



## U7236A/U7236B 10GBase-T Ethernet Compliance Test Application

### Online Help

Software Version 01.61.0000

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## 10GBase-T Ethernet Compliance Test Application—At a Glance

The Keysight Technologies U7236A/U7236B 10GBase-T Ethernet Compliance Test Application provides a framework to use the Keysight Infiniium oscilloscopes to perform conformance testing. The automated test software provides you an easy way to verify and debug your transmitter device under test (DUT) conformance to the specifications with the Keysight Infiniium Digital Storage Oscilloscopes. The software allows you to automatically execute the 10GBASE-T electrical tests and displays the results in a flexible report format.

The 10GBase-T Ethernet Compliance Test Application requires:

- U7236A/U7236B 10GBase-T Ethernet Compliance Test Application software.
- 90000 Series Keysight Infiniium Digital Storage Oscilloscope (DSO). Keysight recommends using Oscilloscopes with bandwidth of 4 GHz or higher.
- The minimum version of Infiniium oscilloscope software (see the U7236A/U7236B 10GBase-T Ethernet Compliance Application release notes).
- Spectrum Analyzer with the minimum frequency range upper limit of 3 GHz (MXA, EXA, PSA or ESA series).
- Vector Network Analyzer with usable frequency range of 1 MHz to 500 MHz (875x, 439x, E506x/7x and N5230A series).
- Balun with 3 GHz bandwidth.
- U7237A 10GBASE-T Transmitter test fixture.
- SMA cable (24" or shorter).
- SMP to SMA cables (provided with U7237A 10GBASE-T Transmitter test fixture).
- Keyboard, qty = 1, (provided with the Keysight Infiniium oscilloscope).
- Mouse, qty = 1, (provided with the Keysight Infiniium oscilloscope).
- U7236A/U7236B 10GBase-T Ethernet Compliance Application license.
- Keysight also recommends using a **second monitor** to view the automated test application.

To use the automated test application, see:

- **Starting the 10GBase-T Ethernet Compliance Test Application**
  - To view/minimize the task flow pane
  - To view/hide the toolbar
- **Creating or Opening a Test Project**
  - To set load preferences
- **Setting Up InfiniiSim**
- - 2 Port setting
  - 4 Port setting
- **Setting Up the Precision Probe/Cable**
- **Setting Up Switch Matrix**
- Switch Matrix — Overview
- To Enable Switch Matrix
  - Establishing Connection to the Switch Drivers — Automatically
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- Configuring Signal Paths with Manual Selection
- Response Correction
- **Setting Up the Test Environment**
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  - Connection
  - Spectral Analysis
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  - External Instruments
    - Vector Network Analyzer
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  - MDIO Automation

- o Reports
- **Selecting Tests**
- **Configuring Tests**
- **Connecting the Oscilloscope to the DUT**
- **Running Tests**
- - o To select the "store mode"
  - o To run multiple times
  - o To send email on pauses or stops
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  - o To specify the event
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- - o Script Mode
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- - o To delete trials from the results
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- - o To export the report
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- **Understanding the Report**
- - o Summary of Results
  - o Report Detail
- **Saving Test Projects**
- - o To set AutoRecovery preferences
- **User-Defined Add-Ins**
- - o To install an add-in
  - o To remove an add-in
- **Controlling the Application via a Remote PC**
- - o To check for the App Remote license
  - o To identify the remote interface version
  - o To enable the remote interface
  - o To enable remote interface hints

For more information on performing 10GBase-T Ethernet compliance tests, see:

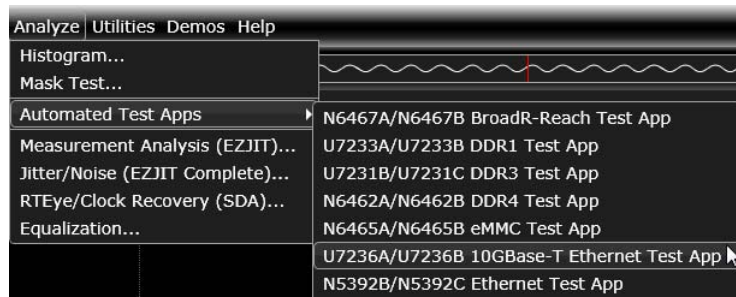
-  [Keysight U7236A/U7236B 10GBase-T Ethernet Conformance Test Application Methods of Implementation](#)

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## Starting the 10GBase-T Ethernet Compliance Test Application

The 10GBase-T Ethernet Compliance Test Application is available to be run only on the Infiniium interface of a Digital Storage Oscilloscope and cannot be run as a stand-alone application on a Windows-based PC.

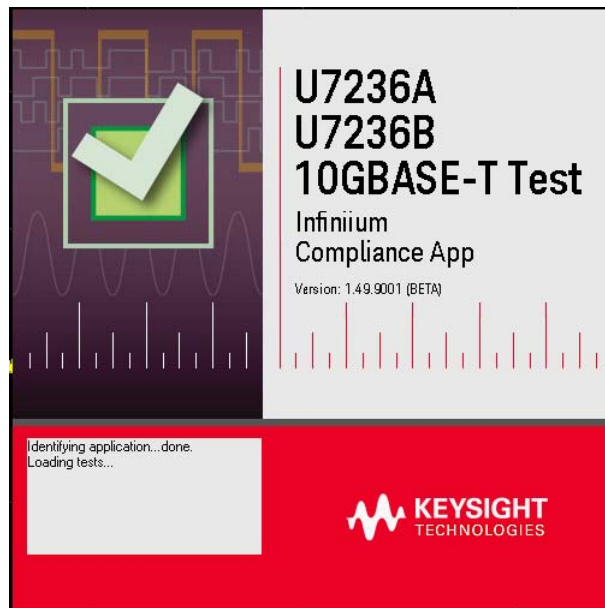
- To access the 10GBase-T Ethernet Compliance Test Application,
1. From the Infiniium oscilloscope's main menu, choose **Analyze>Automated Test Apps>U7236A/U7236B 10GBase-T Ethernet Test App**.



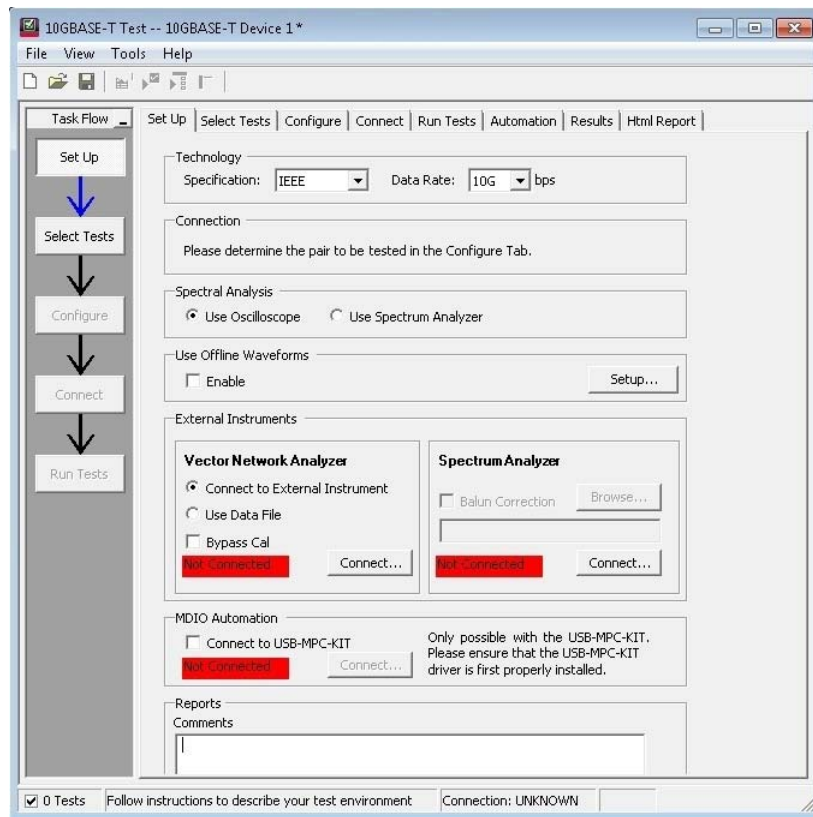
#### Note

If you do not see the **U7236A/U7236B 10GBase-T Ethernet Test App** listed under **Automated Test Apps**, the application is not installed on the Oscilloscope. Refer to the Keysight 10GBase-T Ethernet Compliance Test Application Methods of Implementation document for installation instructions.

2. The 10GBase-T Ethernet Compliance and Validation Application banner appears.



3. The 10GBase-T Ethernet Compliance Test Application window appears.



#### See Also

- [To view/minimize the task flow pane](#)
- [To view/hide the toolbar](#)

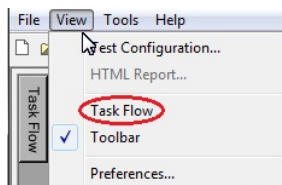
#### Next

- [Creating or Opening a Test Project](#)

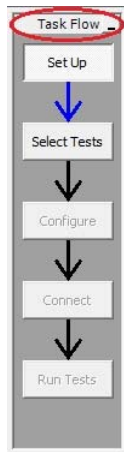
[Starting the 10GBase-T Ethernet Compliance Test Application](#)


### To view/minimize the task flow pane

- To toggle between a minimized and restored task flow pane, choose **View>Task Flow** from the 10GBase-T Ethernet Compliance Test Application's main menu.



- To minimize the task flow pane, click the minimize button in the pane.

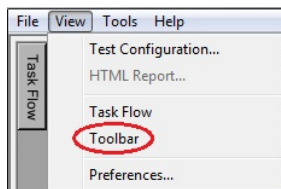


- To restore a minimized task flow pane, click the  button in the pane.

#### Starting the 10GBase-T Ethernet Compliance Test Application

#### To view/hide the toolbar

- To toggle between a hidden and visible toolbar, click **View>Toolbar** from the 10GBase-T Ethernet Compliance Test Application's main menu.



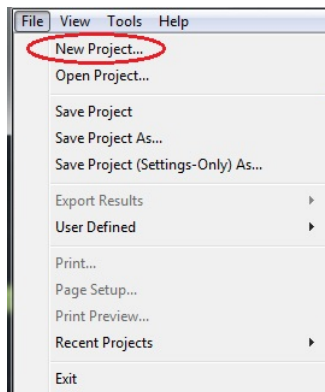
#### Keysight U7236A/U7236B 10GBase-T Ethernet Compliance Test Application Online Help

#### Creating or Opening a Test Project

The 10GBase-T Ethernet Compliance Test Application defines project files with a \*.proj format that contains the DUT settings, configuration parameters and values defined for every series of test runs. Any changes made to and within the Test Application reflects on the project file.

To create a new test project:

- Choose **File>New Project...** from the 10GBase-T Ethernet Compliance Test Application's main menu.



- The **Start New Project** window appears where you may choose to retain some of the pre-configured settings of the tool.

Click to select the **Keep settings for tools** check box if you wish to retain settings from any or all of the given features from the previous project.