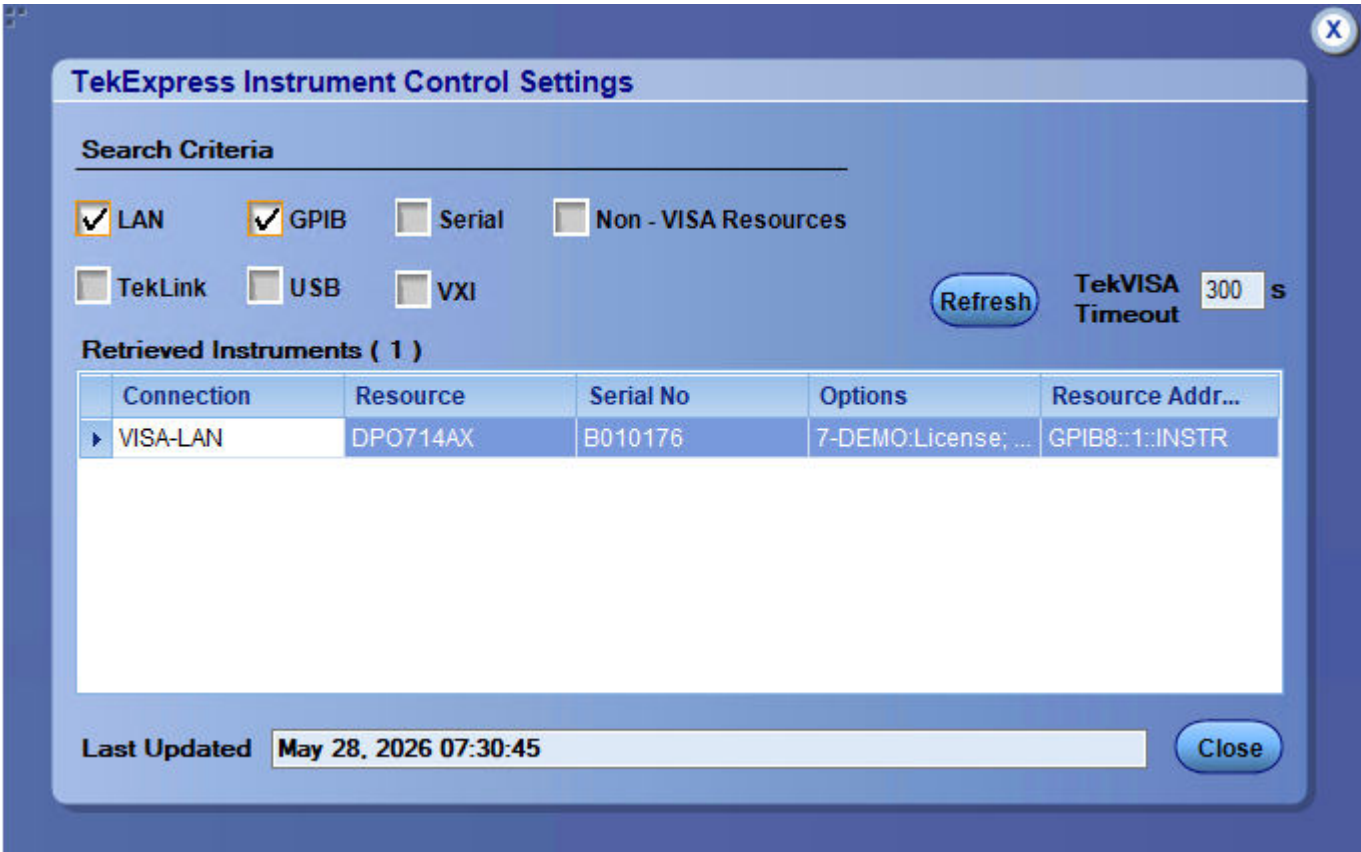
NOTE: If any of the above required fields are left blank, the settings will not be saved, and email notifications will not be sent.

5. In the **Email Attachments** section, select from the following options:
 - **Reports:** Select to receive the test report with the notification email.
 - **Status Log:** Select to receive the test status log with the notification email. If you select this option, then also select whether you want to receive the full log or just the last 20 lines.
6. In the **Email Configuration** section:
 - Enter a maximum file size for the email message. Messages with attachments larger than this limit will not be sent. The default is 0 MB.
 - Enter the number in the Number of Attempts to Send field, to limit the number of attempts that the system makes to send a notification. The default is 1. You can also specify a timeout period.
7. Select the **Email Test Results When complete or on error** check box. Use this check box to quickly enable or disable email notifications.
8. To test your email settings, click **Test Email**.
9. To apply your settings, click **Apply**.
10. Click **Close** when finished.

TekExpress instrument control settings

Use the **TekExpress Instrument Control Settings** dialog box to search the instruments (resources) connected to the application. You can use the **Search Criteria** options to search the connected instruments depending on the connection type. The details of the connected instrument is displayed in the Retrieved Instruments window.

To access, click **Options > Instrument Control Settings**. Select **GPIO** as search criteria for TekExpress application and click **Refresh**. The connected instruments displayed in the Retrieved Instruments window and can be selected for use under Global Settings in the test configuration section.



See also

[Options menu functions](#)

Status panel: View the test execution status

The Status panel contains the **Test Status** and **Log View** tabs, which provides status on the test acquisition and analysis (Test Status) and listing of test tasks performed (Log View tab). The application opens the **Test Status** tab when you start to execute the test. Select the **Test Status** or the **Log View** tab to view these items while the test execution is in progress.

View test execution status

The tests are grouped and displayed based on the Clock and Data lane. It displays the tests along with the acquisition type, acquire, and analysis status of the tests. In pre-recorded mode, **Acquire Status** is not valid.

The **Test Status** tab presents a collapsible table with information about each test as it is running. Use the symbols to expand () and collapse () the table rows.

TekExpress A-PHY - (Untitled)*

Options

Test Status | Log View

Setup | **Status** | **Results** | **Reports**

Test Name	Acquisition	Acquire Status	Analysis Status
- Lane A			
Gear1 PSD Mask	Gear1 PSD Mask-Acquisition	Completed	Completed
Gear1 Maximum Output Droop	Gear1 Maximum Output Droop-Acquisition	Completed	Completed
Gear1 Timing Jitter	Gear1 Timing Jitter-Acquisition	Completed	Completed
Gear1 Symbol Rate Accuracy	Gear1 Timing Jitter-Acquisition	Completed	Completed
Gear1 Eye Opening	Gear1 Eye Opening-Acquisition	Completed	Completed
Gear1 Tx NRZ SMART	Gear1 Tx NRZ	To be started	To be started
Gear2 PAM PSD Mask	Gear2 PAM PSD	To be started	To be started
Gear2 PAM Maximum Output Droop	Gear2 PAM Maximum Output Droop-Acquisition	To be started	To be started
Gear2 PAM Timing Jitter	Gear2 PAM Timing Jitter-Acquisition	To be started	To be started
Gear2 PAM Symbol Rate Accuracy	Gear2 PAM Timing Jitter(DataRate)-Acquisition	To be started	To be started
Gear2 PAM Linearity	Gear2 PAM Linearity-Acquisition	To be started	To be started
Gear2 PAM AFG Calibration	Gear2 PAM Linearity With Calibration-Acquisition	To be started	To be started
Gear2 PAM Linearity With Disturber	Gear2 PAM Linearity With Calibration-Acquisition-Disturber	To be started	To be started
Gear2 PAM SMART	Gear2 PAM SMART-Acquisition	To be started	To be started
Gear3 PAM PSD Mask	Gear3 PAM PSD	To be started	To be started
Gear3 PAM Maximum Output Droop	Gear3 PAM Maximum Output Droop-Acquisition	To be started	To be started
Gear3 PAM Timing Jitter	Gear3 PAM Timing Jitter-Acquisition	To be started	To be started

Completed.

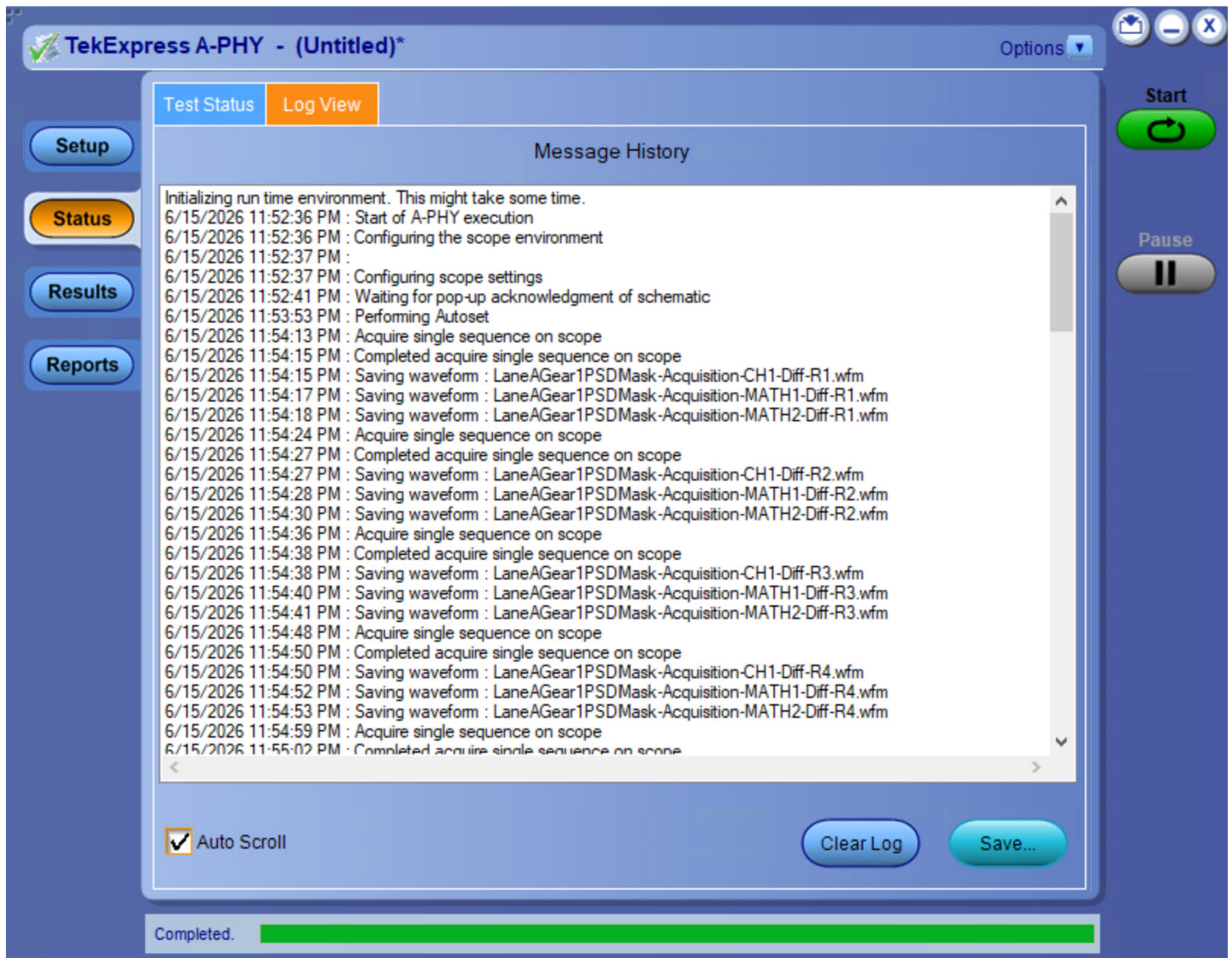
Start **Pause**

Test execution status table headers

Control	Description
Test Name	Displays the measurement name.
Acquisition	Describes the type of data being acquired.
Acquire Status	Displays the progress state of the acquisition: To be started
Analysis Status	Displays the progress state of the analysis: - To be started - Complete

View test execution logs

The Test Status tab displays the detailed execution status of the tests. Also, displays each and every execution step in detail with its timestamp information. The log details can be used to troubleshoot and resolve any issue/bug which is blocking the test execution process.



Status panel settings

Control	Description
Message History	Lists all the executed test operations and timestamp information.
Auto Scroll	Enables automatic scrolling of the log view as information is added to the log during the test execution.
Clear Log	Clears all the messages from the log view.

Control	Description
Save	Saves the log file into a text file format. Use the standard Save File window to navigate to and specify the folder and file name to save the log text.

Results panel: View summary of test results

When a test execution is complete, the application automatically opens the **Results** panel to display a summary of test results. Result Panel contains **Test Result** and **Statistics** tabs.

In the Test Result table, each test result occupies a row. By default, results are displayed in summary format with the measurement details collapsed and with the Pass/Fail column visible.

TekExpress A-PHY - (Untitled)* Options

Overall Test Result Pass Preferences

Test Name	Sub-Measurement	Pass/Fail	Value	Margin
Gear1 PSD Mask	Gear1 PSD Mask	Pass	0	Low: NA, High: 0
Gear1 Maximum Output Droop	Positive Gear1 Maximum Output Droop	Pass	11.848	Low: NA, High: 28.152
Gear1 Maximum Output Droop	Negative Gear1 Maximum Output Droop	Pass	11.98	Low: NA, High: 28.02
Gear1 Timing Jitter	Gear1 Timing Jitter	Pass	4.428	Low: NA, High: 59.572
Gear1 Symbol Rate Accuracy	Gear1 Symbol Rate Accuracy	Pass	0.428	Low: 100.428, High: 99.572
Gear1 Eye Opening	Gear1 Eye Opening	Pass	0	Low: NA, High: 0

Completed.

Start Pause Clear

Click icon on each measurement in the row to expand and to display the minimum and maximum parameter values of the measurement.

Filter the test results

Each column in the result table can be customized and displayed by enabling or disabling any column as per your requirement. You can change the view in the following ways:

- To remove or restore the Pass/Fail column, select **Preferences**→ **Show Pass/Fail**.
- To collapse all expanded tests, select **Preferences**→ **View Results Summary**.
- To expand all the listed tests, select **View Results Details** from the **Preferences menu** in the upper right corner.
- To enable or disable the wordwrap feature, select **Preferences**→ **Enable Wordwrap**.
- To view the results grouped by lane or test, select the corresponding item from the **Preferences** menu.
- To expand the width of a column, place the cursor over the vertical line that separates the column from the column to the right. When the cursor changes to a double-ended arrow, hold down the mouse button and drag the column to the desired width.
- To clear all test results displayed, click **Clear**.

Reports panel: Configure report generation settings

Click **Reports** panel to configure the report generation settings and select the test result information to include in the report. You can use the Reports panel to configure report generation settings, select test content to include in reports, generate the report, view the report, browse for reports, name and save reports, and select report viewing options.

Report configuration settings

The Configuration tab describes the report generation settings to configure the Reports panel. Select report settings before running a test or when creating and saving test setups. Report settings configured are included in saved test setups.

The screenshot shows the TekExpress A-PHY - (Untitled)* application window. The interface includes a sidebar with buttons for Setup, Status, Results, and Reports. The Reports panel is active, displaying a table of test results. The table has five columns: Test Name, Sub-Measurement, Pass/Fail, Value, and Margin. The overall test result is 'Pass'. The table lists six test items, all of which passed. The bottom of the window shows a 'Completed.' status bar.

Test Name	Sub-Measurement	Pass/Fail	Value	Margin
Gear1 PSD Mask	Gear1 PSD Mask	Pass	0	Low: NA, High: 0
Gear1 Maximum Output Droop	Positive Gear1 Maximum Output Droop	Pass	11.848	Low: NA, High: 28.152
Gear1 Maximum Output Droop	Negative Gear1 Maximum Output Droop	Pass	11.98	Low: NA, High: 28.02
Gear1 Timing Jitter	Gear1 Timing Jitter	Pass	4.428	Low: NA, High: 59.572
Gear1 Symbol Rate Accuracy	Gear1 Symbol Rate Accuracy	Pass	0.428	Low: 100.428, High: 99.572
Gear1 Eye Opening	Gear1 Eye Opening	Pass	0	Low: NA, High: 0

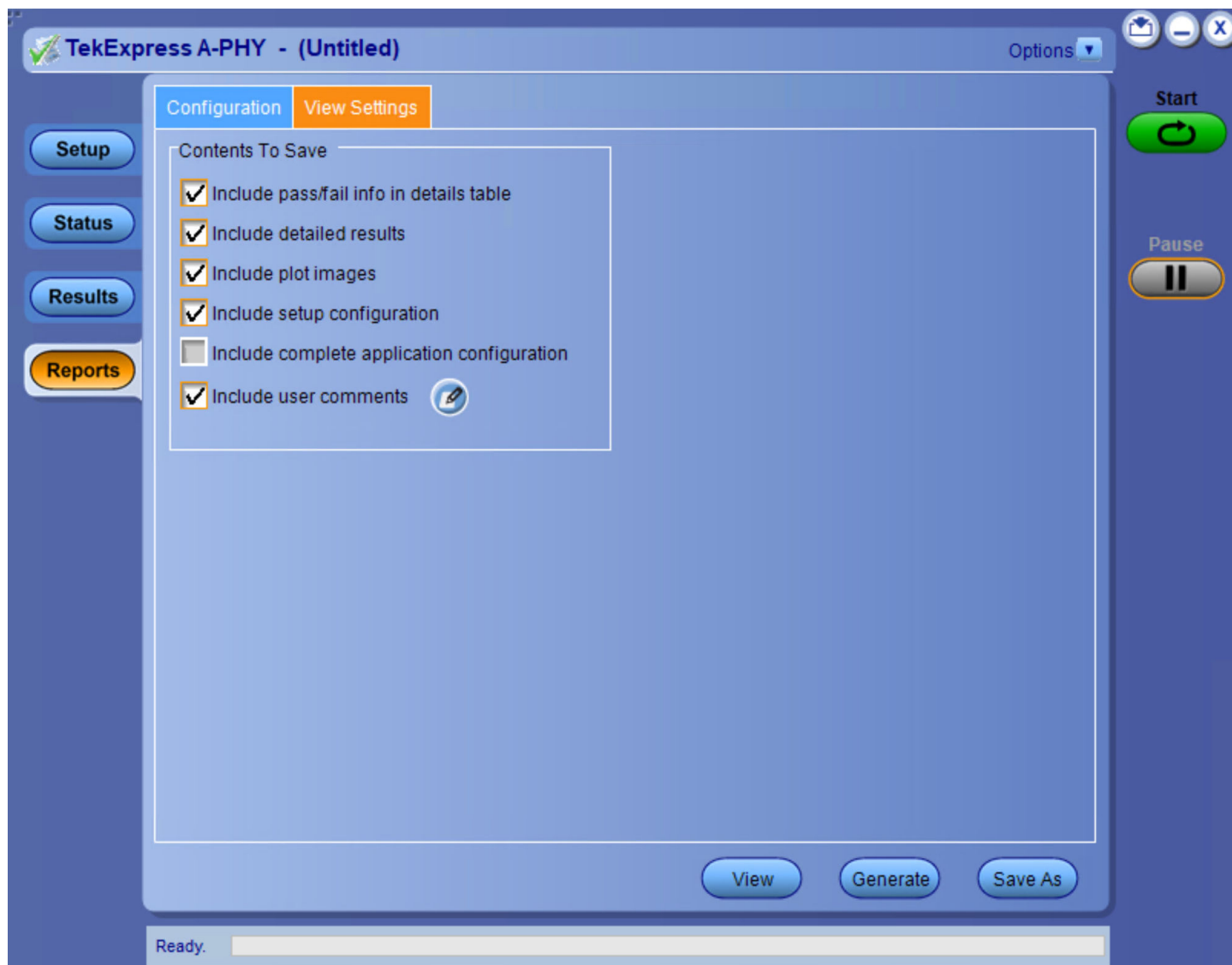
Report configuration panel settings

Control	Description
View	Click to view the most current report.
Generate	Generates a new report based on the current analysis results.
Report Update Mode Settings	
Generate new report	Each time when you click Run and when the test execution is complete, it will create a new report. The report can be in either .mht, .pdf, or .csv file formats.
Append with previous run session	Appends the latest test results to the end of the current test results report. Each time when you click this option and run the tests, it will run the previously failed tests and replace the failed test result with the new pass test result in the same report.
Include header in appended reports	Select to include header in appended reports.
Replace current test results	Replaces the previous test results with the latest test results. Results from newly added tests are appended to the end of the report.
In previous run, current session	Select to replace current test results in the report with the test result(s) of previous run in the current session.
In any run, any session	Select to replace current test results in the report with the test result(s) in the selected run session's report. Click and select test result of any other run session.
Report Creation Settings	

Control	Description
Report name	Displays the name and path of the <Application Name> report. The default location is at \My Documents>\My TekExpress\<Application Name>\Reports. The report file in this folder gets overwritten each time you run a test unless you specify a unique name or select to auto increment the report name. To change the report name or location, do one of the following: - In the Report Path field, type the current folder path and name. - Double-click in the Report Path field and then make selections from the popup keyboard and click Enter. Be sure to include the entire folder path, the file name, and the file extension. For example: C:\Documents and Settings\your user name\My Documents\My TekExpress\<Application Name>\DUT001.mht. NOTE: You cannot set the file location using the Browse button. Open an existing report Click Browse, locate and select the report file and then click View at the bottom of the panel.
Save as type	Saves a report in the specified file type, selected from the drop-down list. The report is saved in .csv, .pdf, or .mht. NOTE: If you select a file type different from the default, be sure to change the report file name extension in the Report Name field to match.
Auto increment report name if duplicate	Sets the application to automatically increment the name of the report file if the application finds a file with the same name as the one being generated. For example: DUT001, DUT002, DUT003. This option is enabled by default.
View report after generating	Automatically opens the report in a Web browser when the test execution is complete. This option is selected by default.

Configure report view settings

The **View Settings** tab describes the report view settings to configure the Reports panel. Select report view settings before running a test or when creating and saving test setups. Report settings configured are included in saved test setups.



Report panel view settings

Control	Description
Contents To Save Settings	
Include pass/fail info in details table	Select to include pass/fail information in the details table of the report.
Include detailed results	Select to include detailed results in the report.
Include plot images	Select to include the plot images in the report.
Include setup configuration	Sets the application to include hardware and software information in the summary box at the top of the report. Information includes: the oscilloscope model and serial number, the oscilloscope firmware version, and software versions for applications used in the measurements.

Control	Description
Include user comments	Select to include any comments about the test that you or another user have added in the DUT tab of the Setup panel. Comments appear in the Comments section, below the summary box at the beginning of each report.
Include switch matrix configuration	Select to include the switch matrix configuration in the report.
Include Intermediate Results	Select to include intermediate test results for Gen4 and Gen5.

View a generated report

Sample report and its contents

A report shows detailed results and plots, as set in the Reports panel.



TekExpress A-PHY

MIPI APhy – Tx Test Report

Setup Information			
DUT ID	GEAR5_TP	Scope Model	MSO64B
Date/Time	6/17/2026 11:49:01 AM	Scope F/W Versio	CF:91.1CT FV:2.26.8–release.34
Device Type	MIPI APhy	Scope Serial Number	B027144
TekExpress Framework Version	v5.12.0.22	CH1: (Source, Probe Model–Serial)	CH1, 1X–N/A
TekExpress A-PHY Version	v1.0.0.120	CH2: (Source, Probe Model–Serial)	CH2, 1X–N/A
CTS Version	1.1	CH3: (Source, Probe Model–Serial)	CH3, 1X–N/A
Compliance Mode	Yes	CH4: (Source, Probe Model–Serial)	CH4, 1X–N/A
Execution Mode	Live		
Overall Test Result	Pass		
Overall Execution Time	00:00:23		
DUT COMMENT:	General comment		

Test Name Summary Table	
Gear5 Maximum Output Droop	Pass

Gear5 Maximum Output Droop							
Measurement Details	Measured Value	Test Result	Margin	Low Limit	High Limit	Units	Additional Info
Positive Gear5 Maximum Output Droop	11.792	Pass	Low: NA, High: 28.208	NA	40	%	
Negative Gear5 Maximum Output Droop	12.586	Pass	Low: NA, High: 27.414	NA	40	%	
COMMENTS							

[Back to Summary Table](#)

Test report

Setup Information

The summary box at the beginning of the report lists setup configuration information. This information includes the oscilloscope model and serial number, optical module model and serial number, and software version numbers of all associated applications.

Test Name Summary Table

The test summary table lists all the tests which are executed with its result status.

Measurement

The measurement table displays the measurement related details with its parameter value.

User comments

If you had selected to include comments in the test report, any comments you added in the DUT tab are shown at the top of the report.

Saving and recalling test setup

Overview

You can save the test setup and recall it later for further analysis. Saved setup includes the selected oscilloscope, general parameters, acquisition parameters, measurement limits, waveforms (if applicable), and other configuration settings. The setup files are saved under the setup name at X:\A-PHY.

Name	Date modified	Type
 20260617_230026	6/17/2026 11:03 PM	File folder
 20260617_232910	6/17/2026 11:34 PM	File folder
 20260617_233426	6/17/2026 11:37 PM	File folder
 20260617_233714	6/17/2026 11:39 PM	File folder
 20260617_234017	6/17/2026 11:42 PM	File folder
 20260617_234317	6/17/2026 11:43 PM	File folder

Use test setups to:

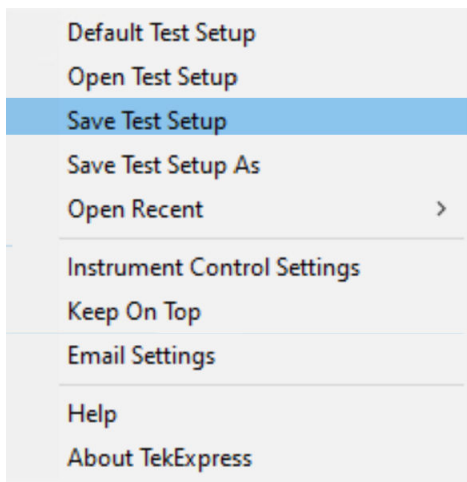
- Recall a saved configuration.
- Run a new session or acquire live waveforms.
- Create a new test setup using an existing one.
- View all the information associated with a saved test, including the log file, the history of the test status as it executed, and the results summary.
- Run a saved test using saved waveforms.

NOTE: Images that are shown in this Saving and recalling test setup chapter are for illustration purpose only and it may vary depending on the TekExpress application.

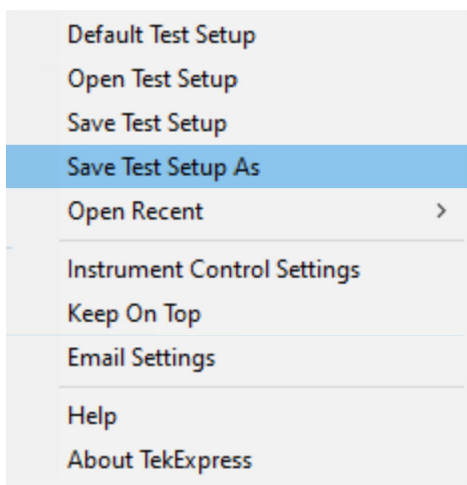
Save the configured test setup

You can save a test setup before or after running a test. You can create a test setup from already created test setup or using a default test setup. When you save a setup, all the parameters, measurement limits, waveform files (if applicable), test selections, and other configuration settings are saved under the setup name. When you select the default test setup, the parameters are set to the application's default value.

- Select **Options > Save Test Setup** to save the opened setup.



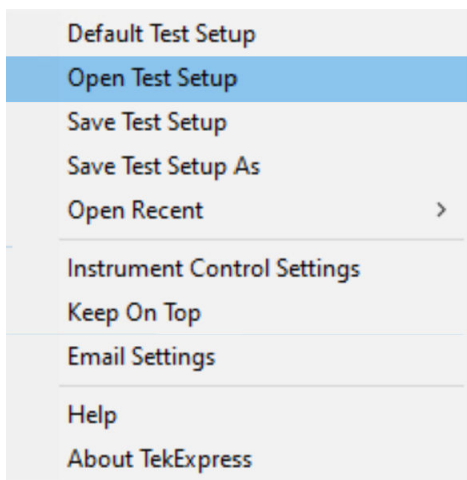
- Select **Options> Save Test Setup As** to save the setup with different name.



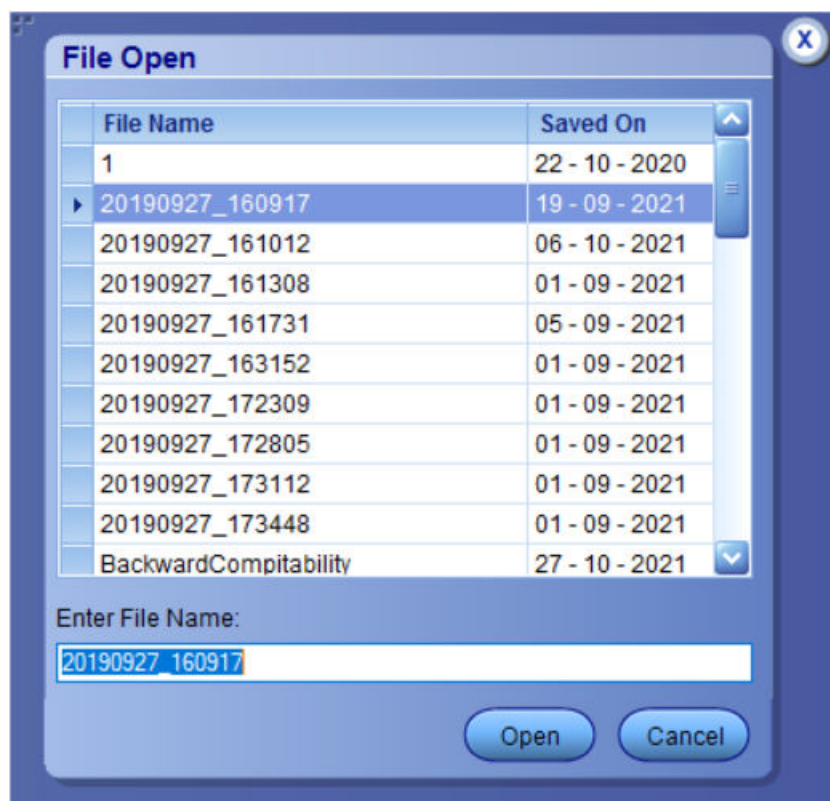
Load a saved test setup

To open (load) a saved test setup, do the following:

- Select **Options> Open Test Setup**.



- From the **File Open** menu, select the setup file name from the list and click **Open**.



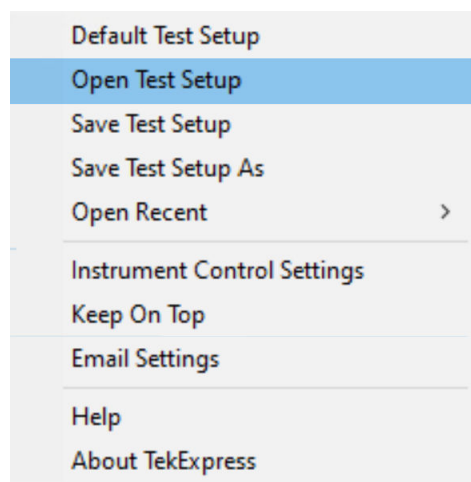
NOTE: This image is for reference only.

Parameters that are set for the respective test setup will enable after opening the file.

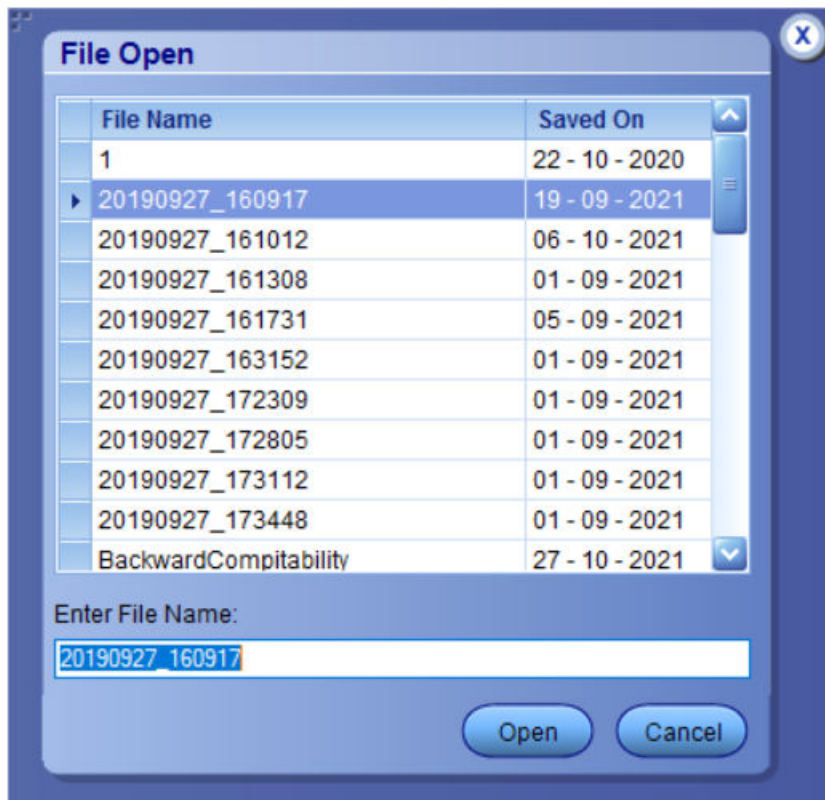
Perform a test using pre-run session files

Complete the following steps to load a test setup from a pre-run session:

1. Select **Options> Open Test Setup**.



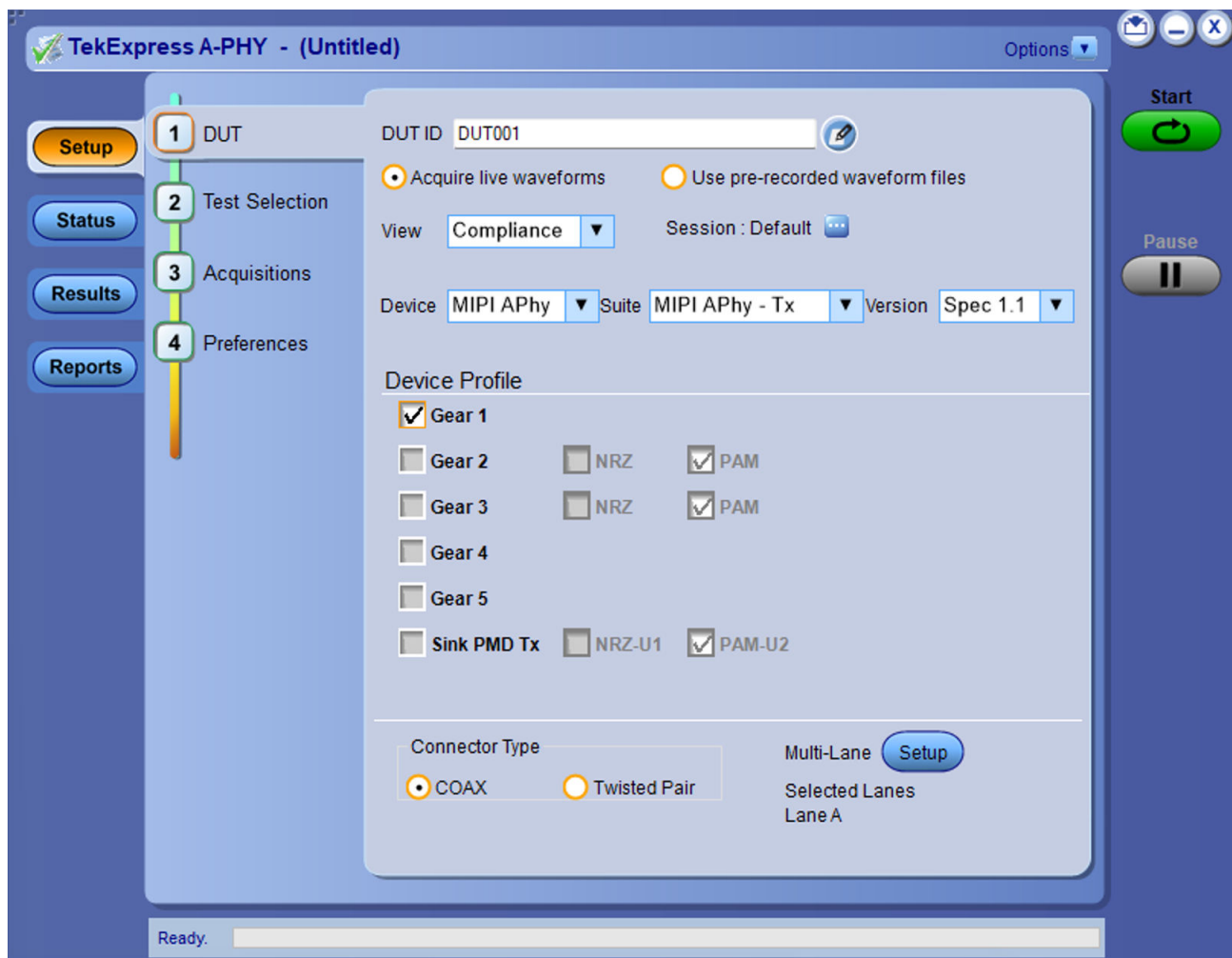
2. From the **File Open** menu, select a setup from the list and then click **Open**.



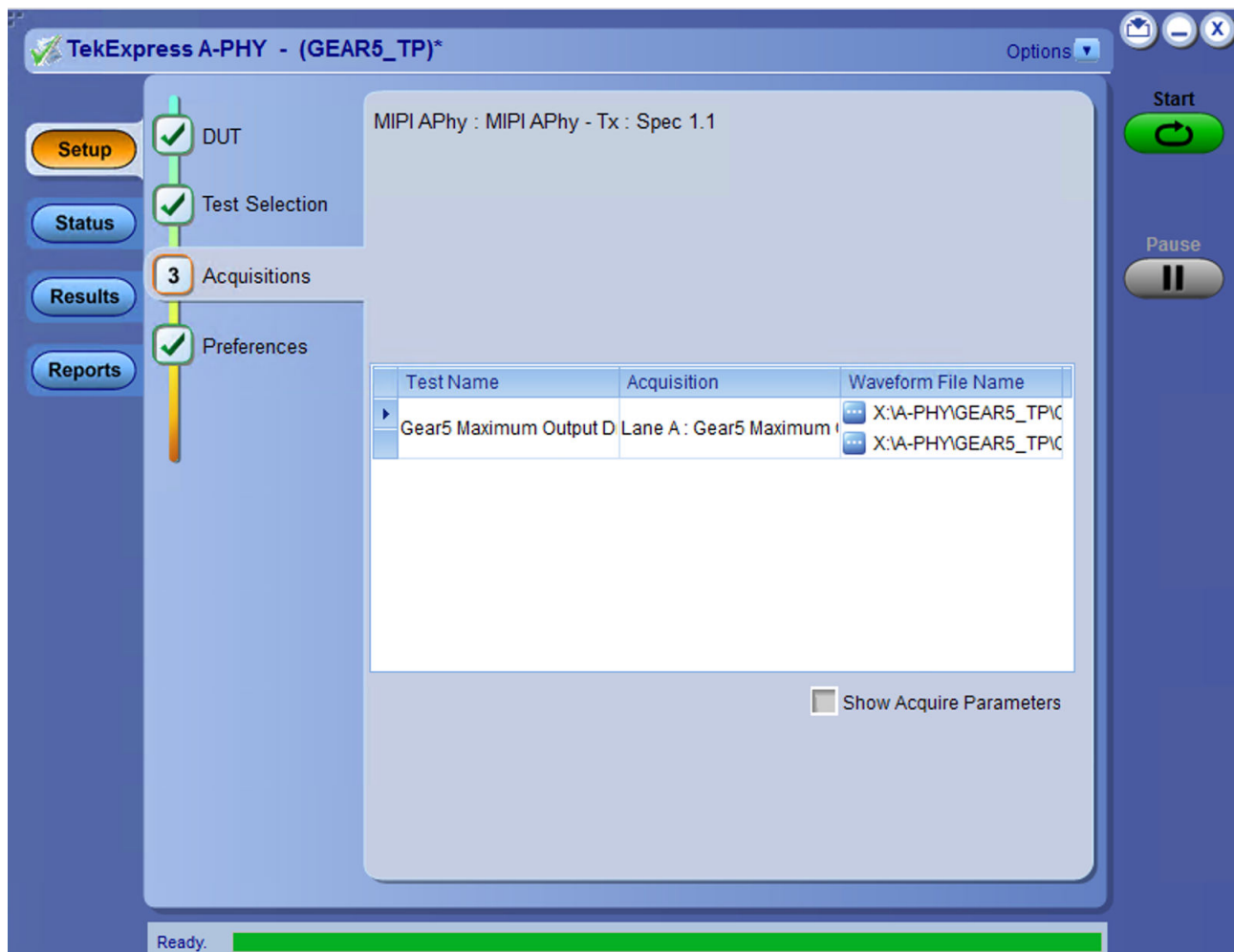
NOTE: This image is for reference only.

Parameters that are set for the respective test setup will enable after opening the file.

3. Switch the mode to **Use Pre-recorded waveform files** in the DUT panel.

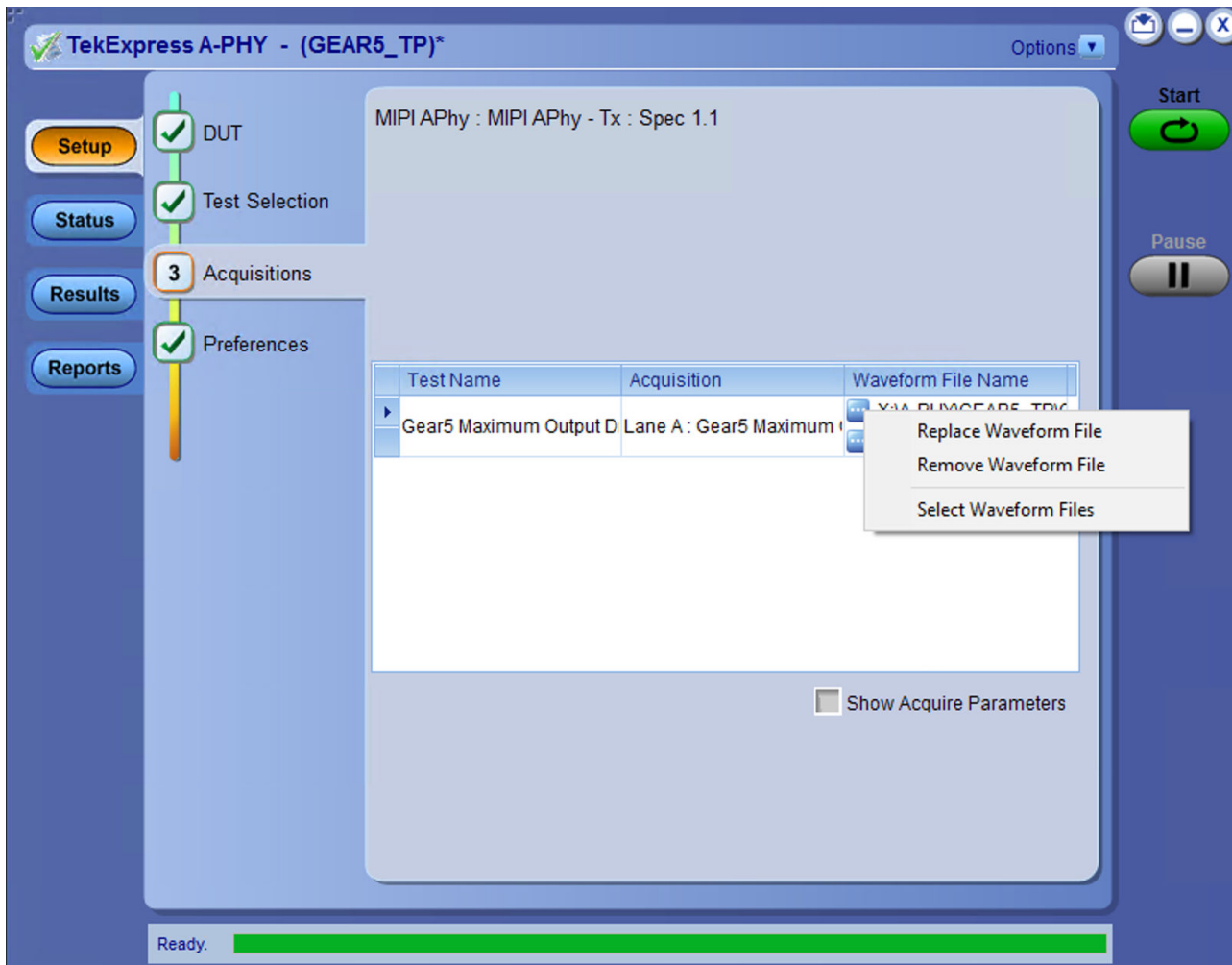


4. Select the required waveforms from the selected setup in the **Acquisitions** tab and click **Start**.





5. The selected waveform file can be removed/replaced by clicking on the () icon.



6. After successful completion of the test, the waveform report files are stored at **X:\<Application Name>\Reports**.

Name	Date modified	Type
DUT001.mht	6/15/2026 3:05 AM	MHTML Document
DUT001_001.mht	6/15/2026 3:08 AM	MHTML Document
DUT001_002.mht	6/15/2026 3:12 AM	MHTML Document
DUT001_003.mht	6/16/2026 12:21 AM	MHTML Document
DUT001_004.mht	6/16/2026 3:13 AM	MHTML Document
DUT001_005.mht	6/16/2026 3:31 AM	MHTML Document

7. The overall test result status after completion of the test execution is displayed in the Results Panel.

The screenshot displays the TekExpress A-PHY software window. The title bar reads "TekExpress A-PHY - (Untitled)*". The interface includes a sidebar with buttons for "Setup", "Status", "Results" (highlighted in orange), and "Reports". The main area shows the "Overall Test Result" as "Pass" with a green checkmark. Below this is a table of test results:

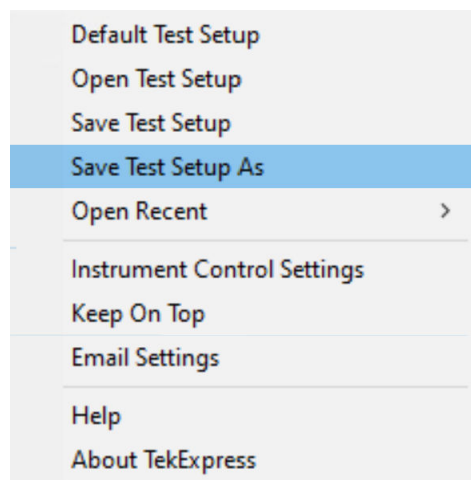
Test Name	Sub-Measuremen	Pass/Fail	Value	Margin
+ Gear1 PSD Mask	Gear1 PSD Mask	✓ Pass	0	Low: NA, High: 0
+ Gear1 Maximum Output Droop	Positive Gear1 Maximum Output Droop	✓ Pass	11.848	Low: NA, High: 28.152
+ Gear1 Maximum Output Droop	Negative Gear1 Maximum Output Droop	✓ Pass	11.98	Low: NA, High: 28.02
+ Gear1 Timing Jitter	Gear1 Timing Jitter	✓ Pass	4.428	Low: NA, High: 59.572
+ Gear1 Symbol Rate Accuracy	Gear1 Symbol Rate Accuracy	✓ Pass	0.428	Low: 100.428, High: 99.572
+ Gear1 Eye Opening	Gear1 Eye Opening	✓ Pass	0	Low: NA, High: 0

At the bottom of the window, a green progress bar is labeled "Completed." On the right side, there are control buttons: "Start" (green with a circular arrow), "Pause" (grey with a double bar), "Clear" (blue with an X), and a "Preferences" dropdown menu.

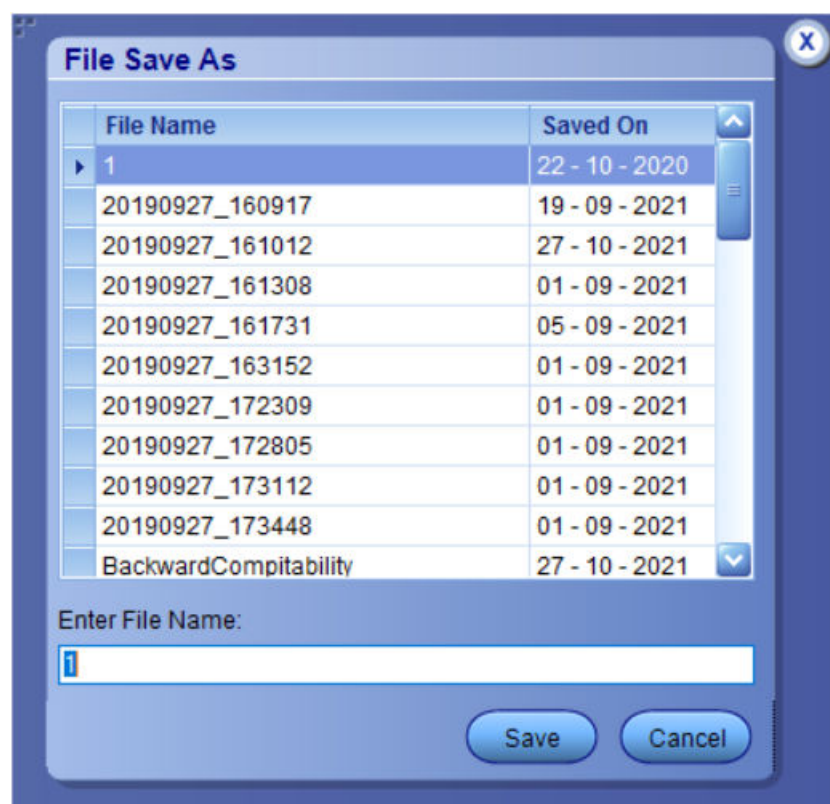
Save the test setup with a different name

To save a test setup with a different name, follow the steps:

1. Select **Options> Save Test Setup As**.



2. Enter the new test setup name and click **Save**.



NOTE: This image is for reference only.

SCPI Commands

About SCPI command

You can use the Standard Commands for Programmable Instruments (SCPI) to communicate remotely with the TekExpress application. Complete the TCPIP socket configuration and the TekVISA configuration in the oscilloscope or in the device where you are executing the script.

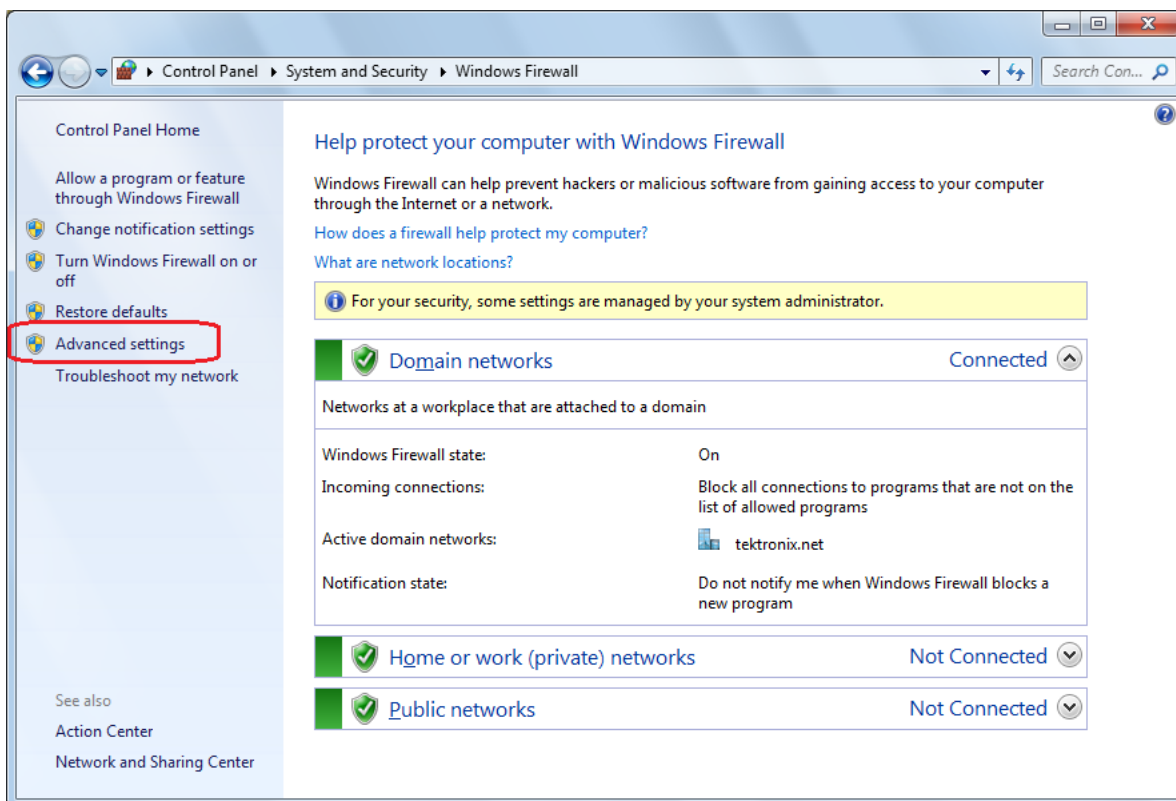
NOTE: If you are using an external PC to execute the remote interface commands, then install TekVISA in the PC to make the configurations.

Socket configuration for SCPI commands

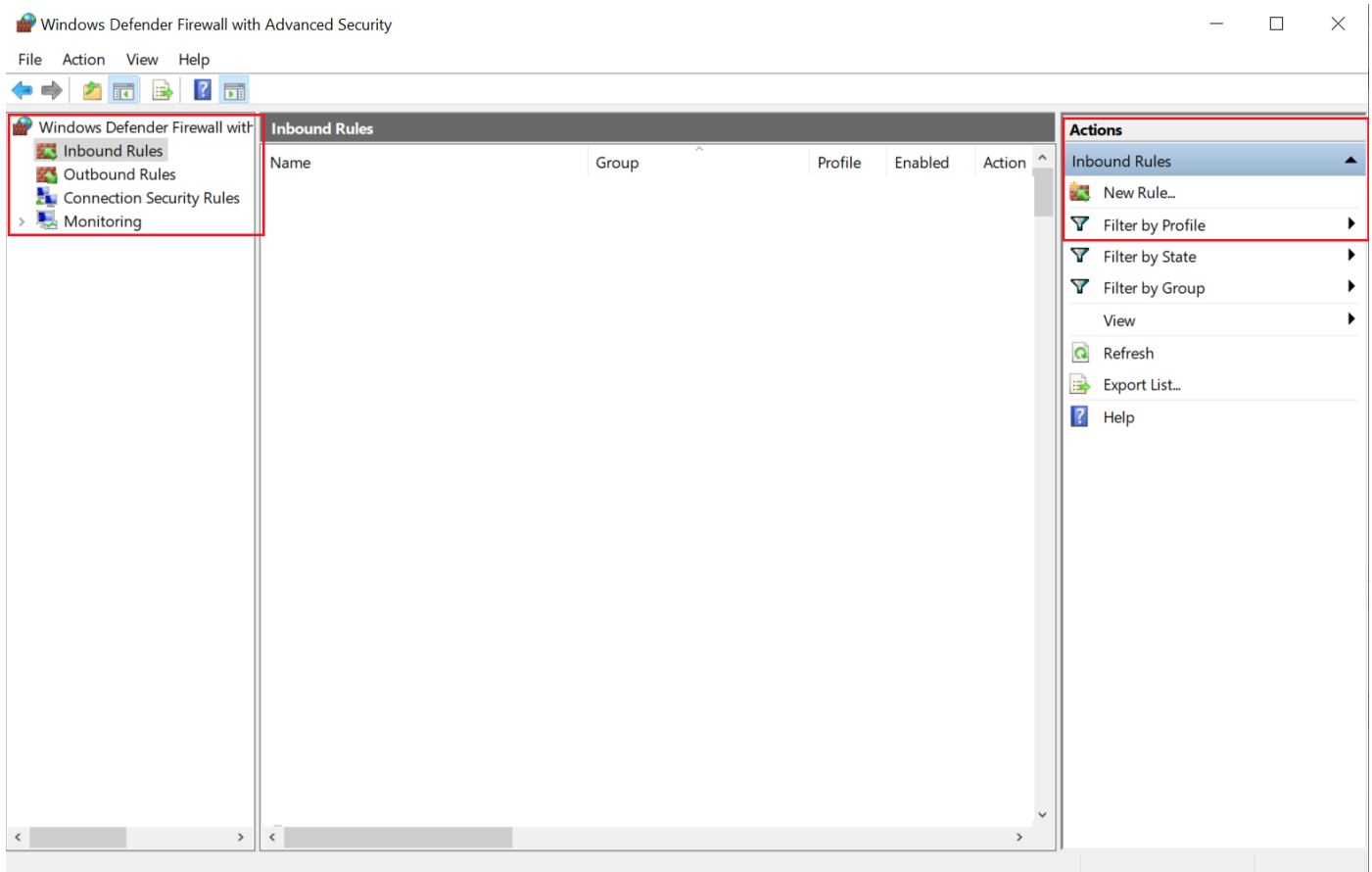
This section describes the steps to configure the TCPIP socket configuration in your script execution device and the steps to configure the TekVISA configuration in the oscilloscope to execute the SCPI commands.

TCPIP socket configuration

1. Click **Start**→ **Control Panel**→ **System and Security**→ **Windows Firewall**→ **Advanced settings**.



2. In Windows Firewall with Advanced Security menu, select **Windows Firewall with Advanced Security on Local Computer**→ **Inbound Rules** and click **New Rule...**



3. In **New Inbound Rule Wizard** menu

1. Select **Port** and click **Next**.

New Inbound Rule Wizard

**Rule Type**

Select the type of firewall rule to create.

Steps:

Rule Type

Protocol and Ports

Action

Profile

Name

What type of rule would you like to create?

☐ **Program**

Rule that controls connections for a program.

☒ **Port**

Rule that controls connections for a TCP or UDP port.

☐ **Predefined:**

@FirewallAPI.dll,-80200

Rule that controls connections for a Windows experience.

☐ **Custom**

Custom rule.

< Back

Next >

Cancel

2. Select **TCP** as rule apply, enter 5000 for **Specific local ports** and click **Next**.

New Inbound Rule Wizard

**Protocol and Ports**

Specify the protocols and ports to which this rule applies.

Steps:

● Rule Type

● Protocol and Ports

● Action

● Profile

● Name

Does this rule apply to TCP or UDP?

☒ TCP

☐ UDP

Does this rule apply to all local ports or specific local ports?

☐ All local ports

☒ Specific local ports:

Example: 80, 443, 5000-5010

< Back

Next >

Cancel

3. Select **Allow the connection** and click **Next**.

 New Inbound Rule Wizard**Action**

Specify the action to be taken when a connection matches the conditions specified in the rule.

Steps:

-  [Rule Type](#)
-  [Protocol and Ports](#)
-  **Action**
-  [Profile](#)
-  [Name](#)

What action should be taken when a connection matches the specified conditions?

☒ **Allow the connection**

This includes connections that are protected with IPsec as well as those are not.

☐ **Allow the connection if it is secure**

This includes only connections that have been authenticated by using IPsec. Connections will be secured using the settings in IPsec properties and rules in the Connection Security Rule node.

[Customize...](#)

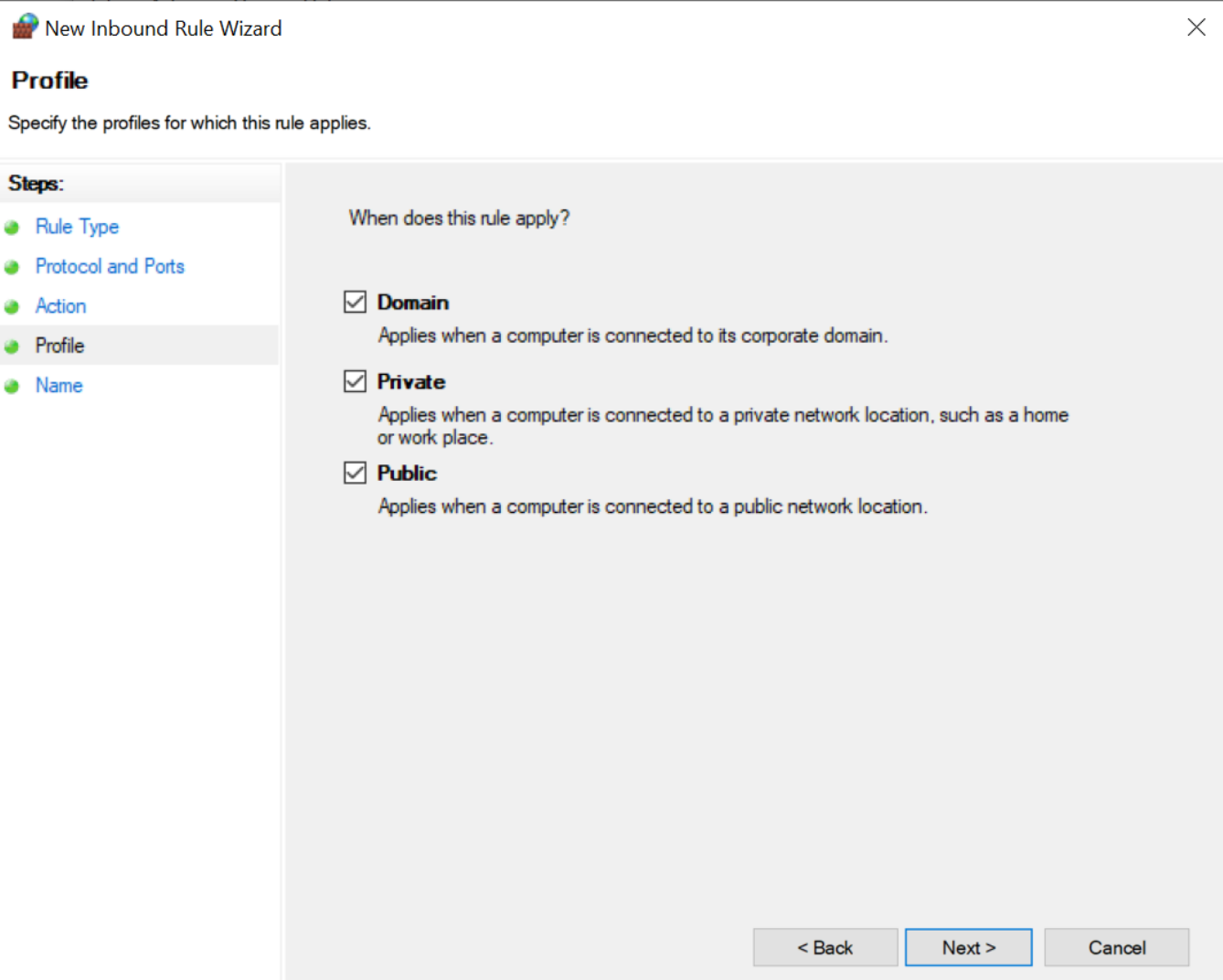
☐ **Block the connection**

< Back

Next >

Cancel

4. Select **Domain, Private, Public** checkbox and click **Next**.



The image shows a screenshot of the 'New Inbound Rule Wizard' window, specifically the 'Profile' step. The window has a title bar with a close button. Below the title bar, the word 'Profile' is displayed in bold. A subtitle reads 'Specify the profiles for which this rule applies.' On the left side, there is a 'Steps:' pane with a list of steps: 'Rule Type', 'Protocol and Ports', 'Action', 'Profile' (which is highlighted), and 'Name'. The main area of the wizard is titled 'When does this rule apply?' and contains three checked options: 'Domain' (with the description 'Applies when a computer is connected to its corporate domain.'), 'Private' (with the description 'Applies when a computer is connected to a private network location, such as a home or work place.'), and 'Public' (with the description 'Applies when a computer is connected to a public network location.'). At the bottom right, there are three buttons: '< Back', 'Next >' (which is highlighted with a blue border), and 'Cancel'.

New Inbound Rule Wizard

Profile

Specify the profiles for which this rule applies.

Steps:

- Rule Type
- Protocol and Ports
- Action
- Profile**
- Name

When does this rule apply?

- ☒ **Domain**
Applies when a computer is connected to its corporate domain.
- ☒ **Private**
Applies when a computer is connected to a private network location, such as a home or work place.
- ☒ **Public**
Applies when a computer is connected to a public network location.

< Back Next > Cancel

5. Enter **Name**, Description (optional), and click **Finish**.

 New Inbound Rule Wizard**Name**

Specify the name and description of this rule.

Steps:

-  Rule Type
-  Protocol and Ports
-  Action
-  Profile
-  Name

Name:

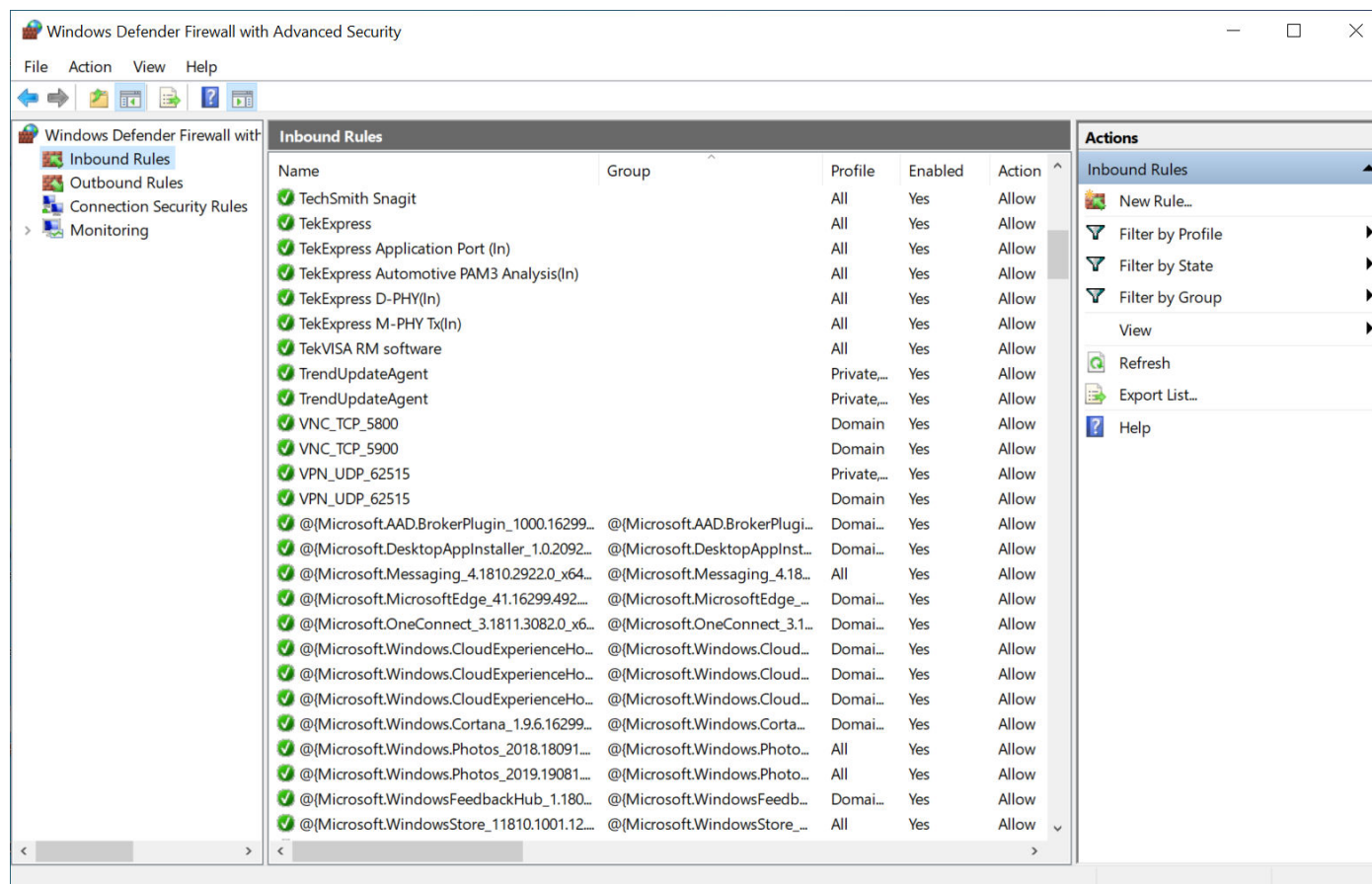
Description (optional):

< Back

Finish

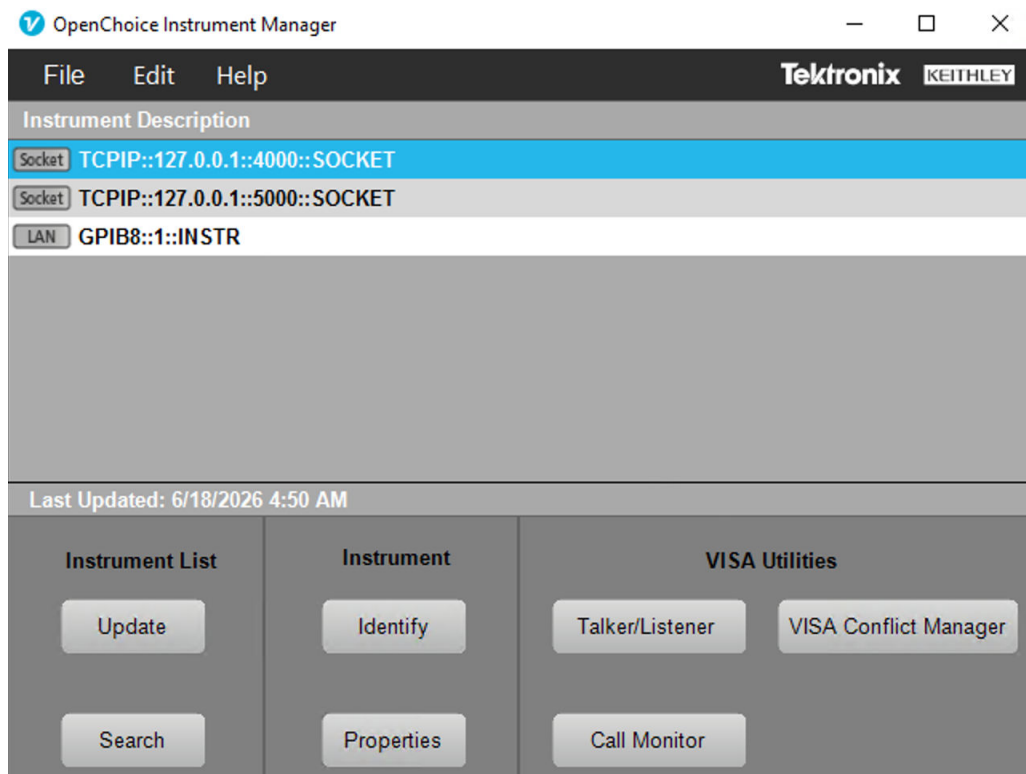
Cancel

4. Check whether the Rule name is displayed in **Windows Firewall with Advanced Security** menu → **Inbound Rules**.



TekVISA configuration

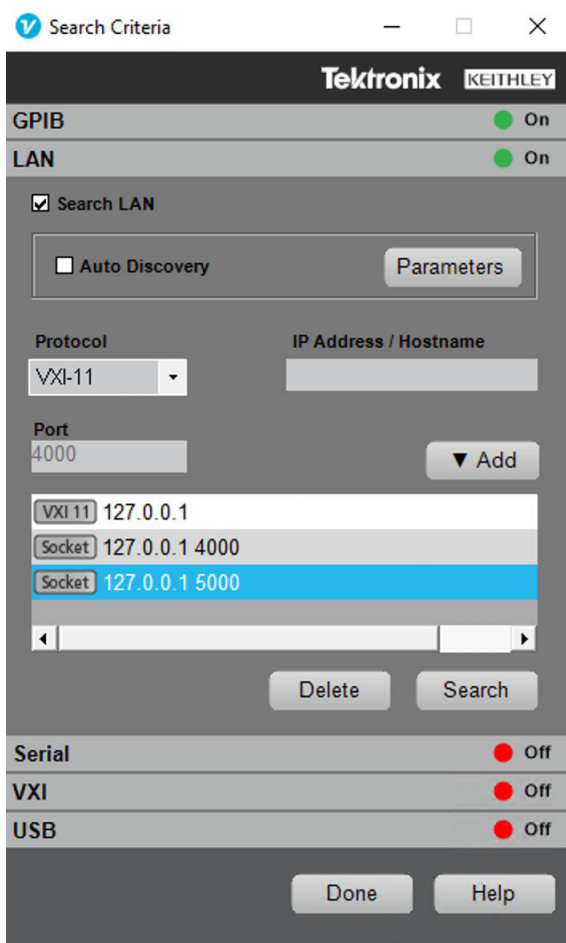
1. Click **Start** → **All Programs** → **TekVISA** → **OpenChoice Instrument Manager**.



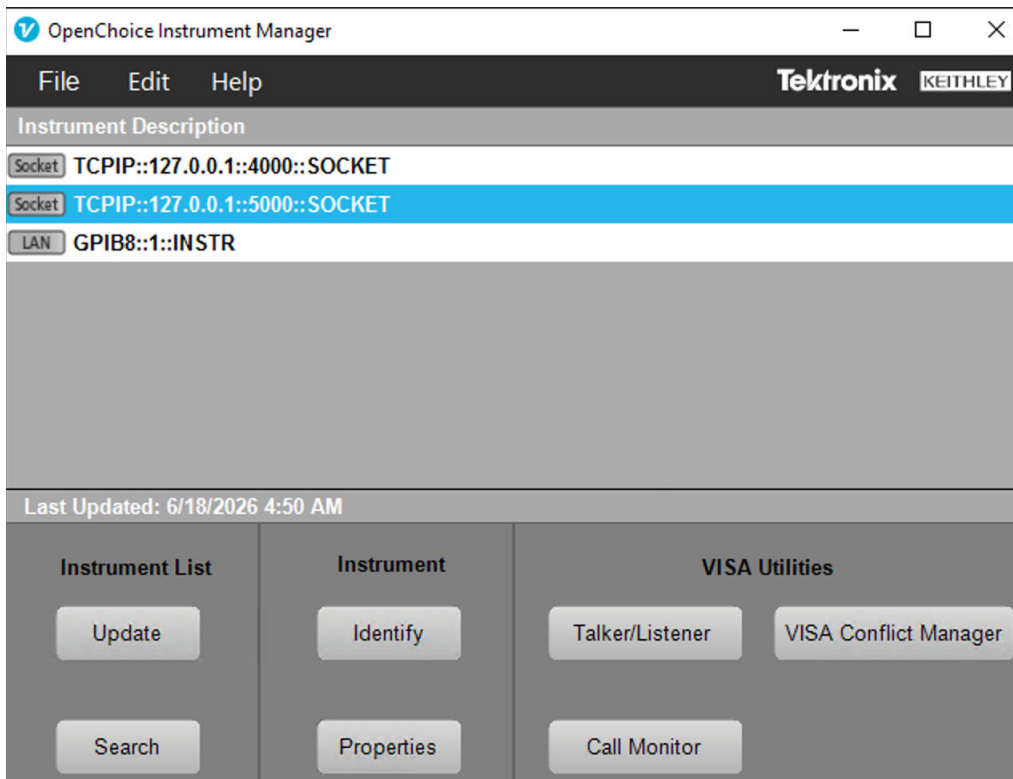
2. Click **Search Criteria**. In **Search Criteria** menu, click **LAN** to Turn-on. Select **Socket** from the drop-down list, enter

the IP address of the TekExpress device in **Hostname** and type **Port** as 5000. Click  to configure the IP address with Port.

Enter the Hostname as 127.0.0.1 if the TekVISA and TekExpress application are in the same system, else enter the IP address of the oscilloscope where the TekExpress application is running.



- Click **Search** to setup the TCPIP connection with the host. Check whether the TCPIP host name is displayed in **OpenChoice Instrument Manager**→ **Instruments**.



- Double-click **OpenChoice Talker Listener** and enter the Command ***IDN?** in command entry field and click **Query**.

Check that the Operation is successful and Talker Listener Readout displays the Command / Data.

OpenChoice Talker Listener

FileEditToolsHelp

TektronixKEITHLEY

Instruments

SocketTCPIP::127.0.0.1::4000::SOCKET

SocketTCPIP::127.0.0.1::5000::SOCKET

LANGPIB8::1::INSTR

Enter Command or Script

*IDN?

WriteReadQuery

Hex Entry Enabled

Command / Script History

*IDN?

Last Updated 6/18/2026 4:54 AM

AutoQuery - False ; Term Char - LF ;

UpdateReset Communications

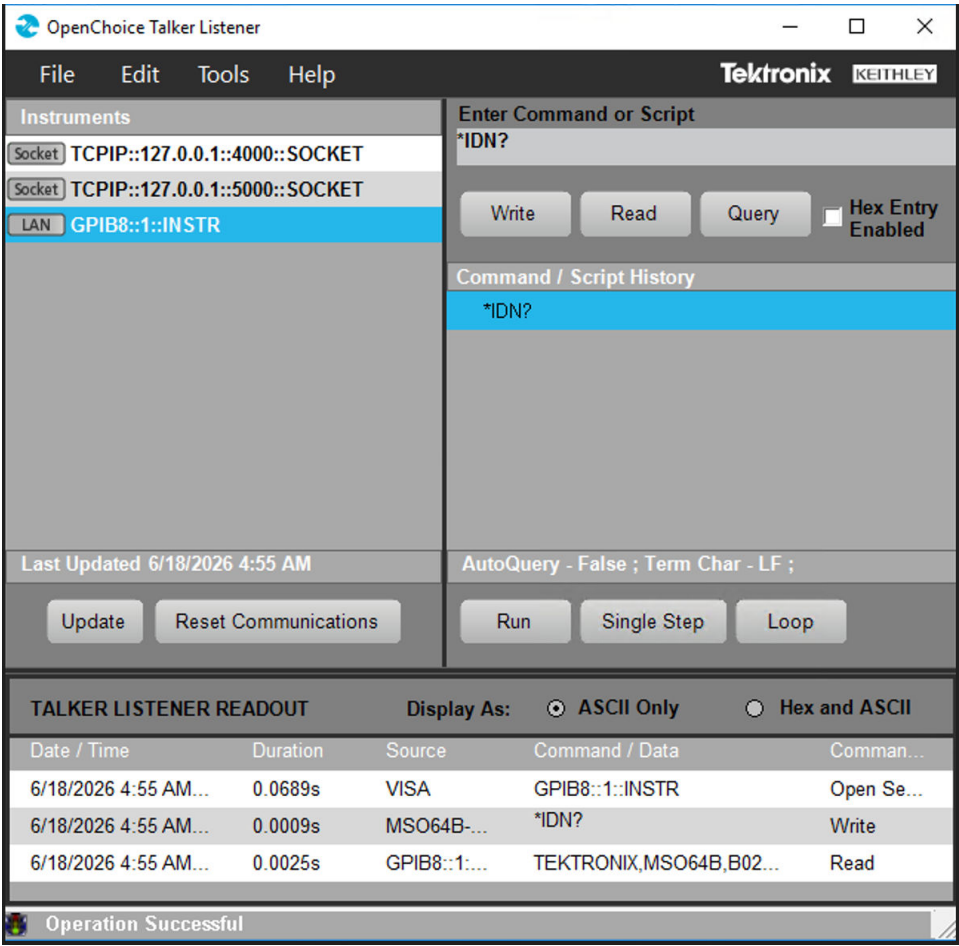
RunSingle StepLoop

TALKER LISTENER READOUT

Display As: ☒ ASCII Only ☐ Hex and ASCII

Date / Time	Duration	Source	Command / Data	Comman...
6/18/2026 4:54 AM...	0.0261s	VISA	TCPIP::127.0.0.1::5000::S...	Open Se...
6/18/2026 4:54 AM...	0.0008s	MSO64B-...	*IDN?	Write
6/18/2026 4:54 AM...	0.0011s	TCPIP::12...	"Tektronix,TekExpress A-P...	Read

Operation Successful



Set or query the device name of application

This command sets or queries the device name of the application.

Syntax

TEKEXP:SELECT DEVICE, "<DeviceName>" (Set)

TEKEXP:SELECT? DEVICE (Query)

Command arguments

Argument Name	Argument Type
<DeviceName>	<String>

Returns

<String>

Examples

TEKEXP:SELECT DEVICE, "<DUT001>" command sets the device name of the application to DUT001.

TEKEXP:SELECT? DEVICE command returns the selected device name of the application.

Set or query the suite name of the application

This command sets or queries the suite name of the application.

Syntax

TEKEXP:SELECT SUITE,"<SuiteName>" (Set)

TEKEXP:SELECT? SUITE (Query)

Command arguments

Argument Name	Argument Type and value	
<SuiteName>	<String>	It is the name of the suite on the DUT panel of the application

Returns

<String>

Examples

TEKEXP:SELECT SUITE,"<SuiteName>" command sets the suite name of the application.

TEKEXP:SELECT? SUITE command returns the selected suite of the application.

Set or query the test name of the application

This command selects or deselects the specified test name of the application.

Syntax

TEKEXP:SELECT TEST,"<TestName>",<Value> (Set)

TEKEXP:SELECT? TEST (Query)

Command arguments

TestName	Type
TEKEXP:RESULT? "<TestName>"\n	Return Pass/Fail status of the test.
TEKEXP:RESULT? "<TestName>",<ColumnName>"\n	Returns all the row values of the specified column for the test.
TEKEXP:RESULT?"<TestName>",<ColumnName>" ,<RowNumber>\n	Returns the column value for the specified row number.

Returns

{True | False} or {1 | 0}

Examples

TEKEXP:SELECT TEST,"<TestName>",1 command selects the specified test in the Test Panel.

TEKEXP:SELECT? TEST command returns the list of selected tests.

Set or query the version name of the application

This command sets or queries the version name of the application.

Syntax

TEKEXP:SELECT VERSION,"<VersionName>" (Set)

TEKEXP:SELECT? VERSION (Query)

Returns

<String>

Examples

TEKEXP:SELECT VERSION,"<VersionName>" command sets the version name of application.

TEKEXP:SELECT? VERSION command returns the version name of application.

Set or query the general parameter values

This command sets or queries the general parameter values of the application.

Syntax

TEKEXP:VALUE GENERAL,"<ParameterName>","<Value>" (Set)

TEKEXP:VALUE? GENERAL,"<ParameterName>" (Query)

Command arguments

Parameter Name	Value
Gear1	TRUE, FALSE
Gear2	TRUE, FALSE
Gear2 NRZ	TRUE, FALSE
Gear2 PAM	TRUE, FALSE
Gear3	TRUE, FALSE
Gear3 NRZ	TRUE, FALSE
Gear3 PAM	TRUE, FALSE
Gear4	TRUE, FALSE
Gear5	TRUE, FALSE
Gear6	TRUE, FALSE

Parameter Name	Value
Coax	COAX
Twisted Pair	TP

Returns

<Nrf> or <String>

Examples

TEKEXP:VALUE GENERAL, "<ParameterName>", "<Value>" command set the value for the specified general parameter.

TEKEXP:VALUE? GENERAL, "<ParameterName>" command returns the value for the specified general parameter.

Set or query the acquire parameter values

This command sets or queries the acquire parameter values of the application.

Syntax

TEKEXP:VALUE ACQUIRE, "<TestName>", "<AcquireType>", "<ParameterName>", "<ParameterValue>" (Set)

TEKEXP:VALUE? ACQUIRE, "<TestName>", "<AcquireType>", "<ParameterName>" (Query)

Set or query the analyze parameter values

This command sets or queries the analyze parameter values of the application.

Syntax

TEKEXP:VALUE ANALYZE, "<TestName>", "<ParameterName>", "<ParameterValue>" (Set)

TEKEXP:VALUE? ANALYZE, "<TestName>", "<ParameterName>" (Query)

Returns

<Nrf>

Examples

TEKEXP:VALUE ANALYZE, "<TestName>", "<ParameterName>", "<ParameterValue>" command set the value for the specified test and its analyze parameter.

TEKEXP:VALUE? ANALYZE, "<TestName>", "<ParameterName>" command returns the value for the specified test and its analyze parameter.

Query the available devices in the DUT panel of the application

This command queries the list of available devices on the DUT panel as comma separated values.

Syntax

TEKEXP:LIST? DEVICE (Query)

Returns

<String>

Examples

TEKEXP:LIST? DEVICE command returns the list of available devices.

Query the available suites for the selected device

This command queries the list of available suites for the selected device as comma separated values.

Syntax

TEKEXP:LIST? SUITE (Query)

Returns

<String>

Examples

TEKEXP:LIST? SUITE command returns the list of available suites for the selected device.

Query the list of available tests of the application

This command queries the list of available tests of the application for the selected device as comma separated values.

Syntax

TEKEXP:LIST? TEST (Query)

Returns

<String>

Examples

TEKEXP:LIST? TEST command returns the list of available tests for the selected device.

Query the available version names of the application

This command queries the list of available version names of the application for the selected device as comma separated values.

Syntax

TEKEXP:LIST? VERSION (Query)

Returns

<String>

Examples

TEKEXP:LIST? VERSION command returns the list of version names for the selected device.

Query the list of available instruments based on the specified instrument type

This command queries the list of available instruments based on the specified instrument type.

Syntax

TEKEXP:LIST? INSTRUMENT,"<InstrumentType>" (Query)

Command argument

Argument Name	Argument value
<InstrumentType>	<String>

Returns

<String>

Examples

TEKEXP:LIST? INSTRUMENT,"Real Time Scope" command returns the list of available instruments based on the real time scope type.

Set or query the IP address of the instrument based on the specified instrument type

This command sets or queries the IP address of the instrument based on the specified instrument type.

Syntax

TEKEXP:INSTRUMENT? "<InstrumentType>" (Query)

TEKEXP:INSTRUMENT, "<InstrumentType>","<Value>" (Set)

Command argument

Argument Name	Argument Type
<InstrumentType>	<String>
<Value>	<String> TCPIP::XXX.XX.XXX.XXX::INSTR

Returns

<String>

Examples

TEKEXP:INSTRUMENT? "<InstrumentType>" command returns the IP address of the oscilloscope.

TEKEXP:INSTRUMENT, "<InstrumentType>","<value>" command sets the oscilloscope to the specified IP address.

Query the information of the generated report file

This command queries the information of the generated report file in the format "<FileSize>","<FileName>".

Pre-requisite

A session should be run earlier and the report should be generated to get the information of the report.

Syntax

```
TEKEXP:INFO? REPORT (Query)
```

Returns

<FileSize>:: <String>

<FileName>:: <String>

Examples

TEKEXP:INFO? REPORT command returns the information of the generated report in the format ("1215","DUT001.mht").

Query the information of the generated waveform files

This command queries the information of the generated waveform files in the format.

<File1Size,"File1Name">.

If there are more than one waveform, the waveform file names are displayed with the comma separated values in the format

<File1Size,"File1Name">,<File2Size,"File2Name">.

Syntax

```
TEKEXP:INFO? WFM (Query)
```

Returns

<FileSize>:: <String>

<FileName>:: <String>

Examples

TEKEXP:INFO? WFM command returns the information of the generated waveform in the format (20000858,"X:\A-PHY\Untitled Session\DUT001\20200916_041609\Iter1_Short Record-length for SCOPE Period_NoSSC_DIFF.wfm").

Query the information of the generated image files

This command queries the information of the generated image files in the format.

<File1Size,"File1Name">.

If there are more than one image, the image file names are displayed with the comma separated values in the format

<File1Size,"File1Name">,<File2Size,"File2Name">.

Syntax

```
TEKEXP:INFO? IMAGE (Query)
```

Returns

<FileSize>:: <String>

<FileName>:: <String>

Examples

TEKEXP:INFO? IMAGE command returns the information of the generated image in the format (109058, "X:\A-PHY\Untitled Session\DUT001\20200916_041609\Iter1_Short Record-length for SCOPE Period_NoSSC_DIFF.png";22794,"X:\A-PHY\Untitled Session\DUT001\20200916_041609\ScopePeriodPlot_Iteration1WithCursor.png").

Query the active TekExpress application name

This command queries the active TekExpress application name running on the oscilloscope.

Syntax

TEKEXP:*IDN? (Query)

Returns

<String>

Examples

TEKEXP:*IDN? command returns the active TekExpress application name running on the oscilloscope.

Set or query the DUTID of application

This command sets or queries the DUTID of the application.

Syntax

TEKEXP:VALUE DUTID, "<Value>" (Set)

TEKEXP:VALUE? DUTID (Query)

Command arguments

Argument Name	Argument Type
<Value>	<String>

Returns

<String>

Examples

TEKEXP:VALUE DUTID, "DUT001" command sets the DUTID of the application to DUT001.

TEKEXP:VALUE? DUTID command returns the DUTID of the application.

Sets or query the acquire mode status

This command sets or queries the acquire mode status.

Syntax

TEKEXP:ACQUIRE_MODE <Mode> (Set)

TEKEXP:ACQUIRE_MODE? (Query)

Command arguments

Argument Name	Argument value
<Mode>	- LIVE - PRE-RECORDED

Returns

LIVE | PRE-RECORDED

Examples

TEKEXP:ACQUIRE_MODE LIVE command sets the acquire mode to the Live mode.

TEKEXP:ACQUIRE_MODE? command returns the current acquire mode.

Generate the report for the current session

This command generates the report for the current session.

Syntax

TEKEXP:REPORT GENERATE(Set)

Arguments

N/A

Examples

TEKEXP:REPORT GENERATE command generates the report for the current session.

Query the value of specified report header field in the report

This command queries the value of specified report header field in the report.

Syntax

TEKEXP:REPORT? "<Device Field>" (Query)

Command arguments

Argument Name	Argument Type																																																
<Device Field> Device field is the header name of each field in the setup information section of the report. <table><tr><th colspan="4">Setup Information</th></tr><tr><td>DUT ID</td><td>GEARS_TP</td><td>Scope Model</td><td>MS0648</td></tr><tr><td>Date/Time</td><td>6/17/2026 11:49:01 AM</td><td>Scope F/W Versio</td><td>CF-91, ICT FV 2.26.8-release.34</td></tr><tr><td>Device Type</td><td>MPPI APHY</td><td>Scope Serial Number</td><td>B027144</td></tr><tr><td>TekExpress Framework Version</td><td>v5.12.0.22</td><td>CH1: (Source, Probe Model-Serial)</td><td>CH1, 1X-N/A</td></tr><tr><td>TekExpress A-PHY Version</td><td>v1.0.0.120</td><td>CH2: (Source, Probe Model-Serial)</td><td>CH2, 1X-N/A</td></tr><tr><td>CTS Version</td><td>1.1</td><td>CH3: (Source, Probe Model-Serial)</td><td>CH3, 1X-N/A</td></tr><tr><td>Compliance Mode</td><td>Yes</td><td>CH4: (Source, Probe Model-Serial)</td><td>CH4, 1X-N/A</td></tr><tr><td>Execution Mode</td><td>Live</td><td></td><td></td></tr><tr><td>Overall Test Result</td><td>Pass</td><td></td><td></td></tr><tr><td>Overall Execution Time</td><td>00:00:23</td><td></td><td></td></tr><tr><td>DUT COMMENT:</td><td colspan="3">General comment</td></tr></table>	Setup Information				DUT ID	GEARS_TP	Scope Model	MS0648	Date/Time	6/17/2026 11:49:01 AM	Scope F/W Versio	CF-91, ICT FV 2.26.8-release.34	Device Type	MPPI APHY	Scope Serial Number	B027144	TekExpress Framework Version	v5.12.0.22	CH1: (Source, Probe Model-Serial)	CH1, 1X-N/A	TekExpress A-PHY Version	v1.0.0.120	CH2: (Source, Probe Model-Serial)	CH2, 1X-N/A	CTS Version	1.1	CH3: (Source, Probe Model-Serial)	CH3, 1X-N/A	Compliance Mode	Yes	CH4: (Source, Probe Model-Serial)	CH4, 1X-N/A	Execution Mode	Live			Overall Test Result	Pass			Overall Execution Time	00:00:23			DUT COMMENT:	General comment			<String>
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DUT COMMENT:	General comment																																																

Returns

<String>

Examples

TEKEXP:REPORT? "DUT ID" command returns the value of DUT ID field in the report.

Query the value of specified result detail available in report summary/details table

This command queries the value of specified result detail available in report summary/details table.

Syntax

TEKEXP:RESULT? "<TestName>" (Query)

TEKEXP:RESULT? "<TestName>", "<ColumnName>" (Query)

TEKEXP:RESULT? "<TestName>", "<ColumnName>", <RowNumber> (Query)

Command arguments

Argument Name	Argument Type
<TestName> It is the test name of which the details are required in the report.	<String>
<ColumnName> It is the column header name of which the details are required in the report.	<String>
<RowNumber> It is the row number of which the details are required in the report.	<String>

Returns

<String>

Examples

TEKEXP:RESULT? "<TestName>" will return the pass fail status of test.

TEKEXP:RESULT? "<TestName>", "<ColumnName>" will return all the row values of specific column for the test with comma separated values.

TEKEXP:RESULT? "<TestName>", "<ColumnName>", <RowNumber> will return the column value of specified row number.

Restore the setup to default settings

This command restores the setup to default settings.

Syntax

TEKEXP:SETUP Default (Set)

Arguments

N/A

Examples

TEKEXP:SETUP Default command restores the setup to default settings.

Save the setup

This command saves the setup.

Syntax

TEKEXP:SETUP Save (Set)

Examples

TEKEXP:SETUP Save command saves the setup.

Save the settings to a specified session

This command saves the settings to a specified session.

Syntax

TEKEXP:SETUP Save, "<SessionName>"

Command arguments

Argument Name	Argument value
<SessionName>	<String>

Examples

TEKEXP:SETUP Save, "<SessionName>" command saves the settings to a specified session.

Open the setup from a specified session

This command opens the setup from a specified session.

Syntax

TEKEXP:SETUP Open, "<SessionName>" (Set)

Command arguments

Argument Name	Argument value
<SessionName>	<String>

Examples

TEKEXP:SETUP Open, "<SessionName>" command opens the setup from a specified session.

Query the current setup file name

This command queries the current setup file name.

Syntax

TEKEXP:SETUP? CURRENT (Query)

Returns

<String>

Examples

TEKEXP:SETUP? CURRENT command returns the current setup file name.

Run/stop/pause/resume the selected measurements execution in the application

This command run/stop/pause/resume the selected measurements execution in the application.

Syntax

TEKEXP:STATE <operation mode> (Set)

Command arguments

Argument Name	Argument value
<operation mode>	▪ RUN ▪ STOP ▪ PAUSE ▪ RESUME

Returns

RUN | STOP | PAUSE | RESUME

Examples

TEKEXP:STATE RUN command runs the execution for the selected measurements.

Query the current measurement execution status

This command queries the current measurement execution status.

Syntax

TEKEXP:STATE? (Query)

Returns

RUNNING | PAUSED | WAIT | ERROR | READY

Examples

TEKEXP:STATE? command returns the current measurement execution status.

Query whether the current setup is saved or not saved

This command queries whether the current setup is saved or not saved.

Syntax

TEKEXP:STATE? SETUP (Query)

Returns

Saved or Not-Saved

Examples

TEKEXP:STATE? SETUP command returns whether the current setup is saved or not saved.

Exit or close the application

The command exits or close the application.

Syntax

TEKEXP:EXIT(Set)

Examples

TEKEXP:EXIT command close the application.

Query the status of the previous command execution

This command queries whether the previous command execution is completed successfully.

Syntax

TEKEXP:*OPC? (Query)

Returns

{0 | 1} or {True | False}

1 or True indicates that command execution is successful.

0 or False indicates that command execution is failed.

Examples

TEKEXP:*OPC? command returns whether the previous command operation is completed successfully.

Query the last error occurred

This command queries the last error occurred.

Syntax

TEKEXP:LASTERROR? (Query)

Returns

<String>

Examples

TEKEXP:LASTERROR? command returns the last error occurred.

Set or query the popup details

This command sets or queries the popup details.

Syntax

TEKEXP:POPOP? (Query)

TEKEXP:POPOP "<PopupResponse>" (Set)

Command arguments

Argument Name	Argument value
<PopupResponse>	▪ Yes ▪ No

Returns

The pop-up details return in the following format:

"<Tittle>",<message>",<response1>,<response2>".

Where,

<Tittle> :: <String>

<message> :: <String>

<response1>,<response2> :: <String>

Examples

TEKEXP:POPOP? command returns the popup details in following format ": "Do you really want to exit TekExpress?";Responses: "Yes, No".

TEKEXP:POPOP "Yes" command sets the popup response to Yes.

Sets or query the limit values in the limits editor window

This command sets or queries the limit values in the limits editor window.

Syntax

TEKEXP:VALUE LIMIT,<TestName>,<LimitHeader>,<Value1>,<CompareString>,<Value2>(Set)

TEKEXP:VALUE? LIMIT,<TestName>,<LimitHeader> (Query)

Command arguments

Argument Name	Argument Type	Valid Values
<TestName>	<String>	It is the test name.
<LimitHeader>	<String>	It is the value in Details filed.
<Value1>	<Nrf>	It is the Low Limit value.
<CompareString>	GELE	GELE (>= <=)
	GELT	GELT (>= <)
	GTLE	GTLE (> <=)
	LTGT	LTGT (< >)
	LEGE	LEGE (<= >=)
	LEGT	LEGT (<= >)
	LTGE	LTGE (< >=)
	EQUALTO	== Equal To
	NOTEQUALTO	!= Not Equal To
	GREATERTHAN	> Greater Than
	LESSTHAN	< Less Than
	GREATERTHANOEQUALTO	>= Greater Than Or Equal To
	LESSTHANOEQUALTO	<= Less Than Or Equal To
<Value2>	<NRf>	It is the High Limit value.

Returns

<String> or <NRf>

Examples

TEKEXP:VALUE LIMIT,<TestName>,<LimitHeader>,<Value1>,<CompareString>,<Value2> command sets the limits value for the specified testname and limit header.

TEKEXP:VALUE? LIMIT,<TestName>,<LimitHeader> command returns the limits value for the specified testname and limit header.

Set or query the waveform file recalled for the specified test name and acquire type

This command set or queries the waveform file recalled for the specified test name and acquire type.

If there are more than one waveform, the waveform file names are displayed with the symbol "\$" separated values in the format

<WaveformFileName1\$ WaveformFileName2>.

Syntax

TEKEXP:VALUE WFMFILE,<TestName>,<AcquireType>,<WaveformFileName> (Set)

TEKEXP:VALUE? WFMFILE,<TestName>,<AcquireType> (Query)

Command arguments

Argument Name	Argument Type	Valid Values
<TestName>	<String>	It is the test name.
<AcquireType>	<String>	It is the acquire type.
<WaveformFileName>	<String>	It is the waveform file name.

Returns

<String>

Examples

TEKEXP:VALUE WFMFILE,<TestName>,<AcquireType>,<WaveformFileName> command recalls the specified waveform file for the specified testname and acquire type.

TEKEXP:VALUE? WFMFILE,<TestName>,<AcquireType> command returns the waveform file name recalled for the specified testname and acquire type.

Set or query the enable/disable status of Verbose function

This command sets or queries the enable/disable status of Verbose function.

Syntax

TEKEXP:VALUE VERBOSE,"<Value>" (Set)

TEKEXP:VALUE? VERBOSE (Query)

Arguments

Argument Name	Argument value
<Value>	{True False} or {1 0} It represents enabled or disabled. Where, ▪ True or 1 - enabled ▪ False or 0 - disabled

Returns

{True | False} or {0 | 1}

Examples

TEKEXP:VALUE VERBOSE, "<Value>" command enable or disable the Verbose function.

TEKEXP:VALUE? VERBOSE command returns the enable or disable status of Verbose function.

Query the enable or disable status of Continuous run function.

This command queries the enable or disable status of Continuous run function.

Syntax

TEKEXP:VALUE? GENERAL, "Enable Continuous Run" (Query)

Returns

{True | False} or {0 | 1}

Where,

1 or True indicates that the continuous run function is enabled.

0 or False indicates that the continuous run function is disabled.

Examples

TEKEXP:VALUE? GENERAL, "Enable Continuous Run" command returns the enable or disable status of continuous run function.

Set or query the enable/disable status of Continuous Run function

This command sets or queries the enable/disable status of Continuous Run function.

Syntax

TEKEXP:VALUE ContinuousRun, "<Value>" (Set)

TEKEXP:VALUE? ContinuousRun (Query)

Arguments

Argument Name	Argument value
<Value>	{True False} or {1 0} It represents enabled or disabled. Where, ▪ True or 1 - enabled ▪ False or 0 - disabled

Returns

{True | False} or {0 | 1}

Examples

TEKEXP:VALUE? ContinuousRun command returns the enable or disable status of Continuous run function.

TEKEXP:VALUE ContinuousRun, "<Value>" command enable or disable the Continuous run function.

Set or query the continuous run duration time value

This command sets or queries the continuous run duration time value.

Syntax

TEKEXP:VALUE? ContinuousRun_Duration (Query)

TEKEXP:VALUE ContinuousRun_Duration, "<Value>" (Set)

Arguments

Argument Name	Argument value
<Value>	Infinite hh:mm Infinite sets the radio on button to infinite. hh:mm sets the continuous run duration to the specified time in hours and minutes. The minimum time duration you can set is 00:30.

Returns

Infinite | hh:mm

Examples

TEKEXP:VALUE? ContinuousRun_Duration command returns the continuous run duration time value.

TEKEXP:VALUE ContinuousRun_Duration, "<Value>" command sets the continuous run duration time value.

Set or query the session create option in the continuous run function

This command sets or queries the option for session creation in the continuous run function.

Syntax

TEKEXP:VALUE? ContinuousRun_RunSessionOptions (Query)

TEKEXP:VALUE ContinuousRun_RunSessionOptions,"Value" (Set)

Arguments

Argument Name	Argument value
<Value>	NewSession SameSession_ClearResults NewSession - creates new session for each run. SameSession_ClearResults - Clears the test results of the current session and starts the test execution. The session results will be added in the same session, by erasing the previous run results.

Returns

NewSession | SameSession_ClearResults

Examples

TEKEXP:VALUE? ContinuousRun_RunSessionOptions command returns the option for session creation in the continuous run function.

TEKEXP:VALUE ContinuousRun_RunSessionOptions,"Value" command sets the option for session creation in the continuous run function.

Set or query the View report after generating option status

This command sets or queries the enable/disable status of the View report after generating function.

Syntax

TEKEXP:VALUE? GENERAL,"View Report After Generating" (Query)

TEKEXP:VALUE GENERAL,"View Report After Generating",<value> (Set)

Arguments

Argument Name	Argument value
<Value>	{True False} or {1 0} It represents enabled or disabled. Where, ▪ True or 1 - enabled ▪ False or 0 - disabled

Returns

{True | False} or {0 | 1}

Examples

TEKEXP:VALUE? GENERAL, "View Report After Generating" command returns the enable or disable status of view report after generating option.

TEKEXP:VALUE GENERAL, "View Report After Generating", <value> command enable or disable the view report after generating option.

Returns the report as XML string

This command returns the report as XML string.

Syntax

TEKEXP:REPORTASXML? (Query)

Returns

<String>

Examples

TEKEXP:REPORTASXML? command returns the report XML string.

Copies all the images from current run session to the given destination location

This command copies all the images from current run session to the given destination location.

Syntax

TEKEXP:COPYIMAGES <DestinationPath> (Set)

Command argument

<DestinationPath> :: <String>

Returns

NA

Examples

TEKEXP:COPYIMAGES C:\Temp command copies all the images from current run session to the mentioned location.

Selects the specified test(s) and deselect all other tests

This command selects the specified test(s) and deselect all other tests.

Syntax

TEKEXP:SELECTID <"TestID"> (Set)

Command argument

Argument Name	Argument value
---------------	----------------

TestID	String
--------	--------

Returns

NA

Examples

TEKEXP:SELECTID "11101" This command select the test associated with the ID and deselects all other tests in the application.

TEKEXP:SELECTID "11101,11102" This command selects the tests associated with the IDs and other tests will be deselected.

Returns the complete information about the selected test

This command returns the complete information about the selected test.

The information includes application name, TestID, Device selected, Suite selected, version, Test name, Test description.

Syntax

TEKEXP:TESTINFO? (Query)

Returns

<String>

Examples

TEKEXP:TESTINFO? This command returns the following details:

<TekExpress> <Test Id="11101" Device="TX-Device" Suite="Group1" Version="Spec 1.0" Name="Algorithm Library Measurement" Description="This is Algorithm Library measurement test. Refer Section-B of TekExpress SampleApp Development Guide for more details.

Set the default session

Sets the application configurations to default value.

Syntax

TEKEXP:SESSION DEFAULT (set)

Examples

TEKEXP:SESSION DEFAULT, sets the application configurations to default value.

Save the run/config sessions

Enter the name to save/config the session.

Syntax

TEKEXP:SESSION SAVE, "Session Name" (set)

Command arguments

Argument Name	Argument value
<Session Name>	<String>

Examples

TEKEXP:SESSION SAVE, "Session Name" saves the session.

Load the run/config session

Load the selected config/run session.

Syntax

TEKEXP:SESSION LOAD, "Session Name" (set)

Command arguments

Argument Name	Argument value
<Session Name>	<String>

Examples

TEKEXP:SESSION LOAD, "Session Name", load the selected config/run session.

Delete the run/config session

Deletes the selected config/run session.

Syntax

TEKEXP:SESSION DELETE, "Session1, Session2" (set)

Command arguments

Argument Name	Argument value
<Session Name>	<String>

Examples

TEKEXP:SESSION DELETE, "Session1, Session2", deletes the selected config/run session.

Run the run/config saved session

Run the selected config/run session.

Syntax

TEKEXP:SESSION RUN, "Session Name's separated by comma" (set)

Command arguments

Argument Name	Argument value
<Session Name>	<String>
Session Name's separated by comma (to run the multiple run sessions)	<String>

Examples

TEKEXP:SESSION RUN, "Session Name's separated by comma", runs the selected config/run session.

Query the available list in the run/config session

Returns the list of available config/run session.

Syntax

TEKEXP:SESSION? LIST

Returns

Returns the list of available config/run session.

Examples

TEKEXP:SESSION? LIST, returns the list of available config/run session.

Query the current run/config session

Returns the selected config/run session.

Syntax

TEKEXP:SESSION? CURRENT

Returns

Returns the selected config/run session.

Examples

TEKEXP:SESSION? CURRENT, returns the selected config/run session.

Override the run/config session

Overrides the selected config/run session.

Syntax

TEKEXP:SESSION SAVE, "SessionName", "True" (set)

Command arguments

Argument Name	Argument Type	Argument Value
<Session Name>	<String>	{True False} or {1 0} It represents enabled or disabled. Where, - True or 1 - enabled - False or 0 - disabled

Returns

{True | False} or {0 | 1}

Examples

TEKEXP:SESSION SAVE,"SessionName", "True", overrides the selected config/run session.

Command parameters list

This section provides the parameters list for the SCPI commands.

TekExpress A-PHY command parameters

ParameterName and Value for DUT, Test selection, and Preferences tabs

Specifies the ParameterName and Value for DUT, Test selection, Acquisition, Configuration, and Preferences tabs

ParameterName and Value for DUT tab

Parameters	Description
DUT ID	Specifies the value parameters. For DUTID, valid value is: Comment
Acquire mode	Specifies the acquire mode parameter: Acquire live waveforms
Use pre-recorded mode	Specifies the pre-recorded parameter: Use pre-recorded waveform files
Supported Device Profile:	Gear1, Gear2 - NRZ,PAM, Gear3 - NRZ,PAM, Gear4, Gear5 SinkPMDTX : NRZ-U1 , PAM-U2
Connector Type	COAX, and Twisted Pair

ParameterName and Value for Test Selection tab

Parameters	Description
Test Name	Specifies the test measurement name. Valid values are: ▪ Gear1 PSD Mask ▪ Gear1 Maximum Output Droop ▪ Gear1 Timing Jitter ▪ Gear1 Symbol Rate Accuracy ▪ Gear1 Eye Opening ▪ Gear1 Tx NRZ SMART ▪ Gear2 NRZ PSD Mask ▪ Gear2 NRZ PSD Common Mode ▪ Gear2 NRZ Maximum Output Droop ▪ Gear2 NRZ Timing Jitter ▪ Gear2 NRZ Symbol Rate Accuracy ▪ Gear2 NRZ Eye Opening ▪ Gear2 NRZ SMART ▪ Gear2 PAM PSD Mask ▪ Gear2 PAM PSD Common Mode ▪ Gear2 PAM Maximum Output Droop ▪ Gear2 PAM Timing Jitter ▪ Gear2 PAM Symbol Rate Accuracy ▪ Gear2 PAM Linearity ▪ Gear2 PAM AFG Calibration ▪ Gear2 PAM Linearity With Disturber ▪ Gear2 PAM SMART ▪ Gear3 NRZ PSD Mask ▪ Gear3 NRZ PSD Common Mode ▪ Gear3 NRZ Maximum Output Droop ▪ Gear3 NRZ Timing Jitter ▪ Gear3 NRZ Symbol Rate Accuracy ▪ Gear3 NRZ Eye Opening ▪ Gear3 NRZ SMART ▪ Gear3 PAM PSD Mask ▪ Gear3 PAM PSD Common Mode ▪ Gear3 PAM Maximum Output Droop ▪ Gear3 PAM Timing Jitter ▪ Gear3 PAM Symbol Rate Accuracy ▪ Gear3 PAM Linearity ▪ Gear3 PAM AFG Calibration ▪ Gear3 PAM Linearity With Disturber ▪ Gear3 PAM SMART

Parameters	Description
Test Name	▪ Gear4 PSD Mask ▪ Gear4 Maximum Output Droop ▪ Gear4 Timing Jitter ▪ Gear4 Symbol Rate Accuracy ▪ Gear4 PAM Linearity ▪ Gear4 PAM AFG alibration ▪ Gear4 PAM Linearity With Disturber ▪ Gear4PAMSMART ▪ Gear5 PSD Mask ▪ Gear5 Maximum Output Droop ▪ Gear5 Timing Jitter ▪ Gear5 Symbol Rate Accuracy ▪ Gear5 PAM Linearity ▪ Gear5 PAM AFG Calibration ▪ Gear5 PAM Linearity With Disturber ▪ Gear5 PAM SMART ▪ Sink PMD Tx NRZ PSD Mask(G1-G3) ▪ Sink PMD Tx NRZ PSD Mask(G4-G5) ▪ Sink PMD Tx NRZ Maximum Output Droop ▪ Sink PMD Tx NRZ Timing Jitter ▪ Sink PMD Tx NRZ Symbol Rate Accuracy ▪ Sink PMD Tx NRZ SMART ▪ Sink PMD Tx NRZ Eye Opening(G1-G3) ▪ Sink PMD Tx NRZ Eye Opening(G4-G5) ▪ Sink PMD Tx PAM PSD Mask(G1-G3) ▪ Sink PMD Tx PAM PSD Mask(G4-G5) ▪ Sink PMD Tx PAM Maximum Output Droop ▪ Sink PMD Tx PAM Timing Jitter ▪ Sink PMD Tx PAM Symbol Rate Accuracy ▪ Sink PMD Tx PAM SMART ▪ Sink PMD Tx PAM Linearity ▪ Sink PMD Tx PAM AFG Calibration ▪ Sink PMD Tx PAM Linearity With Disturber

ParameterName and Value for Acquisition tab

Parameters	Description
Show Acquire Parameters	▪ True ▪ False

ParameterName and Value for Preferences tab

Parameters	Description
On Test Failure, stop and notify me of the failure	True or False
Email Settings	Recipient e-mail Address Sender's Address

Parameters	Description
Pop-up Settings	- Auto close Warnings and Informations during Sequencing. Auto Close after (1 to 60) seconds - Auto close Error messages during Sequencing. Show in Reports. Auto Close after (1 to 60) seconds

Examples

This section provides the examples for the SCPI commands.

Example	Description
TEKEXP:*IDN?	It returns the active TekExpress application name running on the oscilloscope.
TEKEXP:*OPC?	It returns the last command execution status, if status is executed it returns "1" else "0".
TEKEXP:ACQUIRE_MODE PRE-RECORDED	It sets the acquire mode as pre-recorded.
TEKEXP:ACQUIRE_MODE?	It returns LIVE when acquire mode is set to live or it returns pre-recorded when acquire mode is set to pre-recorded.
TEKEXP:INFO? REPORT	It returns "100,"ReportFileName.mht"", when 100 is the file size in bytes for the filename ReportFileName.
TEKEXP:INFO? WFM	It returns "100,"WfmFileName1.wfm"";"200,"WfmFileName2.wfm"" when 100 is the filesize in bytes for the filename WfmFileName1.wfm and 200 is the file size in bytes for the filename WfmFileName2.wfm.
TEKEXP:INSTRUMENT "Real Time Scope", MSO64 (GPIB8::1::INSTR)	It sets the instrument value as MSO64(GPIB8::1::INSTR) for the selected instrument type Real Time Scope.
TEKEXP:INSTRUMENT? "Real Time Scope"	It returns "MSO64(GPIB8::1::INSTR)", when MSO64 (GPIB8::1::INSTR) is the selected instrument for the instrument type Real Time Scope.
TEKEXP:LASTERROR?	It returns ERROR: INSTRUMENT_NOT_FOUND, when no instrument is found.
TEKEXP:LIST? DEVICE	It returns "A-PHY".
TEKEXP:LIST? INSTRUMENT,"Real Time Scope"	It returns "MSO64(GPIB8::1::INSTR), MSO68B (TCP/IP:: 134.64.248.91::INSTR)" when MSO64 (GPIB8::1::INSTR), MSO68B (TCP/IP::134.64.248.91::INSTR) are the list of available instruments.
TEKEXP:MODE COMPLIANCE	It sets the execution mode as compliance or User Defined.

Example	Description
TEKEXP:MODE?	It returns COMPLIANCE when the execution mode is compliance or it returns USER-DEFINED when the execution mode is user defined.
TEKEXP:POPOP OK	It sets OK as the response to active popup in the application.
TEKEXP:POPOP?	It returns "OK", when OK is the active popup information shown in the application.
TEKEXP:REPORT GENERATE	It generates report for the current session.
TEKEXP:REPORT? "Scope Model Number"	Returns "MSO64" when MSO64 is the oscilloscope model.
TEKEXP:REPORT? DUT ID	It returns "DUT001" when DUT001 is the DUT ID.
TEKEXP:SETUP DEFAULT	It restores the application to default setup.
TEKEXP:STATE STOP	It stops the test execution.
TEKEXP:STATE?	It returns as READY when the application is ready to run next measurement.
TEKEXP:STATE? SETUP	It returns as NOT_SAVED when the current setup is not saved else it returns SAVED.
TEKEXP:VALUE GENERAL,"Test Mode","Escape"	It sets the Test Mode parameter value to Escape .
TEKEXP:VALUE? GENERAL,"Test Mode"	It returns "Escape" when Escape is the Test Mode value.

References

A-PHY measurements

Category	Gear / Type	Supported Tests
Source	Gear1	PSD Mask, Maximum Output Droop, Timing Jitter, Symbol Rate Accuracy, Eye Opening, SMART
Source	Gear2_NRZ	PSD Mask, PSD Common Mode, Maximum Output Droop, Timing Jitter, Symbol Rate Accuracy, Eye Opening, SMART
Source	Gear2_PAM	PSD Mask, PSD Common Mode, Maximum Output Droop, Timing Jitter, Symbol Rate Accuracy, Linearity, AFG Calibration, Linearity with Disturber, SMART
Source	Gear3_NRZ	PSD Mask, PSD Common Mode, Maximum Output Droop, Timing Jitter, Symbol Rate Accuracy, Eye Opening, SMART
Source	Gear3_PAM	PSD Mask, PSD Common Mode, Maximum Output Droop, Timing Jitter, Symbol Rate Accuracy, Linearity, AFG Calibration, Linearity with Disturber, SMART
Source	Gear4	PSD Mask, Maximum Output Droop, Timing Jitter, Symbol Rate Accuracy, Linearity, AFG Calibration, Linearity with Disturber, SMART
Source	Gear5	PSD Mask, Maximum Output Droop, Timing Jitter, Symbol Rate Accuracy, Linearity, AFG Calibration, Linearity with Disturber, SMART
Sink	PMD Tx - NRZ	PSD Mask (G1–G3), PSD Mask (G4–G5), Maximum Output Droop, Timing Jitter, Symbol Rate Accuracy, SMART, Eye Opening (G1–G3), Eye Opening (G4–G5)
Sink	PMD Tx - PAM	PSD Mask (G1–G3), PSD Mask (G4–G5), Maximum Output Droop, Timing Jitter, Symbol Rate Accuracy, SMART, Linearity, AFG Calibration, Linearity with Disturber

NOTE: PSD common mode is supported only for twisted pair.