

PCIe7.0 (Base) Receiver Test 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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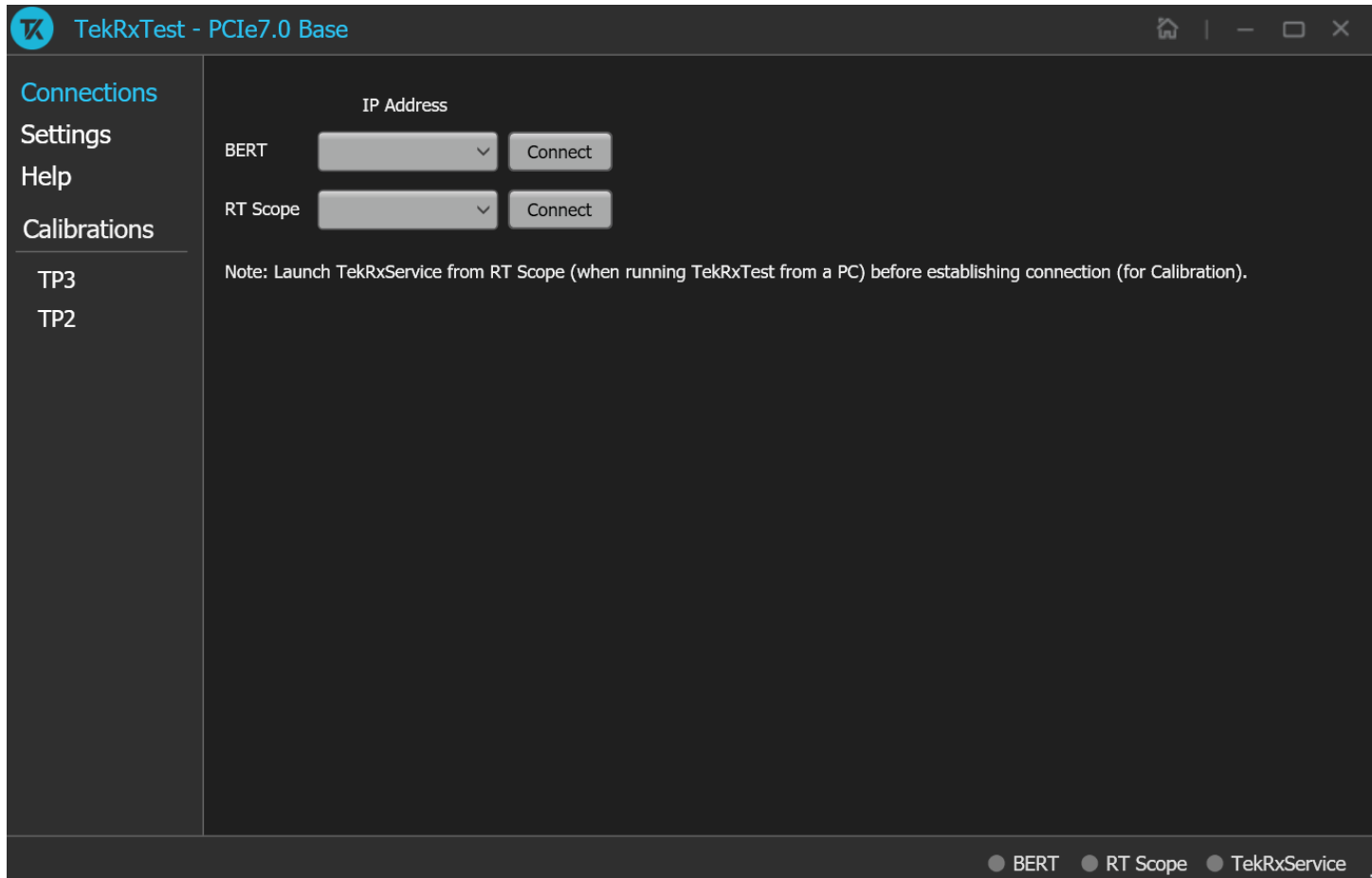
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Welcome

Welcome to the PCIe7.0 (Base). This application performs the test as per the PCI Express® Base Specification Revision 7.0.



Connections panel

Receiver testing is accomplished by connecting the output of BERT PPG (which can produce specific PCIe test patterns) to the input of the DUT through a specialized set of fixtures and cables. The BERT can be programmed to add different amounts of random jitter, sinusoidal jitter, differential, common-mode interference along with variable signal amplitude, preshoot, and de-emphasis. Output of the DUT is connected to the BERT error detector to identify bit errors on the DUT Tx traffic, either during loopback or during sweep of one of the stress parameters. Any error detected can be assumed to be generated from the DUT Tx path as a result of either the DUT experiencing a bad bit-decision at its receiver or uncompensated back channel loss at the error detector of the BERT. Additionally, DUT Tx traffic can be analyzed to verify the DUT responses to various requests put forward by the BERT during link training process.

Key features and benefits

- Automated Calibration and Compliance Testing.
- Jointly with Anritsu BERT MP1900A series, the receiver solution provides the tools and flexibility required to visualize and control the impairments, observe real-time eye performance for PCIe Gen7.0 devices.
- Reliable and accurate results reduce the test execution time and minimize the skill-set required to perform calibration and testing.

Getting help and support

Related documentation

The following documentation is available as part of the PCIe7.0 (Base) test application.

Product documentation

Item	Purpose	Location
Application Help	Application operation and User Interface details	Help panel of the application

See also

Technical support

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 Real Time Oscilloscope. Contact Tektronix through mail, telephone, or the Web site. See Contacting Tektronix on page 0 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, and 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

Getting started

Required equipment and accessories

Item	Vendor	Type	R/O	Quantity	Description	Notes
DPO77002SX	Tektronix	Equipment	Required	2	Dual-Stack 65 GHz Sx oscilloscope	65 GHz or better
DPO7RFB2	Tektronix	Tek accessory	Required	2	Attenuator kit	Attenuator kit + DC blocks
103047400	Tektronix	Tek accessory	Required	2	Connector savers (1.85 mm)	1.85 mm oscilloscope channel input connection
Anritsu MP1900A*	Anritsu	3 rd party equipment	Required	1	Bit Error Rate Tester (BERT)	Configuration provided by 3 rd party
DJA	Tektronix	Equipment SW option	Required	1	DPOJET advanced option	DPOJET advanced Jitter, Eye and Timing Analysis SW option
PAMJET-E	Tektronix	Equipment SW option	Required	1	PAM4 tool	PCIe Gen7 PAM4 measurement
PAMJET PCIe Option	Tektronix	Equipment SW option	Required	1	PAMJET PCIe Option	
SDLA	Tektronix	Equipment SW option	Optional	1	SDLA option	For creating embed and de-embed filters
PMCABLE1M	Tektronix	Tek accessory	Required	2	Cable pair; 1.85 to 1.85 mm	Equipment connection to fixtures and DUT
174-6659-01	Tektronix	Tek accessory	Required	1	Cable pair; SMA - SMP cable pair	Refclk connection between DUT and BERT
C7035	CentricRF	3 rd party	Optional	4	Right Angle Male-Female 2.92 mm adapter	Cable management
Gen7 Base Test Fixture Set	PCI-SIG	Test fixtures	Required	1	Gen 7 Base Test Fixtures**	

Item	Vendor	Type	R/O	Quantity	Description	Notes
RXSW-FLP-PCIE7	Tektronix	SW option	Required	1	PCIe Gen7 Receiver Software	License; PCI Gen7 Rx BASE automation software for TEK scopes and Anritsu BERT; Floating Permanent
RXSW-NLP-PCIE7						License; PCI Gen7 Rx BASE automation software for TEK scopes and Anritsu BERT; Node-Locked Permanent

* Configuration for BERT provided by 3rd party vendor.

** Gen5 BaseTest Fixtures are not backwards compatible for Gen3 & Gen4 Base Rx.

Installing the software

Complete the following steps to download and install the latest PCIe7.0 (Base)

1. Go to www.tek.com.
2. Click **Support**. In the Support menu, select Software Downloads and enter **PCIe7.0 (Base) Rx** in the MODEL OR KEYWORD field and click **SEARCH**.

Datasheets, Manuals, and Software Downloads

While we're happy to "talk tech" with you all day long, we know you're in a hurry.

So we've made it easy for you to download product manuals, datasheets and downloadable software which includes firmware, drivers, etc. for all our current products, and many discontinued products as well. Just tell us which product you're using, and we'll provide you with list of latest documents and resources that you can download.

Enter Model:

PCIe7.0 (Base) Rx

✓ Search by Product Category (optional)

SEARCH

3. Select the latest version of the software and follow the instructions to download.
4. Copy the executable file into the instrument you wish to install the software (Real-time oscilloscope or PC).
5. Follow the installation instruction that is available in the website. The software is installed at **C:\Program Files\Tektronix\BERTScope\RxTest60**
6. Double click the shortcut icon on the desktop to launch the application.

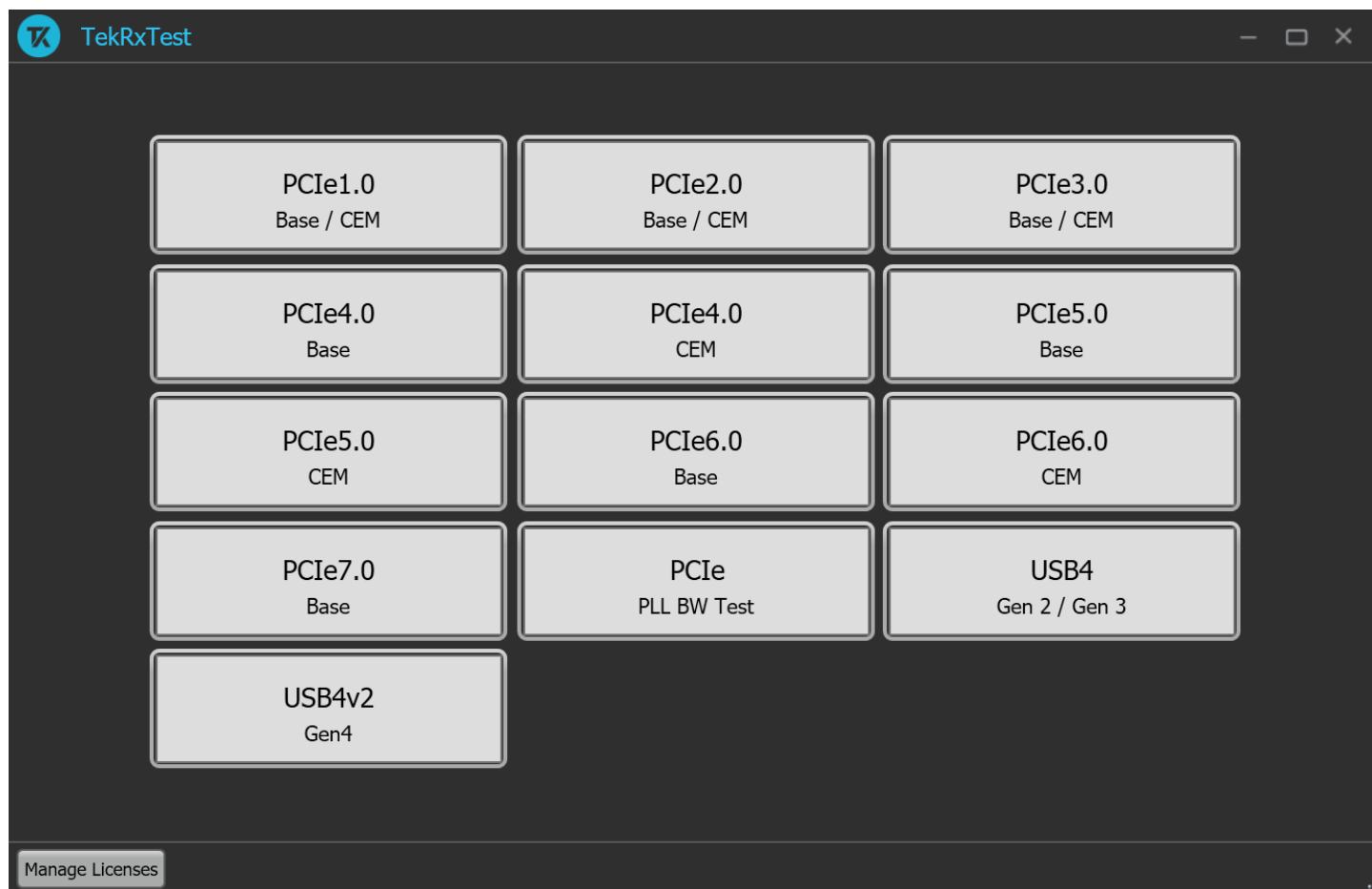
NOTE: The PCIe7.0 (Base) TekRx test application can be installed on a Tektronix real-time oscilloscope or a PC (optional).

You must install the TekRxService and SigTest application in the real-time oscilloscope to successfully connect the application with the real-time oscilloscope.

Operating basics

Launch the application

To launch the PCIe7.0 (Base) in the application window.



TekRxTest application window

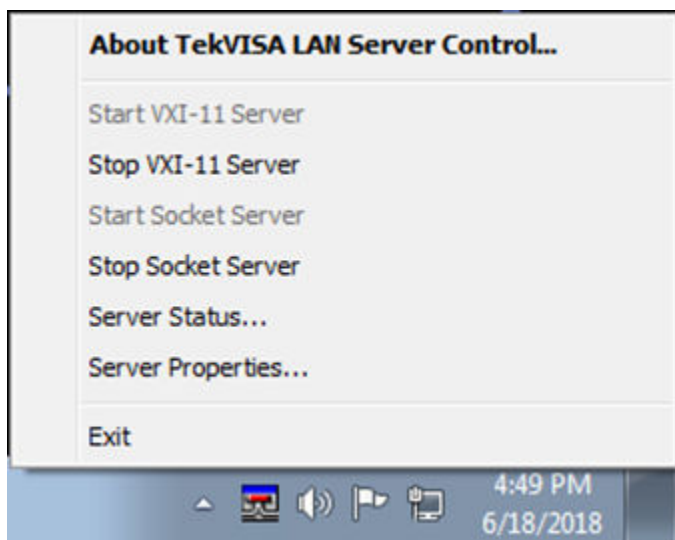
Close the application

To exit the application, click  on the application title bar. Follow on-screen instructions to save the unsaved session or test setup.

NOTE: Using other methods to exit the application may result in abnormal termination of the application.

Launch Real-Time Oscilloscope

The TekVISA Socket Server application on the oscilloscope provides the necessary connectivity between the TekRxTest application and scope. Although it is launched in the background when the scope boots up and the socket is initialized for communication, it is recommended to verify the status by clicking on the Desktop Tray > TekVISA LAN Server Control as shown in the image below. If it is ready to exchange data, then a wizard would appear as in the below image.

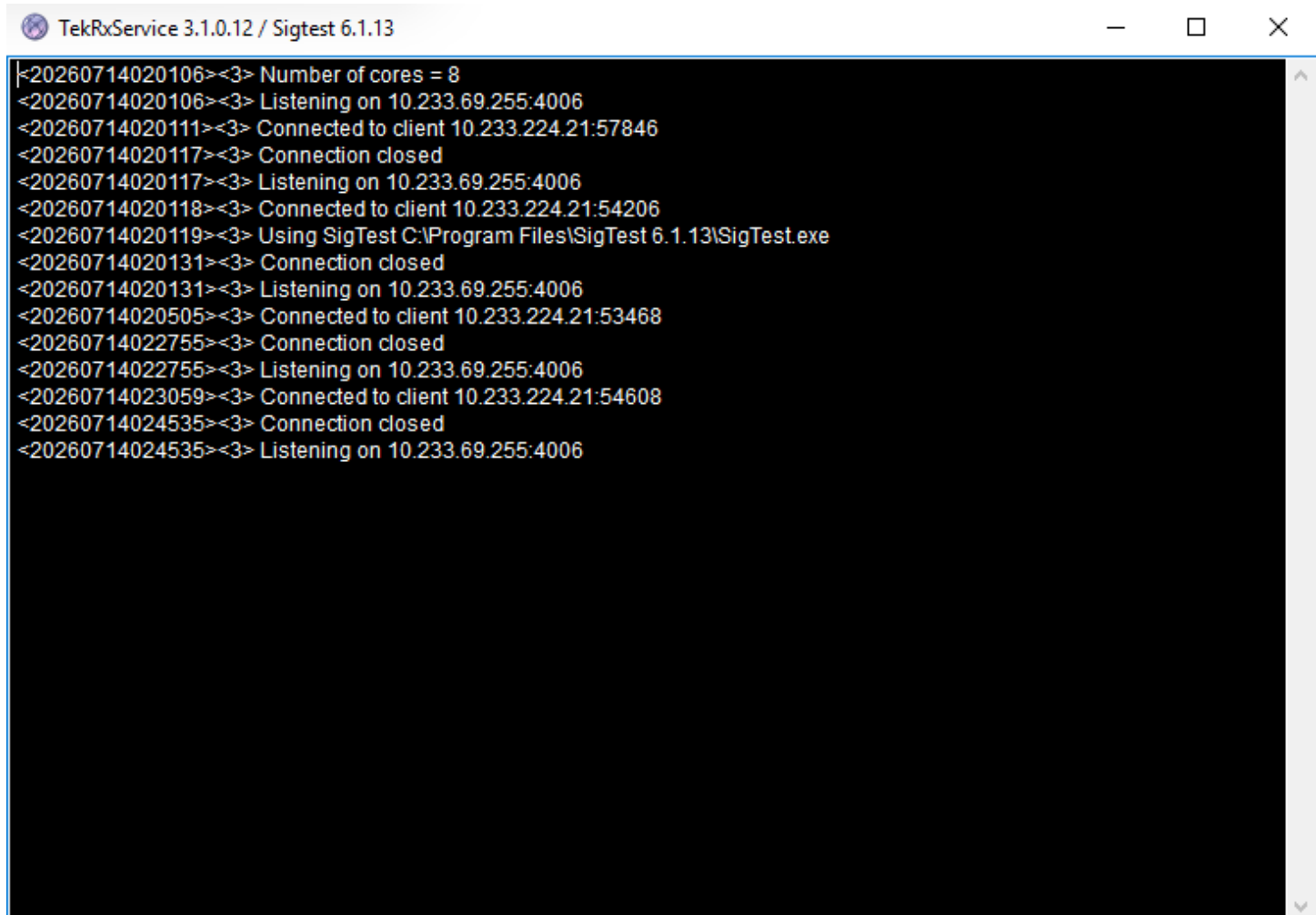


Launch Real-Time Oscilloscope

Note: In the unlikely event when the socket is not initialized, the process can be started by clicking on “Start Socket Server” which gets enabled during such a scenario.

Launch TekRxService

The PCIe7.0 (Base), TekRxTest application interfaces with the oscilloscope for data acquisition, analysis and data retrieval utilizing TekRxService application. This software module should be launched at the time of initiating the TekRxTest application.



The screenshot shows a window titled "TekRxService 3.1.0.12 / Sigtest 6.1.13". The window contains a log of network activity. The log entries are as follows:

```
<20260714020106><3> Number of cores = 8
<20260714020106><3> Listening on 10.233.69.255:4006
<20260714020111><3> Connected to client 10.233.224.21:57846
<20260714020117><3> Connection closed
<20260714020117><3> Listening on 10.233.69.255:4006
<20260714020118><3> Connected to client 10.233.224.21:54206
<20260714020119><3> Using SigTest C:\Program Files\SigTest 6.1.13\SigTest.exe
<20260714020131><3> Connection closed
<20260714020131><3> Listening on 10.233.69.255:4006
<20260714020505><3> Connected to client 10.233.224.21:53468
<20260714022755><3> Connection closed
<20260714022755><3> Listening on 10.233.69.255:4006
<20260714023059><3> Connected to client 10.233.224.21:54608
<20260714024535><3> Connection closed
<20260714024535><3> Listening on 10.233.69.255:4006
```

TekRxService application window

NOTE: TekRxService has to be launched if the application is being run on an external PC. To launch the application, double click the TekRxService batch file shortcut icon in the desktop of the real-time oscilloscope.

Application panels

Application panels overview

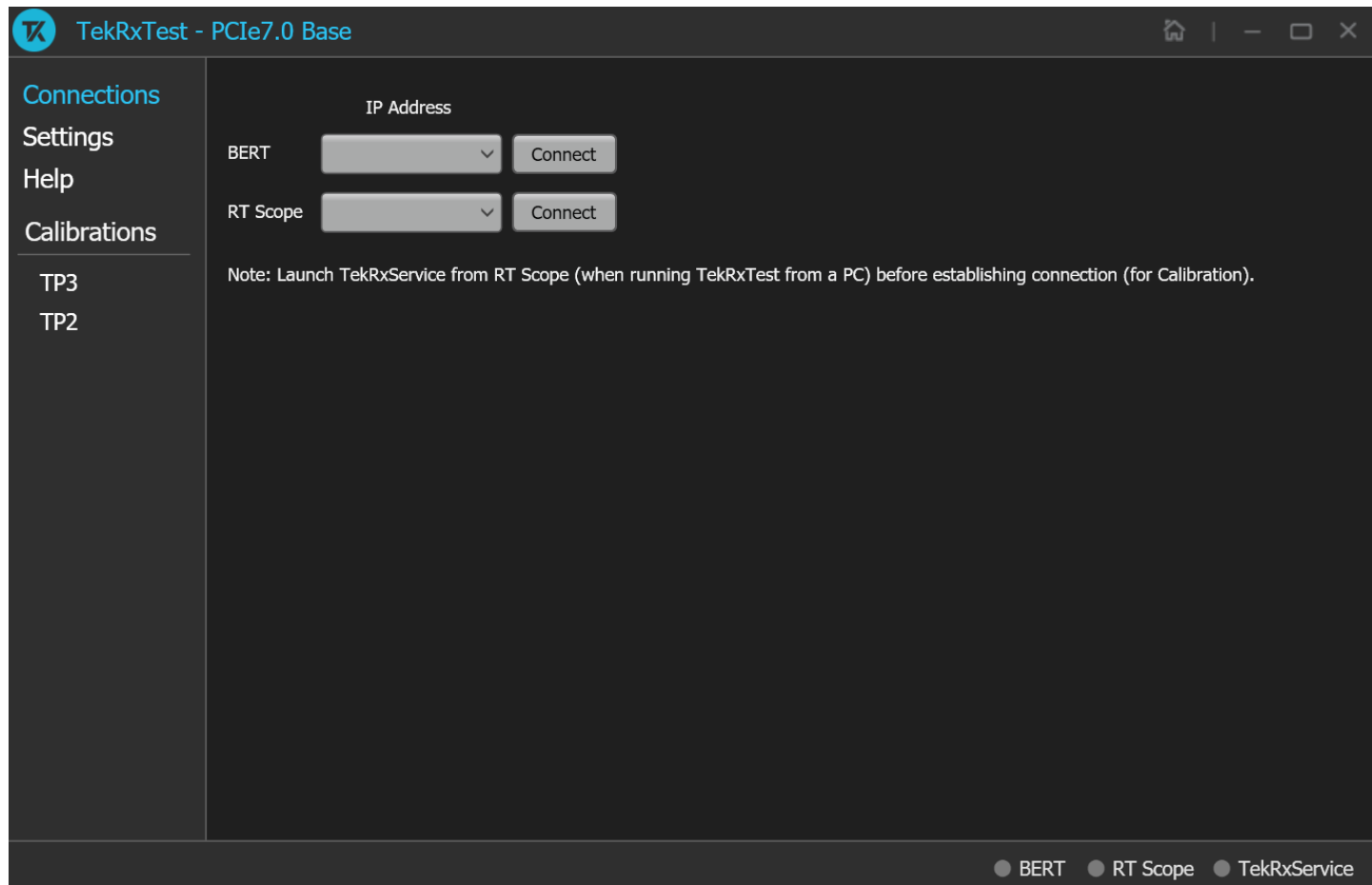
The PCIe7.0 (Base). TekRxTest application uses panels to group the configurations and settings. Click on any panel to configure the associated settings. A panel may have one or more tabs that lists the selections available in that panel. Controls in a tab may change depending on the settings made in the same tab or another tab.

Application panels overview

Parameter	Description
Connections	This panel displays the real-time oscilloscope and BERT connection settings. You can connect to a real-time oscilloscope and BERT by entering the IP address of the instruments.
Settings	This panel allows configuring various settings for the Components, TP3 and TP2 Calibration.
Help	This panel displays the application help.
Calibrations	This panel allows you to configure the calibration parameters for TP3/TP2 and save the results.

Connections panel

The connections panel allows you to connect to a real-time oscilloscope and BERT with the PCIe7.0 (Base) TekRxTest application. Enter the IP address of the instruments and click **Connect** to establish the connection.



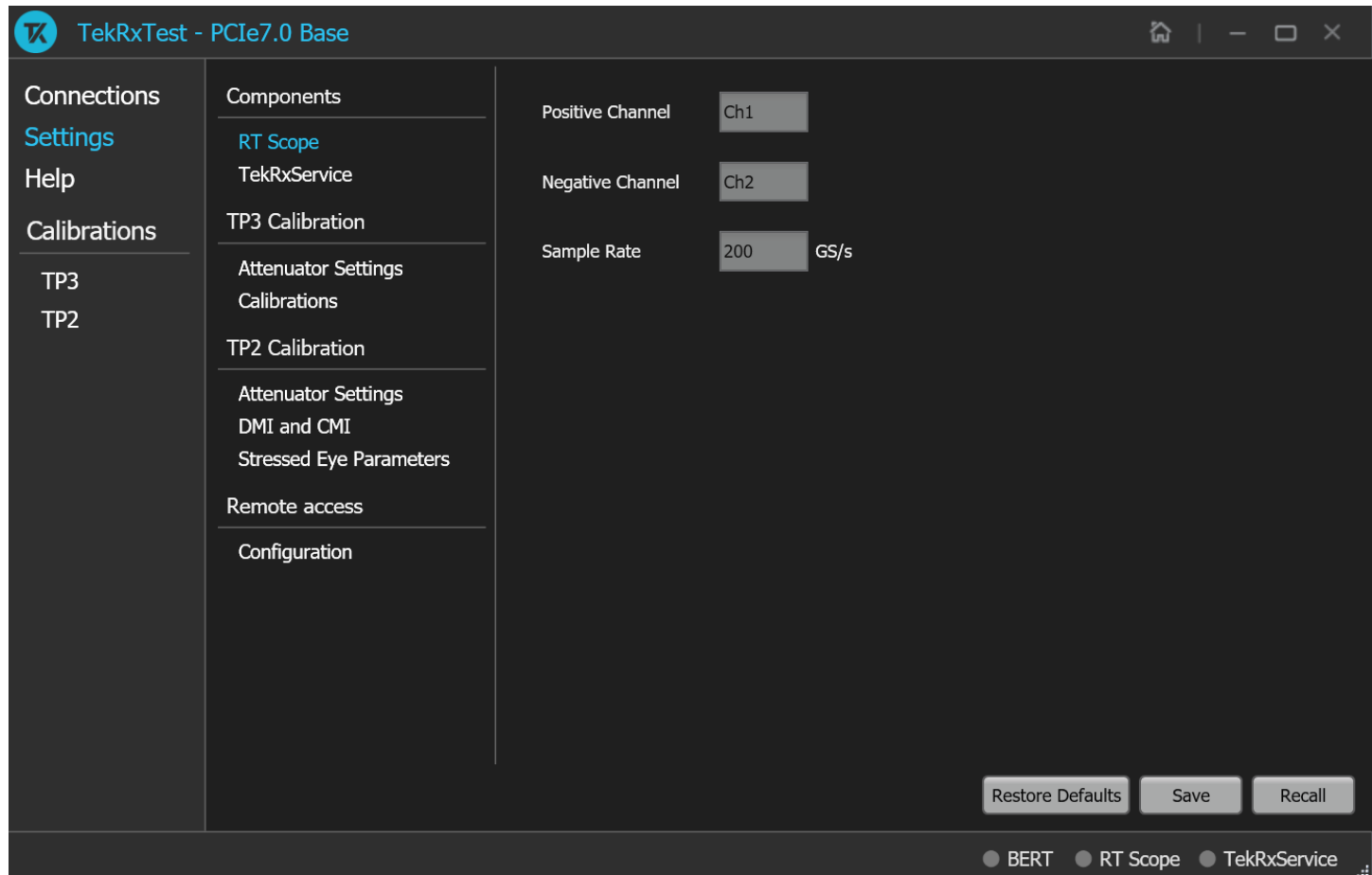
Connections panel

Connections panel

Connections	Description
BERT	Enter the BERT IP address in the address field and click Connect . When the BERT is connected successfully, the circle next to BERT in the right end corner turns green.
RT Scope	Enter the RT Scope IP address in the address field and click Connect. When the RT Scope is connected successfully, the circle next to RT Scope and TekRxService in the right end corner turns green. NOTE: Before you click Connect, if the TekRxTest application is running on an external PC, make sure to launch the TekRxService in the real-time oscilloscope.

Settings panel

This panel allows you to configure the settings for instruments, calibrations, and remote access. Click any tab to configure the associated settings.



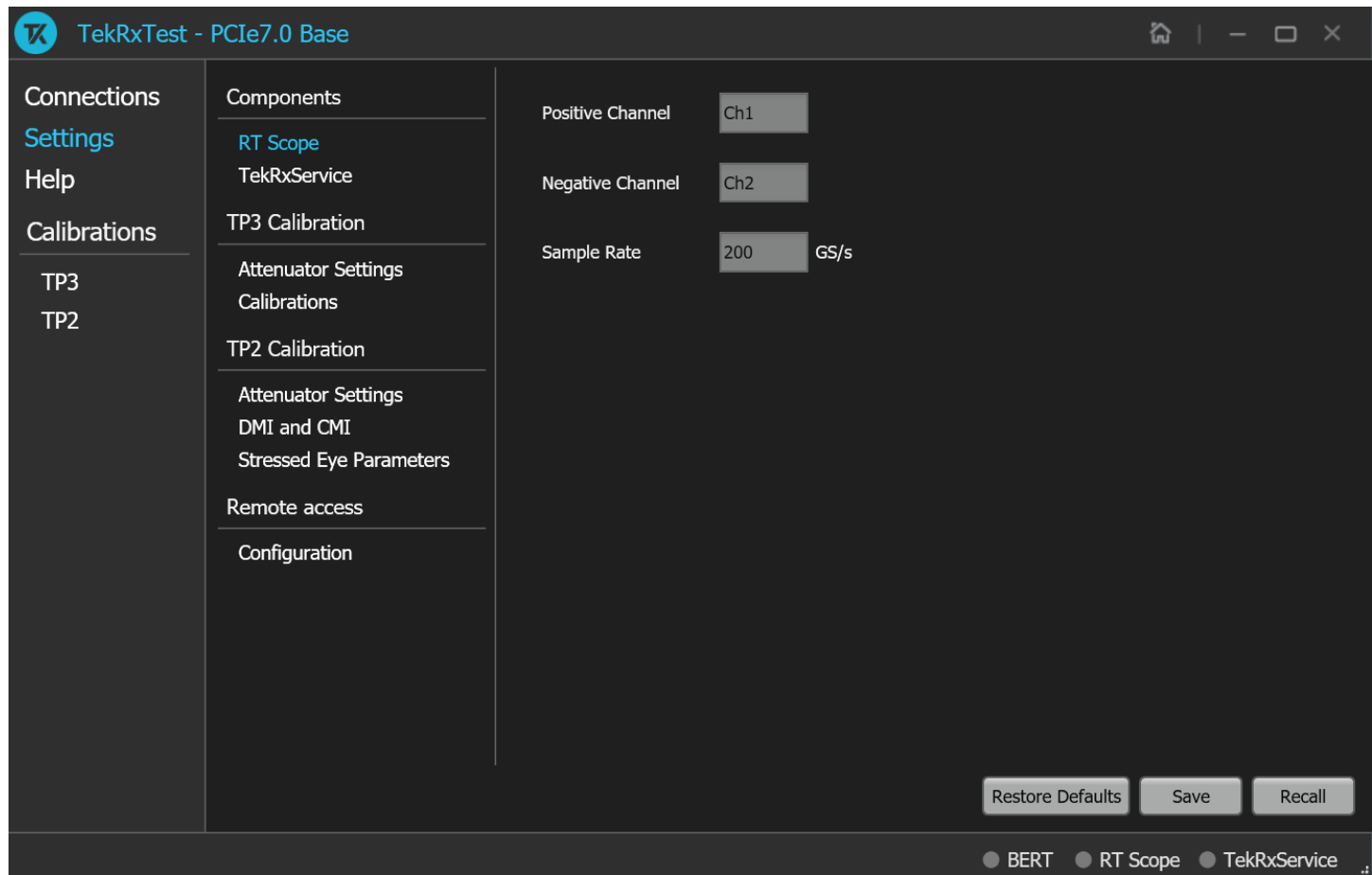
Settings panel

Settings panel configurations

Item	Description
Restore Defaults	Restores the application with default settings.
Save	Saves the current test setup.
Recall	Recalls the saved test setup.

Components settings

The components settings display the parameters for RT Scope and TekRxService.



Components: Settings panel

Components: RT Scope

Parameter	Description
Positive Channel	Select the generator data positive channel from BERT.
Negative Channel	Select the generator data negative channel from BERT.
Sample Rate	Displays the RT Scope sample rate in GS/s.

Tk

TekRxTest - PCIe7.0 Base

Connections

Settings

Help

Calibrations

TP3

TP2

Components

RT Scope

TekRxService

TP3 Calibration

Attenuator Settings

Calibrations

TP2 Calibration

Attenuator Settings

DMI and CMI

Stressed Eye Parameters

Remote access

Configuration

Analysis Time Out

300

s

Sigtest Version

6.1.16

Seasim Version

2.0.104e

Restore Defaults

Save

Recall

BERT

RT Scope

TekRxService

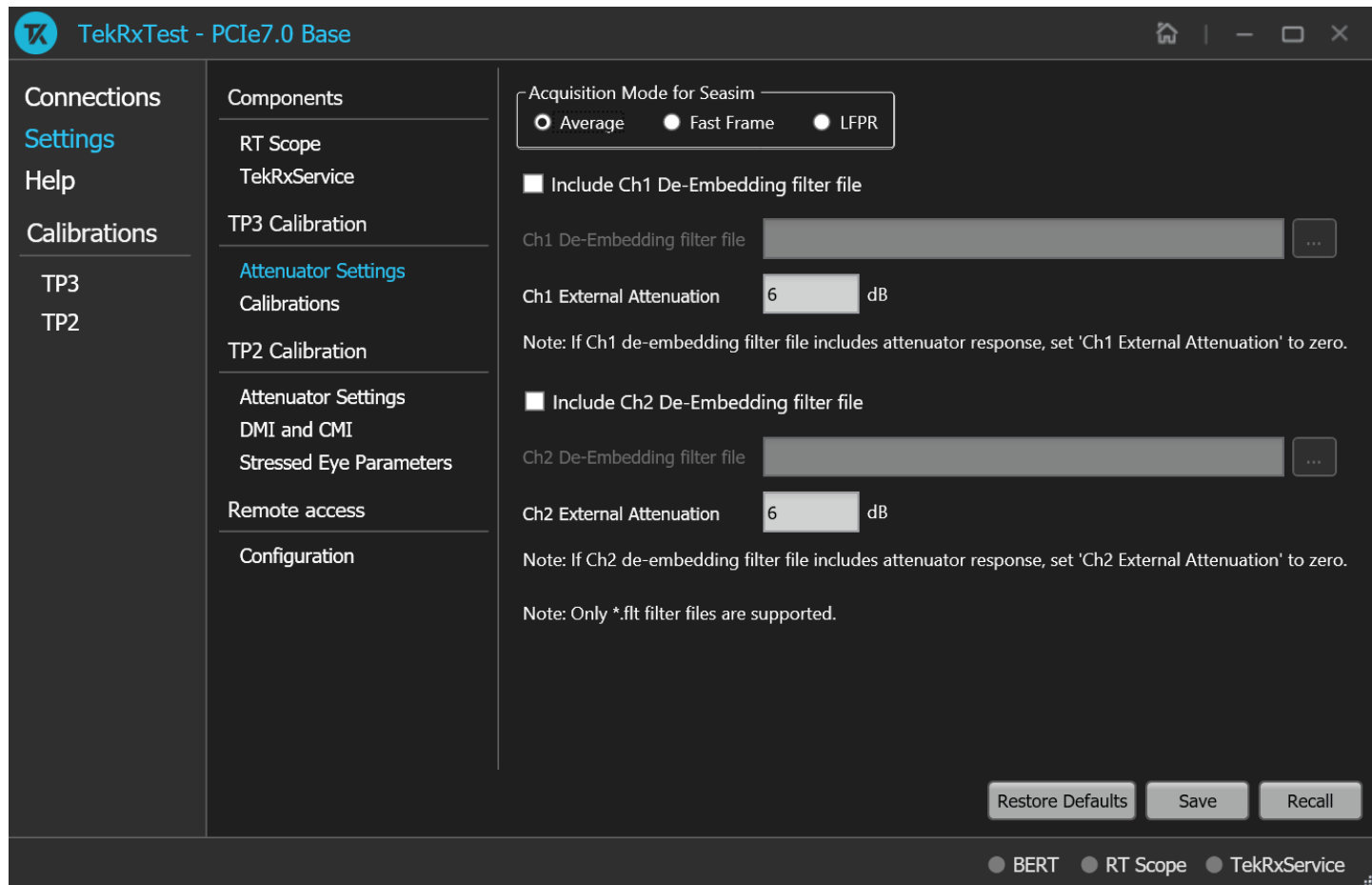
Components: TekRxService

Components: TekRxService

Parameter	Description
Analysis Time Out	Enter the timeout value for Sigtest analysis.
Sigtest Version	Enter the Sigtest version.
Seasim Version	Displays the Seasim version.

TP3 Calibration

The TP3 calibration tab allows you to configure the channel settings including the attenuators and component de-embedding, and multi-tone calibration.



TP3 Calibration: Attenuator Settings (Average)

Parameter	Description
Acquisition Mode for Seasmim	Select the required acquisition mode for seasmim. - Average - Fast Frame - LFPR
Include Ch1 De-Embedding filter file	Enable to apply Ch1 de-embedding filter file.
Ch1 De-Embedding filter file	Click to browse and navigate to the path and select the required Ch1 de-embedding filter file.
Ch1 External Attenuation	Enter the Ch1 external attenuation value in dB.
Include Ch2 De-Embedding filter file	Enable to apply Ch2 de-embedding filter file.

Parameter	Description
Ch2 De-Embedding filter file	Click to browse and navigate to the path and select the required Ch2 de-embedding filter file.
Ch2 External Attenuation	Enter the Ch2 external attenuation value in dB.

The screenshot shows the TekRxTest - PCIe7.0 Base application window. The left sidebar contains navigation links: Connections, Settings (highlighted), Help, Calibrations, TP3, and TP2. The main panel is titled 'TP3 Calibration: Calibrations' and contains several sections:

- Components:** RT Scope, TekRxService, TP3 Calibration, Attenuator Settings, Calibrations (highlighted), TP2 Calibration, Attenuator Settings, DMI and CMI, Stressed Eye Parameters, Remote access, and Configuration.
- Nominal:**
 - Amplitude: 800 mV
 - RJ: 0.125 ps (RMS)
 - SJ @ 100 MHz: 0.75 ps
- Multi-tone Calibration:** A checkbox that is checked.
- Frequency Settings:**
 - Min Frequency: 0.03 MHz
 - Max Frequency: 100 MHz
 - # Frequencies: 5
 - # Points: 4
- Frequency Table:**

Frequency (MHz)	Lower Amp Limit (UI p-p)	Higher Amp Limit (UI p-p)
0.030	0.10	35.20
0.400	0.01	13.71
1.000	0.01	2.20
10.000	0.01	1.00
100.000	0.01	1.00
- Buttons:** Generate, Default, Restore Defaults, Save, Recall.
- Note:** Changing Frequency will cause change in Lower/Higher Amplitude Limit.
- Footer:** ● BERT ● RT Scope ● TekRxService

TP3 Calibration: Calibrations

TP3 Calibration: Calibrations

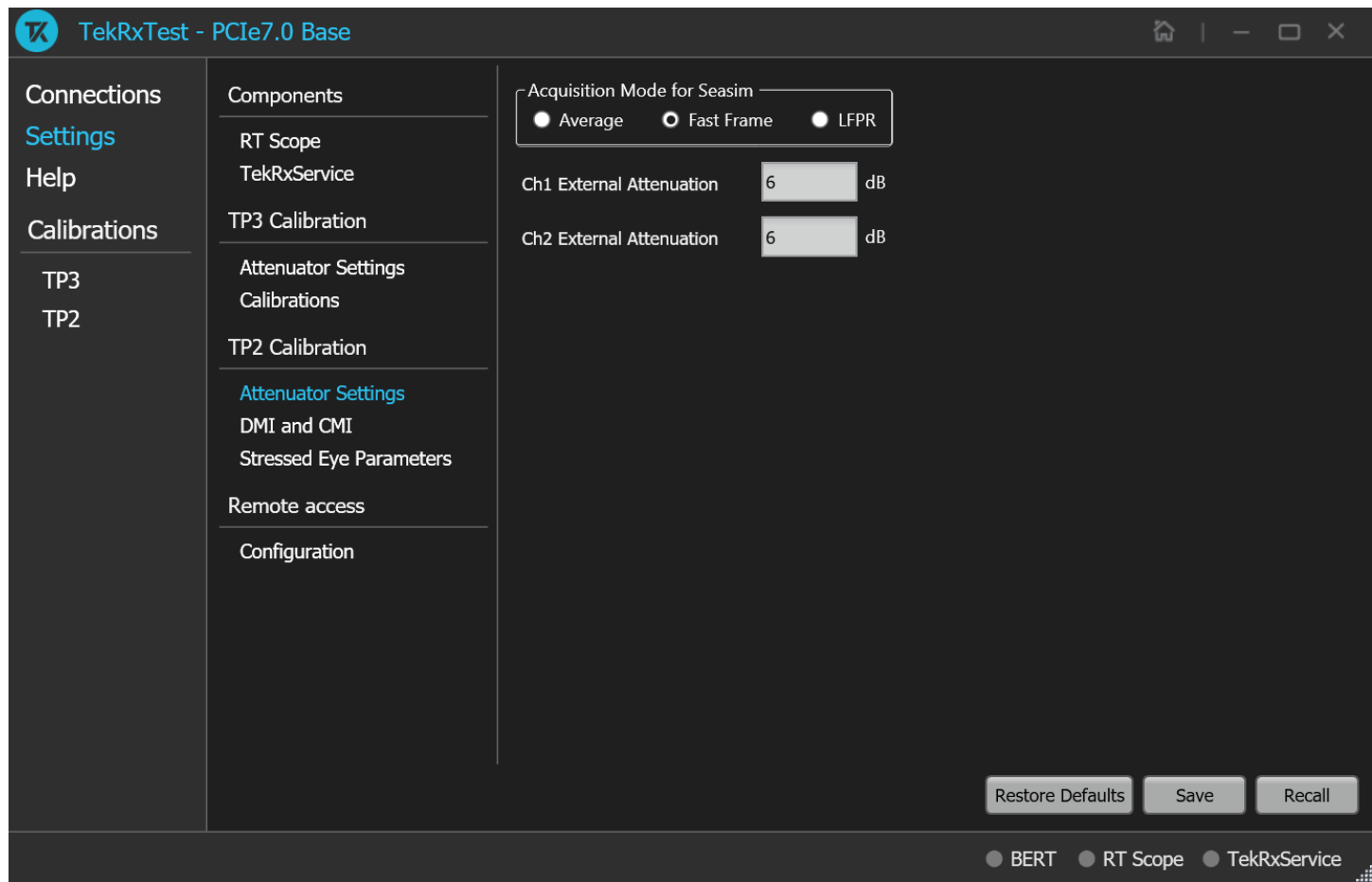
Parameter	Description
Amplitude	Displays the calibration target for generator amplitude source.
RJ	Displays the calibration target for random jitter source.
SJ @ 100 MHz	Displays the calibration target for sinusoidal jitter source @ 100 MHz.
Multi-tone Calibration	Select to enable the multi-tone calibration. It displays the calibration settings for multiple tones.
Frequency Settings:	Frequencies at which the SJ calibration needs to be performed for JTOL Test.
Frequency (MHz)	Displays the table of frequencies in MHz for which Multi-tone calibration is to be performed.

Parameter	Description
Lower Amplitude Limit (UI p-p)	Displays the table of lower amplitude limit values at which SJ calibration starts for that frequency.
Higher Amplitude Limit (UI p-p)	Displays the table of higher amplitude limit values at which SJ calibration ends for that frequency.
Min Frequency	Enter the minimum frequency value.
Max Frequency	Enter the maximum frequency value.
# Frequencies	Enter the desired number of frequencies within the specified range.
# Points	Enter the desired number of points used for calibration.
Generate	Click to view the table populated with the frequencies.
Default	Click to view the table populated with default list of frequencies.

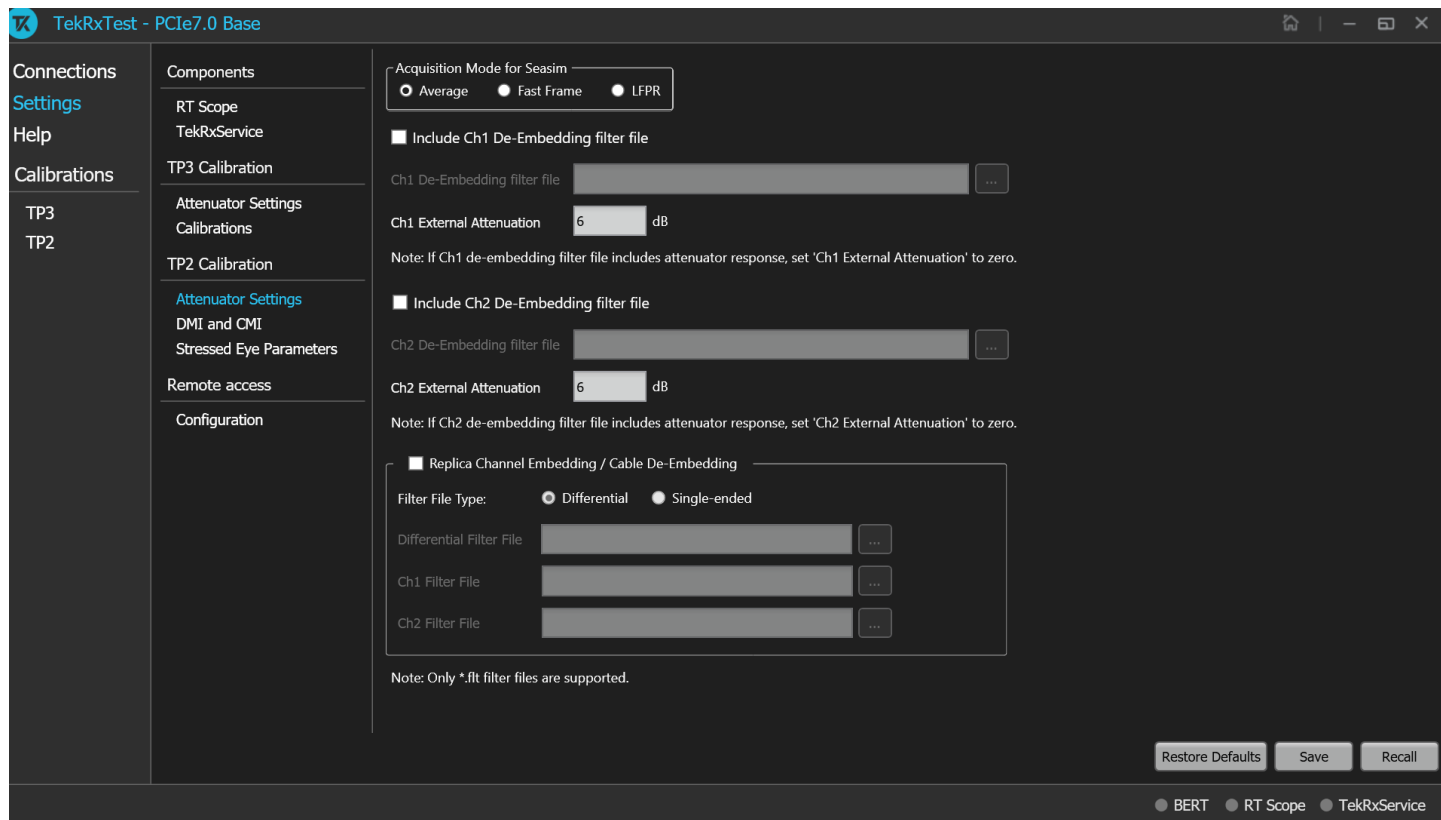
TP2 Calibration

The TP2 calibration tab allows you to configure the Attenuator Settings, DMI and CMI calibration, Insertion Loss, CTLE and Preset Selection, and Stressed Eye Parameters.

The TP2 calibration tab allows you to configure the DMI and CMI calibration, and Stressed Eye Parameters.



TP2 Calibration Attenuator Settings(Fast Frame)



TP2 Calibration Attenuator Settings

TP2 Calibration: Attenuator Settings

Parameter	Description
Include Ch1 De-Embedding filter file	Enable to apply Ch1 de-embedding filter file.
Ch1 De-Embedding filter file	Click to browse and navigate to the path and select the required Ch1 de-embedding filter file.
Ch1 External Attenuation	Enter the Ch1 external attenuation value in dB.
Include Ch2 De-Embedding filter file	Enable to apply Ch2 de-embedding filter file.
Ch2 De-Embedding filter file	Click to browse and navigate to the path and select the required Ch2 de-embedding filter file.
Ch2 External Attenuation	Enter the Ch2 external attenuation vaue in dB.

TP2 Calibration: DMI and CMI

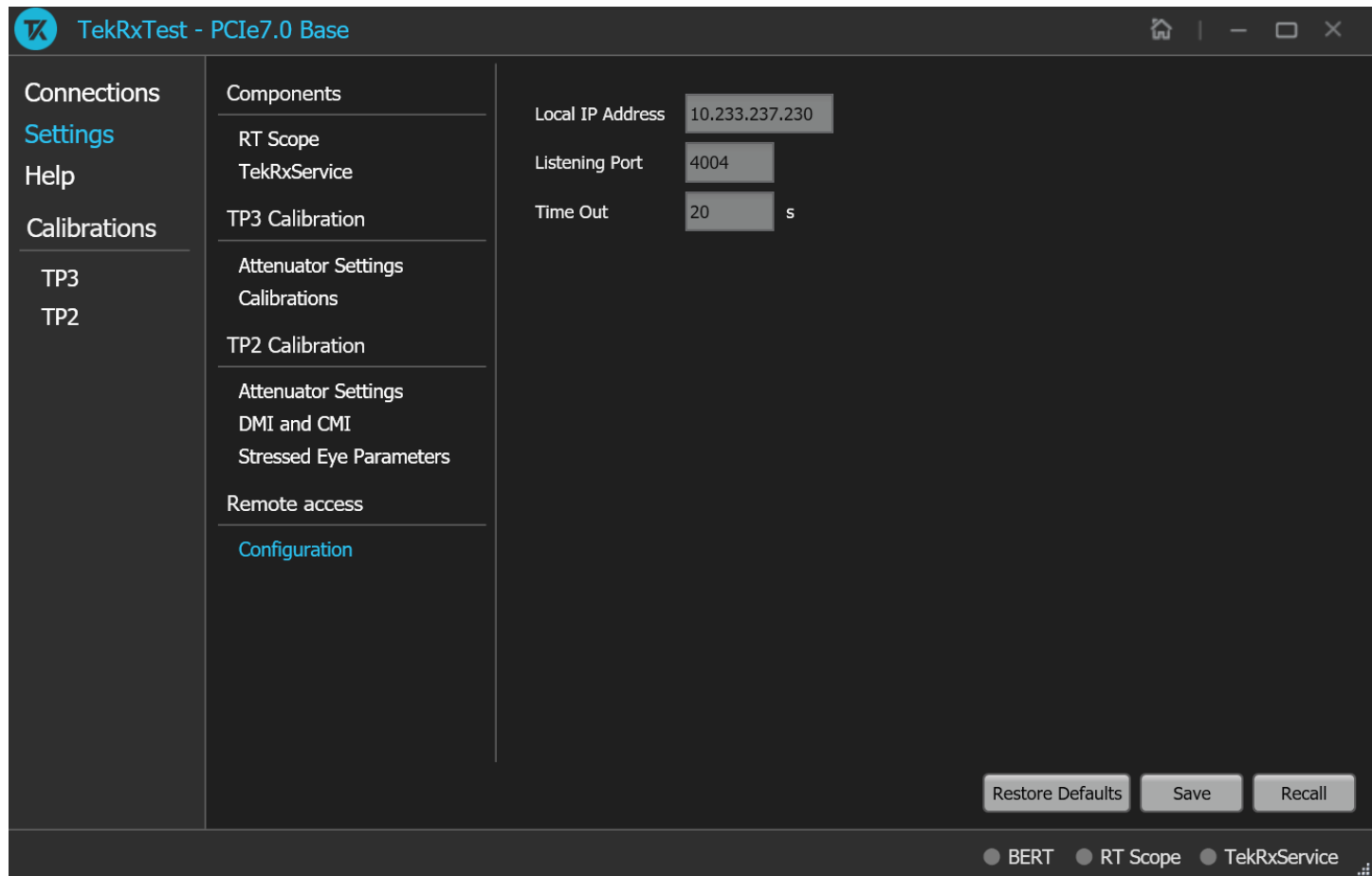
Parameter	Description
DMI	Displays the nominal DMI value in mV.
CMI	Displays the nominal CMI value in mV.

TP2 Calibration: Stressed Eye Parameters

Parameter	Description
Stressed Eye Algorithm	Select the required algorithm. - Linear Sweep - Efficient
No. of acqs for stressed eye	Displays the number of acquisitions value for stressed eye.
Eye Target	
Width	Displays the target eye width value as per PCIe specification.
Height	Displays the target eye height value as per PCIe specification.
DMI Sweep	
Min	Displays the minimum value of DMI sweep during stressed eye calibration.
Max	Displays the maximum value of DMI sweep during stressed eye calibration.
SJ Sweep	
Min	Displays the minimum value of SJ sweep during stressed eye calibration.
Max	Displays the maximum value of SJ sweep during stressed eye calibration.
Amplitude Sweep	
Min	Displays the minimum value of amplitude sweep during stressed eye calibration.
Max	Displays the maximum value of amplitude sweep during stressed eye calibration.

Remote access: Configuration

The remote access tab allows you to configure the remote setting parameters to access the equipment remotely.



Remote access: Configuration

Remote access: Configuration

Parameter	Description
Local IP Address	Displays the IP address for connecting to the application over socket server.
Listening Port	Displays the TCP/IP port number of the port that the socket server is listening. Default Value: 4004
Time Out	Displays the timeout value used when communicating with the socket server. Default Value: 20 Seconds

Help panel

The help panel launches the PCIe7.0 (Base). TekRxTest application help document.

Calibrations panel

Complete TP3 and TP2 calibrations before you start the DUT testing using the PCIe2.0 (Base/CEM) test application. Follow the instructions in the calibration wizards to automate the calibration for the test points. After calibrating the test points, you can save the results.

TP3 Calibration

The TP3 calibration panel allows you to perform calibration for TP3 and save the results. You can perform calibration for Signal Amplitude, Preset, Random Jitter (RJ), Sinusoidal Jitter (SJ), and SJ@210 MHz, and Multi-tone. Additionally, there is a provision to perform PWJ Calibration, AC-DC Balancing, and Insertion Loss measurement for the, and multi-tone calibration for the TP3 channel.

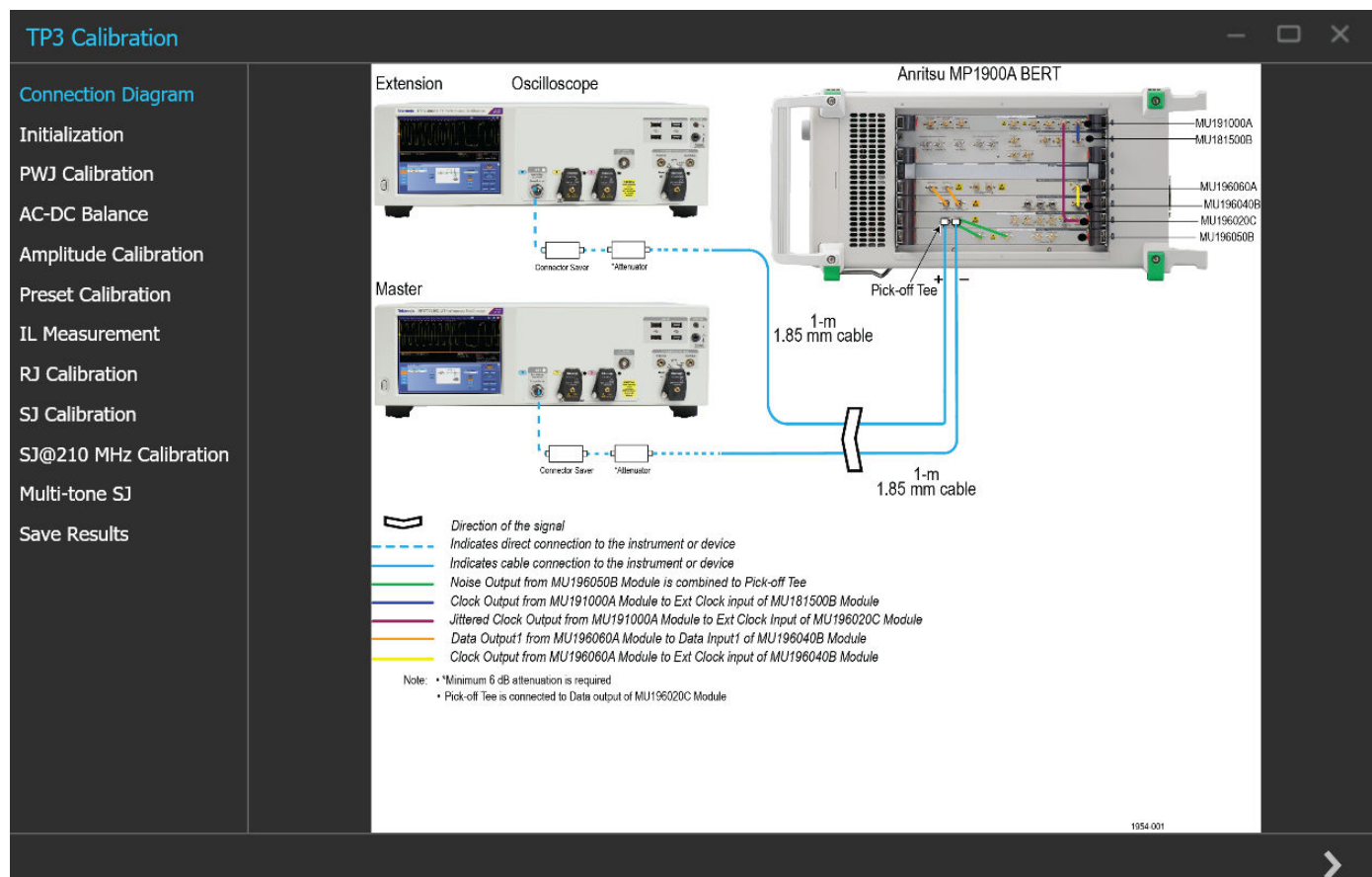
The PCIe7.0 (Base). TekRxTest application calibrates the following at TP3

1. Amplitude -The differential voltage swing is required to be within 720 - 800 mV. This is done only after the transition and non-transition bit levels are made equal using de-emphasis.
2. Tx Equalization Presets - The various levels of de-emphasis are required to be calibrated within the tolerance as specified.
3. RJ - It is calibrated to be 0.125 ps (RMS value).
4. SJ - The SJ is calibrated over the desired range of 0-1.5 ps (pk-pk) including the nominal SJ specification of 0.05 UI at 100 MHz frequency).
5. SJ @ 210 MHz - If the stressed eye calibration requires sinusoidal jitter levels greater than 0.05 (1.563 ps) UI, then SJ@210 MHz is used during JTOL test.
6. Multi-tone -It is calibrated over a specific range for multiple user-defined frequencies.

TP3 Calibration procedure

Click TP3 under the calibration tab to view the calibration results. Click  at the right end corner of the application to launch the TP3 calibration wizard. This wizard will guide you through the sequential procedure to perform the calibration.

1. **Connection Diagram:** This tab displays the connection diagram for TP3 calibration. The connection diagram is same for AIC / System, Non-Root Complex / Root Complex.



TP3 Calibration : Connection diagram

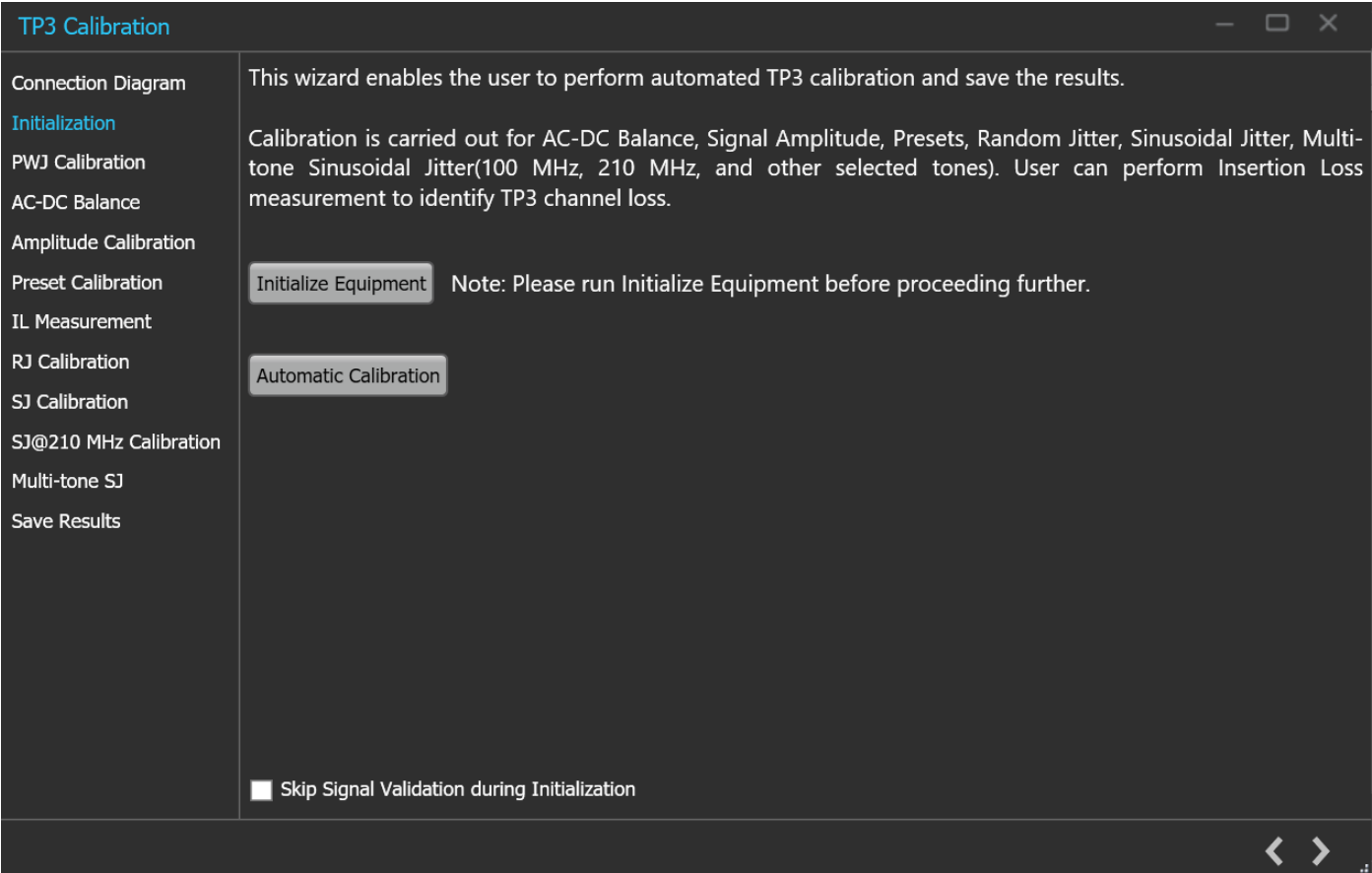


Click to move to the next screen.

2. **Initialization:** This tab displays the description and allows you to initialize the equipment. Click **Initialize Equipment** and complete the initialization process.

You can click **Automatic Calibration** to perform the automatic calibration with the default settings for amplitude, Tx Equalization Presets, RJ, and SJ parameters without user intervention.

To skip the signal validation during initialization, enable the **Skip Signal Validation** check box.



TP3 Calibration: Initialization



Click to move to the next screen.

3. PWJ Calibration:

TP3 Calibration

Connection Diagram

Initialization

PWJ Calibration

AC-DC Balance

Amplitude Calibration

Preset Calibration

IL Measurement

RJ Calibration

SJ Calibration

SJ@210 MHz Calibration

Multi-tone SJ

Save Results

Pulse width jitter is required for Seasim based TP2 calibration.

Procedure Type: ☒ Manual Entry ☐ Measure Jitter

PWJ RJ (RMS) ps PWJ DJ ps

Start

<

>

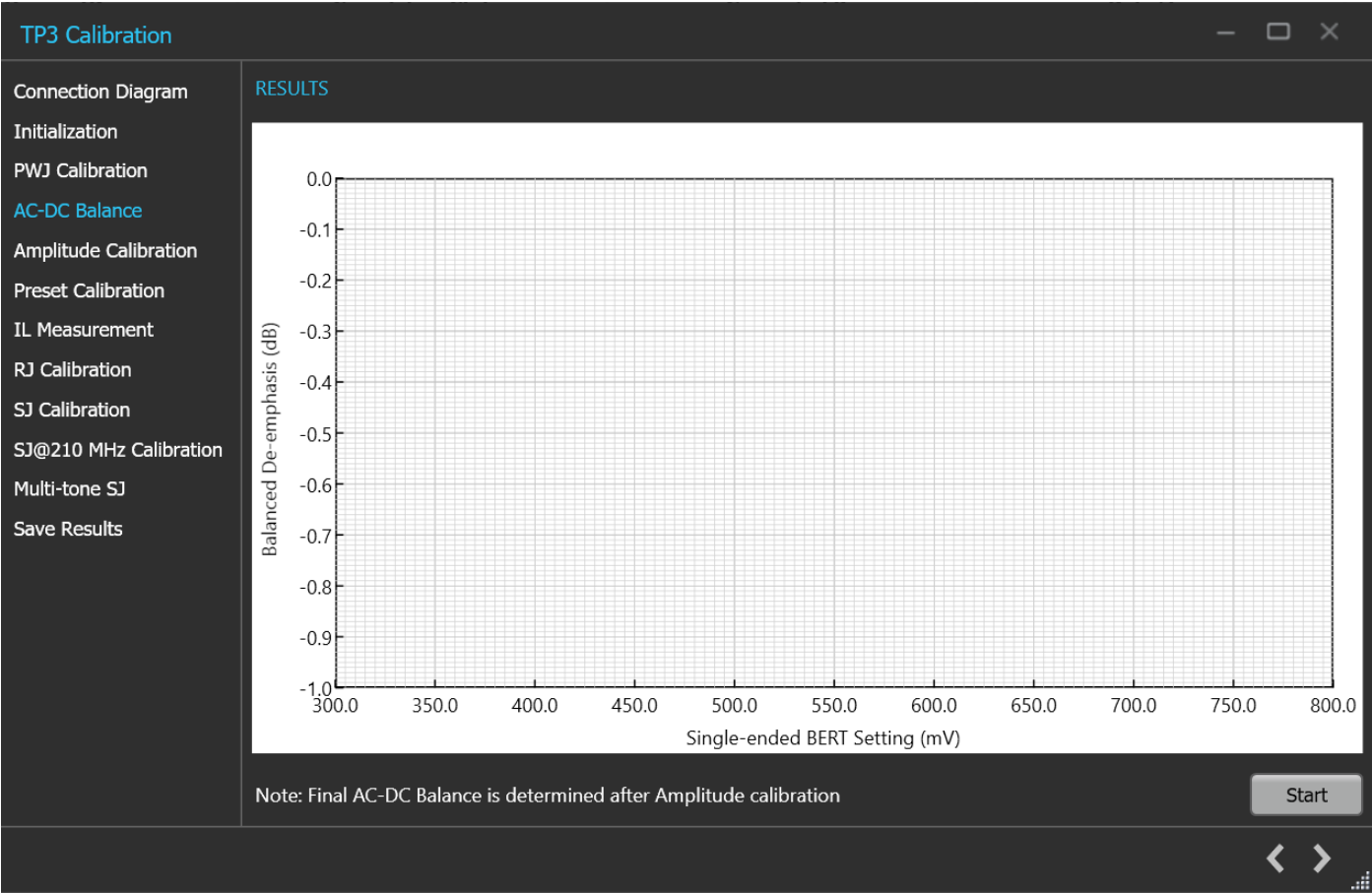
TP3 Calibration : PWJ Calibration

TP3 Calibration: PWJ Calibration

Parameter	Description
Procedure Type	Select the required procedure type. Manual entry Measure Jitter
Manual Entry	Select the manual entry and enter the calibration values in PWJ RJ value in (RMS) ps and PWJ DJ value in ps.
Measure Jitter	Select the measure jitter option, and the PWJ RJ and PWJ DJ will be calculated by software, and the results will be displayed.
PWJ RJ / PWJ DJ	Displays the PWJ/RJ and PWJ/DJ values.
Start	Click on Start to start the calibration.

Click  to move to the next screen.

4. **AC-DC Balance:** This tab displays the graph plots of AC-DC balance



TP3 Calibration : AC-DC Balance

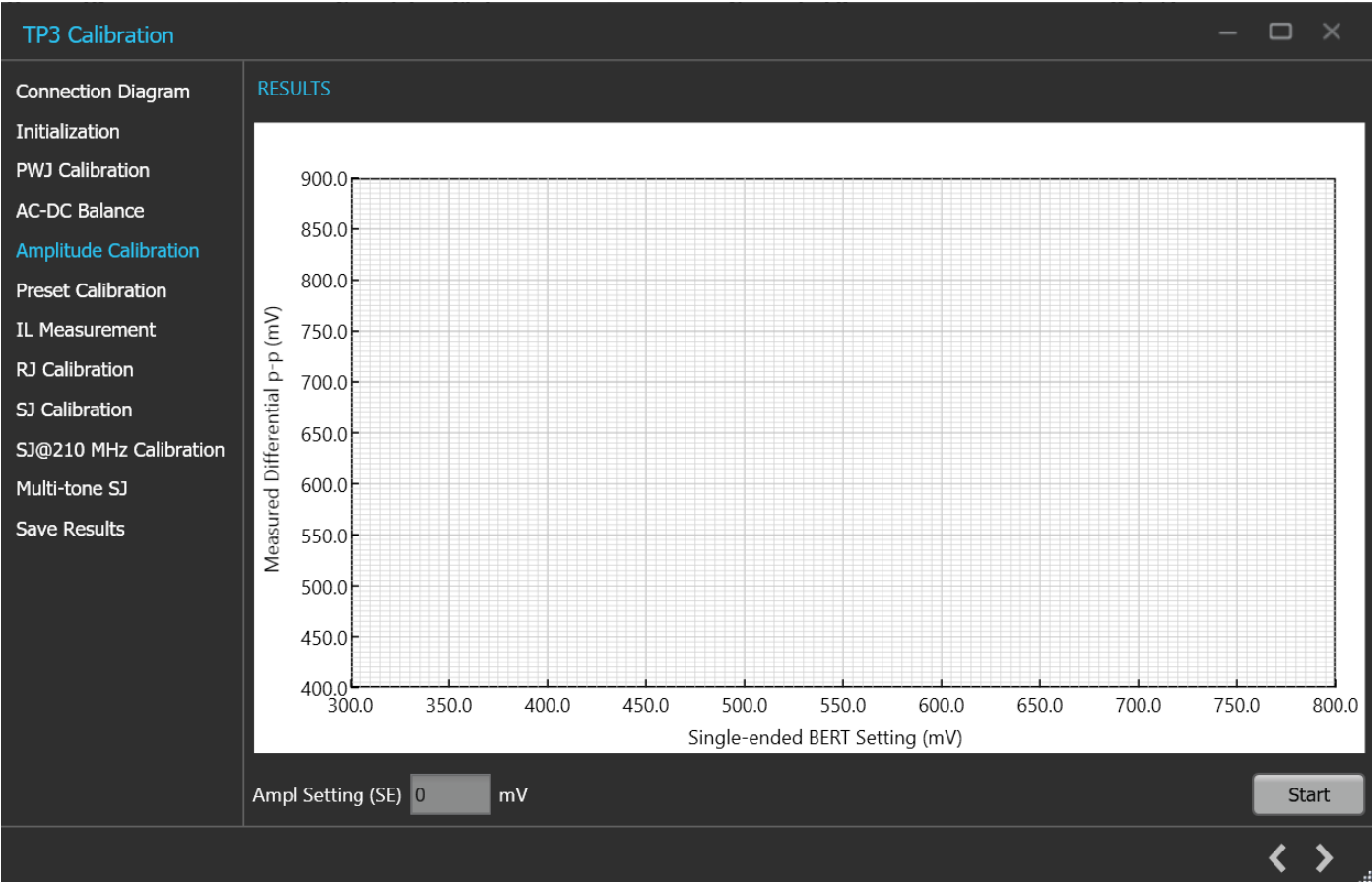
P1TP3 Calibration: AC-DC Balance

Parameter	Description
Start	Click Start to run the measurements.



Click to move to the next screen.

5. **Amplitude Calibration:** This tab displays the graph plots of amplitude calibration.



TP3 Calibration : Amplitude Calibration



Click to move to the next screen.

6. **Preset Calibration:** This tab displays the graph plots of tabular data for preset calibration.



TP3 Calibration : Preset Calibration

Parameter	Description
Start	Click Start to run the measurements



Click to move to the next screen.

7. **IL Measurement:** This tab displays the description and allows you to perform IL Measurement.

TP3 Calibration

Connection Diagram

Initialization

PWJ Calibration

AC-DC Balance

Amplitude Calibration

Preset Calibration

IL Measurement

RJ Calibration

SJ Calibration

SJ@210 MHz Calibration

Multi-tone SJ

Save Results

1. This module returns the total physical channel loss in TP3 set-up.

2. The user can select manual loss entry if loss is already known.

Measure Loss

Manual Entry

Settings

Scope acqs10240

avg3

Loss Value3dB

Start

TP3 Calibration : IL Measurement

TP3 Calibration: IL Measurement

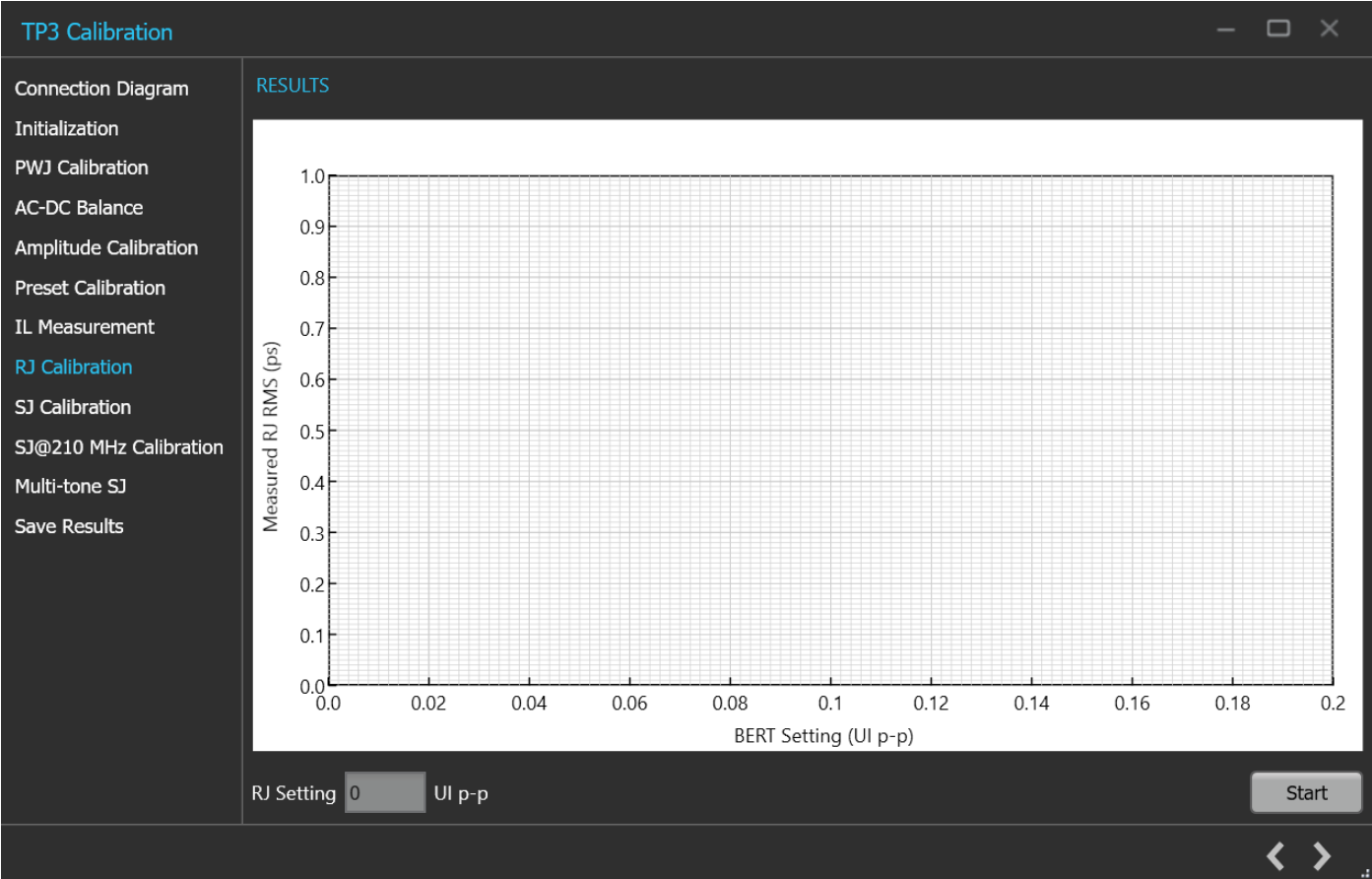
Parameter	Description
Manual Entry	Select the manual entry option and enter the loss value in dB.
Measure Loss	Select the measure loss option for the TekRxTest application to initiate measure loss.
Settings	
#Scope acqs	The number of scope acquisitions that allows the algorithm to make multiple insertion loss measurements and report the mean insertion loss. This way, any error in a particular acquisition will get averaged out. The mean of scope noise is usually zero. If we have a large number of samples and we average out those samples, then the noise component in the averaged sample will be zero.
# avg3	The number of averages that will run the insertion loss measurement multiple times and calculate the average value. This way, any error in a particular acquisition will get averaged out.
Loss Value	Displays the Final Loss value after computing.
Start	Click Start to run the measurements.

Click to move to the next screen.

Application Help

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8. **RJ Calibration:** This tab displays the graph plots of RJ calibration.



TP3 Calibration : RJ Calibration

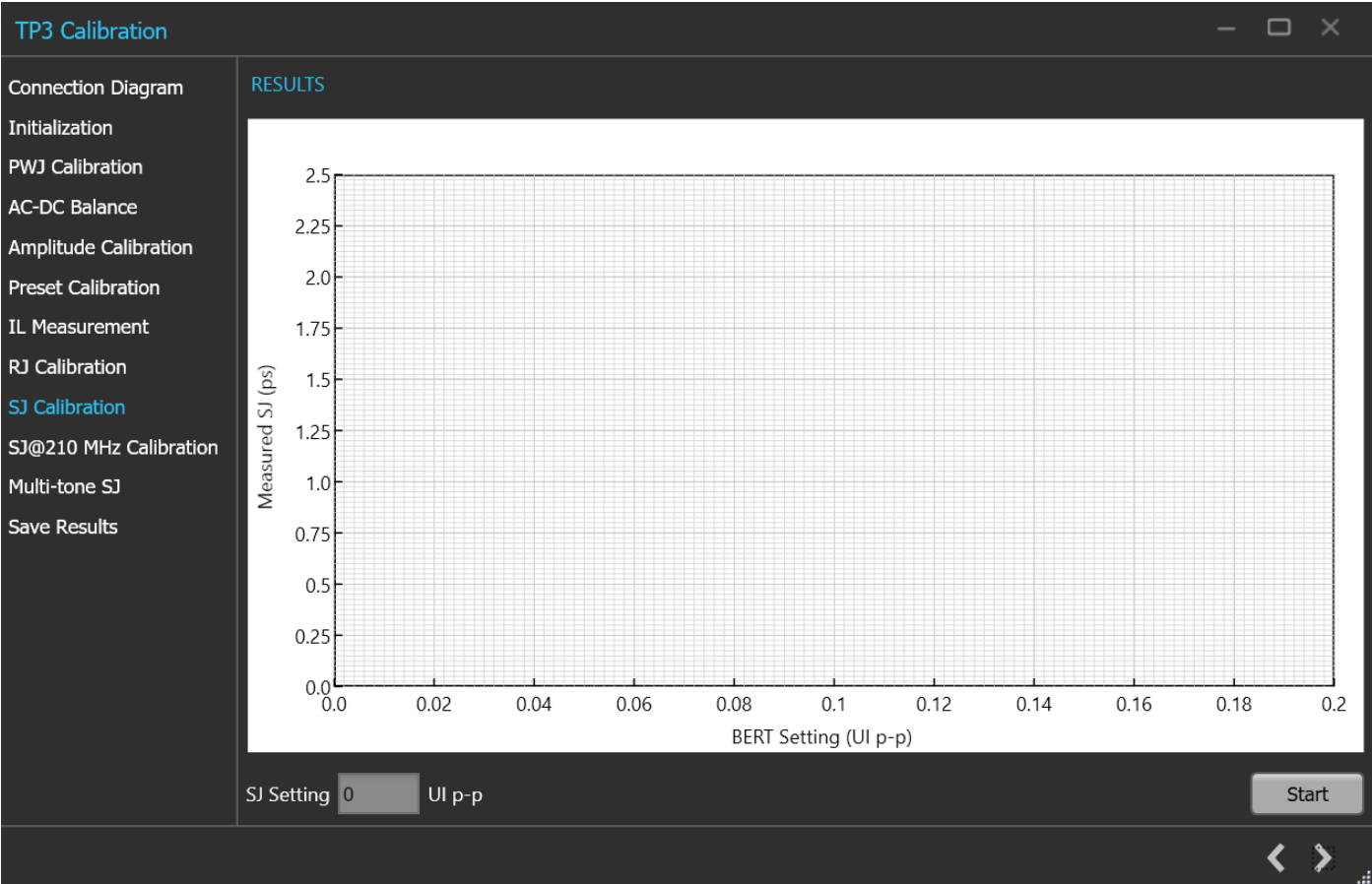
TP3 Calibration: RJ Calibration

Parameter	Description
Scope Noise	Displays the automatically calculated scope noise value. The measurement is susceptible to scope noise as the calibrated values are required to be in ps or fs. Hence, it is important to compensate for scope noise before we run a measurement on the signal.
RJ Setting	Displays the calibrated RJ setting corresponding to the nominal value.
Start	Click Start to run the measurements.



Click to move to the next screen.

9. **SJ Calibration:** This tab displays the graph plots of SJ calibration.



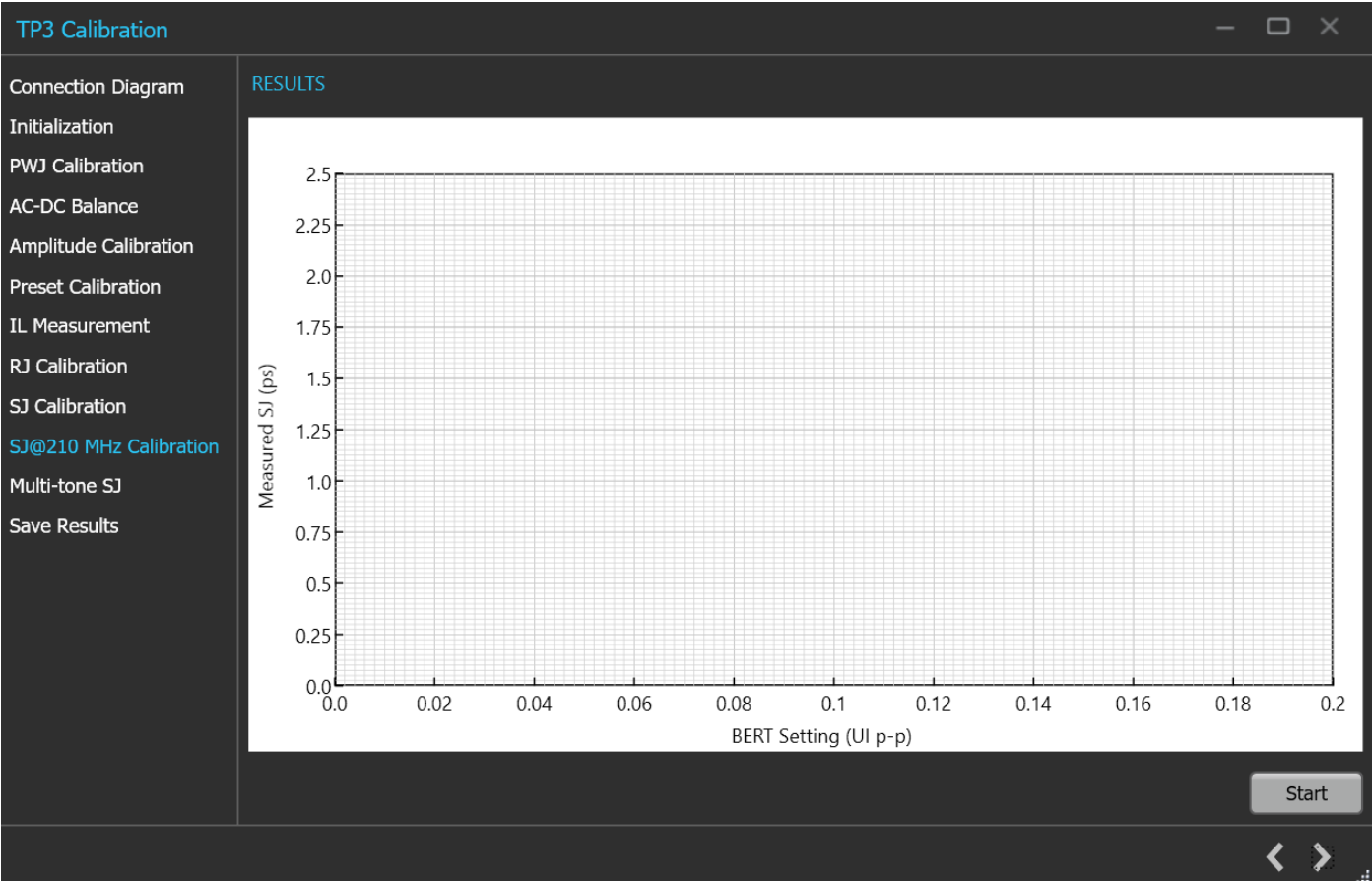
TP3 Calibration : SJ Calibration

TP3 Calibration: SJ Calibration

Parameter	Description
SJ Setting	Displays the calibrated SJ setting corresponding to the nominal target value.
Start	Click Start to run the measurements.

Click  to move to the next screen.

10. **SJ@210 MHz Calibration:** This tab displays the graph plots of SJ@210 MHz calibration.



TP3 Calibration : SJ@ Calibration

TP3 Calibration: SJ@210 MHz Calibration

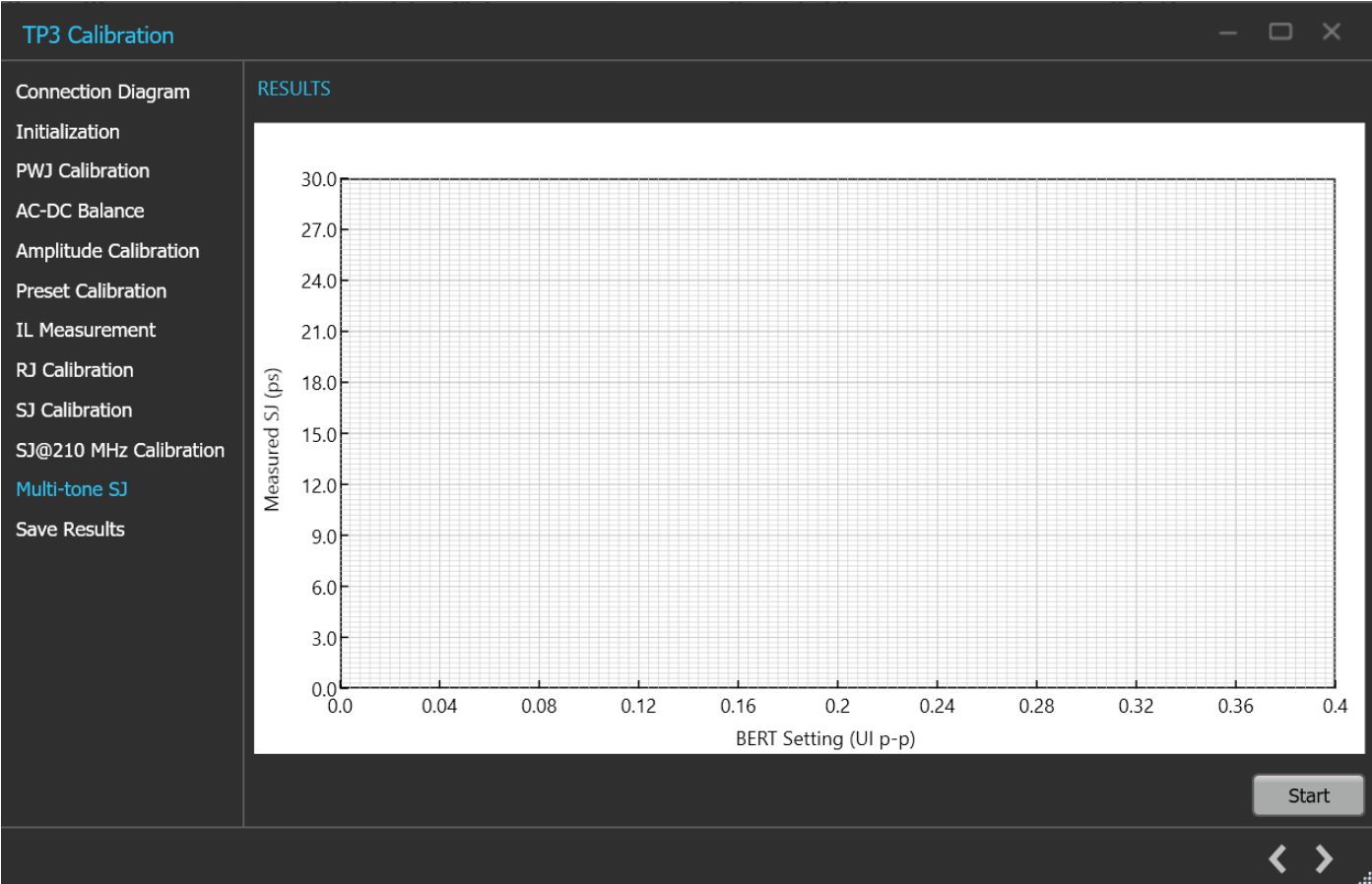
Parameter	Description
Scope Noise	Displays the automatically calculated scope noise value. The measurement is susceptible to scope noise as the calibrated values are required to be in ps or fs. Hence, it is important to compensate for scope noise before we run a measurement on the signal.
Start	Click Start to run the measurements.



Click to move to the next screen.

11. **Multi-tone SJ:** This tab displays the graph plots of multi-tone SJ calibration.

Enable the multi-tone option in the settings panel to display the Multi-tone SJ calibration panel in the TP3 calibration wizard window.



TP3 Calibration : Multi-tone

TP3 Calibration: Multi-tone SJ

Parameter	Description
Start	Click Start to run the measurements.



Click to move to the next screen.

12. **Save Results:** This tab allows you to save all the TP3 calibration results.

TP3 Calibration

Connection Diagram

Initialization

PWJ Calibration

AC-DC Balance

Amplitude Calibration

Preset Calibration

IL Measurement

RJ Calibration

SJ Calibration

SJ@210 MHz Calibration

Multi-tone SJ

Save Results

Unique ID

Generated By

Comments

Save

TP3 Calibration : Save Results

TP3 Calibration: Save Results

Parameter	Description
Unique ID	Enter the Unique ID of the calibrated equipment in the text box.
Generated By	Enter the user name in the text box.
Comments (Optional)	Enter the required comments in the comment box.
Save	Click to save the results.

Click  to complete the TP3 calibration and close the wizard.

NOTE: Completion of the TP3 calibration process or in the event of cancellation of the process, the BERT data generator is turned off automatically by the PCIe7.0 (Base) TekRxTest application.

TP2 Calibration

The TP2 calibration panel allows you to manually perform calibration for the equipment and save the results. TP2 Calibration is carried out for DMI, Preset selection. This procedure sets SJ, DMI, and Amplitude levels to achieve target eye-opening.

You must perform TP3calibration before you start performing the calibration for TP2.

The PCIe7.0 (Base) TekRx test application calibrates the following at TP2:

1. DMI - The differential mode sinusoidal interference is required to be calibrated within 0 - 15 mV (pk-pk) by capturing the 2.1 GHz sinusoidal output for a duration of at least 125 us.
2. CMI - The common-mode sinusoidal interference is required to be calibrated for a nominal voltage of 75 mV (pk-pk) by capturing the 120 MHz sinusoidal output for a duration of at least 125 us.
3. Q5, Q6, Q8, and Q9 are used to find the optimal eye area with the optimal CTLE.
4. Stressed Eye calibration - As per the specification, various signal parameters and stress levels are computed to generate a signal that meets the stressed eye targets.

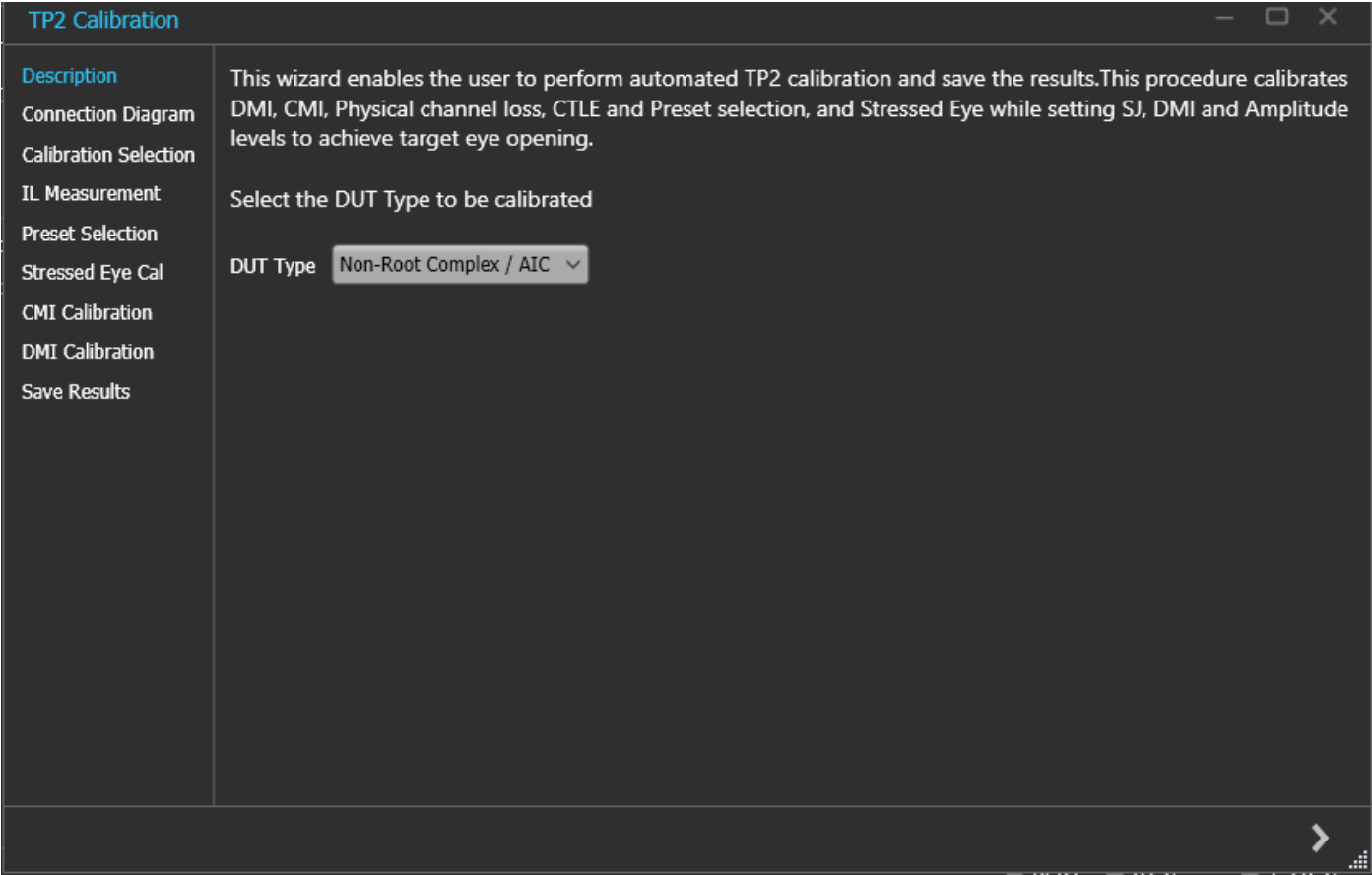
TP2 Calibration procedure



Click TP2 under the calibration tab to view the calibration results. Click  at the right end corner of the application, to launch the TP2 calibration wizard. This wizard will guide you through the sequential procedure to perform the calibration.

You must perform calibration before you start performing the calibration for TP2.

1. **Description:** This tab displays the description and allows you to select the DUT Type as Non-Root Complex or Root Complex.



TP2 Calibration: Description

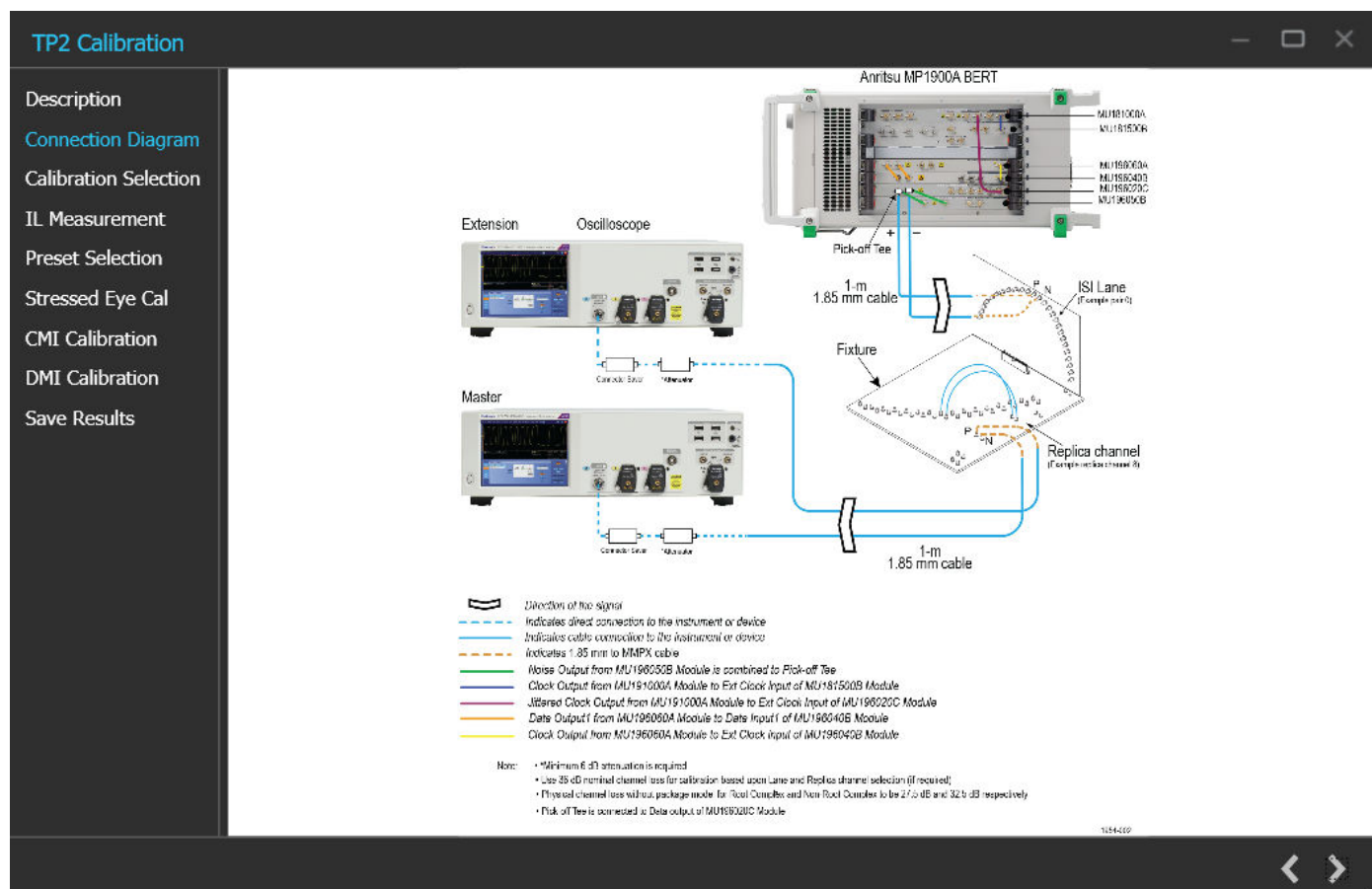
TP2 Calibration: Description

Parameter	Description
DUT Type	Non-Root Complex / AIC Card Root Complex / System



Click to move to the next screen.

2. **Connection Diagram:** This tab displays the connection diagram for the DUT Type selected in description screen.

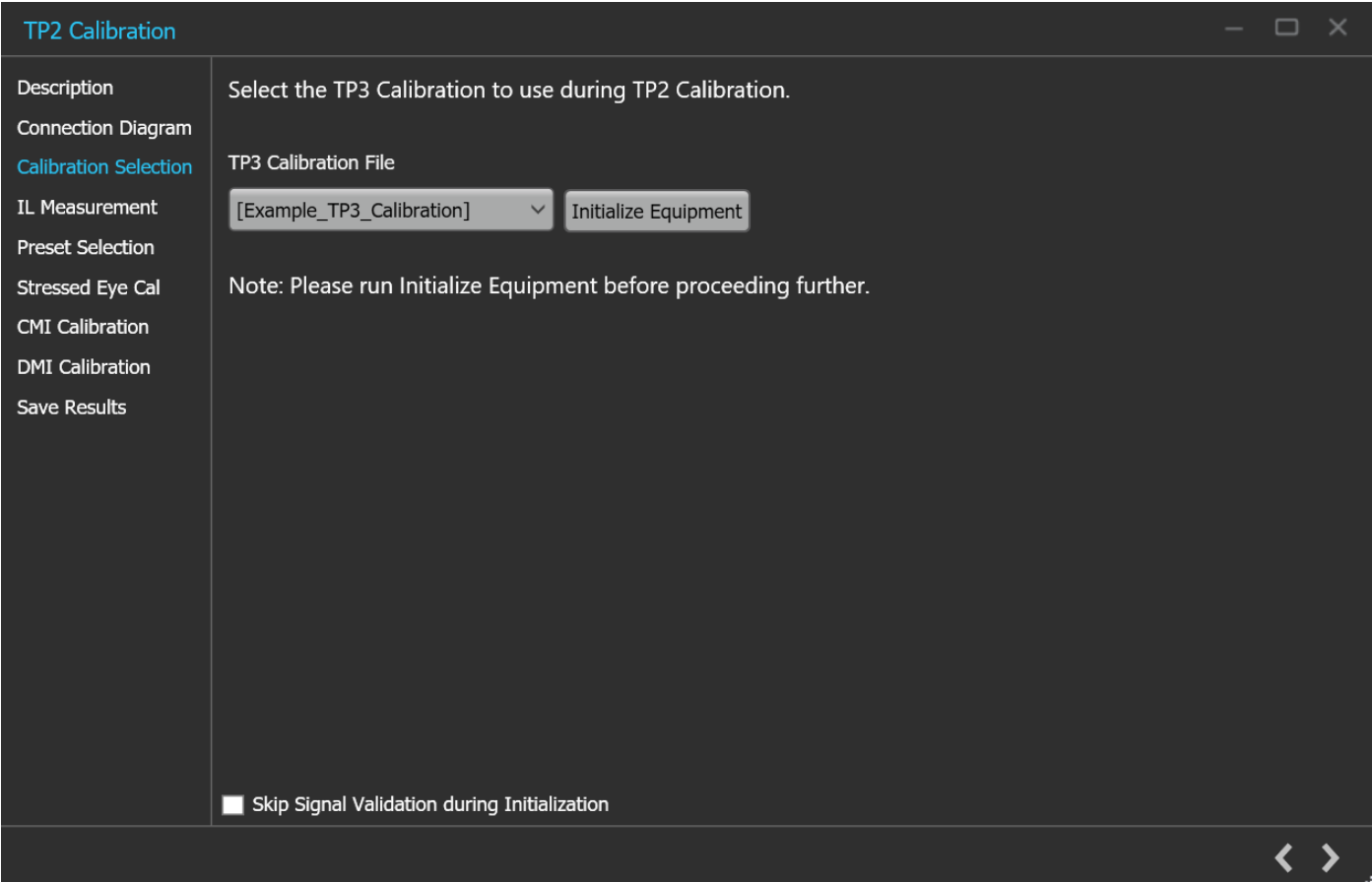


TP2 Calibration : Connection Diagram



Click to move to the next screen.

3. **Calibration Selection:** This tab allows you to select the TP3. Calibration file from the drop-down list and click **Initialize Equipment**.



TP2 Calibration: Calibration Selection

TP2 Calibration: Calibration Selection

Parameter	Description
TP3 Calibration File	Select the desired TP3 calibration file and initialize the equipment.
Skip Signal Validation during Initialization	Check the checkbox to skip signal validation.



Click to move to the next screen.

4. **IL Measurement:**
The Stressed Eye calibration including CTLE selection and optimal preset identification needs to be performed with a full physical channel loss between 30 dB to 33 dB. This includes the package embedding loss.

TP2 Calibration

Description

Connection Diagram

Calibration Selection

IL Measurement

Preset Selection

Stressed Eye Cal

CMI Calibration

DMI Calibration

Save Results

1. This module returns the full channel loss in the present set-up.

2. The user is expected to change the ISI pair number on the board to start with a full channel loss of 33 dB before proceeding with the next step.

3. IL Measurement is not available for scope model DPO714AX.

TP1

BERT

1 m 2.92 mm cable

TP3

Gen 7 Base Fixture and Replica Channel

1 m 2.92 mm cable

TP2

RT Scope

Behavioral Rx package, Rx Eq and CDR

TP2P

Stressed Eye

34 dB - 36 dB (IL Measurement)

Measure Loss

Manual Entry

Settings

Scope acqs

10240

avgs

3

Loss Value

36

dB

Start

TP2 Calibration : IL Measurement

TP2 Calibration: IL Measurement

Parameter	Description
Manual Entry	Select the manual entry option and enter the loss value in dB.
Measure Loss	Select the measure loss option for the TekRxTest application to initiate measure loss
Settings	
#Scope acqs	The number of scope acquisitions that allows the algorithm to make multiple insertion loss measurements and report the mean insertion loss. This way, any error in a particular acquisition will get averaged out. The mean of scope noise is usually zero. If we have a large number of samples and we average out those samples, then the noise component in the averaged sample will be zero.
# avgs	The number of averages that will run the insertion loss measurement multiple times and calculate the average value. This way, any error in a particular acquisition will get averaged out.
Loss Value	Displays the final loss value after computing.
Start	Click Start to run the measurements.

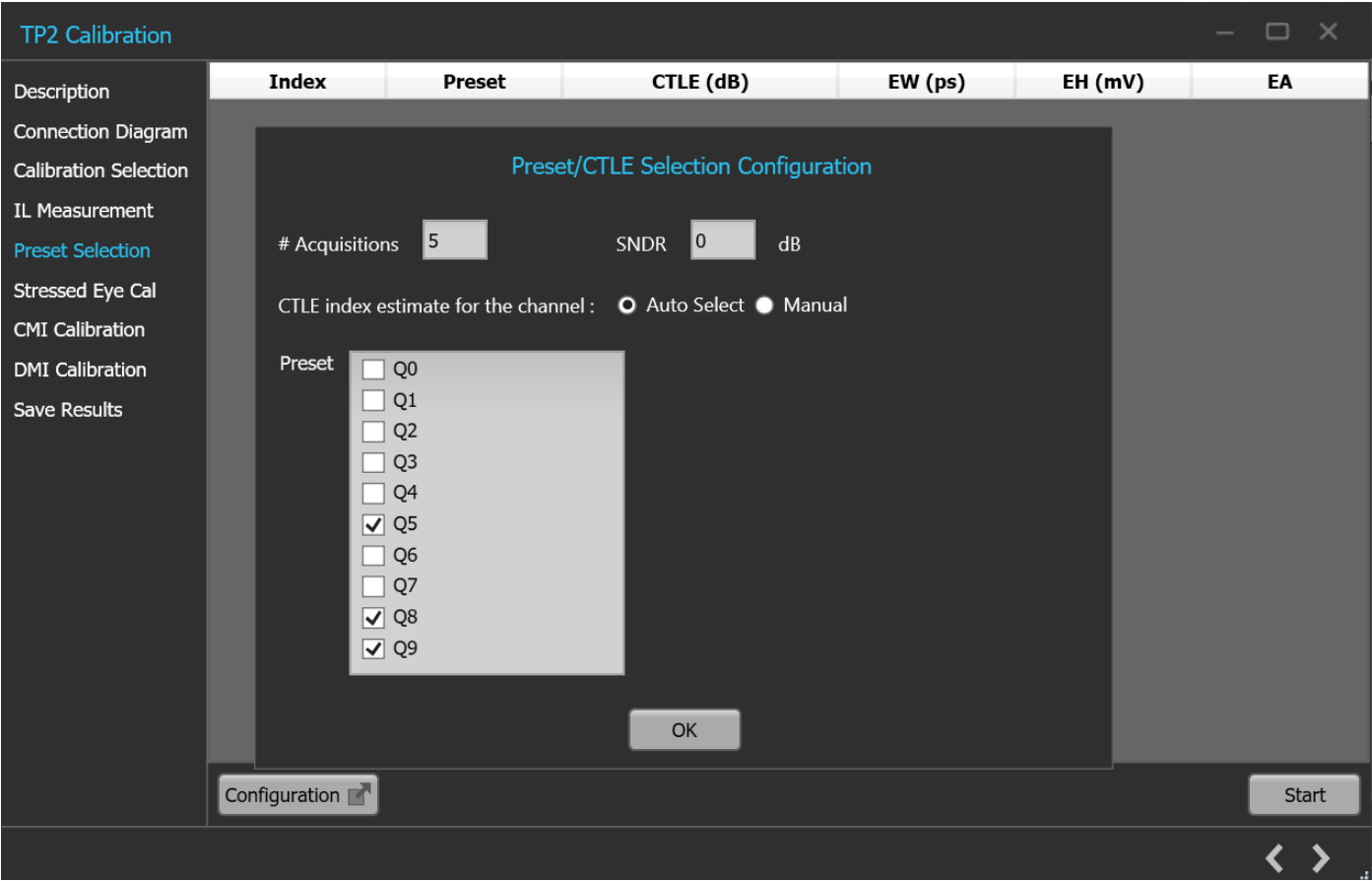
Click  to move to the next screen.

Application Help

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5. Preset Selection:

The PCIe Gen7 TekRxTest application provides the facility to automatically compute and present the total physical channel loss in the TP2 set-up. Selection of optimum physical channel loss (obtained by means of changing the ISI pair), optimum CTLE, and Preset is a prerequisite for to obtain the stressed eye as per the specification. While arriving at the optimum combination of the parameters, the TekRxTest application guides you through the various steps in this process by means of pop-up messages in taking suitable actions.



TP2 Calibration : Preset Selection

TP2 Calibration: Preset Selection

Parameter	Description
# Acquisitions	Enter the number of waveforms to be acquired for .
Preset	Select the presets from which the optimum will be chosen for TP2 calibration.
Configuration	Select to Configure the Preset
OK	Select to apply the configuration for Preset
Start	Click Start to run the measurements.



Click to move to the next screen.

6. Stressed Eye Calibration:

TP2 calibration for stressed eye requires information from the TP3 calibration that is performed for the set-up under consideration or from one of the saved TP3 results. The relevant TP3 calibration file can be chosen from the calibration selection page shown from a drop-down button listing all the TP3 calibration files stored in the PCIe TekRxTest application repository.

TP2 Calibration

Description

Connection Diagram

Calibration Selection

IL Measurement

Preset Selection

Stressed Eye Cal

CMI Calibration

DMI Calibration

Save Results

Index	SJ (ps)	DMI (mV)	Ampl (mV)	EW (ps)	EH (mV)
-------	---------	----------	-----------	---------	---------

☐ Manual Calibration Run

SJ

0.75

ps

DMI

7.5

mV

Amplitude

800

mV

☐ Exhaustive Sweep

acqs

5

Configuration

Start

Eye Height Limit: (9.5 - 10.5) mV, Eye Width Limit: (1.4125 - 1.7125) ps, Selected Preset: NA, Selected CTLE NA
SJ Limits: (0 - 1.5) ps, DMI Limits: (0 - 15) mV, Amplitude Limits: (720 - 800) mV

TP2 Calibration : Stressed Eye Calibration

TP2 Calibration: Stressed Eye Cal

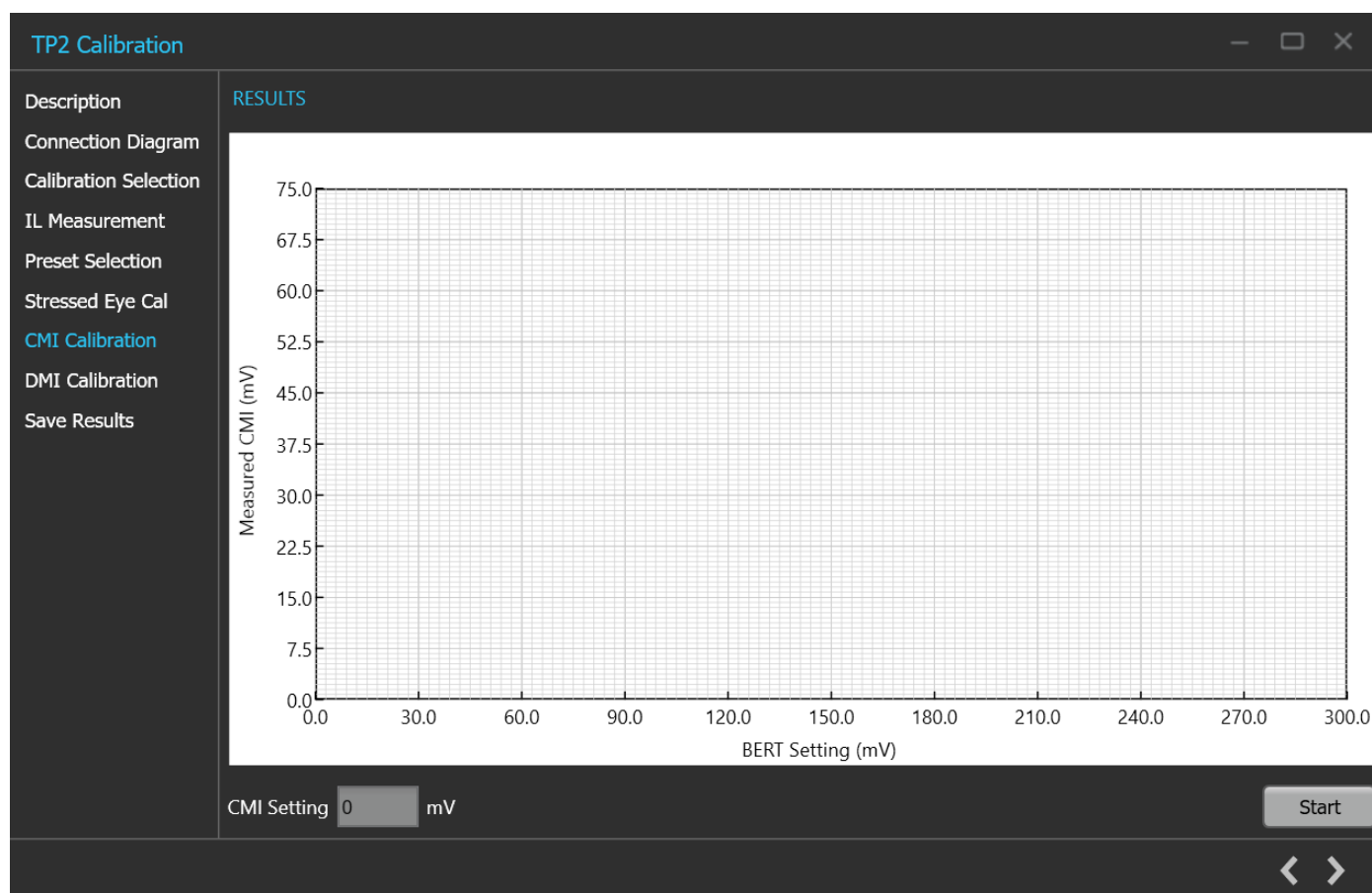
Parameter	Description
Manual Calibration Run	Select to manually enter the SJ, DMI and Amplitude values for Stressed Eye calibration.
SJ	Displays the SJ value at which Eye Width (EW) and Eye height (EH) needs to be computed.
DMI	Displays the DMI value at which Eye Width (EW) and Eye height (EH) needs to be computed.
Amplitude	Displays the amplitude level at which Eye Width (EW) and Eye height (EH) needs to be computed.
Exhaustive Sweep	Select to run the stressed eye calibration for all combinations of Amplitude, SJ, and DMI within the sweep range with defined step sizes.
# acqs	Enter the number of waveforms used to obtain the average EW and EH.

Parameter	Description
Configuration	Select to configure initial settings, step size, sweep range. Initial Settings - Configure the Initial SJ / DMI / Amplitude value from which your Linear Sweep should start (Not applicable for Exhaustive Sweep). Step Size - Configure the SJ / DMI / Amplitude step size value by which the increment or decrement of your SJ / DMI / Amplitude values should happen for Stressed Eye Calibration. Sweep Range - Configure the SJ / DMI / Amplitude min and max sweep range for which the Stressed Eye Calibration is executed. Default - Select to apply the initial settings, step size and sweep range to the default values. OK - Select to apply the configured values of initial settings, step size, sweep range.
Start	Click Start to run the measurements.



Click  to move to the next screen.

7. **CMI calibration:** This tab displays the graph plots of CMI calibration.



TP2 Calibration : CMI Calibration

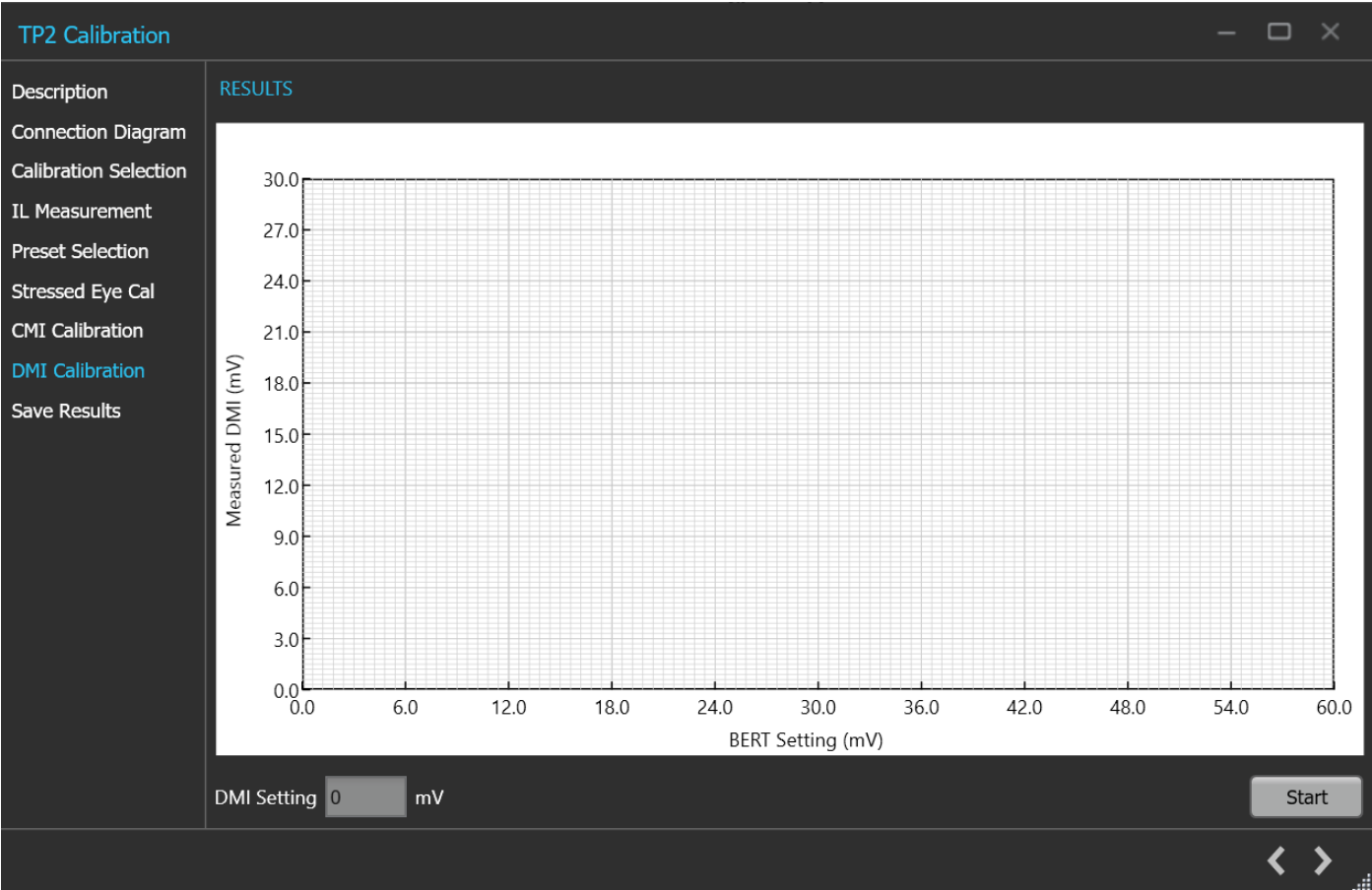
TP2 Calibration: CMI Calibration

Parameter	Description
CMI Setting	Displays the calibrated CMI setting corresponding to nominal value.
Start	Click Start to run the measurement.



Click  to move to the next screen.

8. **DMI Calibration:** This tab displays the graph plots of DMI calibration.



TP2 Calibration : DMI Calibration

TP2 Calibration: DMI Calibration

Parameter	Description
DMI Setting	Displays the calibrated DMI setting corresponding to nominal value.
Start	Click Start to run the measurement.

9. **Save Results:** This tab allows you to save all the TP2 calibration results.

TP2 Calibration

Description

Connection Diagram

Calibration Selection

IL Measurement

Preset Selection

Stressed Eye Cal

CMI Calibration

DMI Calibration

Save Results

Unique ID

Generated By

ISI Pair

Comments

Save

TP2 Calibration : Save Results

TP2 Calibration: Save Results



Click to complete the TP2 calibration and close the wizard.

NOTE: Completion of the TP2 calibration process or in the event of cancellation of the process, the BERT data generator is turned off automatically by the Test Application.

Programmatic interface commands

TEKRXTEST:SELECT:HOME

This command selects the home button.

Syntax

```
TEKRXTEST:SELECT:HOME
```

Inputs

NA

Outputs

NA

TEKRXTEST:SELECT:PCle7Base

This command selects the PCIe7.0 Base application.

Syntax

```
TEKRXTEST:SELECT:PCle7Base
```

Inputs

NA

Outputs

NA

PREF:BERT:IP

This command sets or returns the IP address of the BERT used to connect with the TekRxTest application.

Syntax

```
PREF:BERT:IP <IP address>
```

```
PREF:BERT:IP?
```

Inputs

<IP address> = <String>

Outputs

<String>

PREF:RTS:IP

This command sets or returns the IP address of the Real Time Oscilloscope used to connect with the TekRxTest application.

Syntax

```
PREF:RTS:IP <IP address>
```

```
PREF:RTS:IP?
```

Inputs

<IP address> = <String>

Outputs

<String>

CONN:BERT

This command sets or returns the connection status of the BERT with TekRxTest application.

Syntax

```
CONN:BERT <0 | 1>
```

```
CONN:BERT?
```

Inputs

<0 | 1>

0 indicates to disconnect the BERT.

1 indicates to connect the BERT.

Outputs

<0 | 1>

CONN:RTS

This command sets or returns the connection status of the Real Time Oscilloscope with TekRxTest application.

Syntax

```
CONN:RTS <0 | 1>
```

```
CONN:RTS?
```

Inputs

<0 | 1>

0 indicates to disconnect the Real Time Oscilloscope.

1 indicates to connect the Real Time Oscilloscope.

Outputs

<0 | 1>

SETTINGS:TEKRXSERVICE:ANALYSISTIMEOUT

This command sets or returns TekRxService analysis time out value.

Syntax

```
SETTINGS:TEKRXSERVICE:ANALYSISTIMEOUT<int>
```

```
SETTINGS:TEKRXSERVICE:ANALYSISTIMEOUT?
```

Inputs

<int> 15 to 1000

Outputs

<int>

SETTINGS:SIGTEST:VERSION

This command sets or returns the sigtest version number.

Syntax

```
SETTINGS:SIGTEST:VERSION <String>
```

```
SETTINGS:SIGTEST:VERSION?
```

Inputs

<String>

Outputs

<String>

SETTINGS:MULTITONESJCAL:ENABLE

This command sets or returns the enable or disable status of Multi-tone SJ calibration.

Syntax

```
SETTINGS:MULTITONESJCAL:ENABLE {0|1}
```

```
SETTINGS:MULTITONESJCAL:ENABLE?
```

Inputs

{0 | 1}

0 indicates to disable the multi-tone SJ calibration.

1 indicates to enable the multi-tone SJ calibration.

Outputs

{0 | 1}

SETTINGS:SOCKETSERVER:IP

This command returns the IP address of the socket server.

Syntax

SETTINGS:SOCKETSERVER:IP?

Inputs

NA

Outputs

<String>

SETTINGS:SOCKETSERVER:LISTENINGPORT

This command returns the listening port of the socket server.

Syntax

SETTINGS:SOCKETSERVER:LISTENINGPORT?

Inputs

NA

Outputs

<String>

SETTINGS:SOCKETSERVER:TIMEOUT

This command returns the time out value of the socket server.

Syntax

SETTINGS:SOCKETSERVER:TIMEOUT?

Inputs

NA

Outputs

<int>

SETTINGS:MULTITONESJCAL:FREQUENCYCOUNT

This command sets or returns the frequency count value for Multi-tone SJ calibration.

Syntax

SETTINGS:MULTITONESJCAL:FREQUENCYCOUNT <NR1>

SETTINGS:MULTITONESJCAL:FREQUENCYCOUNT?

Inputs

<NR1> 1 to 14

Outputs

<NR1>

SETTINGS:MULTITONESJCAL:MAXFREQUENCY

This command sets or returns the maximum frequency value for Multi-tone SJ calibration.

Syntax

```
SETTINGS:MULTITONESJCAL:MAXFREQUENCY <NR1>
```

```
SETTINGS:MULTITONESJCAL:MAXFREQUENCY?
```

Inputs

<NR1> 1 to 100 MHz

Outputs

<NR1>

SETTINGS:MULTITONESJCAL:MINFREQUENCY

This command sets or returns the minimum frequency value for Multi-tone SJ calibration.

Syntax

```
SETTINGS:MULTITONESJCAL:MINFREQUENCY <NR1>
```

```
SETTINGS:MULTITONESJCAL:MINFREQUENCY?
```

Inputs

<NR1> 0.03 to 99 MHz

Outputs

<NR1>

SETTINGS:MULTITONESJCAL:POINTS

This command sets or returns the number of points for Multi-tone SJ calibration.

Syntax

```
SETTINGS:MULTITONESJCAL:POINTS <NR1>
```

```
SETTINGS:MULTITONESJCAL:POINTS?
```

Inputs

<NR1> 2 to 8

Outputs

<NR1>

SETTINGS:CTLE:ACQUISITIONS

This command sets or returns the number of acquisitions for CTLE measurement.

Syntax

```
SETTINGS:CTLE:ACQUISITIONS <int>
```

```
SETTINGS:CTLE:ACQUISITIONS?
```

Inputs

<int> 1 to 20

Outputs

<int>

SETTINGS:EYE:ACQUISITIONS

This command sets or returns the number of acquisitions for stressed eye calibration.

Syntax

```
SETTINGS:EYE:ACQUISITIONS <int>
```

```
SETTINGS:EYE:ACQUISITIONS?
```

Inputs

<int> 1 to 20

Outputs

<int>

SETTINGS:TP3:CH1DEEMBEDFILE

This command sets or returns the CH1 de-embedding filter file path for TP3 calibration.

Syntax

```
SETTINGS:TP1:CH1DEEMBEDFILE <"File path">
```

```
SETTINGS:TP1:CH1DEEMBEDFILE?
```

Inputs

<"File path"> = <String>

Outputs

<String>

SETTINGS:TP1:CH2DEEMBEDFILE

This command sets or returns the CH2 de-embedding filter file path for TP3 calibration .

Syntax

```
SETTINGS:TP1:CH2DEEMBEDFILE <"File path">
```

```
SETTINGS:TP1:CH2DEEMBEDFILE?
```

Inputs

<"File path"> = <String>

Outputs

<String>

SETTINGS:TP1:ENABLECH1DEEMBDED

This command sets or returns the enable or disable status of CH1 de-embedding for TP1,TP3 calibration.

Syntax

SETTINGS:TP1:ENABLECH1DEEMBDED {0 | 1}

SETTINGS:TP1:ENABLECH1DEEMBDED?

Inputs

{0 | 1}

0 - Indicates the CH1 de-embedding is disabled.

1 - Indicated the CH1 de-embedding is enabled

Outputs

{0 | 1}

SETTINGS:TP1:ENABLECH2DEEMBDED

This command sets or returns the enable or disable status of CH2 de-embedding for TP1,TP3 calibration.

Syntax

SETTINGS:TP1:ENABLECH2DEEMBDED {0 | 1}

SETTINGS:TP1:ENABLECH2DEEMBDED?

Inputs

{0 | 1}

0 - Indicates the CH2 de-embedding is disabled.

1 - Indicates the CH2 de-embedding is enabled.

Outputs

{0 | 1}

SETTINGS:TP2:CH1DEEMBEDFILE

This command sets or returns the filter file path of CH1 de-embedding for TP2 calibration.

Syntax

SETTINGS:TP2:CH1DEEMBEDFILE <"File path">

SETTINGS:TP2:CH1DEEMBEDFILE?

Inputs

<"File path"> = <String>

Outputs

<String>

SETTINGS:TP2:CH2DEEMBEDFILE

This command sets or returns the filter file path of CH2 de-embedding for TP2 calibration.

Syntax

SETTINGS:TP2:CH2DEEMBEDFILE <String>

SETTINGS:TP2:CH2DEEMBEDFILE?

Inputs

<"File path"> = <String>

Outputs

<String>

SETTINGS:TP2:ENABLECH1DEEMBED

This command sets or returns the enable or disable status of CH1 de-embedding for TP2 calibration.

Syntax

SETTINGS:TP2:ENABLECH1DEEMBED {0 | 1}

SETTINGS:TP2:ENABLECH1DEEMBED?

Inputs

{0 | 1}

0 - Indicates the CH1 de-embedding is disabled.

1 - Indicates the CH1 de-embedding is enabled.

Outputs

{0 | 1}

SETTINGS:TP2:ENABLECH2DEEMBED

This command sets or returns the enable or disable status of CH2 de-embedding for TP2 calibration.

Syntax

SETTINGS:TP2:ENABLECH2DEEMBED {0 | 1}

SETTINGS:TP2:ENABLECH2DEEMBED?

Inputs

{0 | 1}

0 - Indicates the CH2 de-embedding is disabled.

1 - Indicates the CH2 de-embedding is enabled.

Outputs

{0 | 1}

SETTINGS:INSERTIONLOSS:ACQUISITIONS

This command sets or returns the number of acquisitions value for insertion loss in TP3 calibration.

Syntax

```
SETTINGS:INSERTIONLOSS:ACQUISITIONS <int>
```

```
SETTINGS:INSERTIONLOSS:ACQUISITIONS?
```

Inputs

<int> 1 to 10

Outputs

<int>

SETTINGS:INSERTIONLOSS:MANUAL

This command sets or returns the manual insertion loss value.

Syntax

```
SETTINGS:INSERTIONLOSS:MANUAL <float>
```

```
SETTINGS:INSERTIONLOSS:MANUAL?
```

Inputs

<float> 1 to 10

Outputs

<float>

SETTINGS:MULTITONESJCAL:DEFAULT

This command sets the SJ Frequencies to its default value for multitone SJ calibration.

Syntax

```
SETTINGS:MULTITONESJCAL:DEFAULT
```

Inputs

NA

Outputs

NA

SETTINGS:MULTITONESJCAL:GENERATE

This command generates the SJ frequencies for multitone SJ calibration.

Syntax

SETTINGS:MULTITONESJCAL:GENERATE

Inputs

NA

Outputs

NA

SETTINGS:TP1:CH1:EXTERNALATTEN

This command sets or returns the external attenuation of CH1 for TP1 calibration.

Syntax

SETTINGS:TP1:CH1:EXTERNALATTEN <int>

SETTINGS:TP1:CH1:EXTERNALATTEN?

Inputs

<int> 0 to 10

Outputs

<int>

SETTINGS:TP1:CH2:EXTERNALATTEN

This command sets or returns the external attenuation of CH2 for TP1 calibration.

Syntax

SETTINGS:TP1:CH2:EXTERNALATTEN <int>

SETTINGS:TP1:CH2:EXTERNALATTEN?

Inputs

<int> 0 to 10

Outputs

<int>

SETTINGS:TP2:CH1:EXTERNALATTEN

This command sets or returns the external attenuation of CH1 for TP2 calibration.

Syntax

SETTINGS:TP2:CH1:EXTERNALATTEN <int>

SETTINGS:TP2:CH1:EXTERNALATTEN?

Inputs

<int> 0 to 10

Outputs

<int>

SETTINGS:TP2:CH2:EXTERNALATTEN

This command sets or returns the external attenuation of CH2 for TP2 calibration.

Syntax

SETTINGS:TP2:CH2:EXTERNALATTEN <int>

SETTINGS:TP2:CH2:EXTERNALATTEN?

Inputs

<int> 0 to 10

Outputs

<int>

SETTINGS:TP2:ENBLEREPLICACHDEMBED

This command sets or returns the enables or disable status for the use of replica channel cable de-embedding in TP2 calibration.

Syntax

SETTINGS:TP2:ENBLEREPLICACHDEMBED {0 | 1}

SETTINGS:TP2:ENBLEREPLICACHDEMBED?

Inputs

{0 | 1}

0 - Disable the use of replica channel cable de-embedding.

1 - Enable the use of replica channel cable de-embedding.

Outputs

{0 | 1}

SETTINGS:TP2:REPLICACHDEEMBEDDIFF

This command sets or returns the differential filter file path for replica channel cable de-embedding in TP2 calibration.

Syntax

SETTINGS:TP2:REPLICACHDEEMBEDDIFF <"File path">

SETTINGS:TP2:REPLICACHDEEMBEDDIFF?

Inputs

<"File path"> = <String>

Outputs

<String>

SETTINGS:TP2:REPLICACHDEEMBEDCH1

This command sets or returns the Ch1 filter file path for replica channel cable de-embedding in TP2 calibration.

Syntax

```
SETTINGS:TP2:REPLICACHDEEMBEDCH1 <"File path">
```

```
SETTINGS:TP2:REPLICACHDEEMBEDCH1?
```

Inputs

<"File path"> = <String>

Outputs

<String>

SETTINGS:TP2:REPLICACHDEEMBEDCH2

This command sets or returns the Ch2 filter file path for replica channel cable de-embedding in TP2 calibration.

Syntax

```
SETTINGS:TP2:REPLICACHDEEMBEDCH2 <"File path">
```

```
SETTINGS:TP2:REPLICACHDEEMBEDCH2?
```

Inputs

<"File path"> = <String>

Outputs

<String>

SETTINGS:TP2:REPLICACHDEEMBEDFILETYPE

This command sets or returns the filter file type for replica channel deembedding in TP2 calibration.

Syntax

```
SETTINGS:TP2:REPLICACHDEEMBEDFILETYPE <0 | 1>
```

```
SETTINGS:TP2:REPLICACHDEEMBEDFILETYPE?
```

Inputs

<0 | 1>

0 - Indicates Differential as the filter type for replica channel de-embedding.

1 - Indicates Single-ended as the filter type for replica channel de-embedding.

Outputs

<0 | 1>

SETTINGS:EYE:ALGO

This command sets or returns the algorithm for stressed eye.

Syntax

SETTINGS:EYE:ALGO <0 | 1>

SETTINGS:EYE:ALGO?

Inputs

<0 | 1>

0 - Indicates linear sweep is the algorithm for stressed eye.

1 - Indicates Efficient is the algorithm for stressed eye.

Outputs

<0 | 1>

SETTINGS:CTLE:ANALYSISTOOL

This command sets or returns the analysis tool selected for preset selection and stressed eye calibration.

Syntax

SETTINGS:CTLE:ANALYSISTOOL <0 | 1>

SETTINGS:CTLE:ANALYSISTOOL?

Inputs

<0 | 1>

0 - Indicates Seasim is the the analysis tool.

1 - Indicates Sigtest is the analysis tool.

Outputs

<0 | 1>

SETTINGS:RESTORE

This command resets the application to default settings.

Syntax

Settings:Restore

Inputs

NA

Outputs

NA

SETTINGS:RECALL

This command recalls the settings as per specified file.

Syntax

```
SETTINGS:RECALL <"File path">
```

Inputs

<"File path"> = <String>

Outputs

NA

SETTINGS:SAVE

This command saves the settings into the specified file.

Syntax

```
Settings:Save <"File path">
```

Inputs

<"File path"> = <String>

Outputs

NA

SETTINGS:RECALL:STATUS

This command returns the status of the recall command execution.

Syntax

```
SETTINGS:RECALL:STATUS?
```

Inputs

NA

Outputs

<String>

SETTINGS:RESTORE:STATUS

This command returns the status of restore command execution.

Syntax

```
SETTINGS:RESTORE:STATUS?
```

Inputs

NA

Outputs

<String>

SETTINGS:SAVE:STATUS

This command returns the status of the save command execution.

Syntax

SETTINGS:SAVE:STATUS?

Inputs

NA

Outputs

<String>

TP1CAL:OPEN

This command opens the TP1 calibration panel.

Syntax

TP1CAL:OPEN

Inputs

NA

Outputs

NA

TP1CAL:WIZARD:OPEN

This command opens the TP3 calibration wizard.

Syntax

TP1CAL:WIZARD:OPEN

Inputs

NA

Outputs

NA

TP1CAL:WIZARD:CLOSE

This command closes the TP3 calibration wizard.

Syntax

TP1CAL:WIZARD:CLOSE

Inputs

NA

Outputs

NA

TP1CAL:DELETE

This command deletes the selected TP3 calibration file.

Syntax

TP1CAL:DELETE

Inputs

NA

Outputs

NA

TP1CAL:REPORT

This PI command generates a TP1 Calibration report for the specified unique ID.

Syntax

TP1CAL:REPORT <string>

Inputs

<string>

Outputs

NA

TP1CAL:SAVE

This command saves the current TP3 Calibration file to the database.

Syntax

TP1CAL:SAVE

Inputs

NA

Outputs

NA

TP1CAL:EQUIP:INIT

This command sets the equipment initialization run status for TP3 calibration.

Syntax

```
TP1CAL:EQUIP:INIT <0 | 1>
```

Inputs

<0 | 1>

0 - Stop the equipment initialization to run.

1 - Start the equipment initialization to run.

Outputs

NA

TP1CAL:EQUIP:SKIPSIGNALVALIDATION

This allows the user to skip signal validation as a part of equipment initialization.

Syntax

```
TP1CAL:EQUIP:SKIPSIGNALVALIDATION <0 | 1>
```

```
TP1CAL:EQUIP:SKIPSIGNALVALIDATION?
```

Input

<0 | 1>

1- Skip signal validation.

0 - Perform signal validation.

Output

<0 | 1>

TP1CAL:AUTOCAL

This command sets the TP3 automatic calibration run status.

Syntax

```
TP1CAL:AUTOCAL <0 | 1>
```

Inputs

<0 | 1>

0 - Stop the TP3 automatic calibration run.

1 - Start the TP3 automatic calibration run.

Outputs

NA

TP1CAL:AMPLITUDE:RUN

This command sets the Amplitude calibration run status.

Syntax

```
TP1CAL:AMPLITUDE:RUN <0 | 1>
```

Inputs

<0 | 1>

0 - Stop the Amplitude calibration run.

1 - Start the Amplitude calibration run.

Outputs

NA

TP1CAL:PRESET:RUN

This command sets the Preset calibration run status.

Syntax

```
TP1CAL:PRESET:RUN <0 | 1>
```

Inputs

<0 | 1>

0 - Stop the the Preset calibration run.

1 - Start the the Preset calibration run.

Outputs

NA

TP1CAL:RJ:RUN

This command sets the RJ calibration run status.

Syntax

```
TP1CAL:RJ:RUN <0 | 1>
```

Inputs

<0 | 1>

0 - Stop the RJ calibration run.

1 - Start the RJ calibration run.

Outputs

NA

TP1CAL:SJ:RUN

This command sets the SJ calibration run status.

Syntax

```
TP1CAL:SJ:RUN <0 | 1>
```

Inputs

<0 | 1>

0 - Stop the SJ calibration run.

1 - Start the SJ calibration run.

Outputs

NA

TP1CAL:MULTITONESJCAL:STATUSRUN

This command sets the Multi-tone SJ calibration run status.

Syntax

```
TP1CAL:MULTITONESJCAL:STATUS? RUN <0|1>
```

Inputs

<0 | 1>

0 - Stop the Multi-tone SJ calibration run.

1 - Start the Multi-tone SJ calibration run.

Outputs

NA

TP1CAL:PWJCAL:MODE

This command sets or returns the PWJ calibration type for TP3 calibration.

Syntax

```
TP1CAL:PWJCAL:MODE <0 | 1>
```

```
TP1CAL:PWJCAL:MODE?
```

Inputs

<0 | 1>

0 - Indicates the mode is manual.

1 - Indicates the mode is measure.

Outputs

<0 | 1>

TP1CAL:PWJCAL:DJ

This command sets or returns the PWJ DJ value in TP3 calibration.

Syntax

TP1CAL:PWJCAL:DJ <float>

TP1CAL:PWJCAL:DJ?

Inputs

<float> 0 to 1 ps

Outputs

<float>

TP1CAL:PWJCAL:RJ

This command sets or returns the PWJ RJ value in TP3 calibration.

Syntax

TP1CAL:PWJCAL:RJ <float>

TP1CAL:PWJCAL:RJ?

Inputs

<float> 0 to 1 (RMS) ps

Outputs

<float>

TP1CAL:PWJCAL:STATUS

This command returns the PWJ calibration test run status.

Syntax

TP1CAL:PWJCAL:STATUS?

Inputs

N/A

Outputs

{InProgress | Done}

TP1CAL:PWJCCAL:START

This command starts or stops the PWJ Calibration.

Syntax

Application Help

TP1CAL:PWJCAL:START <0 | 1>**Inputs**

<0 | 1>

0 - Indicates to start the PWJ calibration test.

1 - Indicates to stop the PWJ calibration test.

Outputs

<0 | 1>

TP1CAL:EQUIP:STATUS

This command returns the equipment initialization run status for TP3 calibration.

Syntax

TP1CAL:EQUIP:STATUS?

Inputs

NA

Outputs

{InProgress | Done}

TP1CAL:AMPLITUDE:STATUS

This command returns the amplitude calibration run status.

Syntax

TP1CAL:AMPLITUDE:STATUS?

Inputs

NA

Outputs

{InProgress | Done}

TP1CAL:PRESET:STATUS

This command returns the preset calibration run status.

Syntax

TP1CAL:PRESET:STATUS?

Inputs

NA

Outputs

{InProgress | Done}

TP1CAL:RJ:STATUS

This command returns the RJ calibration run status.

Syntax

TP1CAL:RJ:STATUS?

Inputs

NA

Outputs

{InProgress | Done}

TP1CAL:SJ:STATUS

This command returns the SJ calibration run status.

Syntax

TP1CAL:SJ:STATUS?

Inputs

NA

Outputs

{InProgress | Done}

TP1CAL:MULTITONESJCAL:RUNSTATUS

This command returns the Multi-tone SJ calibration run status.

Syntax

TP1CAL:MULTITONESJCAL:RUN STATUS?

Inputs

NA

Outputs

{InProgress | Done}

TP1CAL:AMPLITUDE:SETTING

This command returns the amplitude value for TP3 calibration.

Syntax

TP1CAL:AMPLITUDE:SETTING?

Inputs

NA

Outputs

<int> <float>

TP1CAL:SEASIMACQ:MODE

This command sets and queries the acquisition mode for seasim.

Syntax

TP1CAL:SEASIMACQ:MODE < 0 | 1 | 2>

Inputs

< 0 | 1 | 2>

0 - Average.

1 - FastFrame.

2 - LFPR.

Outputs

NA

TP1CAL:RJ:SETTING

This command returns the RJ calibrated value for TP3calibration.

Syntax

TP1CAL:RJ:SETTING?

Inputs

NA

Outputs

<float>

TP1CAL:SJ:SETTING

This command returns the SJ calibrated value for TP3 calibration.

Syntax

TP1CAL:SJ:SETTING?

Inputs

NA

Outputs

<float>

TP1CAL:SAVE:ID

This command sets or returns the unique identifier used as key to save the report in database for TP3 calibration.

Syntax

TP1CAL:SAVE:ID <String>

TP1CAL:SAVE:ID?

Inputs

<String>

Outputs

<String>

TP1CAL:SAVE:GENERATEDBY

This command sets or returns the creator name who save the report in database for TP3 calibration.

Syntax

TP1CAL:SAVE:GENERATEDBY <String>

TP1CAL:SAVE:GENERATEDBY?

Inputs

<String>

Outputs

<String>

TP1CAL:SAVE:COMMENTS

This command sets or returns the comments given to save the report in database for TP3 calibration.

Syntax

TP1CAL:SAVE:COMMENTS <String>

TP1CAL:SAVE:COMMENTS?

Inputs

<String>

Outputs

<String>

TP1CAL:ACDC:RUN

This command runs the TP3 AC-DC balance calibration process.

Syntax

TP1CAL:ACDC:RUN <0 | 1>

Inputs

<0 | 1>

1 - Start the AC-DC balance calibration run.

0 - Stop the AC-DC balance calibration run.

Outputs

NA

TP1CAL:ACDC:STATUS

This command returns the TP3 AC-DC balance calibration run status.

Syntax

TP1CAL:ACDC:STATUS?

Inputs

NA

Outputs

{InProgress | Done}

TP1CAL:ACDC:SETTING

This command returns the AC-DC balanced value for TP3 calibration.

Syntax

TP1CAL:ACDC:SETTING?

Inputs

NA

Outputs

<float>

TP1CAL:SJ@210MHz:RUN

This command sets the TP3 SJ@210MHz calibration run status.

Syntax

TP1CAL:SJ@210MHz:RUN <0 | 1>

Inputs

<0 | 1>

1 - Start the SJ@210 MHz calibration run.

0 - Stop the SJ@210 MHz calibration run.

Outputs

NA

TP1CAL:SJ@210MHz:STATUS

This command returns the status of SJ@210 MHz Calibration run status.

Syntax

```
TP1CAL:SJ@210MHz:STATUS?
```

Inputs

NA

Outputs

{InProgress | Done}

TP1CAL:INSERTIONLOSSIL:MODE

This command sets or returns the type of insertion loss in TP3 calibration.

Syntax

```
TP1CAL:IL:MODE <0 | 1>
```

```
TP1CAL:IL:MODE?
```

Inputs

<0 | 1>

0 - Indicates the insertion loss type is in manual mode.

1 - Indicates the insertion loss type is in measure mode.

Outputs

<0 | 1>

TP1CAL:MANUAL:

This command sets or returns the manual insertion loss value for TP3 calibration.

Syntax

```
TP1CAL:MANUAL: <float>
```

```
TP1CAL:MANUAL:?
```

Inputs

<float> 0 to 10

Outputs

<float>

TP1CAL:MANUAL:INSERTIONLOSSIL

This command sets or returns the manual insertion loss value for TP3 calibration.

Syntax

```
TP1CAL:MANUAL:IL <float>
```

```
TP1CAL:MANUAL:IL?
```

Inputs

<float> 0 to 10

Outputs

<float>

TP1CAL:IL:SCOPEACQS

This command sets or returns the value for scope acquisitions for insertion loss in TP3 calibration.

Syntax

```
TP1CAL:IL:SCOPEACQS <int>
```

```
TP1CAL:IL:SCOPEACQS?
```

Inputs

16 to 10240

Outputs

<int>

TP1CAL:IL:AVGS

This command sets or returns the value for the number of waveforms averages for insertion loss in TP3 calibration.

Syntax

```
TP1CAL:IL:AVGS<int>
```

```
TP1CAL:IL:AVGS?
```

Inputs

1 to 10

Outputs

<int>

TP1CAL:SCOPENOISE

This command returns the calculated scope noise value in TP3 calibration.

Syntax

TP1CAL:SCOPENOISE?

Inputs

NA

Outputs

<float>

TP1CAL:MEASURELOSS:START

This command runs the automatic insertion loss calculation process.

Syntax

TP1CAL:MEASURELOSS:START <0 | 1>

Inputs

<0 | 1>

1 - Start the insertion loss measurement.

0 - Stop the insertion loss measurement.

Outputs

NA

TP1CAL:MEASURELOSS:STATUS

This command returns the automatic insertion loss measurement run status.

Syntax

TP1CAL:MEASURELOSS:STATUS?

Inputs

NA

Outputs

{InProgress | Done}

TP2CAL:OPEN

This command opens the TP2 calibration panel.

Syntax

TP2CAL:OPEN

Inputs

NA

Outputs

NA

TP2CAL:WIZARD:OPEN

This command opens the TP2 calibration wizard.

Syntax

```
TP2CAL:WIZARD:OPEN
```

Inputs

NA

Outputs

NA

TP2CAL:WIZARD:CLOSE

This command closes the TP2 calibration wizard.

Syntax

```
TP2CAL:WIZARD:CLOSE
```

Inputs

NA

Outputs

NA

TP2CAL:DUT:TYPE

This command sets or returns the DUT type used for TP2 calibration.

Syntax

```
TP2CAL:DUT:TYPE <0 | 1>
```

```
TP2CAL:DUT:TYPE?
```

Inputs

<0 | 1>

0 - Indicates the DUT type is Non-Root Complex.

1 - Indicates the DUT type is Root Complex.

Outputs

<0 | 1>

TP2CAL:SELECT:TP1

This command sets or returns the selected TP3 calibration file.

Syntax

TP2CAL:SELECT:TP1 <String>

TP2CAL:SELECT:TP1?

Inputs

<String>

Outputs

<String>

TP2CAL:DELETE

This command deletes the selected TP2 calibration file.

Syntax

TP2CAL:DELETE

Inputs

NA

Outputs

NA

TP2CAL:REPORT

This PI command generates a TP2 Calibration report for the specified unique ID.

Syntax

TP2CAL:REPORT <string>

Inputs

<string>

Outputs

NA

TP2CAL:SAVE

This command saves the current TP2 Calibration file to the database.

Syntax

TP2CAL:SAVE

Inputs

NA

Outputs

NA

TP2CAL:SAVE:ISIPAIR

This command sets or returns ISI Pair stored in Database.

Syntax

```
TP2CAL:SAVE:ISIPAIR <String>
```

```
TP2CAL:SAVE:ISIPAIR?
```

Inputs

<String>

Outputs

<String>

TP2CAL:SEASIMACQ:MODE

This command sets and queries the acquisition mode for seasim.

Syntax

```
TP2CAL:SEASIMACQ:MODE < 0 | 1 | 2 >
```

Inputs

< 0 | 1 | 2 >

0 - Average.

1 - FastFrame.

2 - LFPR.

Outputs

NA

TP2CAL:EQUIP:INIT

This command sets the equipment initialization run status for TP2 calibration.

Syntax

```
TP2CAL:EQUIP:INIT <0 | 1>
```

Inputs

<0 | 1>

0 - Stop the equipment initialization run.

1 - Start the equipment initialization run.

Outputs

NA

TP2CAL:EQUIP:SKIPSIGNALVALIDATION

This allows the user to skip signal validation as a part of equipment initialization.

Syntax

```
TP2CAL:EQUIP:SKIPSIGNALVALIDATION <0 | 1 >
```

```
TP2CAL:EQUIP:SKIPSIGNALVALIDATION?
```

Input

<0 | 1>

1- Skip signal validation.

0 - Perform signal validation.

Output

<0 | 1>

TP2CAL:CMI:RUN

This command sets the CMI calibration run status.

Syntax

```
TP2CAL:CMI:RUN <0 | 1>
```

Inputs

<0 | 1>

0 - Stop the CMI calibration run.

1 - Start the CMI calibration run.

Outputs

NA

TP2CAL:ILMEAS:RUN

This command sets the channel loss calculation run status.

Syntax

```
TP2CAL:ILMEAS:RUN <0 | 1>
```

Inputs

<0 | 1>

0 - Stop the channel loss calculation run.

1 - Start the channel loss calculation run.

Outputs

NA

TP2CAL:CTLEANDPRESET:RUN

This command sets the CTLE and preset selection run status.

Syntax

TP2CAL:CTLEANDPRESET:RUN <0 | 1>

Inputs

<0 | 1>

0 - Stop the CTLE and preset selection run.

1 - Start the CTLE and preset selection run.

Outputs

NA

TP2CAL:STRESSEDEYE:RUN

This command sets the stressed eye calibration run status.

Syntax

TP2CAL:STRESSEDEYE:RUN <0 | 1>

Inputs

<0 | 1>

0 - Stop the stressed eye calibration run.

1 - Start the stressed eye calibration run.

Outputs

NA

TP2CAL:EQUIP:STATUS

This command returns the equipment initialization run status for TP2 calibration.

Syntax

TP2CAL:EQUIP:STATUS?

Inputs

NA

Outputs

{InProgress | Done}

TP2CAL:CMI:STATUS

This command returns the CMI calibration run status for TP2 calibration.

Syntax

TP2CAL:CMI:STATUS?

Inputs

NA

Outputs

{InProgress | Done}

TP2CAL:ILMEAS:STATUS

This command returns the channel loss calculation run status for TP2 calibration.

Syntax

TP2CAL:ILMEAS:STATUS?

Inputs

NA

Outputs

{InProgress | Done}

TP2CAL:CTLEANDPRESET:STATUS

This command returns the CTLe and Preset selection run status for TP2 calibration.

Syntax

TP2CAL:CTLEANDPRESET:STATUS?

Inputs

NA

Outputs

{InProgress | Done}

TP2CAL:STRESSEDEYE:STATUS

This command returns the stressed eye calibration run status for TP2 calibration.

Syntax

TP2CAL:STRESSEDEYE:STATUS?

Inputs

NA

Outputs

{InProgress | Done}

TP2CAL:DMI:SETTING

This command returns the DMI calibrated value for TP2 calibration.

Syntax

```
TP2CAL:DMI:SETTING?
```

Inputs

NA

Outputs

<float>

TP2CAL:CMI:SETTING

This command returns the CMI calibrated value for TP2 calibration.

Syntax

```
TP2CAL:CMI:SETTING?
```

Inputs

NA

Outputs

<int>

TP2CAL:SAVE:ID

This command sets or returns the unique identifier used as key to save the report in database for TP2 calibration.

Syntax

```
TP2CAL:SAVE:ID <String>
```

```
TP2CAL:SAVE:ID?
```

Inputs

<String>

Outputs

<String>

TP2CAL:SAVE:GENERATEDBY

This command sets or returns the creator name who save the report in database for TP2 calibration.

Syntax

```
TP2CAL:SAVE:GENERATEDBY <String>
```

```
TP2CAL:SAVE:GENERATEDBY?
```

Inputs

<String>

Outputs

<String>

TP2CAL:SAVE:COMMENTS

This command sets or returns the comments given to save the report in database for TP2 calibration.

Syntax

```
TP2CAL:SAVE:COMMENTS <String>
```

```
TP2CAL:SAVE:COMMENTS?
```

Inputs

<String>

Outputs

<String>

TP2CAL:ILMEASFORDMI:RUN

This command sets the run status for Insertion loss calculation before DMI/CMI in TP2 calibration.

Syntax

```
TP2CAL:ILMEASFORDMI:RUN <0 | 1>
```

Inputs

<0 | 1>

0 - Stop the Insertion loss calculation before DMI/CMI.

1 - Start the Insertion loss calculation before DMI/CMI.

Outputs

NA

TP2CAL:ILMEASFORDMI:STATUS

This command returns the run status of Insertion loss calculation before DMI/CMI in TP2 calibration.

Syntax

```
TP2CAL:ILMEASFORDMI:STATUS?
```

Inputs

NA

Outputs

{InProgress | Done}

TP2CAL:STRESSEDEYE:ACQUISITIONS

This command sets or returns the number of acquisitions value for TP2 stressed eye calibration.

Syntax

```
TP2CAL:STRESSEDEYE:ACQUISITIONS<int>
```

```
TP2CAL:STRESSEDEYE:ACQUISITIONS?
```

Inputs

<int> 1 to 20

Outputs

<int>

TP2CAL:DMI:RUN

This command sets the run status for TP2 DMI calibration.

Syntax

```
TP2CAL:DMI:RUN <0 | 1>
```

Inputs

<0 | 1>

0 - Stop the TP2 DMI calibration.

1 - Start the TP2 DMI calibration.

Outputs

NA

TP2CAL:DMI:STATUS

This command returns the TP2 DMI calibration run status.

Syntax

```
TP2CAL:DMI:STATUS?
```

Inputs

NA

Outputs

{InProgress | Done}

TP2CAL:CTLEANDPRESET:ACQUISITIONS

This command sets or returns the number of acquisitions value for CTLE or Preset selection in TP2 calibration.

Syntax

TP2CAL:CTLEANDPRESET:ACQUISITIONS<int>

TP2CAL:CTLEANDPRESET:ACQUISITIONS?

Inputs

<int> 1 to 20

Outputs

<int>

TP2CAL:CTLE:ESTIMATOR

This command sets or returns the CTLE Estimation method for TP2 calibration.

Syntax

TP2CAL:CTLE:ESTIMATOR <0 | 1>

TP2CAL:CTLE:ESTIMATOR?

Inputs

<0 | 1>

0 - Indicates the CTLE method is automatic.

1 - Indicates the CTLE method is manual.

Outputs

<0 | 1>

TP2CAL:SEASIMCTLE:SELECTIONGEN6GEN5

This command sets or returns the manual Seasim CTLE value to be applied on the waveform. This command sets or returns the manual Seasim CTLE value in dB to be applied on the waveform.

Syntax

TP2CAL:SEASIMCTLE: SELECTION GEN 7<int>

TP2CAL:SEASIMCTLE:SELECTION GEN 7

Inputs

<int> 15 to 2

Outputs

<int>

TP2CAL:STRESSEDEYE:SJRJ

This command sets or returns the SJ stress value for Manual Stressed Eye Calibration run.

Syntax

TP2CAL:STRESSEDEYE:SJ <float>

TP2CAL:STRESSEDEYE: SJ?

Inputs

<float> 5 to 10

Outputs

<float>

TP2CAL:STRESSEDEYE:DMI

This command sets or returns the DMI stress value for Manual Stressed Eye Calibration run.

Syntax

```
TP2CAL:STRESSEDEYE:DMI <float>
```

```
TP2CAL:STRESSEDEYE:DMI?
```

Inputs

<float> 5 to 25

Outputs

<float>

TP2CAL:STRESSEDEYE:AMPLITUDE

This command sets or returns the amplitude value for Manual Stressed Eye Calibration run.

Syntax

```
TP2CAL:STRESSEDEYE:AMPLITUDE<int>
```

```
TP2CAL:STRESSEDEYE:AMPLITUDE?
```

Inputs

<int> 720 to 800

Outputs

<int>

TP2CAL:STRESSEDEYE:MANUALCALRUN

This command sets or returns the enable or disable status of the manual calibration run for stressed eye.

Syntax

```
TP2CAL:STRESSEDEYE:MANUALCALRUN {0 | 1}
```

```
TP2CAL:STRESSEDEYE:MANUALCALRUN?
```

Inputs

{0 | 1}

0 - Indicates to disable the manual calibration run.

1 - Indicates to enable the manual calibration run.

Outputs

{0 | 1}

TP2CAL:IL:MODE

This command sets or returns the type of insertion loss in TP2 calibration.

Syntax

TP2CAL:IL:MODE <0 | 1>

TP2CAL:IL:MODE?

Inputs

<0 | 1>

0 - Indicates the insertion loss type is manual entry.

1 - Indicates the insertion loss type is Measure loss.

Outputs

<0 | 1>

TP2CAL:MANUAL:IL

This command sets or returns the manual insertion loss value for TP2 calibration.

Syntax

TP2CAL:MANUAL:IL <float>

TP2CAL:MANUAL:IL?

Inputs

<float> 0 to 50

Outputs

<float>

TP2CAL:IL:SCOPEACQS

This command sets or returns the value for scope acquisitions for insertion loss in TP2 calibration.

Syntax

TP2CAL:IL:SCOPEACQS <int>

TP2CAL:IL:SCOPEACQS?

Inputs

16 to 10240

Outputs

<int>

TP2CAL:IL:AVGS

This command sets or returns the value for the number of waveforms averages for insertion loss in TP2 calibration.

Syntax

```
TP2CAL:IL:AVGS <int>
```

```
TP2CAL:IL:AVGS?
```

Inputs

1 to 10

Outputs

<int>

TP2CAL:CTLEANDPRESET:SNDRCHKCTLE

This command sets or returns the SNDR value that needs to be applied in TP2 calibration.

Syntax

```
TP2CAL:CTLEANDPRESET:SNDR <int>
```

```
TP2CAL:CTLEANDPRESET:SNDR?
```

Inputs

1 to 50

Outputs

<int>

TP2CAL:CTLEANDPRESET:CHKPRESET

This command check and uncheck the check box for specific Presets.

Syntax

```
TP2CAL:CTLEANDPRESET:CHKPRESET <0 to 9> <1 | 0>
```

```
TP2CAL:CTLEANDPRESET:CHKPRESET <0 to 9>?
```

Inputs

<0 to 9> corresponds to Presets Q0 to Q9 <1 | 0>, 1 for check and 0 for uncheck

Outputs

<1 | 0>

TP2CAL:STRESSEDEYE:EXHAUSTIVESWEEP

This command sets or returns the min, max settings for the specified sweep parameter for Exhaustive Sweep.

Syntax

```
TP2CAL:STRESSEDEYE:EXHAUSTIVESWEEP <string> <double/int>
```

```
TP2CAL:STRESSEDEYE:EXHAUSTIVESWEEP? <string>
```

Inputs

<string> (Sweep Parameter) - Indicates the parameter for which min, max value needs to be set. The Sweep parameters can be Amplitude, SJ.

<double/int> (MIN,MAX) - Indicates the min, max settings for the specified sweep parameter.

NOTE: If sweep parameter is amplitude then min, max values should be of type <int> or <double>

The min, max values should be within the below range:

1. 720 – 800 mV for Amplitude.

Example

```
TP2CAL:STRESSEDEYE:EXHAUSTIVESWEEP SJ 1,3.
```

Output

```
<double/int>
```

Example

```
TP2CAL:STRESSEDEYE:EXHAUSTIVESWEEP SJ?
```

```
1,3
```

TP2CAL:STRESSEDEYE:LINEARSWEEP

This command sets or returns the initial, min, max settings for the specified sweep parameter for Linear Sweep.

Syntax

```
TP2CAL:STRESSEDEYE:LINEARSWEEP <string> <double/int>
```

```
TP2CAL:STRESSEDEYE:LINEARSWEEP? <string>
```

Inputs

<string> (Sweep Parameter) - Indicates the parameter for which initial, min, max value needs to be set. The Sweep parameters can be Amplitude SJ <double/int> (Initial,MIN,MAX) - Indicates the Initial, min, max settings for the specified sweep parameter.

NOTE: If sweep parameter is amplitude then initial, min, max values should be of type <int> or <double>

The initial min, max values should be within the below range:

1. 720 – 800 mV for Amplitude.
2. 1 – 3 SJ.
3. 5 – 25

Example

```
TP2CAL:STRESSEDEYE:LINEARSWEEP SJ 1.563,1,3.
```

Output

```
<double/int>
```

Example

TP2CAL:STRESSEDEYE:LINEARSWEEP SJ ?

1.563,1,3

TP2CAL:STRESSEDEYE:EXHAUSTIVE

This command sets or returns enable or disable status of Exhaustive Sweep for TP2 Stressed Eye Calibration

Syntax

TP2CAL:STRESSEDEYE:EXHAUSTIVE <0 / 1>

TP2CAL:STRESSEDEYE:EXHAUSTIVE?

Inputs

<0 / 1>

0 - Indicates the Exhaustive Sweep is disabled.

1 - Indicates the Exhaustive Sweep is enabled.

Output

<0 | 1>

TP2CAL:STRESSEDEYE:STEP SIZE

The Command sets or returns the step size settings for the specified sweep parameter of TP2 Calibration

Syntax

TP2CAL:STRESSEDEYE:STEP SIZE <string> <double/int>

TP2CAL:STRESSEDEYE:STEP SIZE? <string>

Inputs

<string> (Sweep Parameter) - Indicates the parameter for which step size value needs to be set. The Sweep parameters can be Amplitude

<double/int> (Step Size) - Indicates the step size value for the specified sweep parameter

NOTE: If sweep parameter is amplitude then step size value should be of type <int> or <double>

The Step Size values should be within the below range:

1. 2 – 20 mV for Amplitude.
2. 0.1 – 0.25 RJ.
3. 0.1 – 2

Example

TP2CAL:STRESSEDEYE:STEP SIZE SJ 0.25

Output

<double/int>

Example

TP2CAL:STRESSEDEYE: STEPSIZE SJ ?

0.25