

Keysight M8091 BSPA IEEE 802.3bs Pre-Compliance Rx Test Automated Application

User Guide

Notices

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Overview

200GAUI-4 and 400GAUI-8 C2M

200GAUI-4 is a 26.5625 GBd by 4 lane PAM4 physical instantiation of the 200 Gb/s connection, whereas, 400GAUI-8 is a 26.5625 GBd by 8 lane PAM4 physical instantiation of the 400 Gb/s connection. The 200GAUI-4 and 400GAUI-8 C2M signaling rate is 26.5625 GBd \pm 100 ppm per lane. This translates to a nominal unit interval of 37.647059 ps.

The 200GAUI-4 C2M link is described in terms of a host 200GAUI-4 C2M component, a 200GAUI-4 C2M channel with associated insertion loss, and a module 200GAUI-4 C2M component. The 200GAUI-4 C2M interface comprises independent data paths in each direction. Each data path contains four differential lanes using PAM4 signaling, where the highest differential level corresponds to the symbol three and the lowest level corresponds to the symbol zero. Each lane is AC-coupled within the module.

The 400GAUI-8 C2M link is described in terms of a host 400GAUI-8 C2M component, a 400GAUI-8 C2M channel with associated insertion loss, and a module 400GAUI-8 C2M component. The 400GAUI-8 C2M interface comprises independent data paths in each direction. Each data path contains eight differential lanes using PAM4 signaling, where the highest differential level corresponds to the symbol three and the lowest level corresponds to the symbol zero. Each lane is AC-coupled within the module.

The electrical characteristics for the 200GAUI-4 and 400GAUI-8 chip-to-module interfaces are defined at compliance points for the host and module, respectively. Reference test fixtures, called compliance boards, are used to access the electrical specification parameters. The output of the Host Compliance Board (HCB) is used to verify the host electrical output signal at TP1a. Similarly, the input of the HCB at TP4a is used to verify the host input compliance. The output of the Module Compliance Board (MCB) is used to verify the module electrical output signal at TP4. Similarly, the input of the MCB at TP1 is used to verify the module input compliance.

For more details, refer to *Draft Amendment to IEEE Std 802.3-2015 IEEE Draft P802.3bs/D3.2 IEEE P802.3bs 200 Gb/s and 400 Gb/s Ethernet Task Force*.

The IEEE 802.3bs Pre-Compliance Rx Test Application is a standalone software. However, for full functionality, you require the M8070A system software.

Related Documents

- *Draft Amendment to IEEE Std 802.3-2015 IEEE Draft P802.3bs/D2.1 IEEE P802.3bs 200 Gb/s and 400 Gb/s Ethernet Task Force* (only for JRMS Calibration).
- *Draft Amendment to IEEE Std 802.3-2015 IEEE Draft P802.3bs/D3.2 IEEE P802.3bs 200 Gb/s and 400 Gb/s Ethernet Task Force*.
- M8070A documentation
 - For more information about M8070A software, refer to the M8070A documentation. To locate the M8070A documents, click **Start > All Programs > Keysight M8070A > Keysight M8070A Documentation**. Alternatively, you may also visit www.keysight.com/find/M8070A to find the latest versions of the M8070A manuals.

Contacting Keysight Technologies

For more information on products, applications or services associated with Keysight Technologies, contact your local Keysight office.

The complete list is available at: www.keysight.com/find/contactus.

2 Installing the IEEE 802.3bs Rx Test App

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As a prerequisite to installing the IEEE 802.3bs Rx Test Application, you require the necessary hardware, along with installing certain softwares along with various licenses.

System requirements

Hardware requirements

The following hardware instruments are required to run compliance tests on a device under test (DUT) using the IEEE 802.3bs Rx Test Application:

- 1 BERT modules
 - M8040A system with M8045A and M8046A
- 2 N1076A with Clock Recovery
- 3 DCA Hardware
 - 86100D DCA-X oscilloscope mainframe
 - 86100D-ETR enhanced trigger
 - 86100D-PTB internal precision timebase
- 4 Highest fidelity solution [integrated clock recovery, ultra-low random jitter (< 45 fs typ)]
 - 86108B-HBW/232 precision waveform analyzer (“MegaModule”)
 - 86108B-PT2 50 GHz phase shifters (optional)
 - 86108B-CA2 matched cable set (optional)
 - 86108B-DC2 DC blocks (optional)

Software requirements

The following software configuration is required on the hardware instruments specified above:

- 1 M8070A software version 4.0 or above
- 2 DCA software
 - FlexDCA N1000-Series System software version 5.63 or above
 - 86100D-200 Enhanced Jitter Analysis (JP03A/JP03B patterns)
 - 86100D-201 advanced waveform analysis (Software Equalizers, such as CTLE)
 - 86100D-9FP PAM-N Analysis Software (performs underlying PAM measurements)
 - 86100D-SIM InfiniiSim-DCA (embedding/de-embedding of cables or fixtures)
- 3 DUT Control Interface (M8040A system with M8045A only) – If M8046A (and N1076A) is unavailable, this interface enables reading the error counter from devices that have in-built error counters.

License Requirements

The IEEE 802.3bs Pre-Compliance Rx Test Automation Application is a licensed feature. To use the plug-in with the recommended hardware and software arrangements, the following licenses are required:

Table 1 License Requirements for IEEE 802.3bs Rx Test Application

Product	Option	Description
M8091BSPA-1FP	1FP	Pre-Compliance RX Test Automation license for IEEE P802.3bs

Table 2 License Requirements for M8070A Software

Product	Option	Description
M8070A-OTP	OTP	System Software for M8000 Series of BER Test Solutions, Transportable, Perpetual license

Table 3 License Requirements for M8040A System

Product	Option	Description
M8045A-G32	G32	M8040 system license with options for M8045A
M8045A-OG2	OG2	
M8045A-OG3	OG3	
M8045A-OG4	OG4	
M8045A-OP3	OP3	
M8046A-A32	A32	M8040 system license with options for M8046A
M8046A-OP3	OP3	

Table 4 License Requirements for M8040A System with M8045A only

Product	Option	Description
M8070A-1TP	1TP	DUT Control Interface license for reading error counters
M8070A-1NP	1NP	

Table 5 License Requirements for Clock Recovery

Product	Option	Description
N1076A-232	232	N1076A Clock Recovery license
N1076A-CR1	CR1	

Installing the Software

The installer for the IEEE 802.3bs Rx Test Application can be downloaded from the Keysight website.

Download the installer file from: www.keysight.com/find/m8000.

To install the IEEE 802.3bs Pre-Compliance Rx Test Automation Application,

- 1 Double-click the downloaded installer file on your PC.

The Installation Wizard for the Keysight IEEE 802.3bs Pre-Compliance Rx Test Automation Application appears.

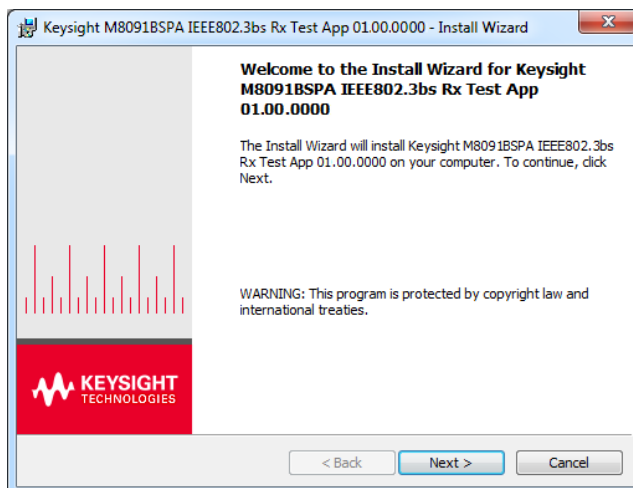


Figure 1 Installation wizard for the IEEE 802.3bs Rx Test Application

- 2 Click **Next**. The **Keysight Software End-User License Agreement** window appears.
- 3 Select **Agree** to agree to the license agreement and to enable the **Next** button.

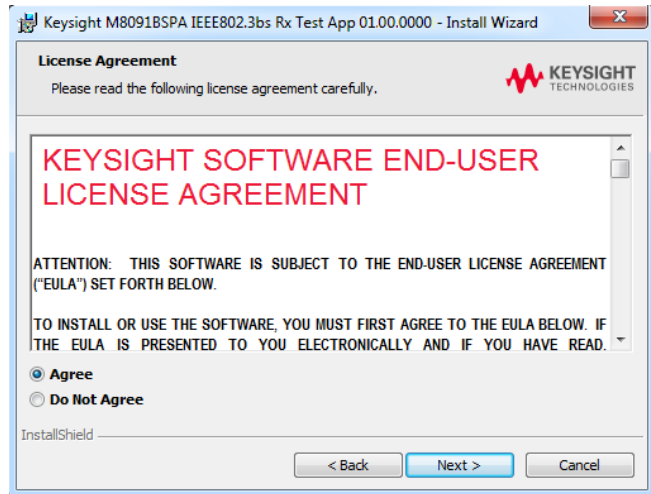


Figure 2 License Agreement window

- 4 Click **Next**.

- 5 On the window that appears, click **Install**.

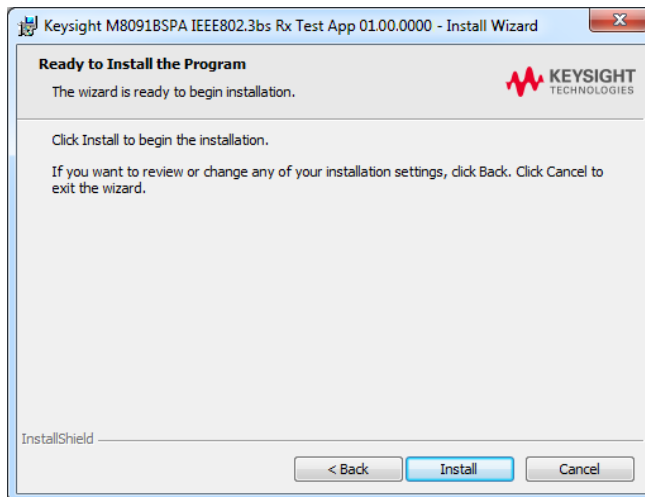


Figure 3 Window to begin Application installation

- 6 Once the installation of the IEEE 802.3bs Pre-Compliance Rx Test Automation Application begins, its status is displayed.

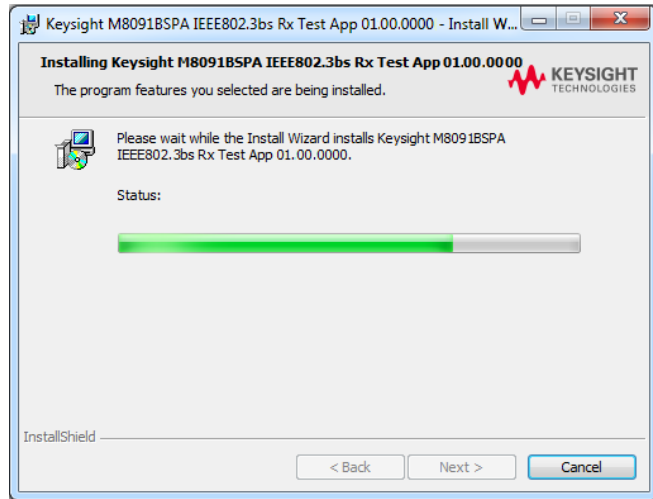


Figure 4 Window displaying installation status

- 7 Once the installation is complete, the following window appears. Click **Finish** to complete the installation and exit the wizard.

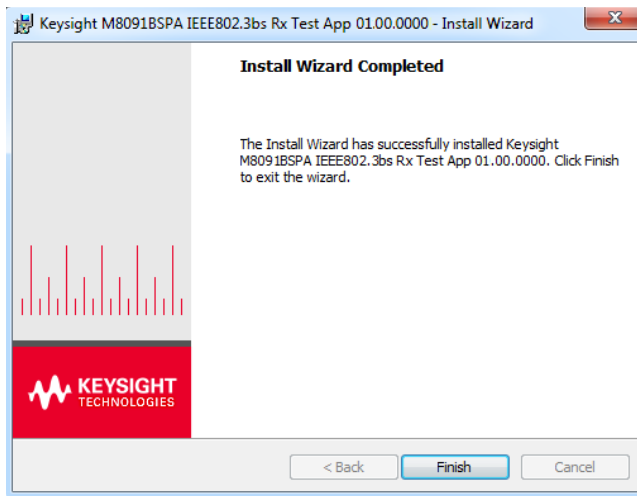


Figure 5 Window indicating end of installation

3 Preparing to take Measurements

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NOTE

Ensure that all instruments specified in “[Hardware requirements](#)” on page 10 are defined in the *Keysight Connection Expert* on the PC, where the IEEE 802.3bs Pre-Compliance Rx Test Automation Application is installed.

Calibrating the Instruments

If you haven't already calibrated the 86100D DCA-X oscilloscope, Keysight recommends calibrating the oscilloscope before performing calibrations or tests using the IEEE 802.3bs Pre-Compliance Rx Test Automation Application.

- 1 Disconnect all the cables that may be connected to the 86100D DCA-X oscilloscope.
- 2 From the main menu of the FlexDCA N1000-Series System Software, select **Tools > Calibrations...**
- 3 Follow the on-screen instructions to perform calibrations.

If the calibrations are not performed, warning messages are logged for each calibration performed from the M8070A software.

To know how to perform calibrations on the oscilloscope, refer to the *86100D DCA-X oscilloscope User's Guide* for more details.

Starting the Pre-Compliance Test Application

The IEEE 802.3bs Pre-Compliance Rx Test Automation Application is available to be run as a stand-alone application on a PC, either locally or remotely.

Before you launch the IEEE 802.3bs Pre-Compliance Rx Test Automation Application, make sure that Keysight M8070A software and FlexDCA N1000-Series System Software are online and active on the respective instruments.

Calibrations are performed using mated Compliance Boards, whereas the Device Under Test (DUT) is required to run the pre-compliance tests. Ensure that proper connections with the testing instruments are established. Ensure that the measurement instruments are connected on the same LAN as the remote PC, where the IEEE 802.3bs Pre-Compliance Rx Test Automation Application is installed.

To access the IEEE 802.3bs Pre-Compliance Rx Test Automation Application,

- 1 From the **Start** menu of the Windows Operating System, select **All Programs > Keysight M8070A Applications > Keysight M8091BSPA > Launch Keysight M8091BSPA**.

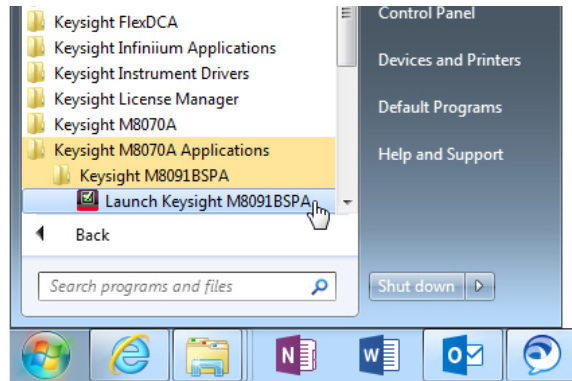


Figure 6 Launching the IEEE 802.3bs Rx Test Application

NOTE

If you do not see the folder Keysight M8091BSPA listed on the Start menu, either the IEEE 802.3bs Pre-Compliance Rx Test Automation Application or one (or more) of its required licenses has not yet been installed on the PC.

Refer to “[Installing the Software](#)” on page 13 for installation instructions and “[License Requirements](#)” on page 11 for the license requirements.

- If you are launching the Keysight M8091BSPA IEEE 802.3bs Pre-Compliance Rx Test Automation Application for the first time, the End-User License Agreement window appears. Select **Agree** to continue.

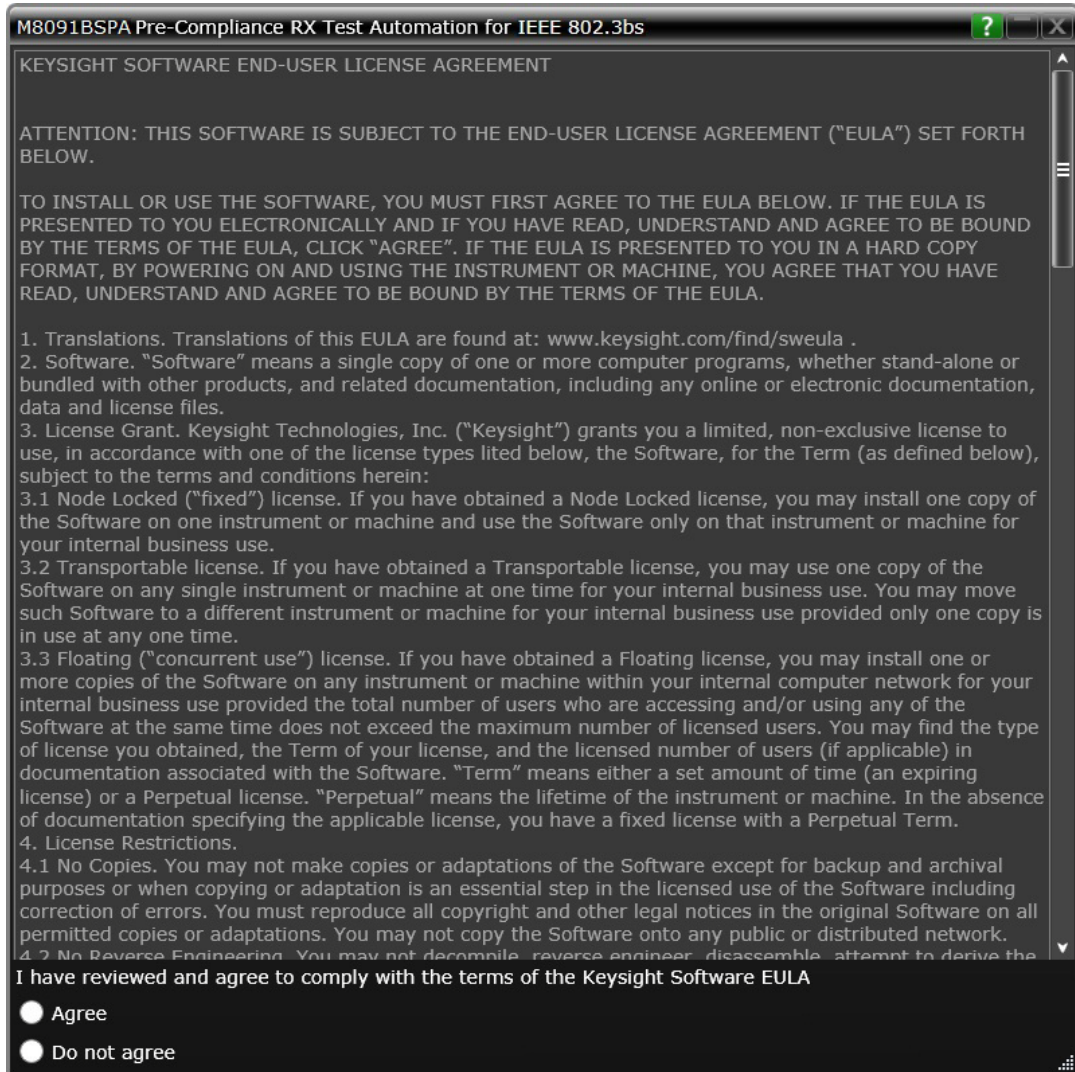


Figure 7 License Agreement for the IEEE 802.3bs Rx Test Application

- The **M8091BSPA IEEE 802.3bs RX Test BERT Pre-Compliance App** banner appears.

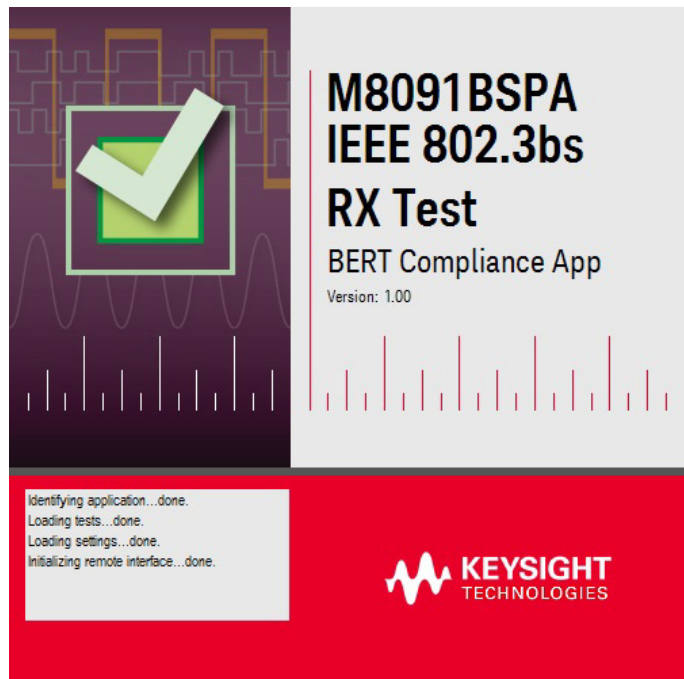


Figure 8 Starting banner for the IEEE 802.3bs Rx Test Application

- If there is only a single instance of the M8070A software running online, the IEEE 802.3bs Pre-Compliance Rx Test Automation Application launches after automatically getting connected to the M8070A software.

- If the IEEE 802.3bs Pre-Compliance Rx Test Automation Application detects more than one instance of the M8070A software running, the **Connect to M8070A** window appears.

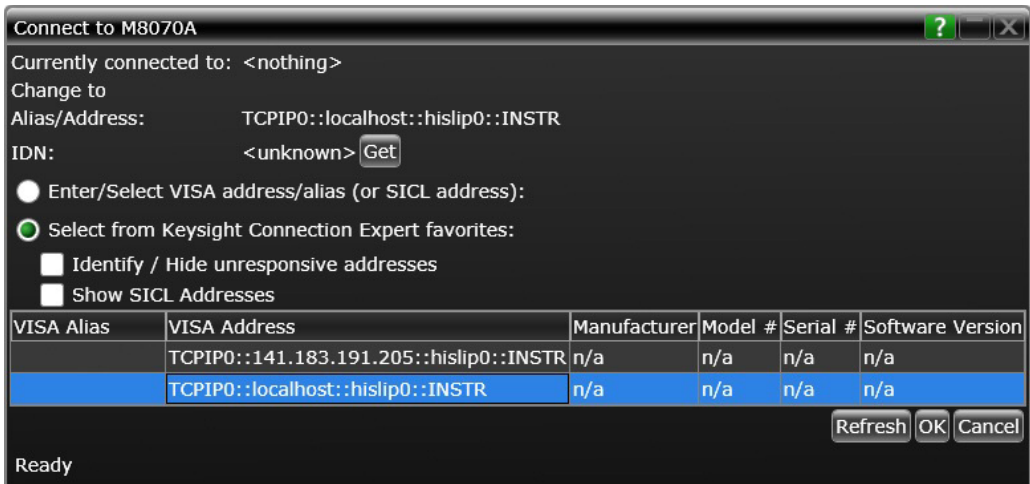


Figure 9 Connecting to M8070A in case of multiple instances

- 2 Perform one of the following actions:
 - In the **Enter/Select VISA address/alias (or SICL address):** text field, you can either type or copy the VISA/SICL address directly from the Keysight M8070A Software and paste it here. To verify the correct VISA address to connect to M8070A, access the **SCPI Server Information** window. by clicking **Utilities > SCPI Server Information...** from the main menu of the Keysight M8070A software.

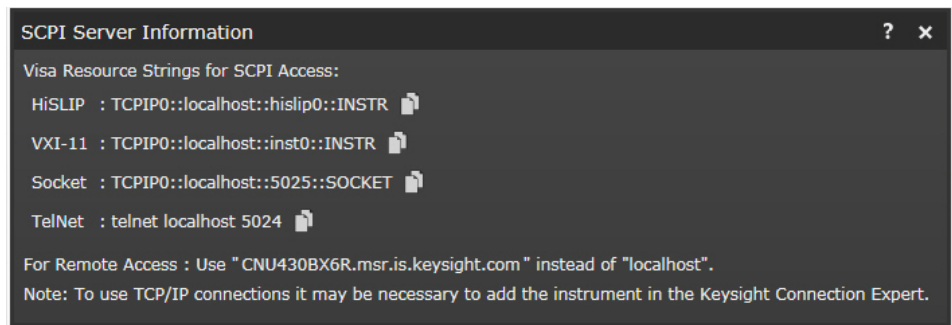


Figure 10 SCPI Server Information window on the M8070A Software

- If the BERT device is online and defined in the *Keysight Connection Expert*, click **Select from Keysight Connection Expert favorites:**. The VISA address list defined in the Keysight Connection Expert software for each online instrument is displayed. After you verify the VISA/SICL address, select the correct VISA Address from the list.
- 3 Click **Get** on the **Connect to M8070A** window. The **IDN:** field displays the instrument name.

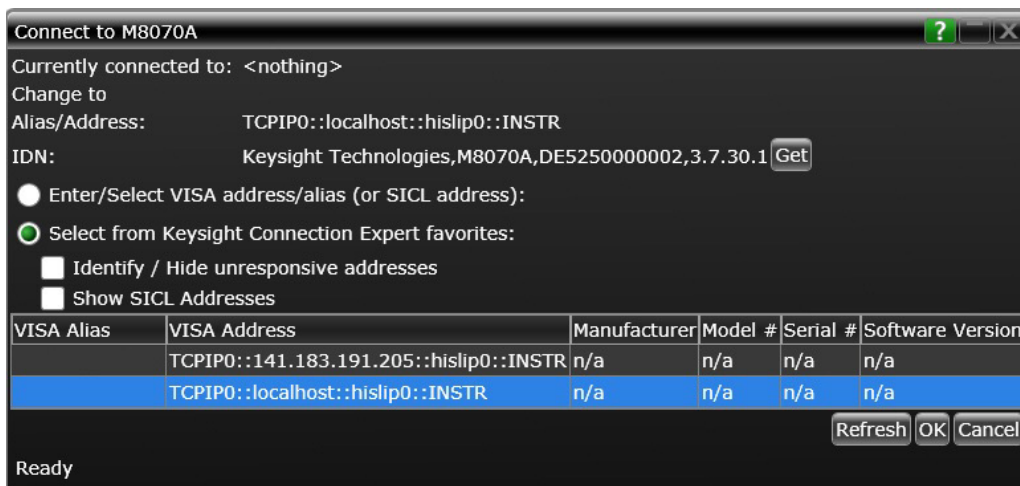


Figure 11 IDN field displaying successful connection to M8070A

- 4 Click **OK** to establish connection with M8070A and to launch the IEEE 802.3bs Pre-Compliance Rx Test Automation Application. If a connection is not established, the application fails to launch.

- The IEEE 802.3bs Pre-Compliance Rx Test Automation Application appears with the **Set Up** tab, as default.

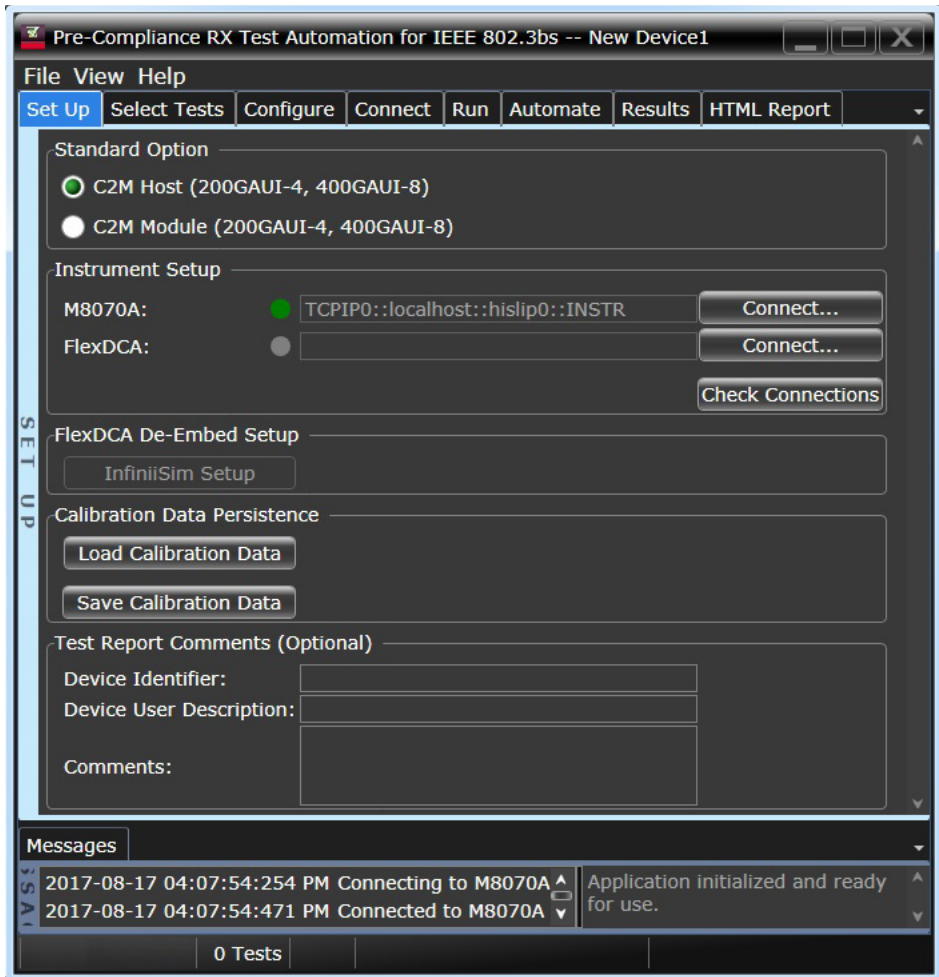


Figure 12 Default view of the IEEE 802.3bs Rx Test App

For more information on how to use the various features in the IEEE 802.3bs Pre-Compliance Rx Test Automation Application, refer to the *Keysight M8091BSPA IEEE 802.3bs Pre-Compliance Rx Test Automation Application Online Help*.

Setting up the IEEE 802.3bs Rx Test Application

Calibrations are performed using mated Compliance Boards, whereas the Device Under Test (DUT) is required to run the pre-compliance tests. However, even before you begin performing the IEEE 802.3bs calibrations, you must set up the Test Application first.

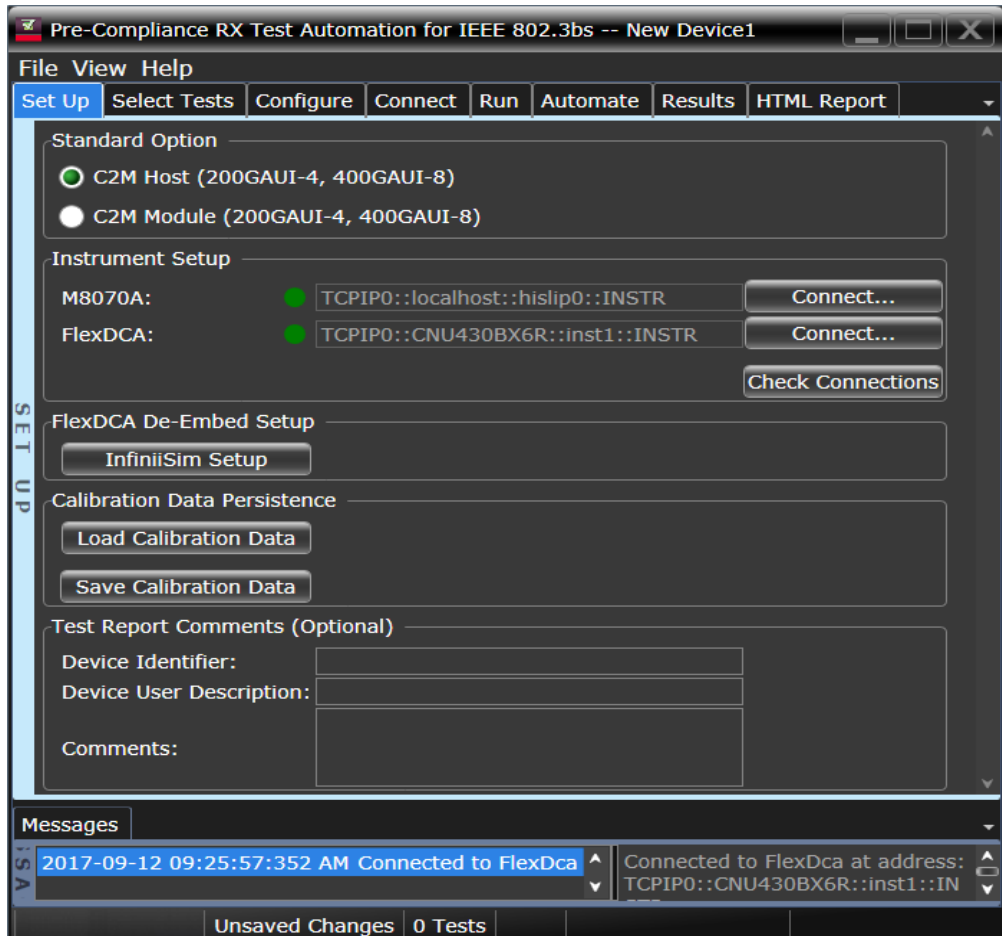


Figure 13 Setting up the IEEE 802.3bs Rx Test App

Perform the following steps:

- 1 Under the **Set Up** tab,
 - a Select either **C2M Host (200GAUI-4, 400GAUI-8)** or **C2M Module (200GAUI-4, 400GAUI-8)** in the **Standard Option** area, to indicate the standard on which the calibrations/tests are to be performed. The **Select Tests** tab displays the respective calibrations and tests. By default, **C2M Host (200GAUI-4, 400GAUI-8)** is selected.
 - b In the **Instrument Setup** area,
 - i Click **Connect...** corresponding to M8070A and FlexDCA to connect to the respective instrument using the SIDL/VISA address, if not connected already. By default, when you start the IEEE 802.3bs Rx Test Application, a connection dialog is displayed to connect at least to the BERT device, else the application fails to launch. A green dot indicates that the instrument is already connected.
 - ii Click **Check Connections** to verify that M8070A and FlexDCA are properly connected to the IEEE 802.3bs Rx Test Application.
 - c Click **InfiniiSim Setup** in the **FlexDCA De-Embed Setup** area to configure the 86100D DCA-X Oscilloscope's FlexDCA De-embedding. The **InfiniiSim Setup** button is enabled only after a connection with the FlexDCA instrument is established. To know more about the InfiniiSim Setup, refer to *86100D DCA-X oscilloscope User's Guide*.
 - d In the **Calibration Data Persistence** area, you can save the calibration data in zip format for future use and load existing calibration data in zip format. To understand the functionality of the Calibration Data Persistence, refer to "[Understanding Calibration Data Persistence](#)" on page 31.
 - e In the **Test Report Comments (Optional)** area, enter appropriate values in the **Device Identifier:**, **Device User Description:** and **Comments:** text fields, respectively, such that they appear in the HTML Report that is generated after test runs. Performing this step is optional. However, Keysight recommends entering these values to identify the test results for the corresponding DUT when there are large number of DUTs to be tested.
- 2 Under the **Select Tests** tab, select one or more Calibrations or Tests or both options for the standard selected earlier.
- 3 Under the **Configure** tab, modify the configuration parameters based on the values defined in the *Draft Amendment to IEEE Std 802.3-2015 IEEE Draft P802.3bs/D3.2 IEEE P802.3bs 200 Gb/s and 400 Gb/s Ethernet Task Force*.

- 4 In the **Connect** tab, the instructions and the connection diagram to perform connections between the mated Compliance Board/DUT and the instruments is displayed. Follow the instructions to perform the appropriate connections for each calibration/test.
- 5 Once the connections are verified and application set up is complete, click **Run Tests** to start running Calibrations/Tests.

Understanding Calibration Data Persistence

The **Calibration Data Persistence** feature of the IEEE 802.3bs Pre-Compliance Rx Test Automation Application provides you a way to save and load the Calibration data. The advantage of using this feature is to save time from running calibrations again, which are a prerequisite to running the IEEE 802.3bs RX tests. The IEEE 802.3bs Pre-Compliance Rx Test Automation Application manages the Calibration data in the *.zip file format.

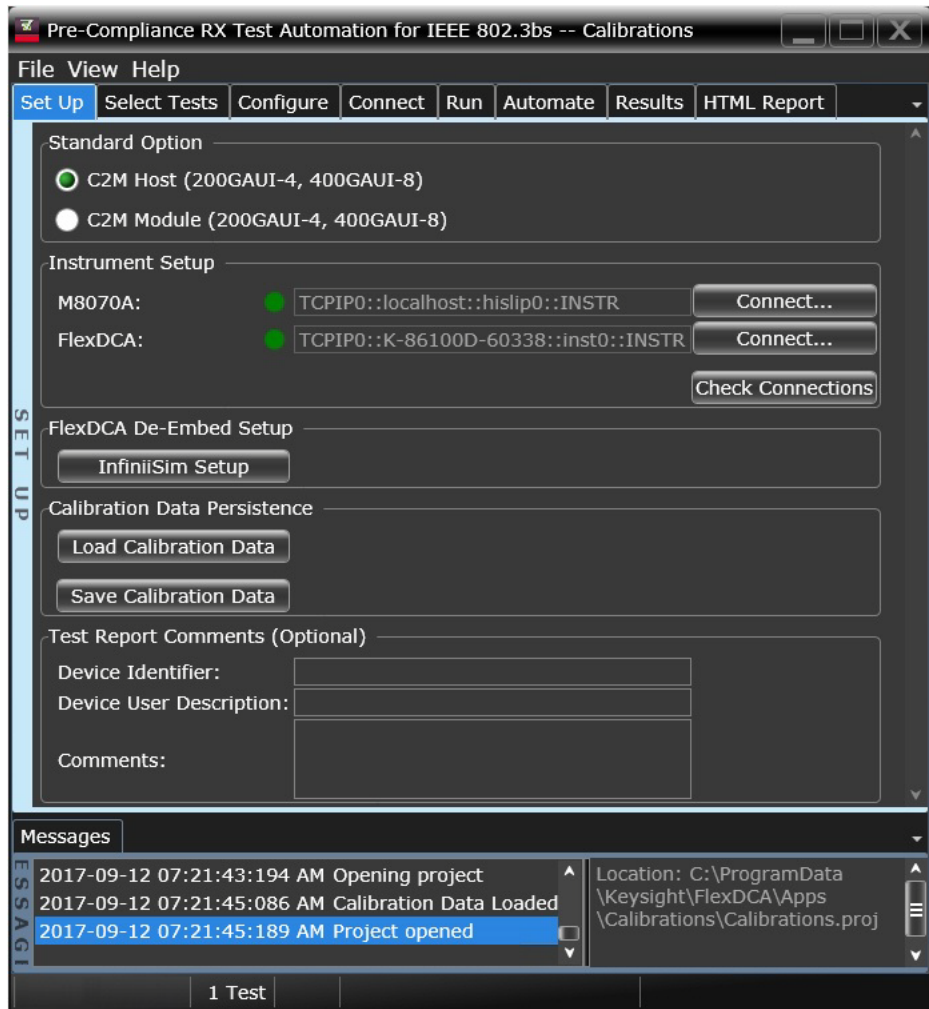


Figure 14 Performing Calibration Data Persistence

- To understand how to load calibration data before running IEEE 802.3bs Tests, see "[Loading Calibration Data](#)" on page 33.
- To understand how to save calibration data after running IEEE 802.3bs Calibrations, see "[Saving Calibration Data](#)" on page 35.

Loading Calibration Data

One of the prerequisites of running the IEEE 802.3bs tests is that all C2M Host/Module Calibrations should have been performed, so that the calibration values can be used for the respective tests. After you load the Calibration Data, the Test Application automatically identifies the data corresponding to C2M Host/Module and uses the respective data during test runs.

To load the Calibration data,

- 1 In the **Calibration Data Persistence** area, click **Load Calibration Data**.
- 2 In the **Open** window that appears, navigate to the folder where the Calibration data file is located in *zip* format.

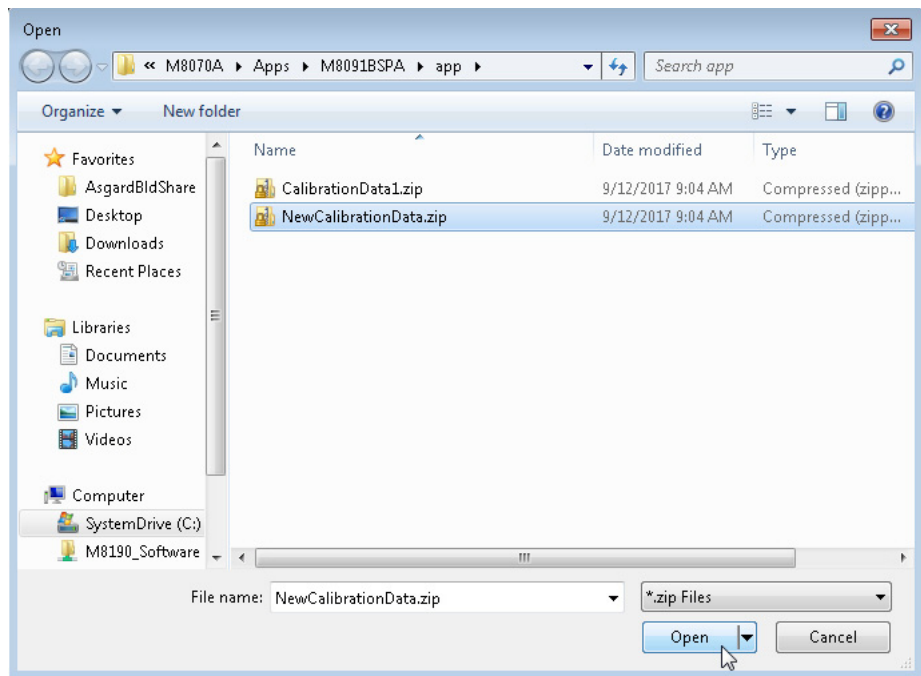


Figure 15 Selecting the Calibration Data Zip file from the target directory

- 3 Select the required data file and click **Open**.

- 4 The **Messages** area of the IEEE 802.3bs Pre-Compliance Rx Test Automation Application indicates whether or not the calibration data has loaded successfully.

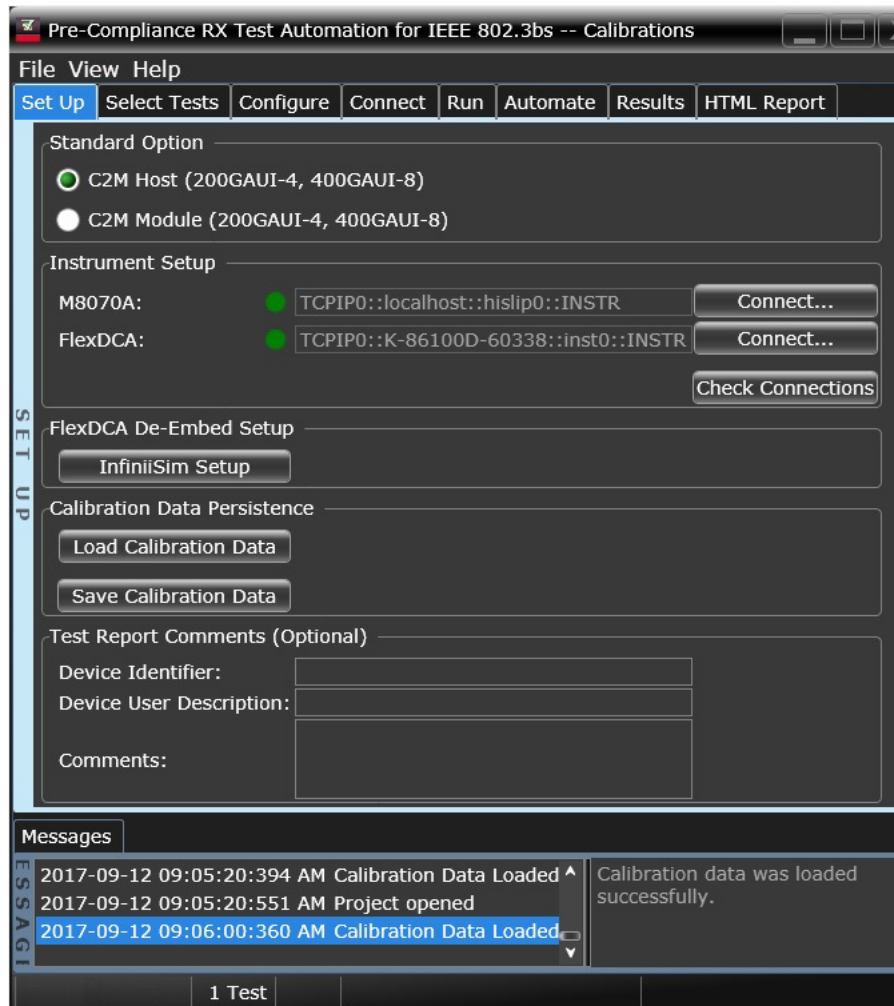


Figure 16 Set Up tab view after successfully loading Calibration Data

Saving Calibration Data

Before you run IEEE 802.3bs C2M Host/Module tests, it is mandatory that you should have run Calibrations for C2M Host or C2M Module. Running Calibrations is time-consuming and may take up some time before you finish running each calibration (along with modifying the hardware setup for each calibration) and obtaining the required data. The **Save Calibration Data** feature helps you to save the Calibration data for future use. After you have performed all calibrations successfully, Keysight recommends that the Calibration data be saved, such that you can use the calibrated values for IEEE 802.3bs C2M Host/Module tests later, if required.

To save the Calibration data,

- 1 In the **Calibration Data Persistence** area, click **Save Calibration Data**.
- 2 In the **Save As** window that appears, navigate to the folder where you wish to save the Calibration data in *zip* file format.

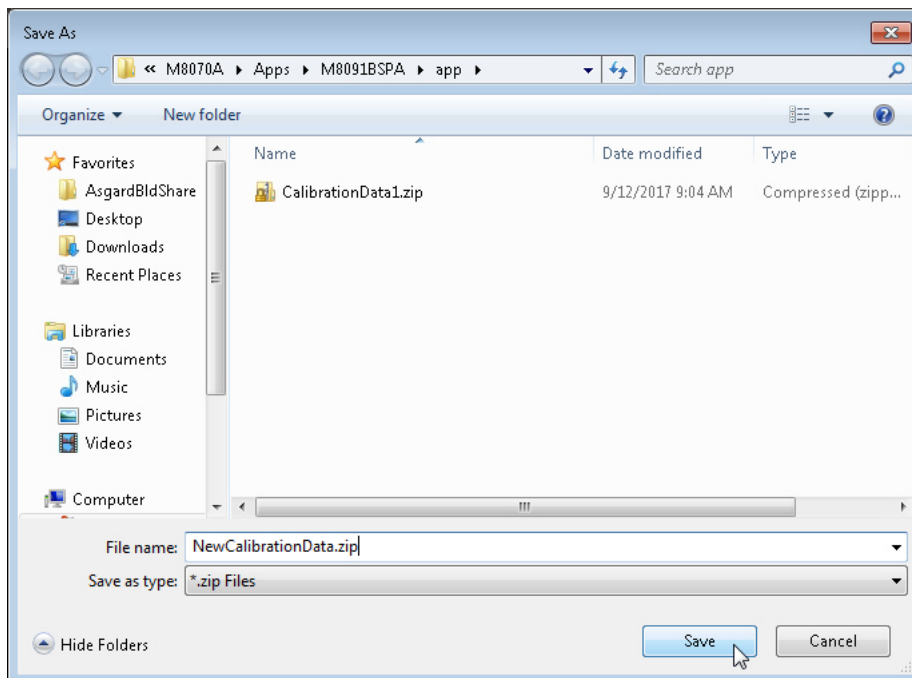


Figure 17 Saving the Calibration Data Zip file in the target directory

- 3 Click **Save**.

- 4 The **Messages** area in the IEEE 802.3bs Pre-Compliance Rx Test Automation Application indicates whether or not the calibration data have been saved successfully.

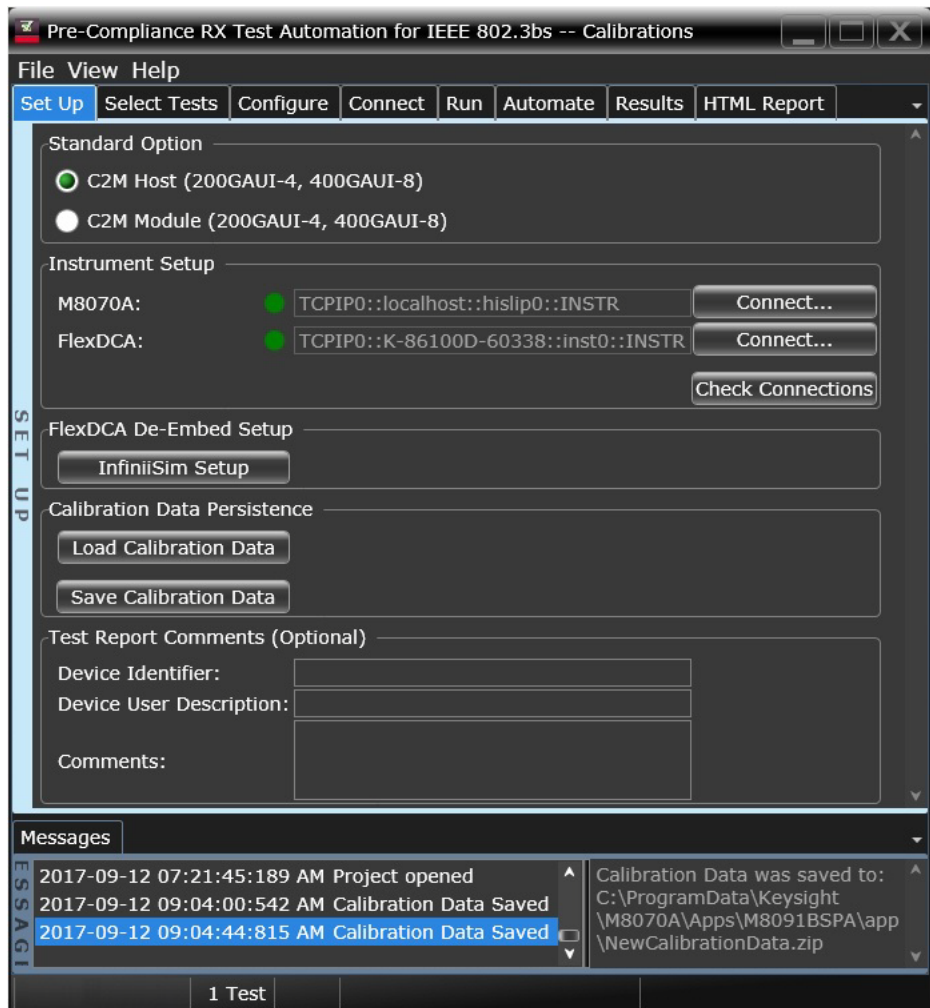


Figure 18 Set Up tab view after successfully saving Calibration Data

4 IEEE 802.3bs PAM4 C2M Calibrations

Crosstalk Calibration	38
Amplitude Calibration	40
JRMS Calibration	42
SJ Calibration	44
Stressed Eye Calibration	46

This section provides the test procedures for the IEEE 802.3bs Rx Calibrations, which are applicable for both C2M Host (200GAUI-4, 400GAUI-8) and C2M Module (200GAUI-4, 400GAUI-8) standards.

Before performing the IEEE 802.3bs tests, you must calibrate all the related parameters. Perform calibrations in the order displayed in the IEEE 802.3bs Rx Test Application.

As mentioned earlier, ensure that the 86100D DCA-X Oscilloscope has been calibrated and the mated Compliance Board is properly connected to the testing instruments to perform IEEE 802.3bs Calibrations.

Crosstalk Calibration

Overview The Crosstalk Calibration is performed to calibrate the cross-talk amplitude and transition time.

Connection Diagram Connect the instruments as shown in [Figure 19](#) and [Figure 20](#).

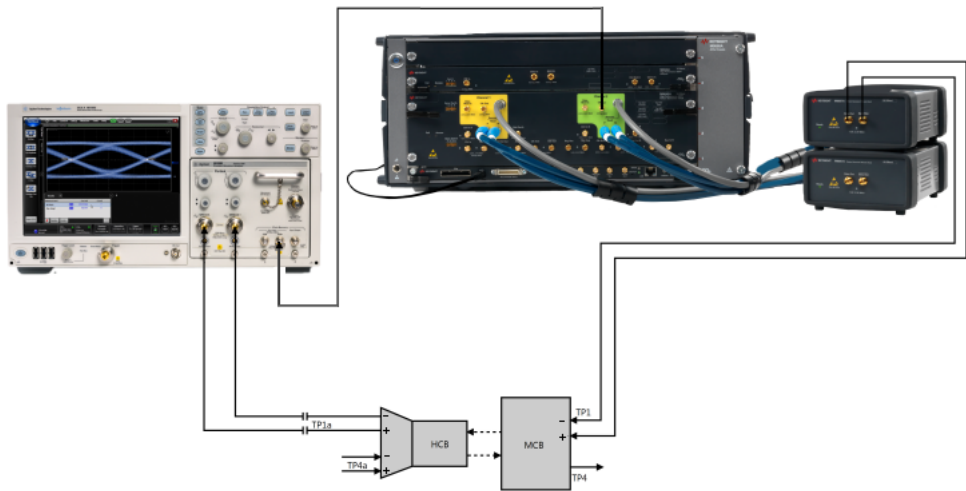


Figure 19 Crosstalk Calibration connections for C2M Host

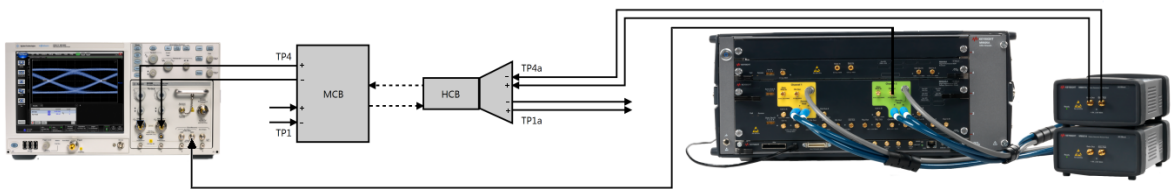


Figure 20 Crosstalk Calibration connections for C2M Module

ID

Standard Name	Test ID
C2M Host	1100
C2M Module	201100

Dependencies	This calibration depends on the values configured for the following settings: <ul style="list-style-type: none">• Oscilloscope Channel 1 De-embedding S-parameters• Oscilloscope Channel 2 De-embedding S-parameters
Parameters	You may modify the following parameters for this calibration: <ul style="list-style-type: none">• Amplitude• Transition Time• Baud Rate
Procedure	This calibration uses the PRBS13Q pattern.
Results	This calibration returns the following results, in tabular format: <ul style="list-style-type: none">• Amplitude• De-Emphasis (Pre and Post Cursor values)
Troubleshooting steps	Perform the following steps if this calibration fails: <ul style="list-style-type: none">• Ensure that the cable to the oscilloscope is de-embedded.• Increase the target transition time.• Increase the target amplitude.

Amplitude Calibration

Overview The Amplitude Calibration is performed to calibrate the Victim Generator’s Amplitude for the Voltage Tolerance test.

Connection Diagram Connect the instruments as shown in [Figure 21](#) and [Figure 22](#).

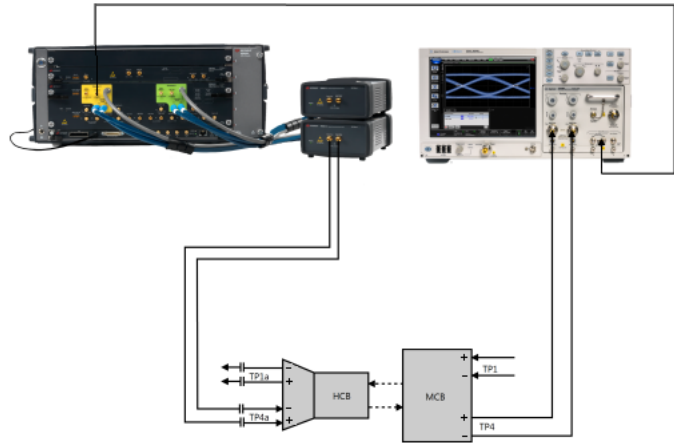


Figure 21 Amplitude Calibration connections for C2M Host

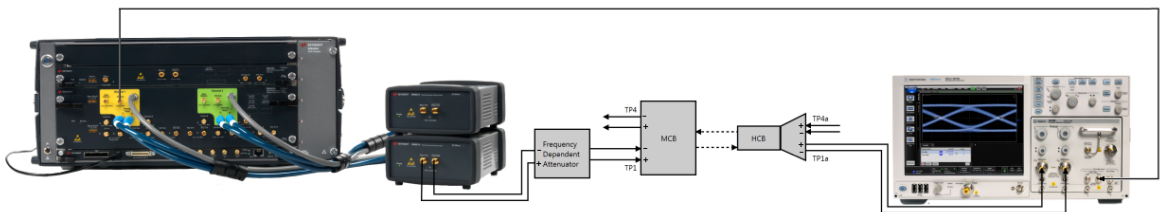


Figure 22 Amplitude Calibration connections for C2M Module

ID

Standard Name	Test ID
C2M Host	1101
C2M Module	201101

- Dependencies** This calibration depends on the values configured for the following settings:
- Oscilloscope Channel 1 De-embedding S-parameters
 - Oscilloscope Channel 2 De-embedding S-parameters
- Parameters** You may modify the following parameters for this calibration:
- Baud Rate
- Procedure** This calibration uses the PRBS13Q pattern.
- The Victim Generator Amplitude is set and measured for multiple Amplitudes.
- Results** This calibration contains the results for the set Amplitude versus Amplitude Calibration, in tabular format.
- Note that this calibration data is not displayed in the IEEE 802.3bs Rx Test Application. However, when you save the Calibration Data, this calibration's results are available to perform the IEEE 802.3bs pre-compliance tests. See ["Saving Calibration Data"](#) on page 35.

JRMS Calibration

NOTE

Unlike the other IEEE 802.3bs Calibrations and Tests, the implementation of JRMS Calibration is based on *Draft Amendment to IEEE Std 802.3-2015 IEEE Draft P802.3bs/D2.1 IEEE P802.3bs 200 Gb/s and 400 Gb/s Ethernet Task Force*.

Overview The JRMS Calibration is performed to calibrate the Root Mean Square Jitter (JRMS) at TP0a.

Connection Diagram Connect the instruments as shown in [Figure 23](#) for both C2M standards.



Figure 23 JRMS Calibration connections for C2M Host & C2M Module

ID

Standard Name	Test ID
C2M Host	1102
C2M Module	201102

Parameters You may modify the following parameters for this calibration:

- JRMS
- Baud Rate

Procedure This calibration uses the 1010... toggle pattern.

The Victim Generator Random Jitter (RJ) is set until the desired JRMS value is measured.

Results This calibration displays the results for the set RJ versus the measured JRMS, in tabular format.

SJ Calibration

Overview The SJ Calibration is performed to calibrate the Sinusoidal Jitter.

Connection Diagram Connect the instruments as shown in [Figure 24](#) for both C2M standards.



Figure 24 SJ Calibration connections for C2M Host & C2M Module

ID

Standard Name	Test ID
C2M Host	1104
C2M Module	201104

Parameters You may modify the following parameters for this calibration:

- SJ
- Baud Rate

- Procedure** This calibration uses the 1010... toggle pattern.
The Victim Generator PJ1 is set until the desired SJ value is measured.
- Results** This calibration returns the results for the set PJ1 versus measured SJ, in tabular format.

Stressed Eye Calibration

Overview The Stressed Eye Calibration is performed to calibrate the stressed eye signal for the Host or Module Stressed Input Test.

Connection Diagram Connect the instruments as shown in [Figure 25](#) and [Figure 26](#).

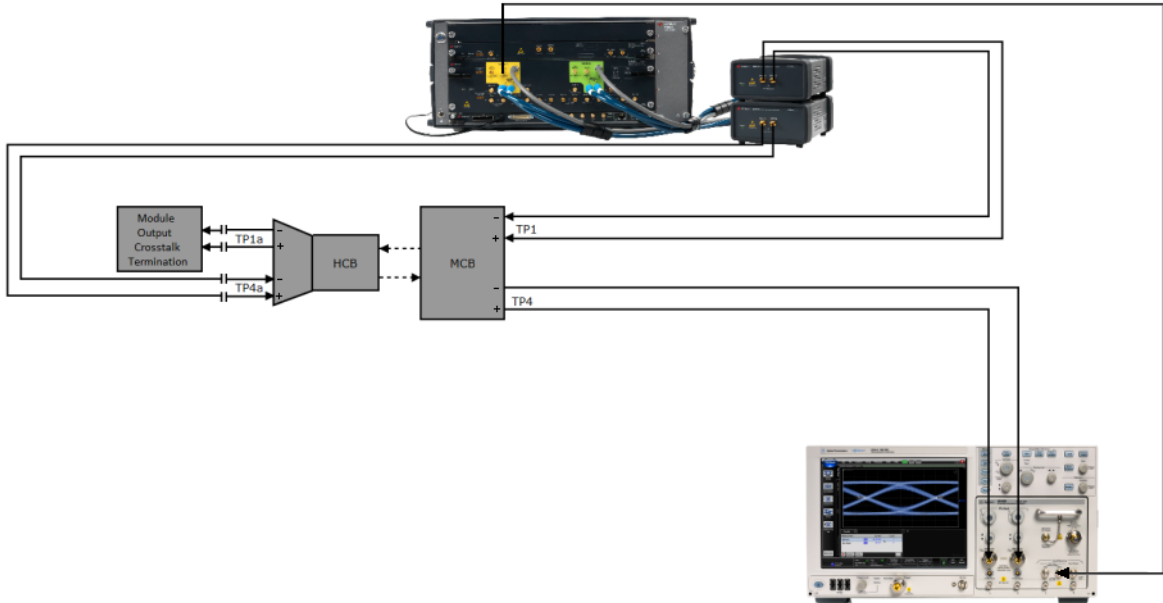


Figure 25 Stressed Eye Calibration connections for C2M Host

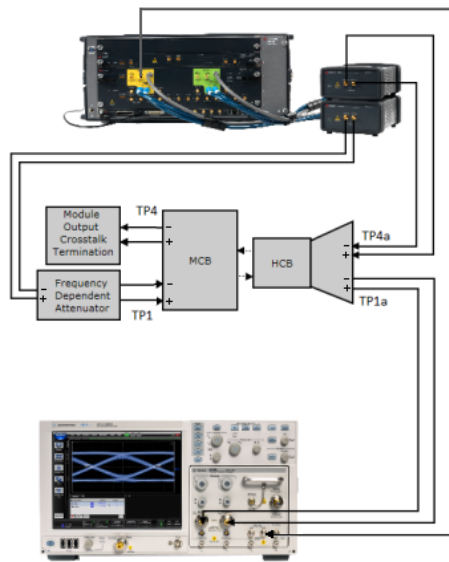


Figure 26 Stressed Eye Calibration connections for C2M Module

ID

Standard Name	Test ID
C2M Host	1105
C2M Module	201105

Dependencies

This calibration depends on the values configured for the following settings:

- Oscilloscope Channel 1 De-embedding S-parameters
- Oscilloscope Channel 2 De-embedding S-parameters
- All calibrations performed previously:
 - Crosstalk Calibration (Crosstalk Amplitude and Transition Time)
 - JRMS Calibration
 - SJ Calibration

- Parameters** You may modify the following parameters for this calibration:
- EW6
 - EH6
 - Baud Rate
 - All base parameters for Crosstalk Amplitude, Transition Time, JRMS and SJ
- Procedure** This calibration uses the PRBS13Q pattern.
- Results** This calibration returns the following results, in tabular format:
- RJ
 - Amplitude
 - De-Emphasis (Pre and Post Cursor values)
 - Lower PAM4 Eye Level
 - Upper PAM4 Eye Level

5 IEEE 802.3bs PAM4 C2M Tests

Multi-Lane Stressed Input Test **50**

This section provides the test procedures for the IEEE 802.3bs Rx Tests, which are applicable for both C2M Host and C2M Module standards.

As a prerequisite, run all IEEE 802.3bs C2M Host and Module calibrations before running tests. Ensure that the DUT is properly connected to the BERT modules and the 86100D Oscilloscope.

Multi-Lane Stressed Input Test

Overview The Multi-Lane Stressed Input Test validates the ability of the host input to tolerate the sinusoidal jitter with the specified limit. The test signal is applied at TP4a using a Host Compliance Board (HCB).

Connection Diagram For Multi-lane tests, connect the instruments as shown in [Figure 27](#) and [Figure 28](#).

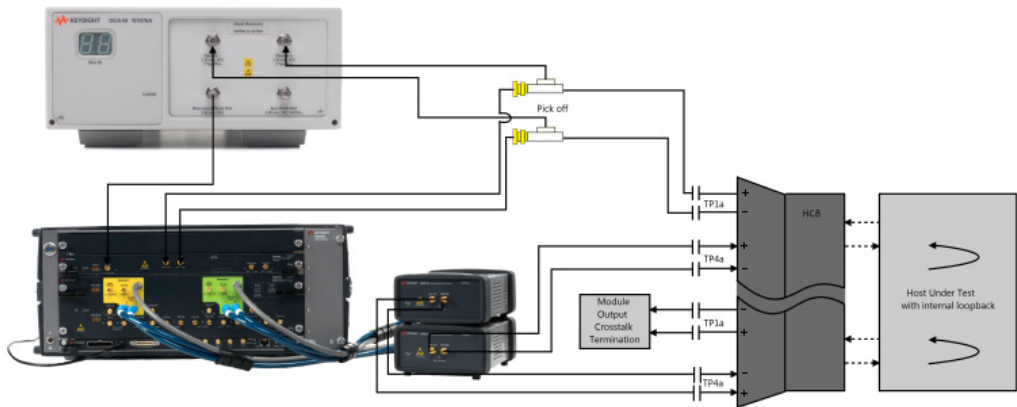


Figure 27 Multi Lane Stressed Input Test connections for C2M Host

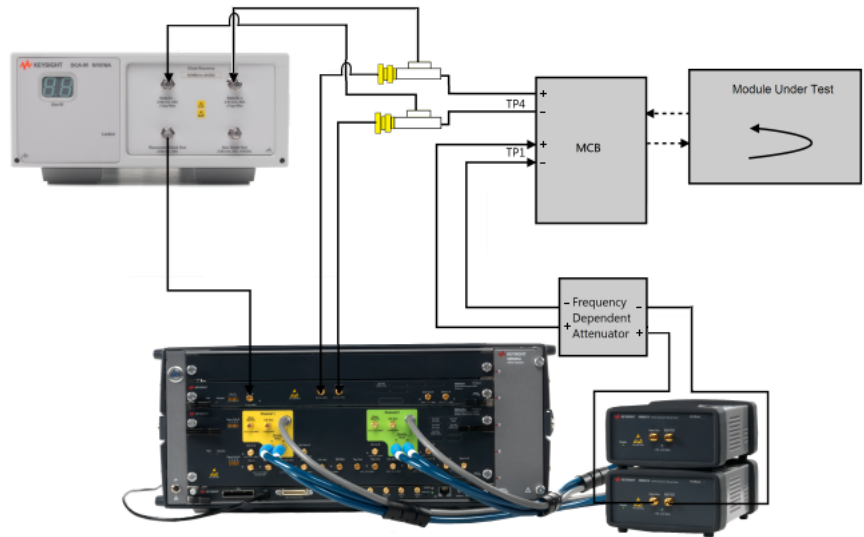


Figure 28 Multi Lane Stressed Input Test connections for C2M Module

ID

Standard Name	Test ID
C2M Host Multi-Lane	5101
C2M Module Multi-Lane	205101

Dependencies

This test depends on the values configured for the following settings:

- All calibrations performed previously:
 - Crosstalk Calibration (Crosstalk Amplitude and Transition Time)
 - JRMS Calibration
 - SJ Calibration
- Target Error Ratio
- Target Confidence Level

Parameters You may modify the following parameters for this test:

- Jitter Profile Frequency1
- Jitter Profile Amplitude1
- Jitter Profile Frequency2
- Jitter Profile Amplitude2
- Jitter Profile Frequency3
- Jitter Profile Amplitude3
- Frequency Mode
- Start Frequency
- Stop Frequency
- Number of Steps
- Manual Frequency List
- Baud Rate
- Target Error Ratio
- Target Confidence Level

Procedure This test uses the PRBS31Q pattern.

Results This test returns the following results:

- Pass/Fail for each SJ Amplitude & Frequency pair point

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