Tektronix®

077-1206-00

Tektronix®

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For product information, sales, service, and technical support:

- In North America, call 1-800-833-9200.
- Worldwide, visit *www.tek.com* to find contacts in your area.

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Creating a signal

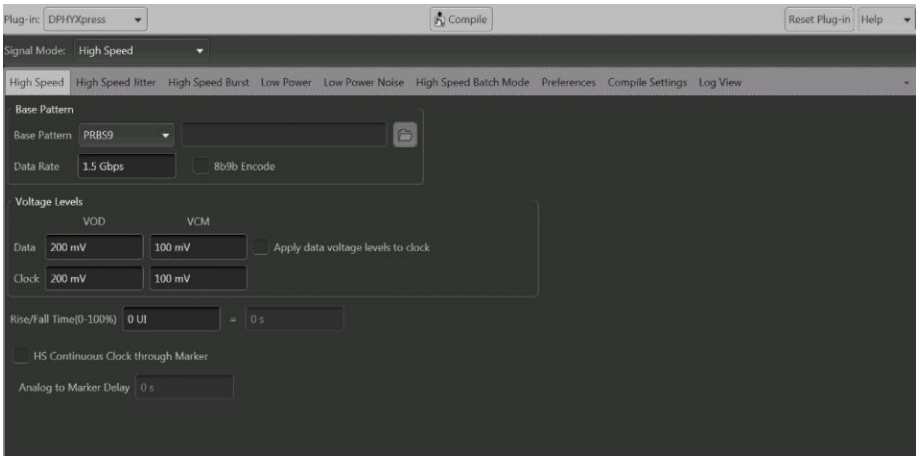
Reference

Command groups

Command descriptions

Welcome

DPHYXpress is a waveform synthesis application supporting D-PHY specifications.



Key features and benefits

- Generates waveform as per D-PHY standard
- Programmable signal generation without manual intervention
- Configuration panel to generate different AWG waveforms
- Generates LP, HS and LPHS waveforms
- Controls Rise time and Fall time programmatically
- Insert jitter like RJ and PJ easily
- Insert channel effect
- Alters the timing of burst parameters
- Adds Sine noise in waveform
- Waveform creation using Batch mode to do stress testing
- Enables Master-slave configuration of AWG to support data and clock in burst mode simultaneously
- Receiver testing as per the D-PHY spec 1.2
- Enhanced waveform generation to do Receiver margin testing
- End to end support for Receiver testing

The DPHYxpress application runs in the following ways:

- Install DPHYXpress on a PC (through SourceXpress) and connect to AWG70002A series arbitrary waveform generator via LAN connection.
- DPHYXpress integrated with AWG70002A series arbitrary waveform generator (DPHYXpress installed in the AWG).

Getting help and support

Related documents

The following product documentation is available.

Table 1: Product documentation

Item	Purpose	Location
Application help	Application operation and User Interface help	Application Help menu
PDF of the help	Printable version of the compiled help	PDF file that ships with DPHYXpress software. Downloadable file from www.tektronix.com.

Abbreviation and conventions

The online help uses the following conventions:

- When steps require a sequence of selections using the software interface, the ">" delimiter marks each transition between a menu and an option. For example, **File > Save**.
- DUT refers to the Device Under Test.
- The terms "waveform" and "signal" are used interchangeably.
- The term AWG refers to a Tektronix Arbitrary Waveform Generator.

Table 2: Text Conventions

Icon	Meaning
Bold	Used to indicate selections on the user interface (such as options, buttons, and command names). For example, ■ Click **OK**.
Italics	Used to note emphasized words, definitions, messages, file names and paths, or section headings. For example, ■ For more information, refer to *Minimum system requirements*.

Feedback

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Getting started

Supported instruments and accessories

Table 3: Required equipment

Supported Instrument	Description
Real-time Oscilloscope	Tektronix DPO70604C, 70404C, 7354C, 70804C, 71254C, 71604C, 72004C, 72304DX, 72504DX,73304DX, 73304SX DPO/DSA 722504D,73304D Oscilloscopes Tektronix MSO 70404C, 70604C, 70804C, 71254C, 71604C, 72004C, 72304DX, 72504DX, 73304DX Oscilloscopes
Tektronix Arbitrary Waveform Generators (AWG)	Two (2) AWG70002A
Sync hub	One (1)
MDC box	One (1)
Matched pair SMA cables	Two pairs
TCA-SMA connector	Four (4)
MIPI DPHY Termination Board	One (1)

Minimum system requirements

The minimum requirements of the DPHYXpress application are listed in the following table:

Table 4: Minimum system requirements

Component	Requirement
Supported OS	Windows 7 Professional
Operating System	Same as the oscilloscope: ■ Windows 7 64-bit
Firmware	AWG 5.0.0178 or later
Software	■ DPHYXpress-1.0.0.XX ■ Microsoft Internet Explorer 7.0 or later ■ Adobe Reader 7.0 or equivalent software for viewing portable document format (PDF) files
Other Devices	■ Matched pair of SMA cables, minimum of two-set for single lane ■ Microsoft compatible mouse or compatible pointing device

Prerequisites

TekVisa version 4.0.4.2 or above to communicate with the AWG70002A signal generators (or other test instruments), over a LAN. If TekVisa is not already installed in your system, you can download the software from www.tektronix.com/software.

Install the software

From the Tektronix website, select the latest version of the software and follow the instructions to download.

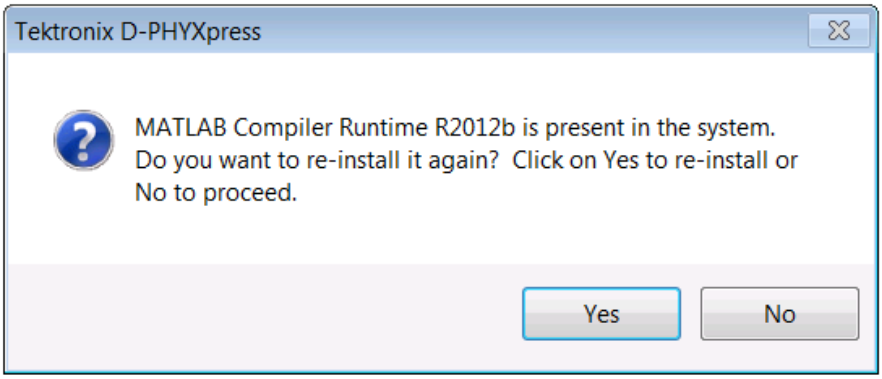
Follow the steps to install the latest DPHYXpress on PC and on AWG:

1. Double click the setup.exe file.

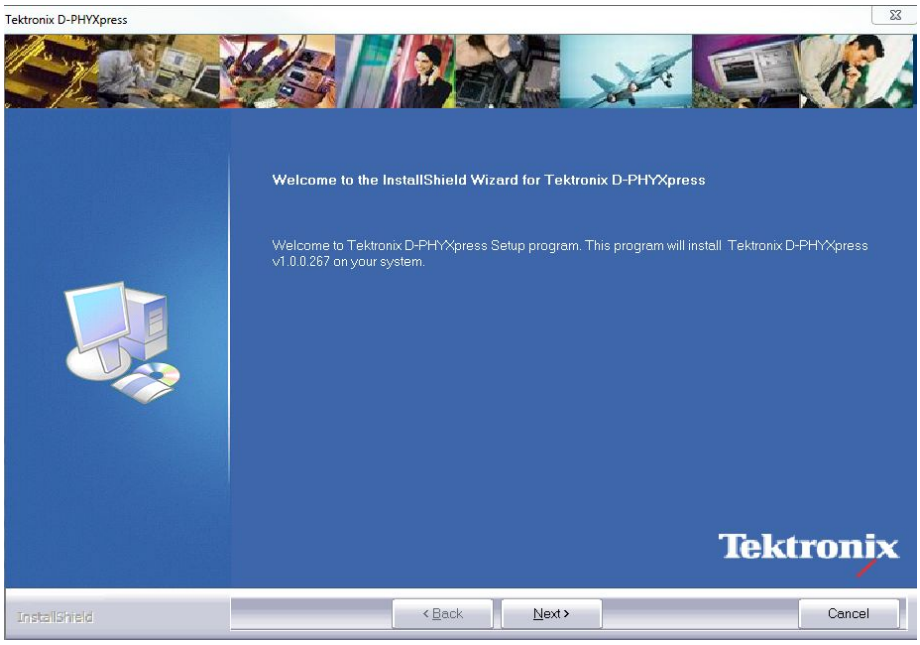
   An installation wizard initiates installation of D-PHYXpress.

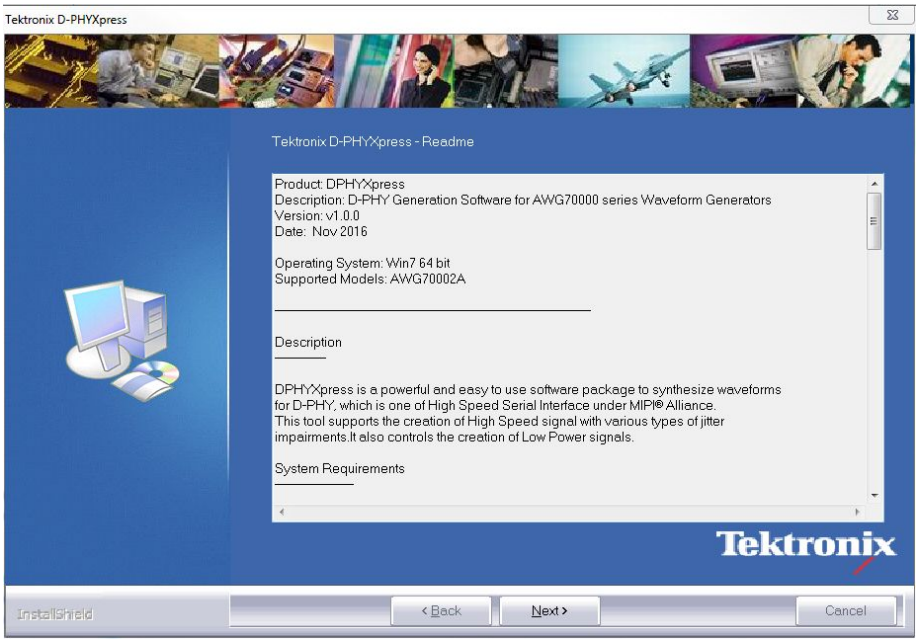
NOTE. *If you have not installed MATLAB Compile Runtime version 8.0, the installer will detect and install it.*

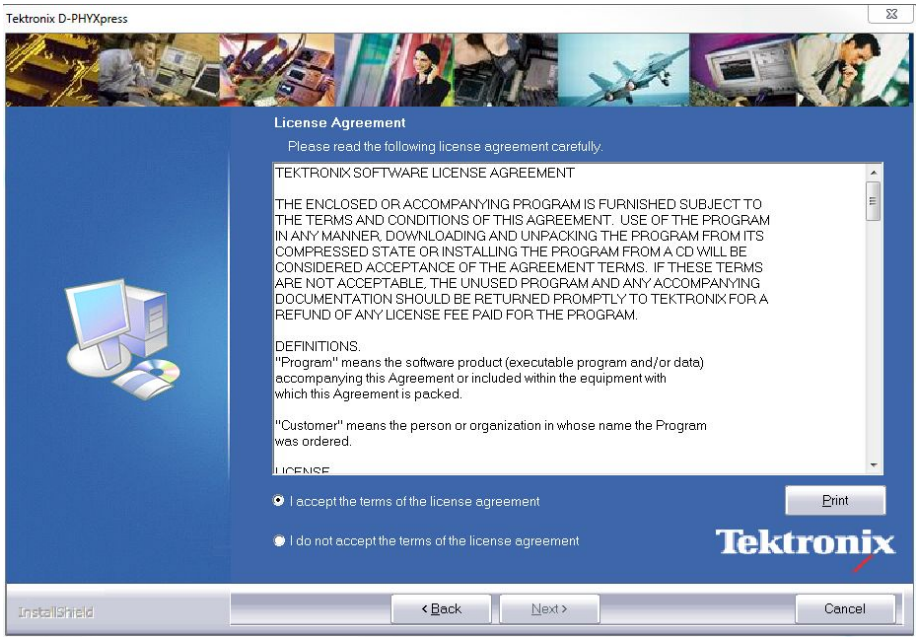
2. If MATLAB is already installed, a dialog box is displayed as below:



3. Click **Yes** to re-install MATLAB Compiler Runtime or click **No** to proceed with D-PHY installation.







4. Follow the installation prompts, and then click **Finish** to complete the installation.

See also *Minimum system requirements*

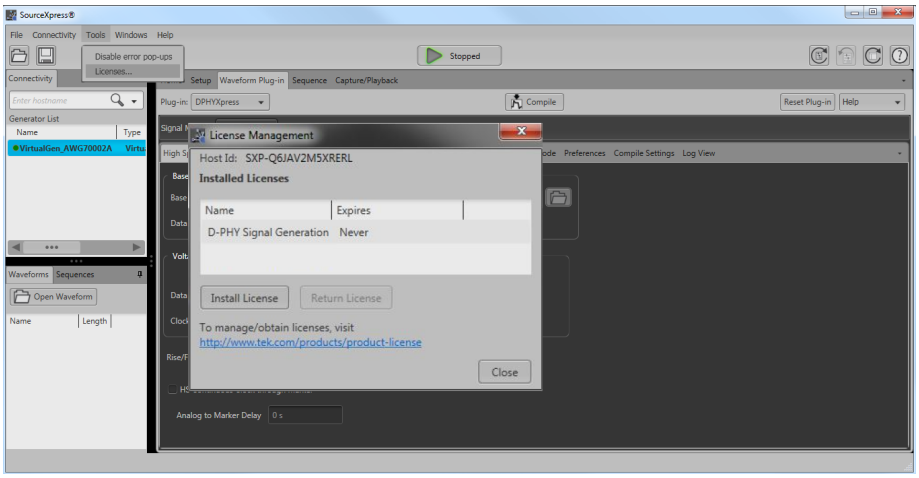
Supported instruments and accessories

Activate the license

The license can be activated :

1. **On a PC (SourceXpress application)**:
   - Select **Tools** > Click **Licenses**.

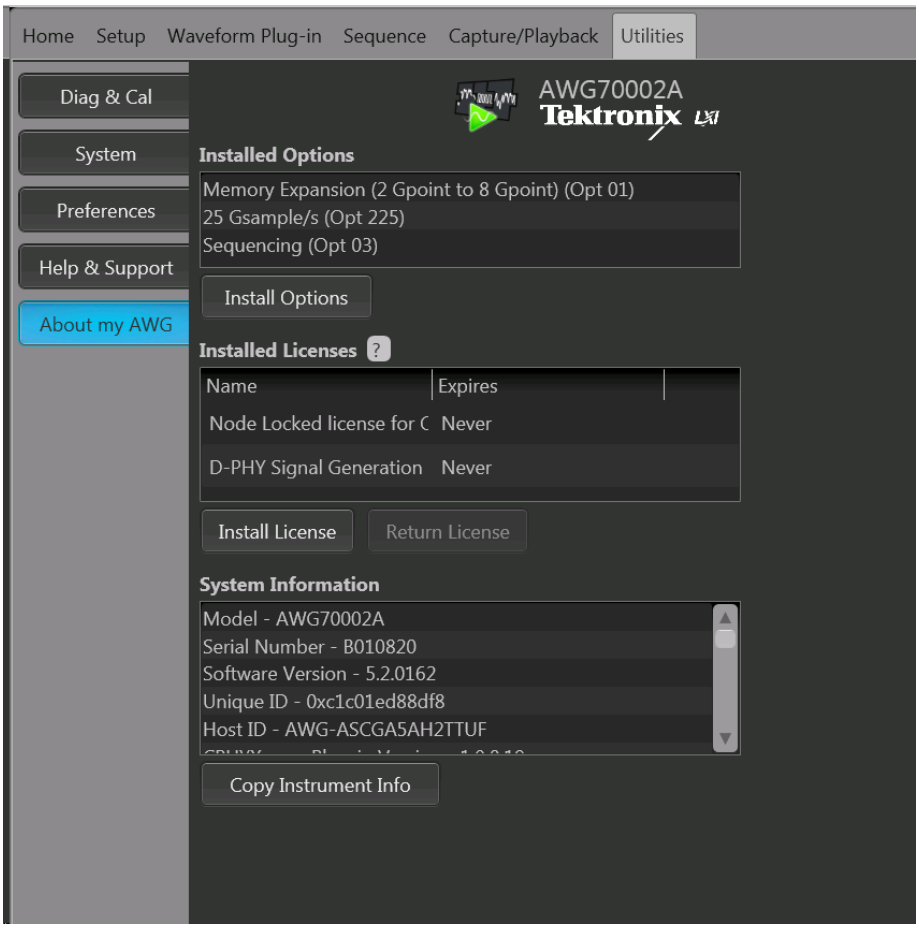
     The License Management dialog box is displayed.



   - Click **Install License**.

     Browse to the license file and select it.

2. **On an AWG:**
   - Select **Utilities** > About my AWG > **Install Licenses**.



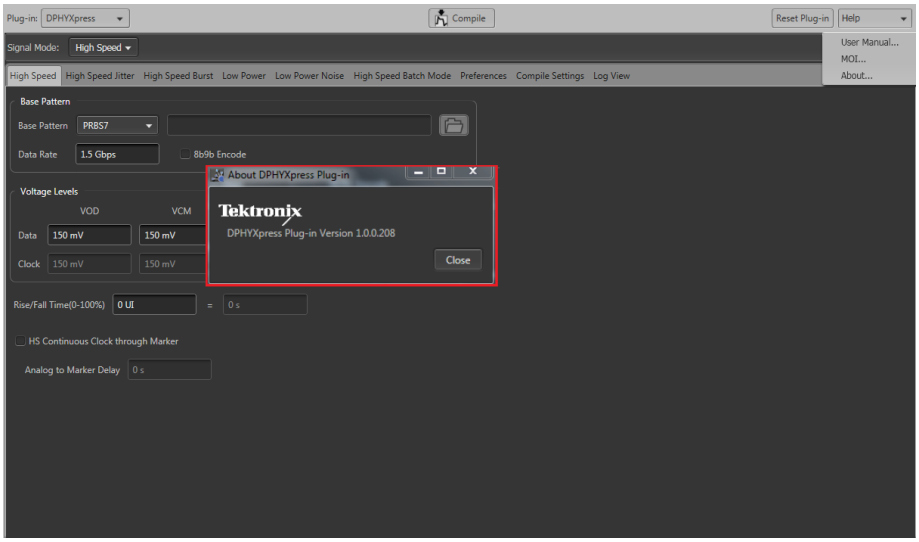
Browse to the license file and select it.

View software version and license information

View software version

1. **For a PC (SourceXpress)**:
   - Click **Help** button, and then select **About SourceXpress**.

     The About SourceXpress dialog box is displayed.



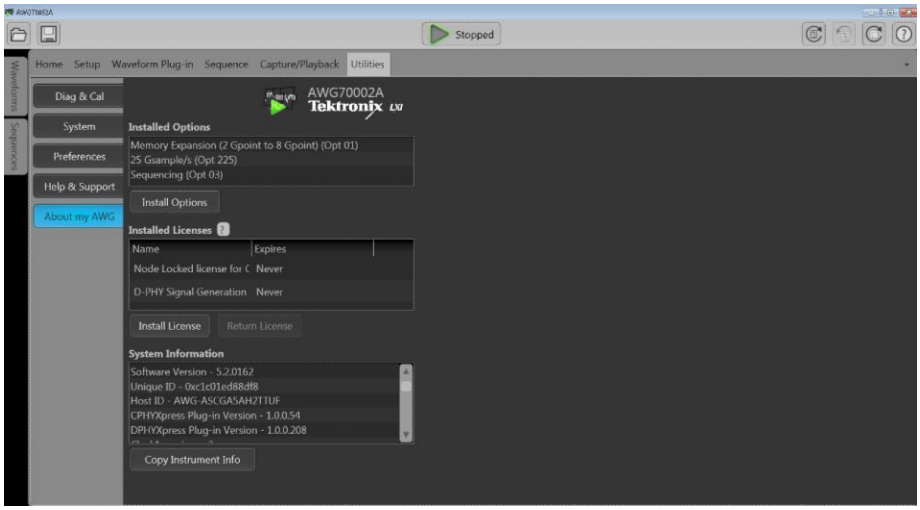
   View version details in the System Information group box.

   NOTE. *The host ID for every PC is unique. DPHYXpress installed on a PC will have a unique license.*

2. **For an AWG**:

- Click **Utilities** tab, and then select **About my AWG**.

  The About my AWG window is displayed.



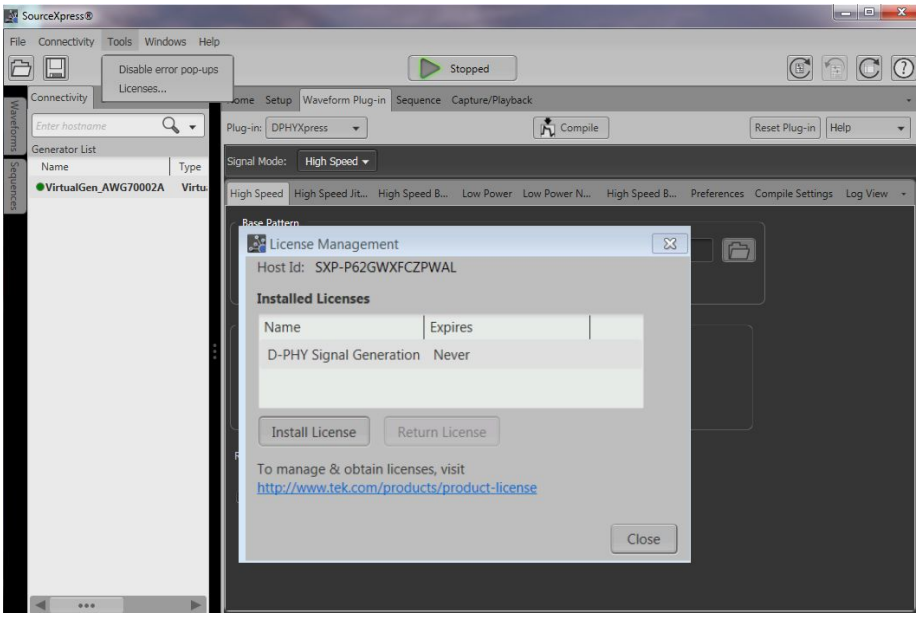
  View version details in the System Information group box.

View license information

1. **For a PC (SourceXpress)**:

- Click **Tools** tab and select **Licenses**.

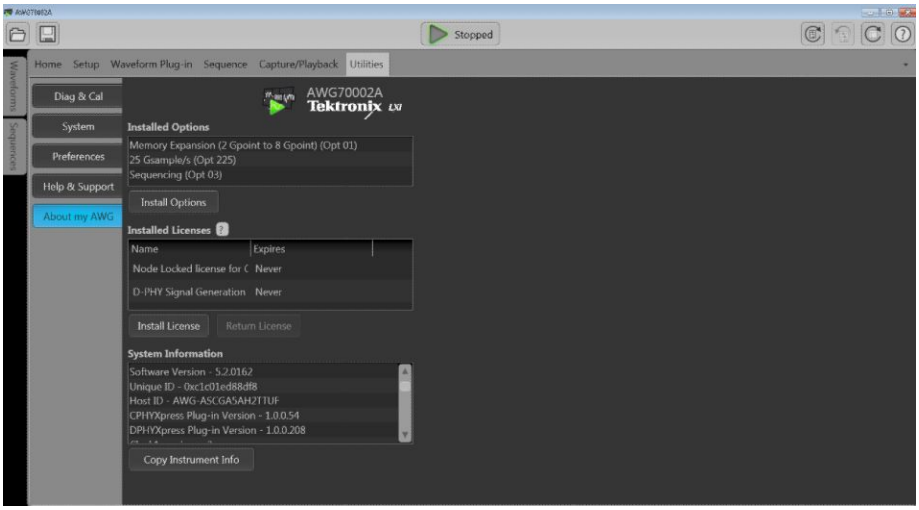
  The License Management dialog box is displayed.



  View details in the Installed Licenses group box.

2. **For an AWG**:

   - Click **Utilities** tab and select **About my AWG**.



  View version details in the Installed Licenses group box.

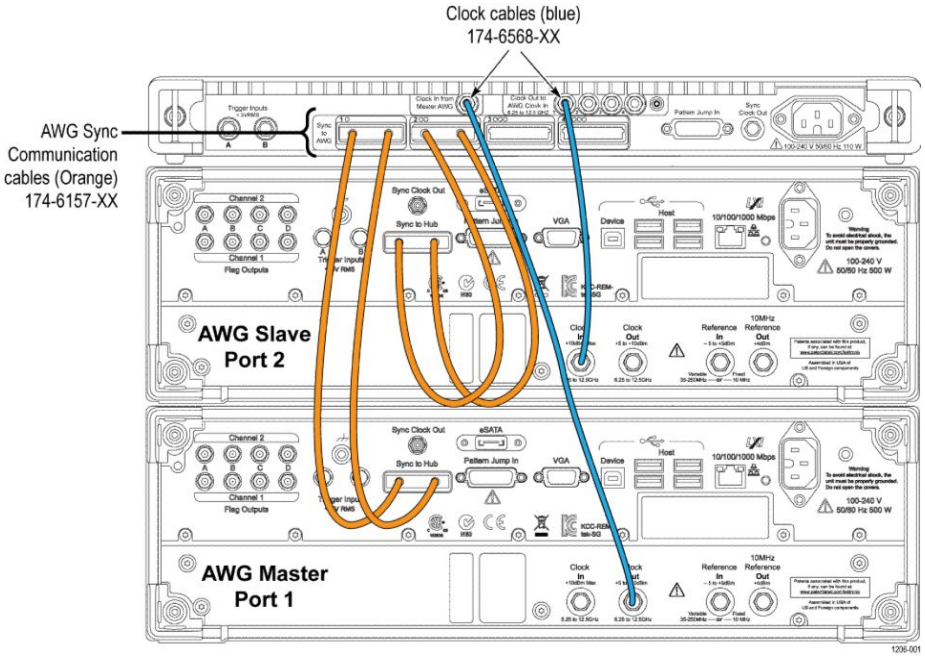
Ordering information

Contact your Tektronix representative to learn more about ordering DPHYXpress.

Connection setups

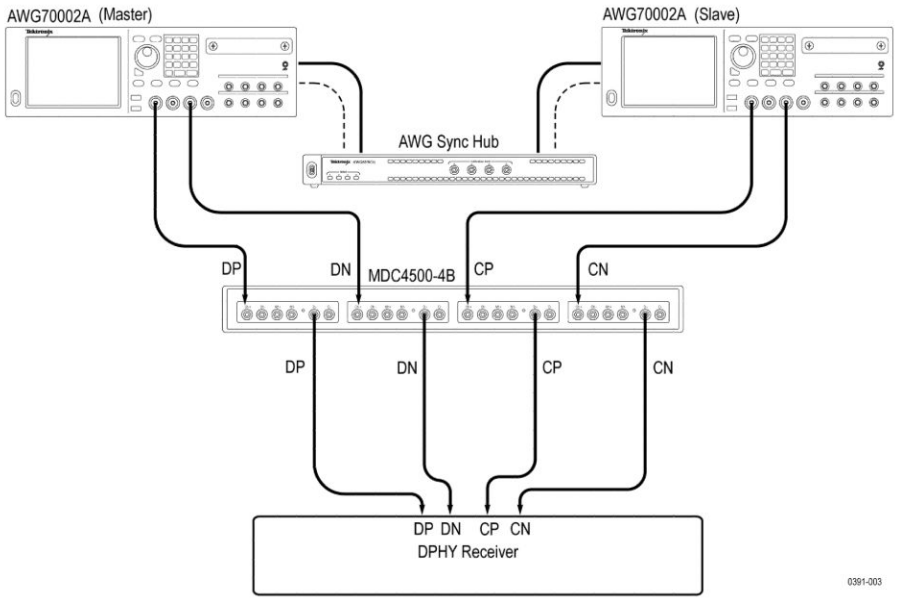
Setup-Back panel

Set-up back panel with MDC box



DPHY receiver test setup

DPHY- with MDC box



Operating basics

Start the software

From the Start menu, click **All Programs > Tektronix > SourceXpress**. You can also double-click the **SourceXpress** shortcut on the desktop.

Use the DPHYXpress application in the following mode:

- With an AWG70002A instrument, DPHYXpress is installed on a PC and connected to an AWG70002A instrument via a LAN connection and the TekVISA communication software.

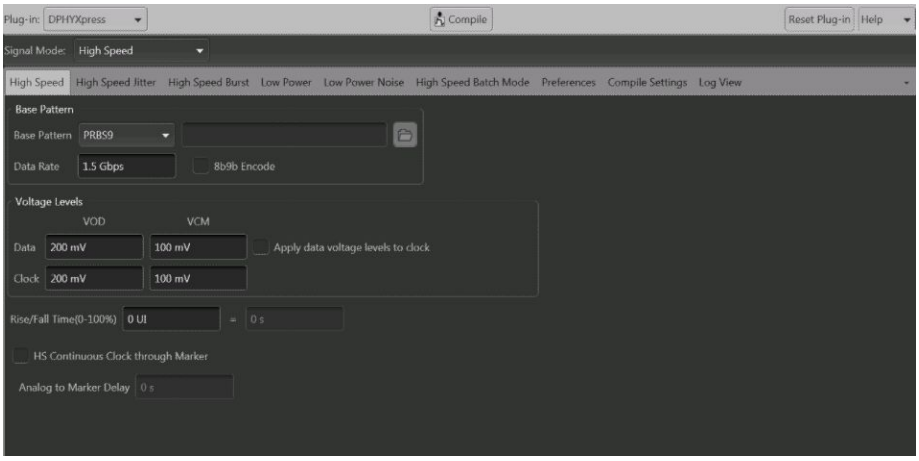
Run the application

You can run the application in two ways:

From a PC:

- To run the application, open AWG application and select **Plug-in** > **DPHYXpress** from the Module menu.

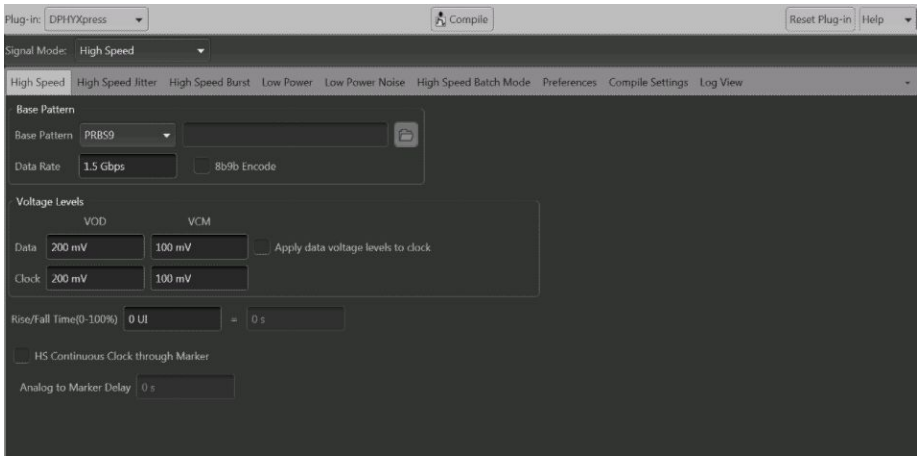
  The AWG application opens the DPHYXpress application.



From an AWG:

- To run the application, open the AWG application and select **Waveform Modules** > **DPHYXpress** from the Plug-in menu.

  The AWG application opens the DPHYXpress application.



Exit the application

To exit the application through AWG and PC, do the following:

- Select **File > Exit** to exit the application.

  If you have not saved the waveforms, you are prompted to do so. This option is always enabled.

  OR

  Click ⊠ to close the application.

NOTE. *Using other methods to exit the application results in abnormal termination of the application.*

File name extensions and directories

The DPHYXpress application uses the following file name extensions:

Table 5: File name extensions

File name extension	Description
.awgx	The session file will be saved in this format.
.LP	LP file supporting the creation of low power signals.
.txt	ASCII text file with no formatting. This file format may be read by any ascii text editor (such as Microsoft Notepad, Wordpad).
.wfmx	Binary file containing an AWG waveform record in a recallable, proprietary format.
.flt	Files containing the inverse filter co-efficient.

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

Table 6: Directory names

Directory	Description
Application installation path\Tektronix \SourceXpress	Path to the root application directory.
Application installation path\Tektronix \DPHYXpress	Contains DPHYXpress software executables along with required dlls are deployed.
C:Users\Public\Tektronix\DPHYXpress	Contains AWGSetups, DataFiles, Setups, Waveforms.
C:Users\Public\Tektronix\DPHYXpress\Datafiles	Contains Filter files, S-parameter files, Setup files and Pattern files.
C:Users\Public\Tektronix\DPHYXpress \Waveforms	Waveform files.

Toolbar options and dialog boxes

Playing

The 

button is displayed when the waveform is transferring from the AWG to the Oscilloscope.

Stop

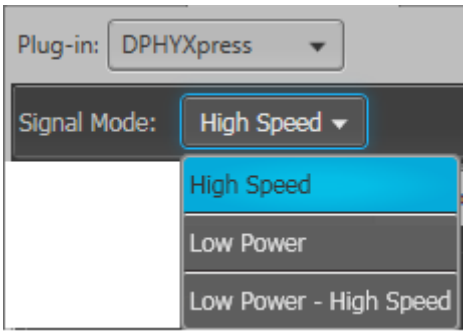
This 

button is displayed before or after the waveform is transferred to the Oscilloscope. This is the default state of this button.

Signal mode

DPHYXpress operates in three modes:

- High Speed
- Low Power
- Low Power-High Speed



Plug-in

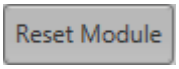
From the **Plug-in** drop-down box, select DPHYXpress to open the plug-in.

Compile

Click **Compile** to compile a currently active waveform.

The waveform is compiled and displayed in the Waveform List. You can save the waveform data as a .wfm file using the Waveform List shortcut menu. This option is not enabled when compilation is in progress.

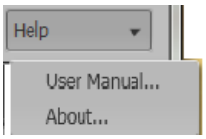
Reset module



Resets the present settings into default factory settings.

Help

Click **Help**, and then select one of the following options:



- **User Manual** to view DPHYXpress user manual.
- **About** to view information about Plug-in.

Run

Click **Run** to turn on or turn off the Run state of the AWG.

Busy

Displays **Busy** button for a very short period of time, before the waveform transfer starts.

User interface options

This section provides details about the user interface features in the software.

Docking and undocking tabs

Any tab in the GUI (Graphic User Interface) can be docking and undocked. This allows you to reposition a tab to a new location or completely separate it from the main GUI. Docking can be done in multiple ways:

- Touch and hold the touchscreen (or left mouse click) to grab a tab and move it to a new area. The docking icon displays that you can use to choose how you want to dock (reposition) the tab.

  Use the **Reset Window Layout** button  to return the display to the factory settings.
- Right-click and select **Float** to position the tab anywhere on the GUI.

  Right-click and select **Dock** to dock the window.

Splitter or window resizing in the application

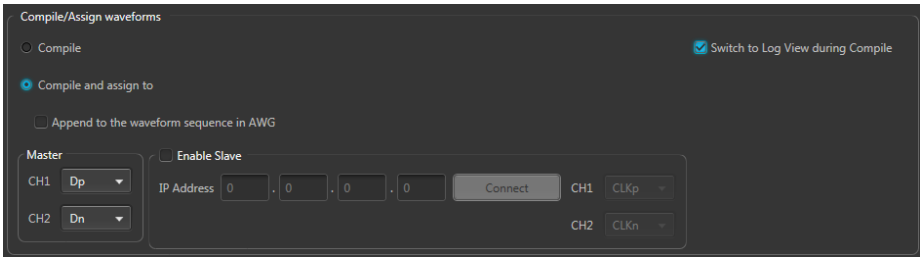
The window panes can be adjusted in size wherever two panels are divided. Select the three dot indicator and slide horizontally or vertically to increase or decrease the size of the grid.

Small or large font

You can change the font size using the **Utilities** > **Preferences** tab.

Slave and master features

Master feature



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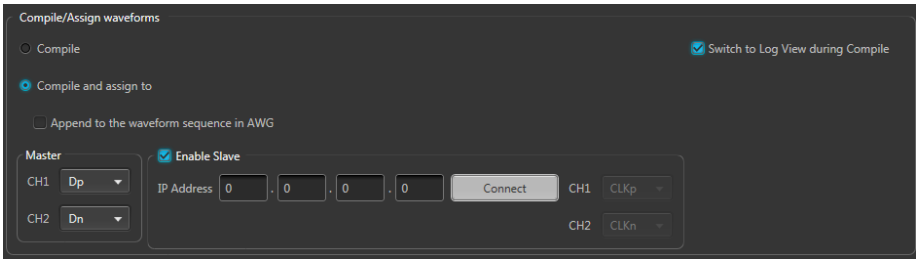
To enable the master feature:

1. Select **Compile and assign to** in the **Compile Settings** tab.
2. Select **Append to the waveform sequence in AWG** to save the waveform with previously saved waveform in the waveform list.
3. Select the waveforms and assign them to the respective channels.

Slave feature



To enable the slave feature:

1. Select **Compile and assign to** in the **Compile Settings** tab.
2. Select **Enable Slave** to enable slave specific controls.
3. Provide the IP Address of the slave, and then click **Connect**.

NOTE.

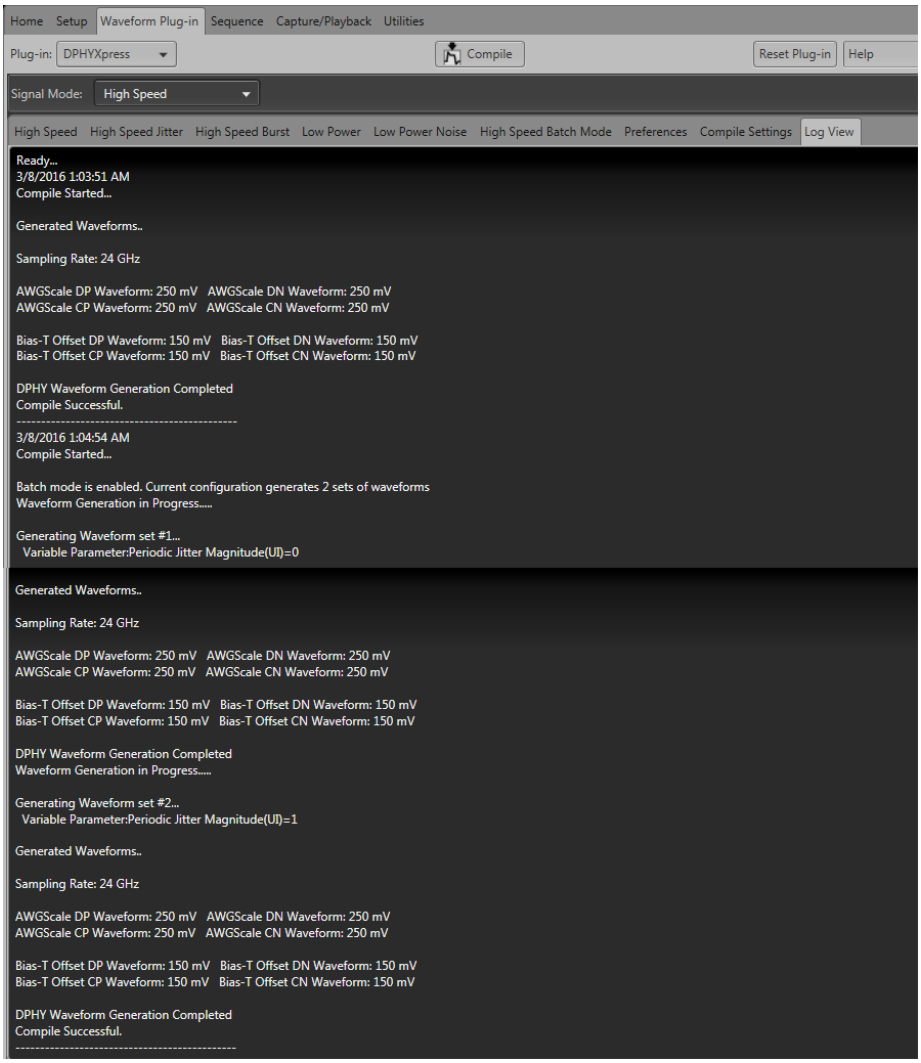
- *Enter only the valid Slave IP Address.*
- *Slave should be online.*

  The control channels are enabled.

4. Select the waveforms and assign them to the respective channels.

Log view

Log view provides the information log of the waveform creation and also displays the information about the waveform compilation.



You can save the log file from the **Log View** tab, right-click and select **Save log as**.

In the **Save log as** window, the log file will be saved with .log extension.

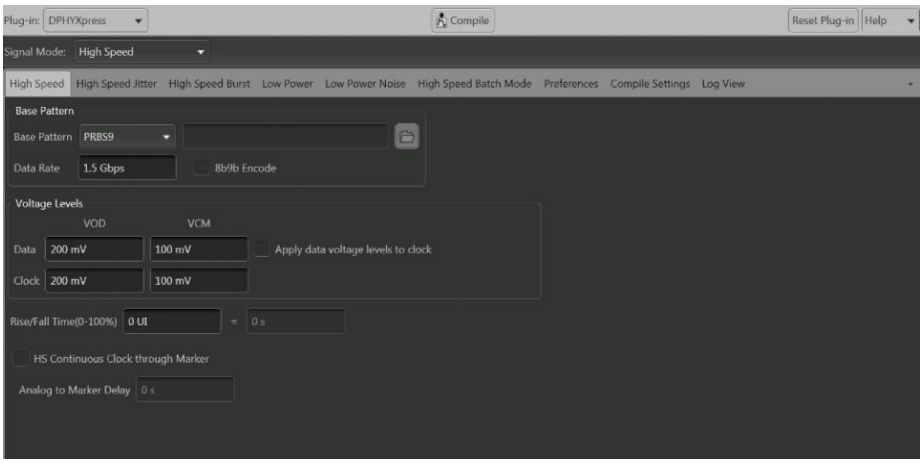
Creating a signal

High speed signal mode is selected by default.

Selecting signal mode

High Speed (HS)

High Speed (HS) signal mode allows you to create a high speed signal using a set of patterns.

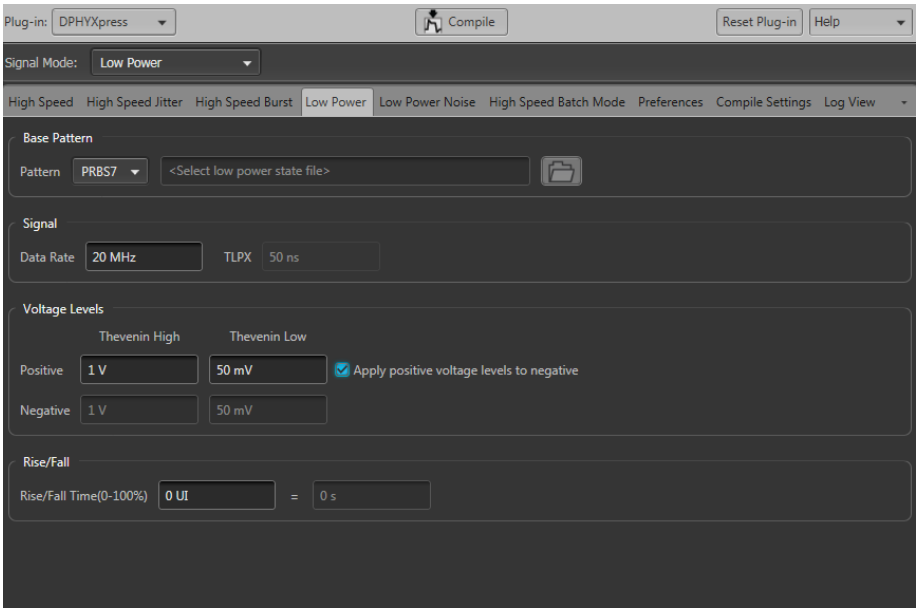


The parameters to create high speed signals are configured using below tabs:

- *High speed*
- *High speed jitter*
- *High speed burst*
- *High speed batch mode*
- *Preferences*

Low Power (LP)

Low Power (LP) signal mode allows you to create a low power signal.

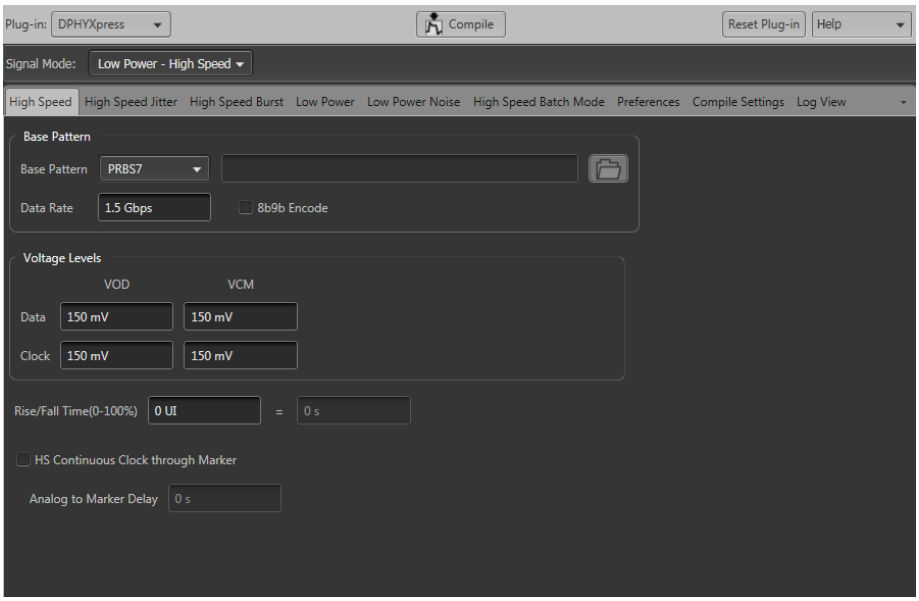


The parameters to create low power signal are configured using below tabs:

- *Low power*
- *Low power noise*
- *Preferences*

Low Power - High Speed (LP-HS)

Low Power-High Speed signal mode allows you to create a complete DPHY burst that is a low-power, high-speed waveform.



The parameters to create low power - high speed signal are configured using below tabs:

- *High speed*
- *High speed jitter*
- *High speed burst*
- *Low power*
- *Low power noise*
- *High speed batch mode*
- *Preferences*

DPHY signal parameters

High speed

Use this tab to configure the basic parameters of the High Speed signal.

You can select a set of patterns and compile waveforms using these patterns.

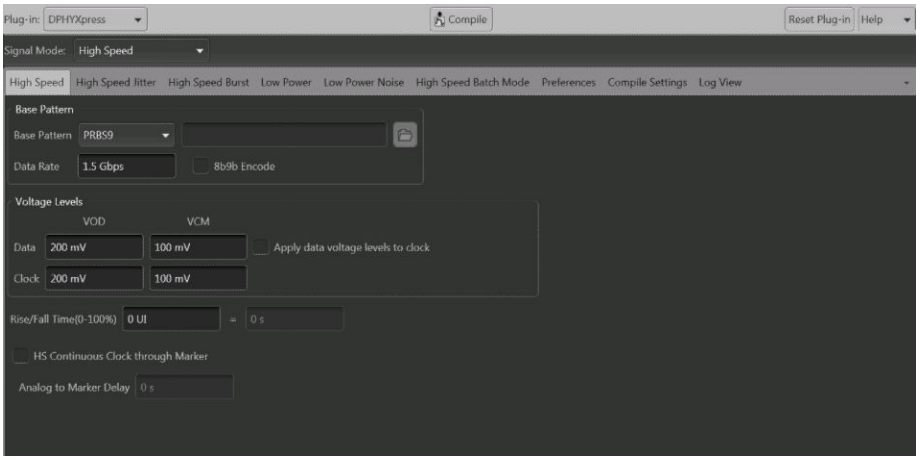


Table 7: High speed tab settings

Controls	Description	Range	Default Value
Base Pattern	Select the base pattern file from the list.		
Pattern	Lists the default patterns available for selection. You can select a set of patterns and compile waveforms using these patterns. ***NOTE.*** *The Text file option allows you to browse to a file. Various HS file types are supported.*	PRBS7 PRBS9 PRBS11 PRBS13 PRBS15 PRBS18 CLOCK Text file	PRBS7
Browse	Use to select your own text file for waveform generation. This button is activated only when you select Text file from the Pattern drop-down menu. ***NOTE.*** *If you select a wrong file, a message is displayed as Invalid pattern file, Please select a valid file.*	NA	Dimmed.
Data Rate	Specify the data rate of the signal. ***NOTE.*** *You can manually enter the minimum and maximum values or right-click on the field displays a drop-down menu, which has options to Set to default, Max, Min, Cut, Copy, Paste, and Cancel. This option is applicable across the application.*	Min: 60 Mbps Max: 5 Gbps	1.5 Gbps
8b9b Encode check box	Select to increase the bit rate.	NA	Not selected.
Voltage Levels			

Controls	Description	Range	Default Value
Data			
VOD (Differential Voltage)	Specify the differential voltage level for Data.	Min: 0 V Max: 500 mV	150 mV
VCM(Common mode Voltage)	Specify the common mode voltage level for Data.	Min: -200 mV Max: 400 mV	150 mV
Apply data voltage levels to clock	Check to apply data voltage levels to clock. ***NOTE.*** *This option is selected by default. Uncheck not to apply data positive voltage levels to clock.*	NA	Selected.
Clock	This control is activated only when you deselect the Apply data voltage levels to clock.		
VOD (Differential Voltage)	Specify the differential voltage level for Clock.	Min: 0 V Max: 500 mV	150 mV
VCM(Common mode Voltage)	Specify the common mode voltage level for Clock.	Min: -200 mV Max: 400 mV	150 mV
Rise/Fall Time(0-100%)	Specify the rise/fall time of the signal	Min: 0 UI Max: 0.5 UI	0 UI
HS Clock Through Marker check box	Select to embed Clock in Data signal	NA	Selected.
Analog To Marker Delay	Specifies the time difference between Analog and Marker.	Min: 0 s Max: 2 ns	0 s

High speed jitter

Use this tab to configure Jitter and Noise parameters of the high speed signal.

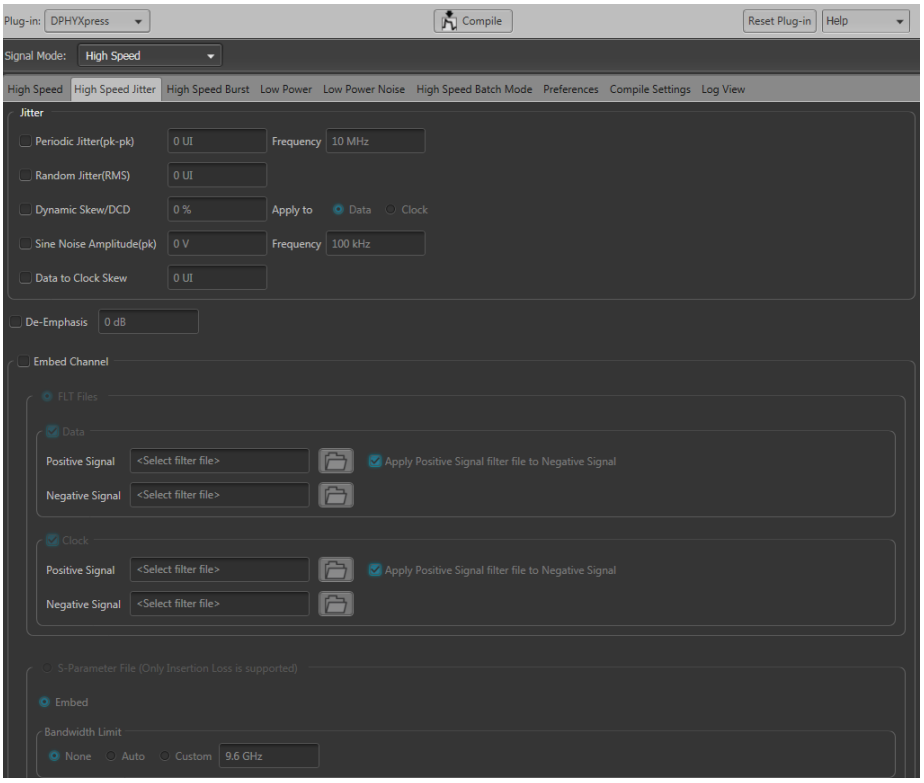


Table 8: High speed jitter tab settings

Controls	Description	Range	Default Value
Jitter			
Periodic Jitter (pk-pk)	Select to set the magnitude of periodic jitter (pk-pk).	Min: 0 UI Max: 1 UI	0 UI
Frequency	Enter the amplitude in volt to generate desired sine noise.	Min: 1 MHz Max: 300 MHz	10 MHz
Random Jitter (RMS)	Select to set the magnitude of random jitter (in UI).	Min: 0 UI Max: 0.3 UI	0 UI
Apply to	It allows you to select either skew Data or Clock signal.		
Dynamic Skew/DCD	Enter the required value for skewing.	Min: 0 % Max: 30 %	0 %
Data	Select to apply dynamic skew to Data.	NA	Selected.
Clock	Select to apply dynamic skew to Clock.	NA	Dimmed.

Controls	Description	Range	Default Value
Sine Noise Amplitude (pk)	Enter the amplitude in volt to generate desired sine noise. Selecting this check box, activates the Frequency control.	Min: 0 V Max: 50 mV	0 V
Frequency	Enter the frequency in kHz to generate desired sine noise. Sine Noise frequency is specified in Hz.	Min: 100 kHz Max: 2* Data Rate Note: Refer High Speed tab for Data Rate value.	100 kHz
Data to Clock Skew	Enter to generate desired skew between data and clock. Static skew between data and clock is specified in terms of UI.	Min: 0 UI Max:1 UI	0 UI
De-Emphasis	Select to de-emphasis the waveform. Enter the amplitude in dB. De-emphasis is specified in dB.	Min: 0 dB Max: 12 dB	0 dB
Embed Channel	Select to embed the FLT files or S-parameter files. Selecting this check box activates the FLT files (Data and Clock), Positive signal, and Negative signal controls.		
FLT Files	It refers to positive and negative filter files of Data and Clock.		
Data			
Positive Signal	Browse to a positive filter file.	NA	NA
Negative Signal	Browse to a negative filter file.	NA	NA
Apply Positive Signal filter file to Negative Signal	Select the check box to apply positive signal filter file to negative signal.	NA	Selected.
Clock			
Positive Signal	Enter the location of the saved positive FLT files or browse to the location.	NA	NA
Negative Signal	Enter the location of the saved Negative signal FLT files or browse to the location.	NA	NA

Controls	Description	Range	Default Value
Apply Positive Signal filter file to Negative Signal	Select the check box to apply positive signal filter file to negative signal.	NA	Selected.
S-Paramater File (Only Insertion Loss is supported)			
Embed	Select to enable embedding S-parameter file.	NA	Selected.
Bandwidth Limit			
None	If you select None, the cutoff frequency of the filter is Fs/2 (where Fs is the sampling frequency).	NA	Selected.
Auto	If you select Auto, the cutoff frequency is the –14 dB point of the channel response.	NA	Dimmed.
Custom	If you select Custom, the cutoff frequency is the frequency that you specify.	Min: 240 MHz Max: 9.6 GHz	9.6 GHz

S2P file

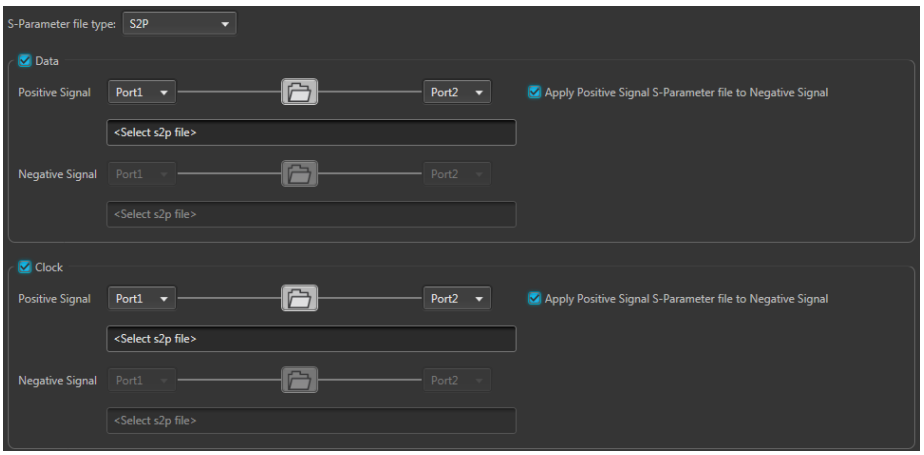


Table 9: High speed jitter tab settings-S2P file

Controls	Description	Range	Default Value
S-parameter file type	List S-parameter file type: S2P and S4P Single Ended in the drop-down.		
S2P			
Data	Selecting the Data check box, you can enable and disable channel effect on Data signal.		
Positive signal	List two ports to select: Port1 and Port2 in a drop-down menu.		
Port1	Select to define the port. ***NOTE.*** *The application swaps port numbers based on port selection. The port numbers displayed on the application will not be the same.*	NA	Selected.
Port2	Select to define the port.	NA	Selected.
Apply Positive signal S-parameter file to Negative Signal	Select the check box to apply the positive signal S-parameter file to negative signal.	NA	Selected.
Negative signal	List two ports to select: Port1 and Port2 in a drop-down menu. This control is activated only when you deselect the Apply Positive signal S-parameter file to Negative signal check box.		
Port1	Select to define the port.	NA	Selected.
Port2	Select to define the port.	NA	Selected.
Browse button	Browse to select the S2P S-parameter file.		
Clock	Selecting the Clock check box , you can enable and disable channel effect on clock signal.		
Positive signal	List two ports to select: Port1 and Port2 in a drop-down menu.		
Port1	Select to define the port.	NA	Selected.
Port2	Select to define the port.	NA	Selected.
Apply Positive signal S-parameter file to Negative Signal	Select the check box to apply the positive signal S-parameter file to negative signal.	NA	Selected.
Negative signal	List two ports to select: Port1 and Port2 in a drop-down menu. This control is activated only when you deselect the Apply Positive signal.		

Controls	Description	Range	Default Value
Port1	Select to define the port.	NA	Selected.
Port2	Select to define the port.	NA	Selected.
Browse button	Browse to select the S2P S-parameter file.		

S4P Single Ended file

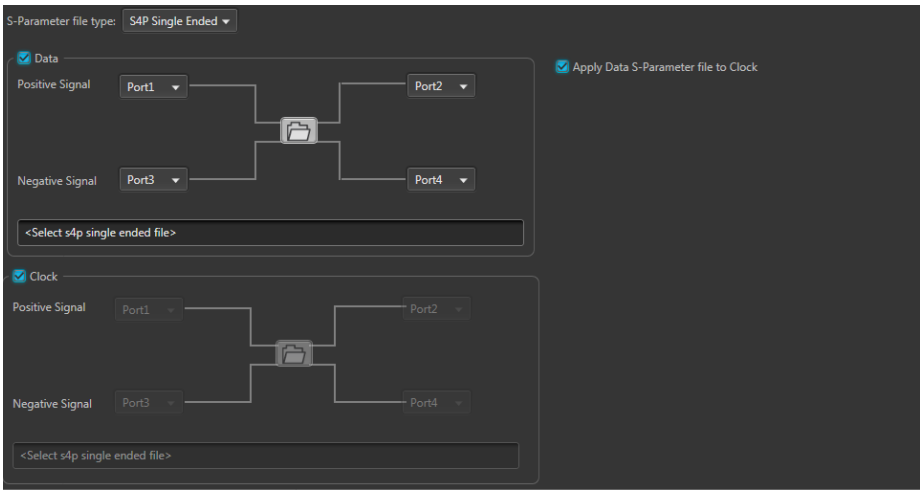


Table 10: High speed jitter tab settings-S4P Single Ended file

Controls	Description	Range	Default Value
S4P Single Ended			
Data	Selecting the Data check box, you can enable and disable channel effect on data signal.	NA	Selected.
Positive signal	List four ports to select: Port1, Port2, Port3 and Port4 in the drop-down.		
Port1	Select to define port 1 for data positive signal.	NA	Selected.
Port2	Select to define port 2 for data positive signal.	NA	NA
Port3	Select to define port 3 for data positive signal.	NA	NA

Controls	Description	Range	Default Value
Port4	Select to define port 4 for data positive signal.	NA	NA
Browse button	Browse to select the S4P S-parameter file.		
Apply Data S-Parameter file to Clock	Select to apply Data S-Parameter file to Clock. Selecting this option will dim the Clock control.	NA	Not selected.
Clock	Selecting the Clock check box , you can enable and disable channel effect on clock signal. Select to apply Data S-Parameter file to Clock. Selecting this option will dim the Clock.	NA	Selected.
Negative signal	List four ports to select: Port1, Port2, Port3 and Port4 in the drop-down.		
Port1	Select to define the port 1 for clock negative signal.	NA	selected.
Port2	Select to define the port 2 for clock negative signal.	NA	Selected.
Port3	Select to define the port 3 for clock negative signal.	NA	Selected.
Port4	Select to define the port 4 for clock negative signal.	NA	Selected.

Spread Spectrum Clocking

Table 11: High speed jitter tab settings-Spread Spectrum Clocking

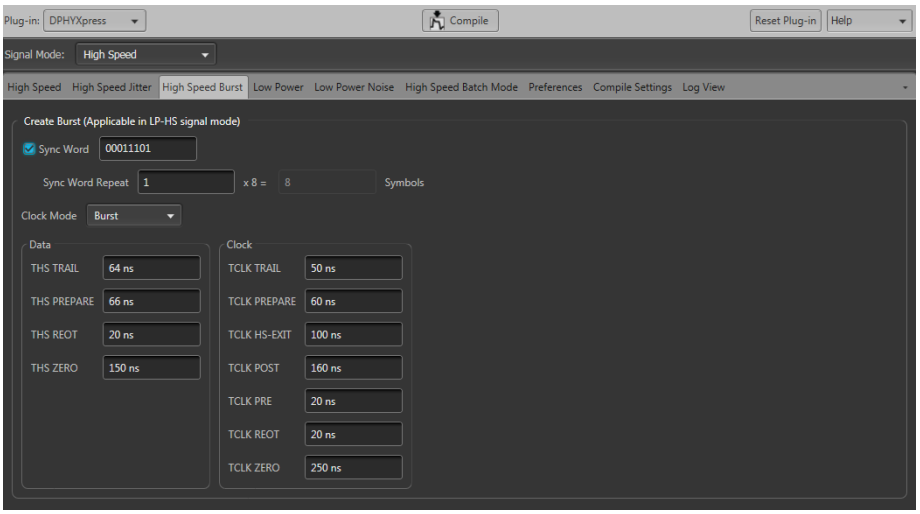
Controls	Description	Range	Default Value
Spread Spectrum Clocking	Select to reduce the clock frequency to minimize electro magnetic interference (EMI) effects. This control is only applicable for High Speed and Low Power-High Speed signal mode.	NA	Not selected.
Triangular Profile	Select to define the Spread Spectrum Clocking profile as triangular.	NA	Selected.
Sinusoidal Profile	Select to define the Spread Spectrum Clocking profile as sinusoidal.	NA	Not selected.
Modulation Rate	Enter the modulation rate.	Min:20 KHz Max: 50 KHz	33 KHz
Deviation	Enter the modulation deviation.	Min: -8000 ppm Max: 0 ppm	-5000 ppm

You can select any combination of the above parameters to create a waveform based on the test.

NOTE. *Spread Spectrum Clocking compilation will take more time.*

High speed burst

Use this tab to configure the burst parameters of high speed signal.



You can select a set of patterns and compile waveforms using these patterns.

The table below describes the parameters.

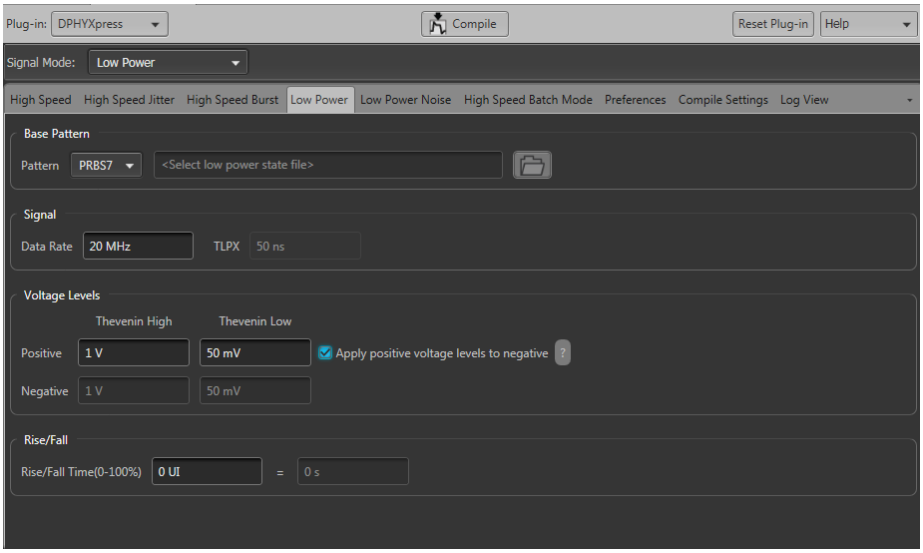
Table 12: High speed burst tab settings

Controls	Description	Range	Default Value
Burst			
Sync word	Specify 7 symbols. It is selected by default.	NA	00011101
Sync word repeat	Number of repeat patterns for sync word. Sync word repeat will be enabled if Sync Word is checked.	Min: 1 Max: 10	1
Symbols	Auto displays the value based on the value entered in Sync word repeat control. It multiplies the value by eight.	NA	NA
Clock Mode	Sets burst or continuous clock mode.		
Burst	Select to set the clock mode to burst.	NA	NA
Continuous	Select to set the clock mode to continuous.	NA	NA
Data	Specifies the Data burst components.		
THS TRAIL	Select to set THS TRAIL duration in time.	Min: 0 s Max: 150 ns	64 ns
THS PREPARE	Select to set THS PREPARE duration in time.	Min: 0 ns Max: 200 ns	66 ns
THS REOT	Select to set THS REOT duration in time.	Min: 0 s Max: 100 ns	20 ns
THS ZERO	Select to set THS ZERO duration in time.	Min: 0 ns Max: 400 ns	150 ns
CLOCK	Specifies the Clock burst components.		
TCLK TRAIL	Select to set TCLK TRAIL duration in time.	Min: 0 s Max: 200 s	50 ns
TCLK PREPARE	Select to set TCLK PREPARE duration in time.	Min: 0 s Max: 200 s	60 ns
TCLK HS-EXIT	Select to set TCLK HS-EXIT duration in time.	Min: 50 s Max: 400 ns	100 ns
TCLK POST	Select to set TCLK POST duration in time.	Min: 50ns Max: 400ns	160 ns
TCLK PRE	Select to set TCLK PRE duration in time.	Min: 5 ns Max: 400 ns	20 ns
TCLK REOP	Select to set TCLK REOP duration in time.	Min: 0 ns Max: 100 ns	20 ns

Controls	Description	Range	Default Value
THS ZERO	Select to set THS ZERO duration in time.	Min: 0 ns Max: 400 ns	250 ns

Low power

Use this tab to configure the basic parameters of the Low Power signal.



Yow can select a set of patterns and compile waveforms using these patterns.

The table below describes the parameters.

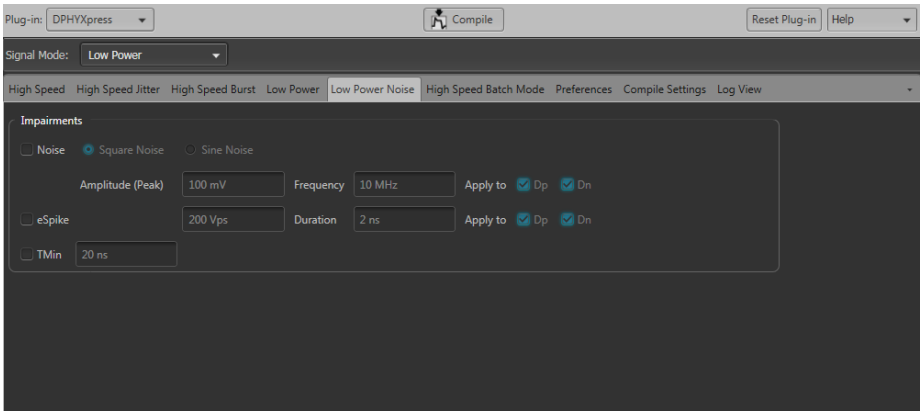
Table 13: Low power tab settings

Controls	Description	Range	Default Value
Base Pattern			
Pattern	Select the input Base Pattern / Bit Pattern for waveform generation. ***NOTE.*** *The Low power state file option allows you to browse and select a pattern file.* *NONE option is available in High Speed and Low Power-High Speed mode.*	PRBS7 PRBS9 PRBS11 PRBS15 Low power state file Text file NONE	PRBS7
Signal			

Controls	Description	Range	Default Value
Data Rate	Specify the data rate of LP signal.	Min: 10 MHz Max: 100 MHz	20 MHz
TLPX	Displays the value based on entered data rate.	NA	NA
Voltage Levels			
Thevenin High	Specify the high-level voltage (high impedance) for LP signals.		
Positive	Enter the low power positive high-level voltage value.	Min: 500 mV Max: 1.3 V	1 V
Apply positive voltage levels to negative.	Check to apply low power positive voltage levels to negative. ***NOTE.*** *This option is selected by default. Uncheck not to apply positive voltage levels to negative. This option is applicable for Thevenin High and Thevenin Low.*		
Negative	Enter the low power negative high-level voltage value.	Min: 500 mV Max: 1.3 V	1 V
Thevenin Low	Specify the low-level voltage (low impedance).		
Positive	Enter the low power positive low-level voltage value.	Min: -100 mV Max: 700 mV	50 mV
Negative	Enter the low power negative low-level voltage value.	Min: -100 mV Max: 700 mV	50 mV
Rise\Fall			
Rise\Fall Time (0-100%)	Specifies the rise/fall time of LP signal.	Min: 0 UI Max: 0.5 UI	0 UI

Low power noise

Use this tab to configure the basic parameters of the Low Power noise signal.



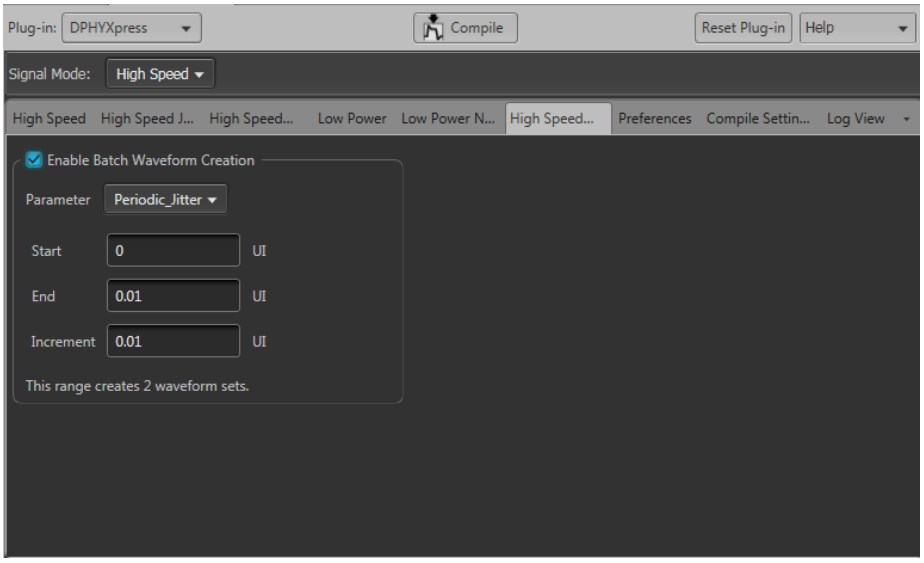
The table below describes the parameters.

Table 14: Low power noise tab settings

Controls	Description	Range	Default Value
Impairments			
Noise	Select to enable square noise or sine noise.	NA	Not selected.
Square Noise	Select to generate square noise in the waveform.	NA	Selected.
Sine Noise	Select to generate sine noise in the waveform.	NA	Not selected.
Amplitude (peak)	Enter the amplitude in volt to generate desired sine/square noise.	Min: 0 mV Max: 300 mV	100 mV
Frequency	Enter the frequency in Hz to generate desired sine/square noise.	Min: 100 KHz Max: 5 GHz	450 MHz
Apply to	Select the check box to apply sine/square noise frequency and amplitude to the selected lane.		
Dp (Data positive)	Enables the sine/ square noise to data positive lane.	NA	Selected.
Dn (Data negative)	Enables the sine/ square noise to data negative lane.	NA	Selected.
eSpike	Select to add eSpike to the waveform and enable Area and Duration controls.	NA	Not selected.
Area	Enter the area of the eSpike.	Min:100 Vps Max: 400 Vps	200
Duration	Enter the duration of the eSpike.	Min: 1 ps Max: 5 ns	2 ns
Apply to			
Dp (Data positive)	Enables the eSpike to data positive lane.	NA	Selected.
Dn (Data negative)	Enables the eSpike to data negative lane.	NA	Selected.
TMin	Select the check box to specify the TMin (minimum pulse width response) value.	Min: 10 ns Max: 50 ns (Max value depends on LP Data Rate)	20 ns

High speed batch mode

Use this tab to create waveform in High speed batch mode.



The table below describes the parameters.

Table 15: High speed batch mode settings

Controls	Description	Range/Value	Default value
Enable batch waveform creation	Select to enable the batch waveform creation parameters.	NA	Not selected.
Parameter	Select the parameter to configure the waveform from the drop-down menu.	Period_Jitter Periodic_Jitter_Frequency Random_Jitter Dynamic_Skew	Periodic_Jitter

Table 16: Default range of increment values for all the parameters

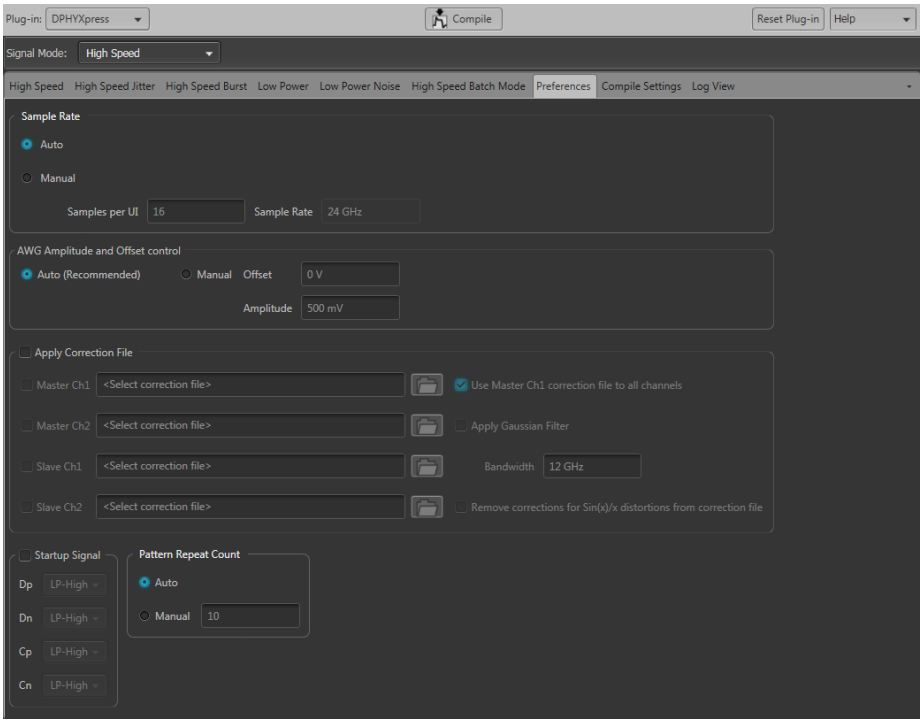
Controls	Description	Range		
	Units	**Start**	**End**	**Increment**
Periodic_Jitter	UI	Min: 0 Max: 0.99	Min: 0.01 Max:1	Min: 0.01 Max: 1
Periodic_Jitter_Frequency	MHz	Min:1 Max: 299	Min: 2 Max: 300	Min: 1 Max: 299
Random_Jitter	UI	Min: 0 Max: 0.29	Min: 0.01 Max: 0.3	Min: 0.01 Max: 0.3
Dynamic_Skew	%	Min: 0 Max: 29	Min: 1 Max: 30	Min: 1 Max: 30

NOTE.

- *Increment value depends on Start and the End value.*
- *End and increment value depends on the Start value.*

Preferences

Use this tab to define the preferences for the compiled waveform.



The table below describes the parameters.

Table 17: Preference tab settings

Controls	Description	Range	Default Value
Sample rate	Specifies the sample rate of the waveform.		
Auto	This option allows the application to choose an optimal sample rate for the waveform.	NA	Selected.
Manual	This option allows the user to specify the sample rate for the signal by setting the Samples per UI (SPUI).	NA	Not selected.

Controls	Description	Range	Default Value
Samples per UI	Specify the samples per UI (SPUI), which dictates the sample rate for the waveform to be created. This is applicable when the Sample rate selection is 'Manual'.	Signal Mode: High Speed 4 to 416 ***NOTE.*** *The range value depends on the HS data rate.* Signal Mode: Low Power 4 to 25000 ***NOTE.*** *The range value depends on the LP data rate.*	Signal Mode: High Speed In Auto mode: 16 In Manual mode: 16 Signal Mode: Low Power In Auto mode: 100 In Manual mode: 100
Sample Rate	The value of the resulting sample rate is displayed for users information.	Signal Mode: High Speed 6 GHz to 24 GHz Signal Mode: Low Power 80 MHz to 25 GHz	Signal Mode: High Speed In Auto/Manual mode - 24 GHz Signal Mode: Low Power In Auto/Manual mode- 2GHz ***NOTE.*** *Sample Rate=(Data Rate)X (Samples Per UI)*
AWG Amplitude and Offset control			
Auto (Recommended)	Sets the AWG amplitude setting automatically.	NA	Selected.
Manual	Select to enable AWG amplitude and Offset.	NA	Selected.
Offset	Specify the offset value manually.	Min: -400 mV Max: 800 mV	0 V
Amplitude	Specify the AWG amplitude value manually.	Min: 31 mV Max: 1.2 V	500 mV
Apply Correction File	Select to enable the application of correction file.	NA	Not selected.
Master Ch1	Select to enable the application of correction file on Master Ch1 waveform.	NA	Not selected.
Master Ch2	Select to enable the application of correction file on Master Ch2 waveform.	NA	Not selected.

Controls	Description	Range	Default Value
Slave Ch1	Select to enable the application of correction file on Slave Ch1 waveform.	NA	Not selected. Enables when the slave is connected.
Slave Ch2	Select to enable the application of correction file on Slave Ch2 waveform.	NA	Not selected. Enables when the slave is connected.
Use Master Ch1 connection file to all the channels	Uses the correction file of the Master ch1 to all channels.	NA	Selected.
Apply Gaussian filter	Applies the Gaussian filter to correct the signal.	NA	Not selected.
Bandwidth	Enter the bandwidth of signal. The available bandwidth setting depends on the AWG sample rate and the frequency resolution setting.	Sample rate/100 to sample rate/2	12 GHz
Remove correction for Sin(x)/x distortions from correction file	Enables removal of correction for Sin(x)/x distortions from correction file.	NA	Not selected.
Pattern repeat count			
Auto	Select to set the pattern repeat count automatically.	NA	Selected.
Manual	Select to enter the pattern repeat count manually.	Min: 1 Min: 1000	10
Startup Signal	Select to use the startup waveform, which is pre-created. This is applicable for LP and LP-HS Signal mode.	NA	Not selected.
Dp	Data positive		
LP-Low and LP-High drop-down	If you select LP-High, use LP11 waveform.	LP-High	Selected.
LP-High and LP-Low drop-down	If you select LP-Low, use LP00 waveform.	LP-High	Selected.
Dn	Data negative		
LP-High and LP-Low drop-down	If you select LP-High, use LP11 waveform.	LP-High	Selected.

Controls	Description	Range	Default Value
LP-High and LP-Low drop-down	If you select, LP-Low, use LP00 waveform.	LP-High	Selected.
Cp	Clock positive (Applicable for LP-HS Signal mode only.)		
LP-High and LP-Low drop-down	If you select LP-High, use LP11 waveform.	LP-High	Selected.
LP-High and LP-Low drop-down	If you select LP-Low, use LP00 waveform.	LP-High	Selected.
Cn	Clock negative (Applicable for LP-HS Signal mode only.)		
LP-High and LP-Low drop-down	If you select, LP-High, use LP11 waveform.	LP-High	Selected.
LP-High and LP-Low drop-down	If you select, LP-Low, use LP00 waveform.	LP-High	Selected.

Correction file

While testing a Device under test, ensure that the test equipment generating the signals is of better quality than the Device under Test. The signal generators, Arbitrary Waveform Generators (AWGs) require the generation of waveforms with flat amplitude and linear phase response in the band of interest. This means that the influence of the AWGs and the cables on the signals which could distort the signals should be de-embedded from the signals before sending it to the DUT.

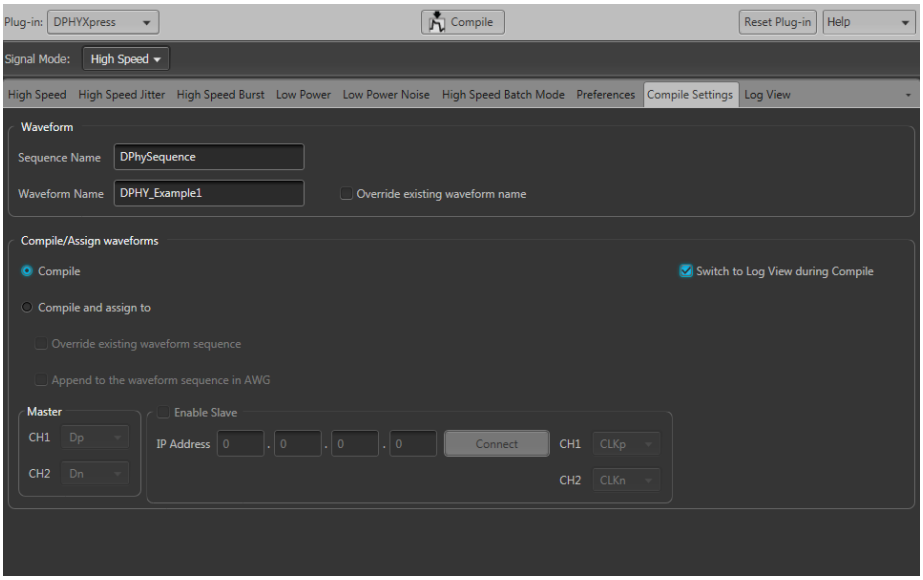
For a detailed procedure to create a correction file, refer to Help of the *Precompensation* plugin.

Applying the correction to the test signal

Correction file can be applied to any waveform in the AWG waveform list. By default, correction file feature is disabled. To apply correction, enable “Apply correction file” in the **Compile Settings** tab. The slave correction file controls will be enabled only if the slave is connected. You can select correction file for each channel using the browse button. The correction file will be applied only for those channels which are enabled in the application.

Compile settings

Use this tab to define the settings for the compiled waveform.



The table below describes the parameters.

Table 18: Compile settings tab

Parameter	Description	Range	Default value
Waveform			
Name			
Sequence Name	Specify the name of the sequence.		DPhySequence
Waveform Name	Specify the name for the compile waveform. The name will be automatically incremented. This allows you to create multiple waveforms without having to change the name.	Alphanumeric without spaces	DPHY_Example
Override existing waveform	Select to replace the waveform if the waveform name is the same. If the waveform name is not the same, then the created waveform will be listed along with the new name in the waveform list.	NA	Not selected.
Compile/Assign waveforms			
Compile	Compiles the waveform only.	NA	Selected.
Compile and assign to	Compiles and loads the waveform to the specified channel.		
Append to the waveform sequence in AWG	Select to append the waveform to the old sequence. Clear to create a new sequence of waveform.	NA	Not selected.
Master	Select the Master AWG. ***NOTE.*** *Activates only when* ***Compile and Assign to*** *is enabled.*		

Parameter	Description	Range	Default value
CH1	Specify the waveform to be loaded on Ch1 on the AWG, if **Compile and assign to** is selected ***NOTE.*** *CLKp and CLKn are displayed in the drop-down menu, when the signal mode is High Speed and Low Power-High Speed.*	Dp Dn CLKp CLKn	Dp
CH2	Select the waveform to be loaded on Ch2 on the AWG.	Dn Dp CLKp CLKn	Dn
Enable Slave	Enables slave AWG specific controls.	NA	Not selected.
IP Address	Specify the IP address of the slave.	NA	Dimmed.
Connect	Connects to the Slave.	NA	Dimmed.
CH1	Specify the waveform to be loaded on Ch1 on the AWG, if **Compile and assign to** is selected.	Dn Dp CLKp CLKn	
CH2	Select the waveform to be loaded on Ch2 on the AWG.	Dn Dp CLKn CLKp	
Switch to Log View after compile	This option allows you to switch to Log View after compilation. This option is selected by default. To switch to Log View, Click **Compile** button.		

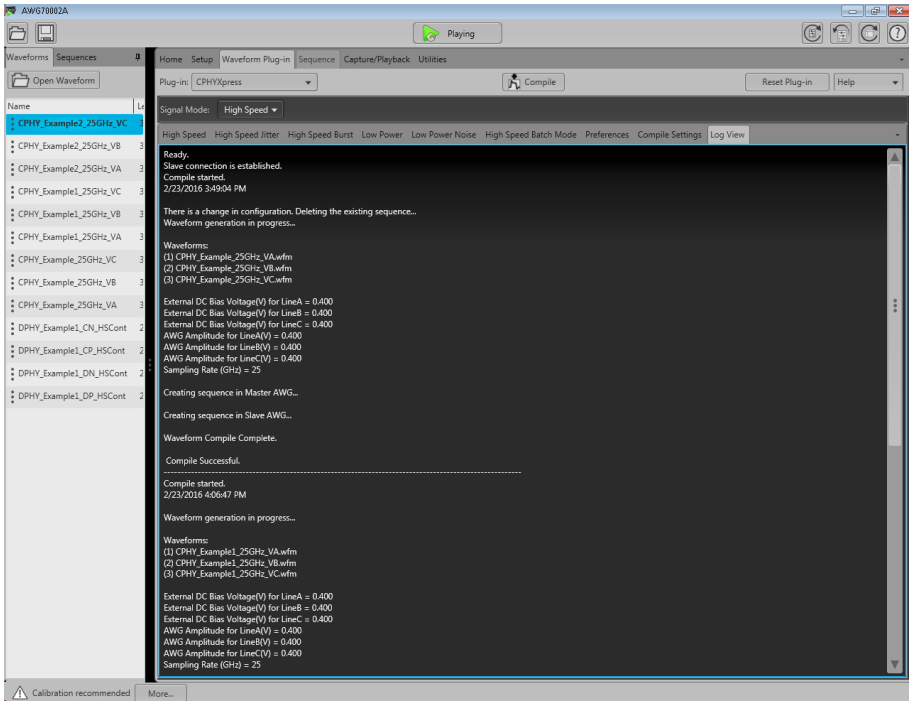
Compile and transfer signal

To compile and transfer the waveform:

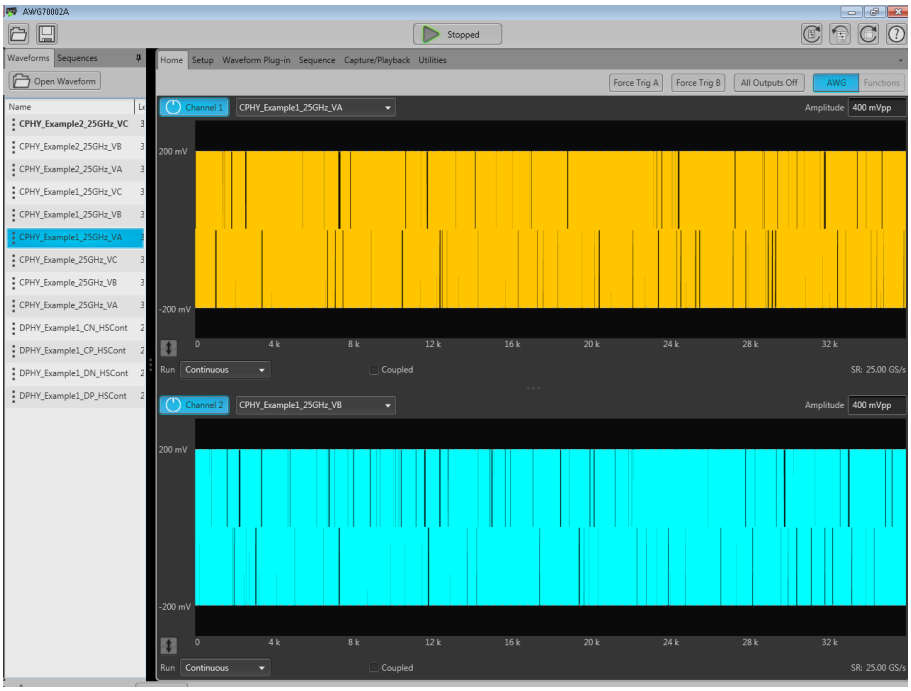
1. Click **Compile** in the toolbar, to compile the active waveform. The waveform is compiled.

   You can view the details of the waveform in the **Log View**.

   The compiled waveform is displayed in the waveform list. The waveform name is same as the pattern selected.



2. Select **Home** menu from the AWG.
3. To load the waveform into the Oscilloscope, drag and drop the waveform from Waveform list to the AWG channel (Ch1/ Ch2).



You can view the waveform in the AWG.

4. Click the **Channel 1 and Channel 2** button, to turn on the Channels.

NOTE. *No need to manually assign waveform to channel if you had selected* ***Compile and assign to*** *in* ***Compile Settings*** *tab. You need to manually drag the compiled waveform to the respective Channels if you selected* ***Compile*** *in* ***Compile Settings*** *tab.*

---

5. Click **Play** button.

   The waveform is now transferred to the DUT or you can view the waveform by connecting the signal to Oscilloscope.


File
Edit
Vertical
Horiz/Acq
Trig
Display
Cursors
Measure
Mask
Math
MyScope
Analyze
Utilities
Help
Tek
C1 100.0mV/div 50Ω BW:8.0G
A C1 0.0V
4.0ns/div 25.0GS/s 40.0ps/pt
Stopped
29 acqs RL:1.0k
Auto February 23, 2016 16:19:00

Reference

Error messages

The following table lists the error codes for the application.

Table 19: Error messages

Error code	Header	Error messages
1613	MDC Error	Lost connection to MDC4500 (-00); Check the USB connection between AWG and MDC.
9401	Base Pattern File	Custom base pattern file not found.
9402	Base Pattern File	Custom base pattern file has invalid content.
9403	Base Pattern File	Invalid base patter file format.
9404	Channel Filter File	Channel Filter file not found.
9405	Channel Filter File	Channel Filter file has invalid content.
9406	Channel Filter File	Invalid channel filter file format.
9407	S-Parameter file	S-Parameter file not found.
9408	S-Parameter file	S-Parameter file has invalid content.
9409	S-Parameter file	Invalid S2P file format.
9410	S-Parameter file	Invalid S4P file format.
9411	eSpike Error	eSpike Synthesis Failed - Increase the Samples per UI (SPUI) or change eSpike Area or Duration.
9412	Compile Error	Waveform compilation failed.
9414	VISA Communication Error	Visa communication failed. For more details, refer to *Trouble shooting* section of OLH.
9415	Slave AWG Connection Error	Slave AWG configuration is incorrect. For more details, refer to *Trouble shooting* section of OLH.
9416	Correction file	Invalid correction file.
9417	Correction file Error	Correction file not found or has invalid content.

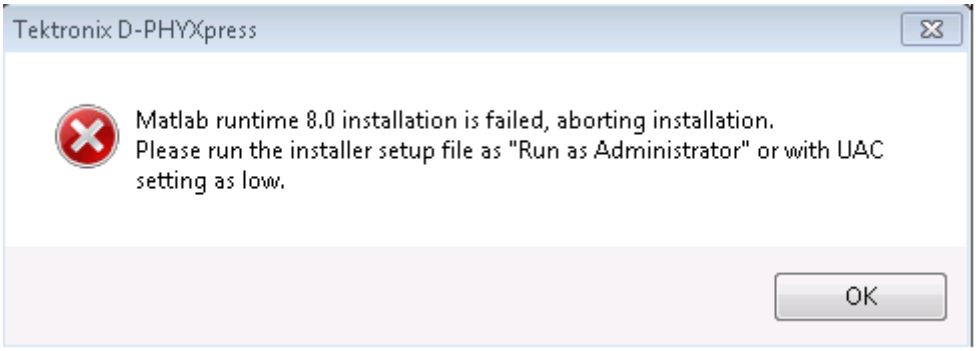
Error code	Header	Error messages
9418	Correction Configuration Error	Channel waveform types are same and correction files are different.
9419	Startup Signal Error	Startup signal is not applicable in High Speed mode.
9421	Correction Configuration Error	Correction is not enabled on the channel.

How to

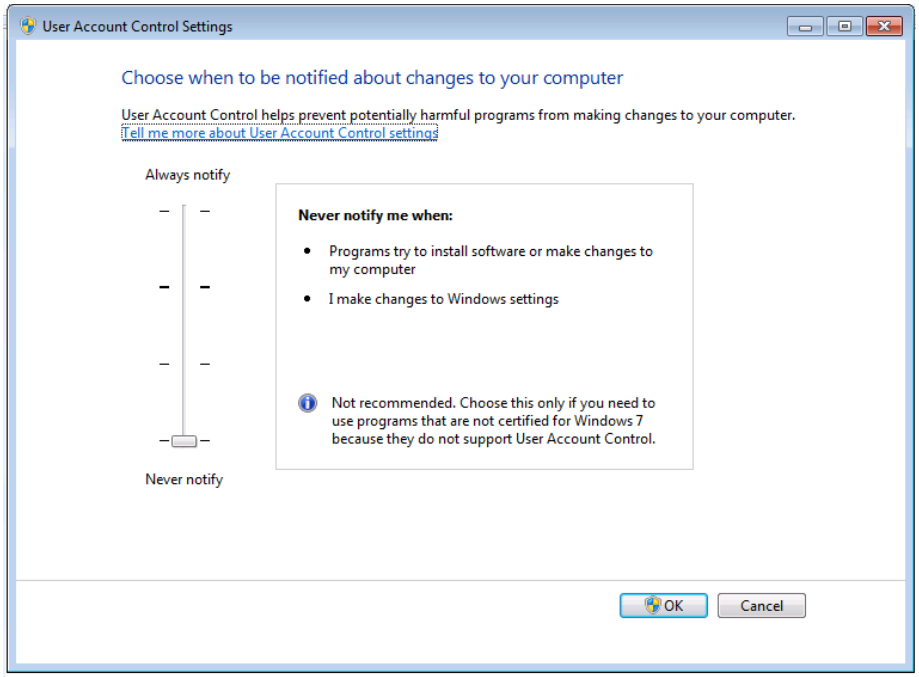
How to Check MCR is installed

To check MCR is installed, click **Start** > **Control Panel** > **Programs** > click **Uninstall a program**. List of programs installed will be populated in a window. If MCR is installed, then it will appear in the list.

Check if MCR installation fails



If MCR installation fails, change the UAC (User Account Control) setting as low, in the control panel or run the application as Administrator.



Connecting to master and slave AWGs from PC

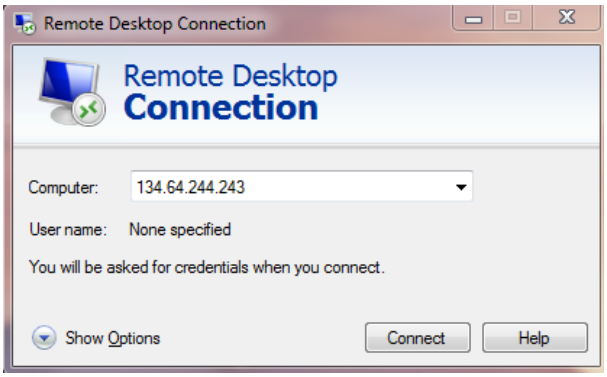
You need to configure the Master AWG from the SourceXpress installed in the PC and configure Slave using Remote Desktop Connection to create the waveforms and assign it to Master and Slave AWG. For more details on Connectivity, refer to SourceXpress help.

NOTE. *Enable Slave AWG Configuration before Master configuration.*

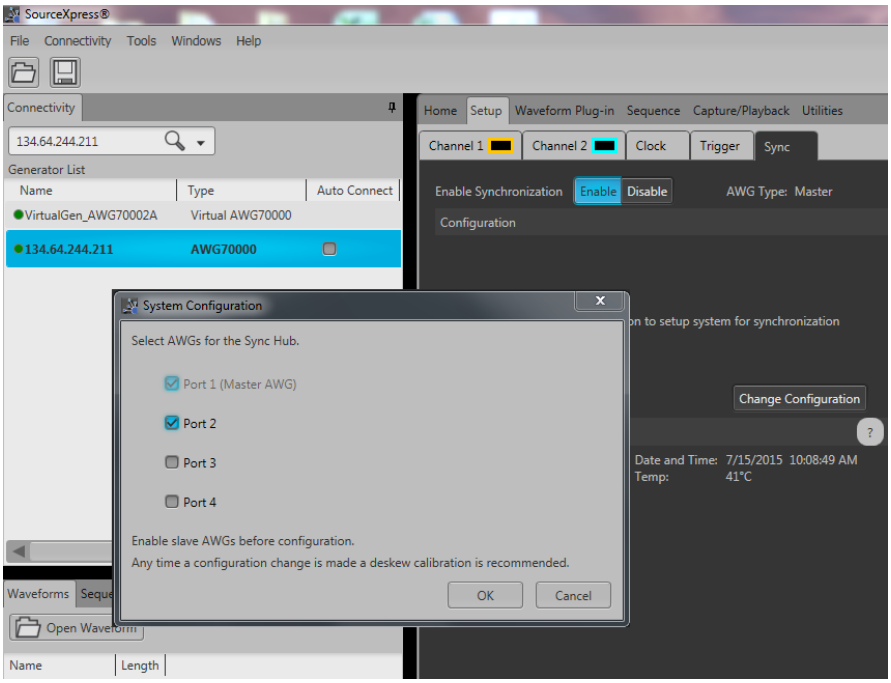
Steps to compile waveforms on Master and send the waveform to Slave AWG:

1. Configure Slave AWG.
2. Configure Master AWG.
3. Compile waveforms from PC.
4. Run the waveforms.

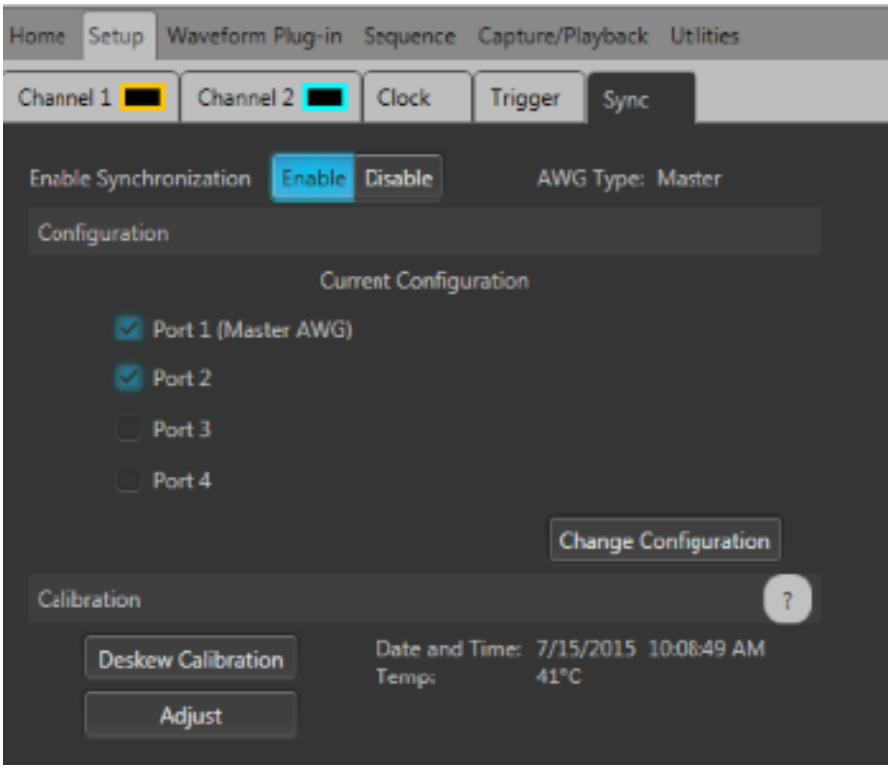
1. **Configure Slave AWG (Enable Sync in Slave)**
   - Using Remote Desktop Connection, connect to Slave AWG using its IP address.



   - Select **Setup** tab, and then click **Sync**.
   - Select **Enable**.
   - Click **OK** button.



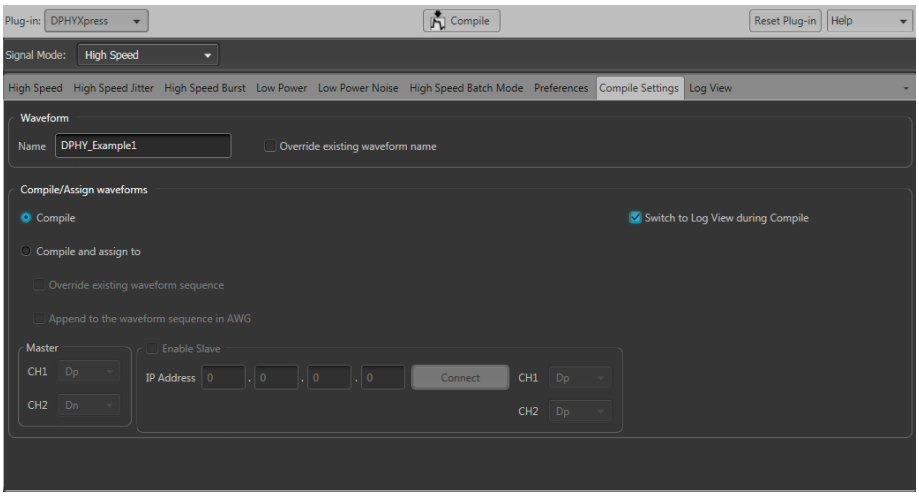
Slave AWG is configured.



2. **Configure Master AWG**
   - Select **Connectivity** tab.
   - Enter the IP address of the Master AWG. A popup appears displaying that a connection is in progress.

     Displays the IP address of the configured Master AWG in the **Generator list**.
   - Select **Setup** tab, and click **Sync**.
   - Select **Enable**.
   - Click on **Change Configuration** and select the port where slave is connected (Port 2/3,4).
   - Click **OK** button.
3. **Compile Waveform from PC**
   - Select **Waveform Plug-in -> CPHYXpress** -> **Compile settings** tab.
   - Select **Compile and assign to**.
   - Assign the waveforms to the **Master channels CH1/CH2** .
   - Enable **Slave**.

- Enter the IP Address of the slave.
- Click **Connect**. The slave AWG is connected and then assign the waveforms to the Slave channels CH1/CH2.
- Click **Compile** button to compile the waveform.



- The waveform is generated and it is displayed in the **Waveform** tab.

4. Run the Waveforms

NOTE. *Connect the Master and Slave AWG Channels to Scope Channels.*

Troubleshooting

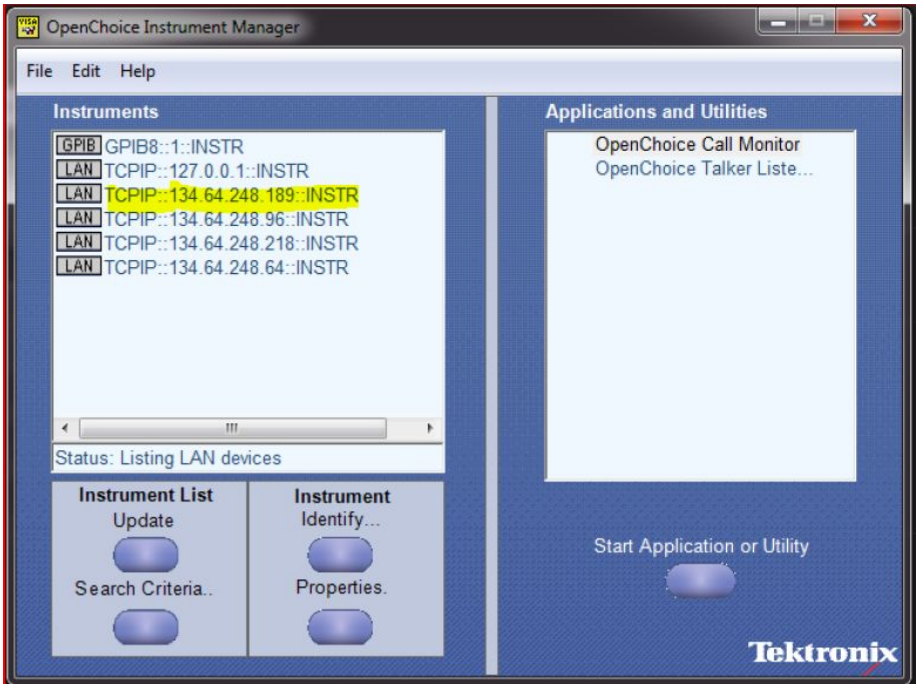
Listed below are the frequently reported issues and the ways to troubleshoot them.

Slave AWG Connection Error and VISA Communication Error either

This could be either because of below reasons:

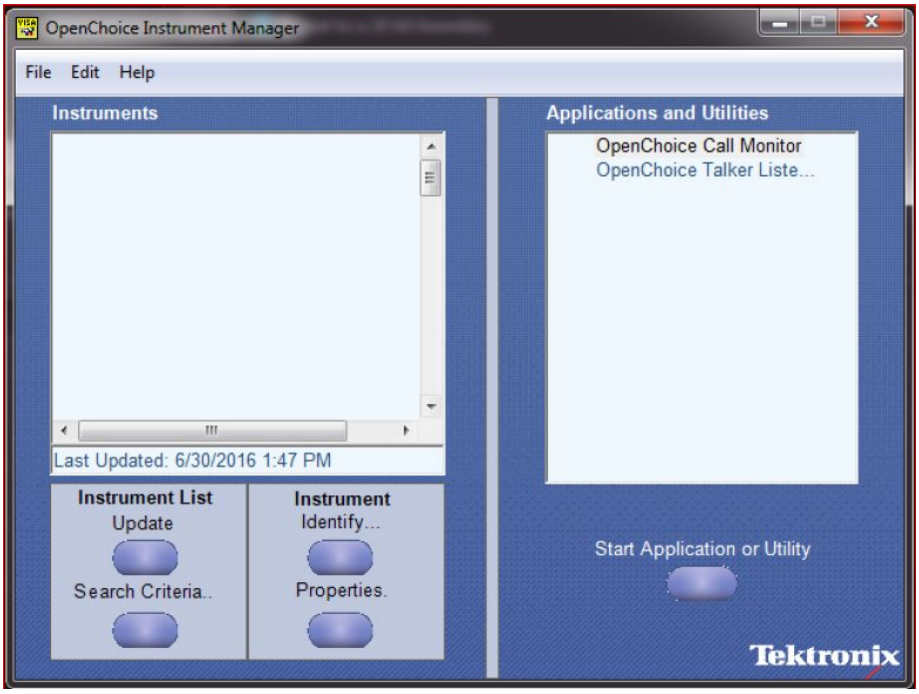
1. Invalid slave IP or slave is offline or AWG software is not launched in slave or slave AWG model is not supported.
2. TekVisa LAN server has stopped. Follow the below on Master and Slave AWG to fix this issue.
   - Run ServerControl.exe from C:\Program Files (x86)\IVI Foundation \VISA\WinNT\TekVISA\Bin\
   - A tray icon  appears on the task bar.
   - Right-click on the icon and select Start VX-11 Server if it is not started.
3. Check whether the slave IP address is listed in Open Choice Instrument Manager.

   Follow the steps below to check and add the instrument, if not present.
   - Run TekInstrMgr.exe from C:\Program Files (x86)\IVI Foundation\VISA \WinNT\TekVISA\Bin.
   - Check whether the slave IP address is listed as below:



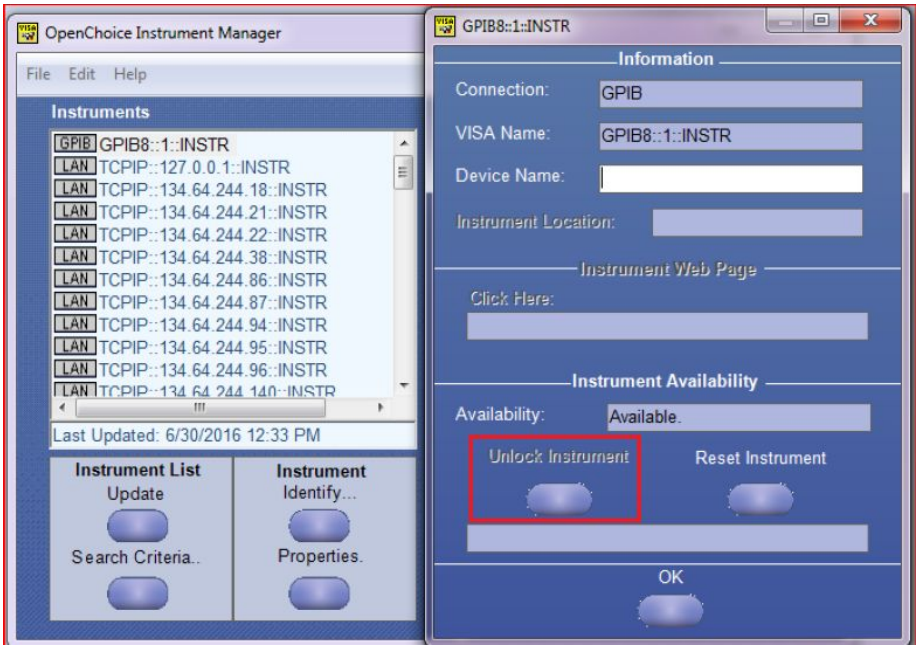
   - If the slave address is not listed, follow the below steps:
     - Ensure GPIB, LAN and VXI LEDs are ON
     - Under LAN, Auto Discovery should be selected.
     - Enter the slave IP for Hostname and click the down arrow button and click on done.
     - Click on Update button and wait for some time to see the Slave IP in the list.

4. The Instrument Manager is unable to recognize Virtual GPIB. The Instrument list appears to be blank as below even after updating in OpenChoice Instrument Manager. TekVisa needs to be re-installed to fix this issue.



5. This could be either because of slave configuration or improper installation of TekVisa.

6. The instrument might have got locked. Follow the steps below to unlock it.
   - Run TekInstrMgr.exe from C:\Program Files (x86)\IVI Foundation\VISA \WinNT\TekVISA\Bin.
   - On Master/ SourceXpress, select GPIB::1::INSTR in the list, and then click **Properties** button
   - Click **Unlock Instrument** button if it is locked.



No waveforms assign to channel

To assign waveforms to the channel:

- Select **Window** > **Waveform List** to view the waveforms are assigned to the channel. If the waveforms are not assigned to the channels, you need to assign the channels to the waveform.
- Select **Compile Settings** > select **Compile and assign to** and select the Channels.

Slave configuration

To configure slave, select **Compile and assign to** in **Compile settings** tab.

1. Select **Enable slave** to enable slave specific controls.
2. Provide the IP Address of the slave.
3. Click **Connect**.

NOTE.

- *Enter only the valid Slave IP Address*
- *Slave should be online*

  The control channels is enabled.

4. Select the waveforms to be assigned, to the respective channels.

MDC Error

The MDC Error pop-up is displayed in the following scenario:

- The MDC USB cable from AWG Master/Slave is removed or there is a loose connection of the cable.
- In the process of compiling and transferring the signals to Oscilloscope.

Parameter definitions

Definitions of the jitter and time related parameters are given in the following table:

Table 20: Jitter/Time parameters and their description

Parameters	Description
Jitter	
RJ	Random Jitter is jitter that does not exhibit deterministic behavior and is not bounded.
PJ	Periodic Jitter is the portion of the deterministic jitter that is periodic, but for which the period is not correlated with any data in the waveform. It is measured by peak-to-peak variation and frequency.
DCD	Duty Cycle Distortion is the portion of the deterministic jitter directly correlated with waveform polarity (the difference in the positive edges and negative edges).
Noise	This is a type of additive noise that modifies the vertical amplitude of the serial data and contributes to the jitter.
Time	
Rise Time	Elapsed time between the low reference level crossing and the high reference level crossing on the rising edge of the waveform. It is measured in time units between the 10% and 90% levels or between the 20% and 80% levels.
Fall Time	Elapsed time between the high reference level crossing and the low reference level crossing on the falling edge of the waveform. It is measured in time units between the 10% and 90% levels or between the 20% and 80% levels.

Command groups

High speed group commands

Table 21: High speed group commands

Commands	Description
DPHY:HSPEed:PATTern	This command sets or returns the high speed base pattern type.
DPHY:HSPEed:CUSTom:FILE	This command activates the Browse button and allows to you select your own custom files for waveform creation.
DPHY:HSPEed:DRATe	This command sets or returns the data rate of high speed base pattern.
DPHY:HSPEed:ENCOde8b9b	This command enables or disables the use of 8b9b encoding on data.
DPHY:HSPEed:DATA:VOD	This command sets data VOD (Differential Voltage) level.
DPHY:HSPEed:DATA:VCM	This command sets or returns the data VCM (Common Mode Voltage) value.
DPHY:HSPEed:CLOCk:VOD	This command sets or returns clock VOD (Differential Voltage) value.
DPHY:HSPEed:CLOCk:VCM	This command sets clock VCM (Common Mode Voltage) value.
DPHY:HSPEed:DATA:APPLydatatoclock	This command enables/disables the option to apply data voltage levels to clock.
DPHY:HSPEed:RTFT:VALUe	This command sets or returns rise and fall time of high speed signal
DPHY:HSPEed:RTFT:SECOnds?(Query only)	This command sets or returns the rise and fall time of the signal in seconds
DPHY:HSPEed:MARKer:ENABle	This command enables the clock embed through data marker.
DPHY:HSPEed:MARKer:VALUe	This command sets the value of delay of analog to marker.

High speed jitter group commands

Table 22: High speed jitter group commands

Commands	Description
DPHY:HSPEed:JITTer:PJ:ENABle	This command enables or disables the periodic jitter.
DPHY:HSPEed:JITTer:PJ:VALUe	This command sets or returns the value of periodic jitter value.
DPHY:HSPEed:JITTer:PJ:FREQuency:VALUe	This command sets or returns the value of periodic jitter frequency.
DPHY:HSPEed:JITTer:RJ:ENABle	This command enables/disables random jitter.
DPHY:HSPEed:JITTer:RJ:VALUe	This command sets or returns the random jitter value of high speed Jitter waveform
DPHY:HSPEed:JITTer:SKEW:DYNAmic:ENABle	This command enables/disables the dynamic skew.
DPHY:HSPEed:JITTer:SKEW:DYNAmic:VALUe	This command sets or returns the dynamic skew value.
DPHY:HSPEed:JITTer:SINE:ENABle	This command enables/disables the sine noise.
DPHY:HSPEed:JITTer:SINE:AMPLitude	This command sets or returns the sine noise amplitude value.
DPHY:HSPEed:JITTer:SINE:FREQuency	This command sets or returns the sine noise frequency value.
DPHY:HSPEed:JITTer:SKEW:DACLock:VALUe	This command enables or disables the data to clock skew.
DPHY:HSPEed:JITTer:SKEW:DACLock:ENABle	This command enables or disables the data to clock skew.
DPHY:HSPEed:JITTer:DEEMphasis:ENABle	This command enables/disables de-emphasis
DPHY:HSPEed:JITTer:DEEMphasis:VALUe	This command enables/disables the removal of Sin(x)/x distortions from correction file.
DPHY:HSPEed:JITTer:EMBEd:ENABle	This command sets or returns the de-emphasis value.
DPHY:HSPEed:JITTer:EMBEd:TYPE	This command sets or returns whether dynamic skew is applied to data or clock.
DPHY:HSPEed:JITTer:EMBEd:FILTer:DATA:ENABle	This command enables or disables the use of filter data.
DPHY:HSPEed:JITTer:EMBEd:FILTer:DATA:POSitive	This command sets or returns the filter file path of data negative signal.
DPHY:HSPEed:JITTer:EMBEd:FILTer:DATA:NEGative	This command sets or returns the filter file path of data negative signal.
DPHY:HSPEed:JITTer:EMBEd:FILTer:CLOCK:ENABle	This command enables or disables the filter clock.
DPHY:HSPEed:JITTer:EMBEd:FILTer:CLOCK:POSitive	This command sets or returns the path of clock positive signal filter file.

Commands	Description
DPHY:HSPEed:JITTer:EMBEd:FILTer:CLOCK:NEGative	This command sets or returns the path of clock negative signal filter file.
DPHY:HSPEed:JITTer:EMBEd:FILTer:DATA:APPLy	This command enables/disables the option to apply positive Signal filter file to negative signal.
DPHY:HSPEed:JITTer:EMBEd:FILTer:CLOCK:APPLy	This command sets or returns the application filter files to clock.
DPHY:HSPEed:JITTer:EMBEd:SPARameter:MODE?(Query only)	This command returns the mode type of S-Parameter.
DPHY:HSPEed:JITTer:EMBE:SPARameter:BANDwidth:MODE	This command sets or returns the S-Parameter bandwidth mode.
DPHY:HSPEed:JITTer:EMBE:SPARameter:BANDwidth:CUSTom	This commands sets or returns the custom bandwidth limit value.
DPHY:HSPEed:JITTer:EMBE:SPARameter:PORT	This command sets or returns the S-Parameter file type.
DPHY:HSPEed:JITTer:EMBE:SPARameter:STWOp:DATA:ENABle	This command enables or disables the S2P data files.
DPHY:HSPEed:JITTer:EMBEd:SPARameter:STWOp:DATA:POSItive:PORT:INPUt	This command sets or returns the input type of S2P data positive signal.
DPHY:HSPEed:JITTer:EMBEd:SPARameter:STWOp:DATA:POSItive:PORT:OUTPut	This command sets or returns the output type of S2P positive signal
DPHY:HSPEed:JITTer:EMBEd:SPARameter:STWOp:DATA:NEGAtive:PORT:INPUt	This command sets or returns the input type of S2P data negative signal.
DPHY:HSPEed:JITTer:EMBEd:SPARameter:STWOp:DATA:NEGAtive:PORT:OUTPut	This command sets or returns the output type of S2P data negative signal.
DPHY:HSPEed:JITTer:EMBEd:SPARameter:STWOp:DATA:POSItive:PORT:FILE	This command sets or returns the file path of S2P data positive signal.
DPHY:HSPEed:JITTer:EMBEd:SPARameter:STWOp:DATA:NEGAtive:PORT:FILE	This command sets or returns the file path of S2P data negative signal.
DPHY:HSPEed:JITTer:EMBEd:SPARameter:STWOp:CLOCK:ENABle	This command enables or disables the S2P clock files.
DPHY:HSPEed:JITTer:EMBEd:SPARameter:STWOp:CLOCk:POSItive:PORT:INPUt	This command sets or returns the Input type of S2P clock positive signal.
DPHY:HSPEed:JITTer:EMBEd:SPARameter:STWOp:CLOCk:POSItive:PORT:OUTPut	This command sets or returns the output type of S2P clock positive signal.
DPHY:HSPEed:JITTer:EMBEd:SPARameter:SFSE:DATA:POSItive:PORT:APPLydatatoclock	This command enables or disables the option to apply data positive.
DPHY:HSPEed:JITTer:EMBEd:SPARameter:STWOp:CLOCk:NEGAtive:PORT:INPUt	This command sets or returns the Input type of S2P clock negative signal.
DPHY:HSPEed:JITTer:EMBEd:SPARameter:STWOp:CLOCk:NEGAtive:PORT:OUTPut	This command sets or returns the output type of S2P clock negative signal.
DPHY:HSPEed:JITTer:EMBEd:SPARameter:STWOp:CLOCk:POSItive:PORT:FILE	This command sets or returns the file path of S2P clock positive signal.
DPHY:HSPEed:JITTer:EMBEd:SPARameter:STWOp:CLOCk:NEGAtive:PORT:FILE	This command sets or returns the file path of S2P clock negative signal.

Commands	Description
DPHY:HSPEed:JITTer:EMBEd:SPARameter:STWOp:DATA:APPLy	This command enables or disables the option to apply data positive Signal SParameter file to negative signal.
DPHY:HSPEed:JITTer:EMBEd:SPARameter:STWOp:CLOCk:APPLy	This command enables or disables the option to apply clock positive Signal SParameter file to negative signal.
DPHY:HSPEed:JITTer:EMBEd:SPARameter:SFSE:DATA:ENABle	This command enables or disables the S4 single ended data file.
DPHY:HSPEed:JITTer:EMBEd:SPARameter:SFSE:DATA:POSItive:PORT:INPUt	This command sets or returns the input 1 in 4-port single ended data S-parameter mode.
DPHY:HSPEed:JITTer:EMBEd:SPARameter:SFSE:DATA:POSItive:PORT:OUTPut	This command sets or returns the output 1 in 4-port of S4 single ended data positive signal.
DPHY:HSPEed:JITTer:EMBEd:SPARameter:SFSE:DATA:NEGAtive:PORT:INPUt	This command sets or returns the input 2 in 4-port type of S4 single ended data positive signal.
DPHY:HSPEed:JITTer:EMBEd:SPARameter:SFSE:DATA:NEGAtive:PORT:OUTPut	This command sets or returns the output 2 type of S4 single ended data negative signal.
DPHY:HSPEed:JITTer:EMBEd:SPARameter:SFSE:CLOCK:NEGAtive:PORT:INPUt	This command sets or returns the input 2 type of S4 single ended clock negative signal.
DPHY:HSPEed:JITTer:EMBEd:SPARameter:SFSE:DATA:FILE	This command sets or returns the file name of 4 port single ended S-parameter data mode.
DPHY:HSPEed:JITTer:EMBEd:SPARameter:SFSE:CLOCK:ENABle	This command enables or disables S4 single ended clock file.
DPHY:HSPEed:JITTer:EMBEd:SPARameter:SFSE:CLOCK:POSItive:PORT:INPUt	This command sets or returns the input 1 of S2P clock S-Parameter mode.
DPHY:HSPEed:JITTer:EMBEd:SPARameter:SFSE:CLOCK:POSItive:PORT:OUTPut	This command sets or returns the output 1 type of S4 single ended clock positive signal.
DPHY:HSPEed:JITTer:EMBEd:SPARameter:SFSE:CLOCK:NEGAtive:PORT:OUTPut	This command sets or returns the output 2 type of S4 single clock ended negative signal.
DPHY:HSPEed:JITTer:EMBEd:SPARameter:SFSE:CLOCK:FILE	This command sets or returns the file name of 4 port single ended S-parameter clock mode.
DPHY:HSPEed:JITTer:SSC:ENABle	This command enables or disables SSC.
DPHY:HSPEed:JITTer:SSC:MODUlation	This command sets or returns the SSC modulation rate.
DPHY:HSPEed:JITTer:SSC:DEVIation	This command sets or returns the SSC deviation.
DPHY:HSPEed:JITTer:SSC:PROFile	This command sets or returns the spread spectrum clocking profile type.

High speed burst group commands

Table 23: High speed burst group commands

Commands	Descriptions
DPHY:HSPEed:BURSt:SYNC:ENABle	This command enables/disables sync word.
DPHY:HSPEed:BURSt:SYNC:WORD	This command sets or returns the sync word.
DPHY:HSPEed:BURSt:SYNC:REPEat	This command sets or returns the repeat count of sync word.
DPHY:HSPEed:BURSt:SYNC:SYMBols? (Query only)	This command returns the sync word symbol value.
DPHY:HSPEed:BURSt:CLOCk:MODE	This command sets or returns the burst clock mode.
DPHY:HSPEed:BURSt:DATA:TRAIL	This command sets or returns the data THS TRAIL value.
DPHY:HSPEed:BURSt:DATA:PREPare	This command sets or returns the data THS PREPARE value.
DPHY:HSPEed:BURSt:DATA:REOT	This command sets or returns the data THS REOT value.
DPHY:HSPEed:BURSt:DATA:ZERO	This command sets or returns the data THS ZERO duration in time.
DPHY:HSPEed:BURSt:CLOCk:TRAIL	This command sets or returns the clock TCLK TRAIL value.
DPHY:HSPEed:BURSt:CLOCk:PREPare	This command sets or returns the clock TCLK PREPARE value.
DPHY:HSPEed:BURSt:CLOCk:HSExit	This command sets or returns the clock TCLK HS-EXIT value.
DPHY:HSPEed:BURSt:CLOCk:POST	This command sets or returns the clock TCLK POST value.
DPHY:HSPEed:BURSt:CLOCk:PRE	This command sets or returns the clock TCLK PRE value.
DPHY:HSPEed:BURSt:CLOCk:REOT	This command sets or returns the clock TCLK REOT value.
DPHY:HSPEed:BURSt:CLOCK:ZERO	This command sets or returns the clock TCLK ZERO duration in time.

Low power group commands

Table 24: Low power group commands

Commands	Descriptions
DPHY:LPOWer:PATTern	This command sets or returns the low power base pattern.
DPHY:LPOWer:CUSTom:FILE	This command sets or returns custom base pattern file for low power.
DPHY:LPOWer:DRATe	This command sets or returns the low power data rate.
DPHY:LPOWer:TLPX? (Query only)	This command returns the Low Power TLPX value.
DPHY:LPOWer:POSItive:HIGH	This command sets or returns the positive thevenin high voltage level.
DPHY:LPOWer:POSItive:LOW	This command sets or returns the positive thevenin low voltage level
DPHY:LPOWer:NEGAtive:HIGH	This command sets or returns the negative thevenin high voltage level..
DPHY:LPOWer:NEGAtive:LOW	This command sets or returns the negative thevenin low voltage level.
DPHY:LPOWer:RTFT:VALUe	This command sets or returns the rise/fall time in UI.
DPHY:LPOWer:RTFT:SECOnds? (Query only)	This command returns the rise/fall time in seconds.
DPHY:LPOWer:POSItive:APPLytonegative	This command enables/disables the option to apply positive voltage levels to negative.

Low power noise group commands

Table 25: Low power noise group commands

Commands	Descriptions
DPHY:LPOWer:NOISe:SINE:ENABle	This command enables or disables the low power sine noise.
DPHY:LPOWer:NOISe:SINE:AMPLitude	This command sets or returns the low power sine noise amplitude.
DPHY:LPOWer:NOISe:SINE:FREQuency	This command sets or returns the sine noise frequency.
DPHY:LPOWer:NOISe:SINE:DN:ENABle	This command enables or disables the sine noise to data negative lane.
DPHY:LPOWer:NOISe:SINE:DP:ENABle	This command enables or disables the sine noise to data positive lane.
DPHY:LPOWer:NOISe:SQUArenoise:ENABle	This command enables or disables the low power square noise.
DPHY:LPOWer:NOISe:SQUArenoise:AMPLitude	This command sets or returns the low power square noise amplitude.
DPHY:LPOWer:NOISe:SQUArenoise:FREQuency	This command sets or returns the square noise frequency
DPHY:LPOWer:NOISe:SQUArenoise:DP:ENABle	This command enables or disables the square noise to data positive lane.
DPHY:LPOWer:NOISe:SQUArenoise:DN:ENABle	This command enables or disables the square noise to data negative lane.
DPHY:LPOWer:NOISe:ESPIke:ENABle	This command enables or disables the low power noise eSpike.
DPHY:LPOWer:NOISe:ESPIke:AREA	This command sets or returns the eSpike area.
DPHY:LPOWer:NOISe:ESPIke:DURAtion	This command sets or returns the low power noise eSpike duration.
DPHY:LPOWer:NOISe:ESPIke:DP:ENABle	This command enables or disables the eSpike to data positive lane.
DPHY:LPOWer:NOISe:ESPIke:DN:ENABle	This command enables/disables the eSpike to data negative lane.
DPHY:LPOWer:NOISE:TMIN:ENABle	This command enables/disables the noise TMin.
DPHY:LPOWer:NOISE:TMIN:VALUe	This command sets or returns the low power noise TMin value.

High speed batch mode group commands

Table 26: High speed batch mode group commands

Commands	Descriptions
DPHY:HSPEed:BATCh:ENABle	This command enables or disables the batch waveform creation.
DPHY:HSPEed:BATCh:PARAmeter	This command sets or returns the batch parameter type.
DPHY:HSPEed:BATCh:STARt	This command sets or returns the start value of the selected batch mode parameter type.
DPHY:HSPEed:BATCh:END	This command sets or returns the end value of the selected batch mode parameter type.
DPHY:HSPEed:BATCh:INCRement	This command sets or returns the increment value of the selected batch mode parameter type.
DPHY:HSPEed:BATCh:WFMNo	This command sets or returns number of waveform sets created in batch mode.

Preference group commands

Table 27: Preference group commands

Commands	Descriptions
DPHY:PREFerence:SRATe:MODE	This command sets or returns the sample rate mode.
DPHY:PREFerence:SRATe:HIGH:VALUe	This command returns the sample rate of High speed signal.
DPHY:PREFerence:SRATe:LOW:VALUe	This command returns the sample rate of Low power signal.
DPHY:PREFerance:SAMPlesperui	This command sets or returns the value of samples per unit interval.
DPHY:PREFerance:SAMPlesperui:HIGH	This command sets or returns the samples per unit interval of High speed signal.
DPHY:PREFerance:SAMPlesperui:LOW	This command sets or returns the samples per unit interval of Low power signal.
DPHY:PREFerance:PATTernrepeat:MODE	This command sets or returns the pattern repeat mode.
DPHY:PREFerance:PATTernrepeat:COUNt	This command sets or returns the pattern repeat count value.
DPHY:PREFerence:AWGAmplitude:ENABLE	This command enables or disables AWG amplitude.
DPHY:PREFerence:AWGVoltage:MODE	This command sets or returns the AWG voltage offset mode.

Commands	Descriptions
DPHY:PREFerence:AWGVoltage:OFFSet:VALUe	This command sets or returns the AWG voltage offset value.
DPHY:PREFerence:AWGAmplitude:AMPLitude:VALUe	This command sets or returns the AWG amplitude value.
DPHY:PREFerence:CORRection:APPLy	This command enables or disables the application of correction file to master and slave waveforms.
DPHY:PREFerence:CORRection:ENABle	This command enables or disables the application of correction file.
DPHY:PREFerence:CORRection:GAUSsian	The command enables or disables the option to reduce the noise of filter files.
DPHY:PREFerence:CORRection:GAUSsian:BANDwidth	This command sets and returns the Gaussian bandwidth.
DPHY:PREFerence:CORRection:REMOve	This command enables or disables the removal of Sin(x)/x distortions from correction file.
DPHY:PREFerence:CORRection:MASTer:CHONe:ENABle	This command enables or disables the application of correction file on Master channel one.
DPHY:PREFerence:CORRection:MASTer:CHONe:FILE	This command sets or returns the correction file path of Master channel one.
DPHY:PREFerence:CORRection:MASTer:CHTWo:ENABle	This command enables or disables the application of correction file on Master channel two.
DPHY:PREFerence:CORRection:MASTer:CHTWo:FILE	This command sets or returns the correction file path of Master channel two.
DPHY:PREFerence:CORRection:SLAVe:CHONe :ENABle	This command enables/disables the application of correction file on Slave channel one.
DPHY_PREFerence:CORRection:SALVe:CHONe:FILE	This command sets or returns the correction file path of slave channel one.
DPHY:PREFerence:CORRection:SLAVe:CHTWo:ENABle	This command enables or disables the application of correction file on Slave channel two.
DPHY:PREFerence:CORRection:SLAVe:CHTWo:FILE	This command sets or returns the correction file path of slave channel two.
DPHY:PREFerence:STARtupsignal:ENABle	This command enables or disables the startup signal.
DPHY:PREFerence:STARtupsignal:DP	This command sets or returns the startup signal type of data positive.
DPHY:PREFerence:STARtupsignal:DN	This command sets or returns the startup signal type of data negative.
DPHY:PREFerence:STARtupsignal:CP	This command sets or returns the startup signal type of clock positive.
DPHY:PREFerence:STARtupsignal:CN	This command sets or returns the startup signal type of clock negative.

Compile group commands

Table 28: Compile group commands

Commands	Descriptions
DPHY:CSETtings:WAVEform:Name	This command sets or returns the name of the waveform.
DPHY:CSETtings:WAVEform:SEQUence	This command sets or returns the name of the sequence.
DPHY:CSETtings:WAVEform:OVERwrite	This command enables or disables the waveform name overwrite.
DPHY:CSETtings:COMPile	This command sets or returns the type of Compile option.
DPHY:CSETtings:MASTer:CHONe	This command sets or returns the lane waveform of master channel one.
DPHY:CSETtings:MASTer:CHTWo	This command sets or returns the lane waveform of master channel two.
DPHY:CSETtings:SLAVe:ENABle	This command sets or returns the value to enable or disable the slave.
DPHY:CSETtings:SLAVe:IPADdress	This command sets or returns the slave IP address.
DPHY:CSETtings:SLAVE:ISCOnnected	This command sets or returns the value to connect or disconnect slave.
DPHY:CSETtings:SLAVe:CHONe	This command sets or returns the lane waveform of slave channel one.
DPHY:CSETtings:SLAVe:CHTWo	This command sets or returns the lane waveform of slave channel two.
DPHY:CSETtings:WAVEform:APPEnd	This command enables or disables append to the waveform sequence in AWG.
PHY:CSETtings:SWITchlogview	This command enables or disables switch log view.

Miscellaneous group commands

Commands	Description
DPHY:SIGNal	This command sets or returns the signal mode.
DPHY:COMPile	This command starts compiling the waveform.
DPHY:VERSion	The command sets or returns DPHYXpress version number.
DPHY:COMPile:CANCel	This command enables cancel compilation.
DPHY:RESEt	This command starts compiling the waveform.
WPLugin:PLUGins(Query only)	This command returns all the available waveform creation plug-ins installed.
WPLugin:ACTive?	This command sets or returns the active waveform creation plug-in.

Command descriptions

DPHY:HSPEed:PATTern

This command sets or returns the high speed base pattern type.

Group High Speed

Syntax DPHY:HSPEed:PATTern <PRBS7 | PRBS9 | PRBS11 | PRBS13 | PRBS15 | PRBS18 | CLOCk | TEXT>

DPHY:HSPEed:PATTern?

Argument <PRBS7 | PRBS9 | PRBS11 | PRBS13 | PRBS15 | PRBS18 | CLOCk | TEXT>

Returns <PRBS7 | PRBS9 | PRBS11 | PRBS13 | PRBS15 | PRBS18 | CLOCk | TEXT>

Related command *DPHY:HSPEed:CUSTom:FILE*

Example DPHY:HSPEed:PATTern PRBS7 sets the high speed base pattern as PRBS7 for waveform generation.

DPHY:HSPEed:PATTern? returns the high speed base pattern type as PRBS7 for the waveform generation.

DPHY:HSPEed:CUSTom:FILE

This command sets or returns the custom base pattern file path.

Condition The custom base pattern file should be available.

The file format supported- .txt

Group High Speed

Syntax DPHY:HSPEed:CUSTom:FILE <"path">

DPHY:HSPEed:CUSTom:FILE?

Argument <"file path">

Returns <"file path">

Related command *DPHY:HSPEed:PATTern*

Example DPHY:HSPEed:CUSTOM:FILE "C:\Users\Public\Tektronix\DPHYXpress\DataFiles\CustomPattern.txt" sets the custom base pattern file path.

DPHY:HSPEed:CUSTom:FILE? returns the custom base pattern file path.

DPHY:HSPEed:DRATe

This command sets or returns the date rate of high speed base pattern.

Group High Speed

Syntax DPHY:HSPEed:DRATe <NR2>
DPHY:HSPEed:DRATe?

Agrument A single <NR2> value
Range: 60E6 to 5E9

Returns A single <NR2> value
Range: 60E6 to 5E9

Related command *DPHY:LPOWer:DRATe*

Example DPHY:HSPEed:DRATe 4.8E09 sets the high speed data rate to 4.8 Gbps.
DPHY:HSPEed:DRATe? returns 4.8E09 as high speed data rate.

DPHY:HSPEed:ENCOde8b9b

This command enables/disables the use of 8b9b encoding on data.

Condition Signal mode should be high speed.

Group High Speed

Syntax DPHY:HSPEed:ENCOde8b9b <0|1>

DPHY:HSPEed:ENCOde8b9b?

Argument 0|1

0-Disables use of 8b9b encoding.

1-Enables use of 8b9b encoding.

Returns A single boolean value <0|1>

Related command *DPHY:HSPEed:DRATe*

Example DPHY:HSPEed:ENCOde8b9b 1 enables the use of 8b9b encoding on data.

DPHY:HSPEed:ENCOde8b9b? returns 1 indicating 8b9b encoding on data is enabled.

DPHY:HSPEed:DATA:VOD

This command sets or returns the value of data VOD (Differential Output Voltage) value.

Group High Speed

Syntax DPHY:HSPEed:DATA:VOD <NR2>

DPHY:HSPEed:DATA:VOD?

Argument A single <NR2> value

Range: 0 to 500E-3

Returns A single <NR2> value

Range: 0 to 500E-03

Related command *DPHY:HSPEed:DATA:VCM*

Example DPHY:HSPEed:DATA:VOD 300E-03 sets the VOD for data as 300 mV.

DPHY:HSPEed:DATA:VOD? returns 300E-03 as VOD for data.

DPHY:HSPEed:DATA:VCM

This command sets or returns the data VCM (Common Mode Voltage) value.

Group High Speed

Syntax DPHY:HSPEed:DATA:VCM <NRf>
DPHY:HSPEed:DATA:VCM?

Argument A single <NRf> value
Range: -200E-3 to 400E-3

Returns A single <NRf> value
Range: -200E-3 to 400E-3

Related commands *DPHY:HSPEed:DATA:VOD*
DPHY:HSPEed:CLOCK:VCM

Example DPHY:HSPEed:DATA:VCM 400E-3 sets the data VCM value to 400 mV.
DPHY:HSPEed:DATA:VCM? returns 400E-3 as the value of data VCM.

DPHY:HSPEed:CLOCk:VOD

This command sets or returns the clock VOD (Differential Voltage) value.

Group High Speed

Syntax DPHY:HSPEed:CLOCk:VOD <NRf>
DPHY:HSPEed:CLOCk:VOD?

Argument A single <NRf> value.
Range: 0 to 500E-3

Returns A single <NRf> value.
Range: 0 to 500E-3

Related command *DPHY:HSPEed:CLOCk:VCM*

Example DPHY:HSPEed:CLOCk:VOD 300E-3 sets the clock VOD value to 300 mV.
DPHY:HSPEed:CLOCk:VOD? returns 300E-03 as clock VOD value.

DPHY:HSPEed:DATA:APPLydatatoclock

This command enables/disables the option to apply data voltage levels to clock.

Group High Speed Jitter

Syntax DPHY:HSPEed:DATA:APPLydatatoclock <0/1>

DPHY:HSPEed:DATA:APPLydatatoclock?

Arguments 0|1

0-Disables data voltage level to clock.

1-Enables data voltage level to clock.

Returns A single <boolean> value, <0|1>

Group DPHY:HSPEed:DATA:APPLydatatoclock 1 sets data voltage level to clock.

DPHY:HSPEed:DATA:APPLydatatoclock? returns 1 indicating data voltage level to clock.

DPHY:HSPEed:CLOCk:VCM

This command sets or returns the clock VCM (Common Mode Voltage) value.

Group High Speed

Syntax DPHY:HSPEed:CLOCk:VCM <NRf>
DPHY:HSPEed:CLOCk:VCM?

Arguments A single < NRf > value
Range: -200E-3 to 400E-3

Returns A single < NRf > value
Range: -200E-3 to 400E-3

Related commands *DPHY:HSPEed:CLOCk:VOD*

Example DPHY:HSPEed:CLOCk:VCM 400E- 3 sets the clock VCM value to 400 mV.
DPHY:HSPEed:CLOCk:VCM? returns 400E-03 as the value of clock VCM.

DPHY:HSPEed:RTFT:VALUe

This command sets or returns the rise and fall time of high speed signal.

Group High Speed

Syntax DPHY:HSPEed:RTFT:VALUe <NR2>

DPHY:HSPEed:RTFT:VALUe?

Argument A single <NR2> value

Range: 0 to 0.5

Returns A single <NR2> value

Range: 0 to 0.5

Related command *DPHY:HSPEed:RTFT:SECOnds?(Query only)*

Example DPHY:HSPEed:RTFT:VALUe 0.5 sets the rise and fall time of the signal to 0.5 UI.

DPHY:HSPEed:RTFT:VALUe? returns 500E-3 as rise and fall time of the signal.

DPHY:HSPEed:RTFT:SECOnds? (Query only)

This command sets or returns the rise and fall time of the signal in seconds.

Group High Speed

Syntax DPHY:HSPEed:RTFT:SECOnds?

Arguments A single <NR2> value

Returns A single <NR2> value

Related commands *DPHY:HSPEed:RTFT:VALUe*

Example DPHY:HSPEed:RTFT:SECOnds? returns the rise/fall time of the signal in seconds.

DPHY:HSPEed:MARKer:ENABle

This command enables/disables the clock embed through data marker.

Group High Speed

Syntax DPHY:HSPEed:MARKer:ENABle <0|1>

DPHY:HSPEed:MARKer:ENABle?

Arguments

0|1

0-Disables the clock embed through data marker.

1-Enables the clock embed through data marker.

Returns

A single boolean value, <0|1>

Related commands

DPHY:HSPEed:ENCOde8b9b

Example

DPHY:HSPEed:MARKer:ENABle 1 enables the clock embed through data marker.

DPHY:HSPEed:MARKer:ENABle? returns 1 indicating clock embed through data marker is enabled.

DPHY:HSPEed:MARKer:VALUe

This command sets or returns the value of delay of analog to marker.

Condition

HS clock through marker should be enabled.

Group

High Speed

Syntax

DPHY:HSPEed:MARKer:VALUe <NRf>

DPHY:HSPEed:MARKer:VALUe?

Arguments

A single <NRf> value

Range: 0 to 2E-09

Returns A single <NRf> value

Range: 0 to 2E-09

Related commands *DPHY:HSPEed:MARKer:ENABle*

Example DPHY:HSPEed:MARKer:VALUe 2E-09 sets the value of delay of analog to marker to 2 ns.

DPHY:HSPEed:MARKer:VALUe> returns 2E-09 as the value of delay of analog to marker.

DPHY:HSPEed:JITTer:PJ:ENABle

This command enables/disables the periodic jitter.

Group High Speed Jitter

Syntax DPHY:HSPEed:JITTer:PJ:ENABle <0|1>

DPHY:HSPEed:JITTer:PJ:ENABle?

Arguments 0|1

0-Disables the periodic jitter

1-Enables the periodic jitter

Returns A single <boolean> value, <0|1>

Related commands *DPHY:HSPEed:JITTer:PJ:VALUe*

Example DPHY:HSPEed:JITTer:PJ:ENABle 1 enables the periodic jitter.

DPHY:HSPEed:JITTer:PJ:ENABle? returns 1 indicating periodic jitter is enabled.

DPHY:HSPEed:JITTer:PJ:VALUe

This command sets or returns the value of periodic jitter value.

Condition Periodic jitter should be enabled.

Group High Speed Jitter

Syntax DPHY:HSPEed:JITTer:PJ:VALUe <0 to 1>

DPHY:HSPEed:JITTer:PJ:VALUe?

Arguments A single <NR2> value

Range: 0 to 1

Returns A single <NR2> value

Range: 0 to 1

Related commands *DPHY:HSPEed:JITTer:PJ:ENABle*

Example DPHY:HSPEed:JITTer:PJ:VALUe 1 sets the value of periodic jitter to 1 UI.

DPHY:HSPEed:JITTer:PJ:VALUe? returns 1 as the value of periodic jitter.

DPHY:HSPEed:JITTer:PJ:FREQuency:VALUe

This command sets or returns the value of periodic jitter frequency.

Condition Periodic jitter should be enabled.

Group High Speed Jitter

Syntax DPHY:HSPEed:JITTer:PJ:FREQuency:VALUe <NRf>

DPHY:HSPEed:JITTer:PJ:FREQuency:VALUe?

Arguments A single <NRf> value

Range: 1E6 to 300E06

Returns A single <NRf> value

Range: 1E6 to 300E6

Related commands *DPHY:HSPEed:JITTer:PJ:ENABle*

DPHY:HSPEed:JITTer:PJ:VALUe

Example DPHY:HSPEed:JITTer:PJ:FREQuency:VALUe 1E6 sets the periodic jitter frequency value to 1 MHz.

DPHY:HSPEed:JITTer:PJ:FREQuency:VALUe? returns 1E6 as the value of periodic jitter frequency.

DPHY:HSPEed:JITTer:RJ:ENABle

This command enables/disables random jitter.

Group High Speed Jitter

Syntax DPHY:HSPEed:JITTer:RJ:ENABle <0|1>

DPHY:HSPEed:JITTer:RJ:ENABle?

Argument 0|1

0-Disables the use of random jitter.

1-Enables the use of random jitter.

Returns A single boolean value, <0|1>

Related commands *DPHY:HSPEed:JITTer:RJ:VALUe*

Example DPHY:HSPEed:JITTer:RJ:ENABle 1 enables the random jitter.

DPHY:HSPEed:JITTer:RJ:ENABle? returns 1 indicating random jitter is enabled.

DPHY:HSPEed:JITTer:RJ:VALUe

This command sets or returns the random jitter value of high speed jitter waveform.

Condition Random jitter should be enabled.

Group High Speed Jitter

Syntax DPHY:HSPEed:JITTer:RJ:VALUe <NR2>

DPHY:HSPEed:JITTer:RJ:VALUe?

Arguments A single <NR2> value

Range: 0 to 300E-03

Returns A single <NR2> value

Range: 0 to 300E-03

Related commands *DPHY:HSPEed:JITTer:RJ:ENABle*

Example DPHY:HSPEed:JITTer:RJ:VALUe 300E-03 sets the random jitter value of high speed waveform to 0.3 UI.

DPHY:HSPEed:JITTer:RJ:VALUe? returns 300E-03 as random jitter value.

DPHY:HSPEed:JITTer:SKEW:DYNAmic:ENABle

This command enables/disables the dynamic skew.

Group High Speed Jitter

Syntax DPHY:HSPEed:JITTer:SKEW:DYNAmic:ENABle <0|1>

DPHY:HSPEed:JITTer:SKEW:DYNAmic:ENABle?

Arguments 0|1

0-Disables the use of random jitter.

1-Enables the use of random jitter.

Returns A single boolean value <0|1>

Related commands *DPHY:HSPEed:JITTer:SKEW:DYNAmic:VALUe*

Example DPHY:HSPEed:JITTer:SKEW:DYNAmic:ENABle 1 enables the dynamic skew.

DPHY:HSPEed:JITTer:SKEW:DYNAmic:ENABle? returns 1 indicating dynamic skew is enabled.

DPHY:HSPEed:JITTer:SKEW:DYNAmic:VALUe

This command sets or returns the dynamic skew value.

Condition Dynamic skew should be enabled.

Group High Speed Jitter

Syntax DPHY:HSPEed:JITTer:SKEW:DYNAmic:VALUe <NR1>

DPHY:HSPEed:JITTer:SKEW:DYNAmic:VALUe?

Arguments A single <NR1> value

Range: 0 to 30

Returns A single <NR1> value

Range: 0 to 30

Related commands *DPHY:HSPEed:JITTer:SKEW:DYNAmic:ENABle*

Example DPHY:HSPEed:JITTer:SKEW:DYNAmic:VALUe 0 sets the dynamic skew value to 0.

DPHY:HSPEed:JITTer:SKEW:DYNAmic:VALUe? returns 0 as the value of dynamic skew.

DPHY:HSPEed:JITTer:SINE:ENABle

This command enables/disables the sine noise.

Group High Speed Jitter

Syntax DPHY:HSPEed:JITTer:SINE:ENABle <0|1>

DPHY:HSPEed:JITTer:SINE:ENABle?

Arguments 0|1

0-Disables the sine noise.

1-Enables the enables the sine noise.

Returns A single <boolean> value, <0|1>

Related command *DPHY:HSPEed:JITTer:SINE:FREQuency*

DPHY:HSPEed:JITTer:SINE:AMPLitude

Examples DPHY:HSPEed:JITTer:SINE:ENABle 1 enables the sine noise.

DPHY:HSPEed:JITTer:SINE:ENABle? returns 1 indicating sine noise is enabled.

DPHY:HSPEed:JITTer:SINE:AMPLitude

This command sets or returns the sine noise amplitude value.

Condition Sine noise should be enabled.

Group High Speed Jitter

Syntax DPHY:HSPEed:JITTer:SINE:AMPLitude <NR2>

DPHY:HSPEed:JITTer:SINE:AMPLitude?

Arguments A single <NR2> value

Range: 0 to 100E-3

Returns A single <NR2> value

Range: 0 to 100E-3

Related commands *DPHY:HSPEed:JITTer:SINE:ENABle*

Example DPHY:HSPEed:JITTer:SINE:AMPLitude 50E-3 sets the sine noise amplitude value to 50 mv.

DPHY:HSPEed:JITTer:SINE:AMPLitude? returns 50E-03 as sine noise amplitude value.

DPHY:HSPEed:JITTer:SINE:FREQuency

This command sets or returns the sine noise frequency value.

Condition Sine noise should be enabled.

Group High Speed Jitter

Syntax DPHY:HSPEed:JITTer:SINE:FREQuency <NR2>

DPHY:HSPEed:JITTer:SINE:FREQuency?

Arguments A single <NR2> value

Range: 100E+3 to 5E09

Returns A single <NR2> value

Range:100E+3 to 5E09

Related commands *DPHY:HSPEed:JITTer:SINE:ENABle*

Example DPHY:HSPEed:JITTer:SINE:FREQuency 100E+3 sets the sine noise frequency value to 100KHz.

DPHY:HSPEed:JITTer:SINE:FREQuency? returns 100E+3 as sine noise frequency value.

DPHY:HSPEed:JITTer:SKEW:DACLock:ENABle

This command enables/disables the data to clock skew.

Group High Speed Jitter

Syntax DPHY:HSPEed:JITTer:SKEW:DACLock:ENABle < 0|1>

DPHY:HSPEed:JITTer:SKEW:DACLock:ENABle?

Arguments 0|1

0-Enables the data to clock skew.

1-Disables the data to clock skew.

Returns A single <boolean> value, <0|1>

Related commands *DPHY:HSPEed:JITTer:SKEW:DACLock:VALUe*

Example DPHY:HSPEed:JITTer:SKEW:DACLock:ENABle 1 enables the data to clock skew.

DPHY:HSPEed:JITTer:DEEMphasis:ENABle? returns 1 indicating data to clock skew is enabled.

DPHY:HSPEed:JITTer:SKEW:DACLock:VALUe

This command sets or returns the data to clock skew value.

Group High Speed Jitter

Syntax DPHY:HSPEed:JITTer:SKEW:DACLock:VALUe <NR1>

DPHY:HSPEed:JITTer:SKEW:DACLock:VALUe?

Arguments A single <NR1> value

Range: 0 to 1

Returns A single <NR1> value

Range: 0 to 1

Related commands *DPHY:HSPEed:JITTer:SKEW:DACLock:ENABle*

Example DPHY:HSPEed:JITTer:SKEW:DACLock:VALUe 1 sets the data to clock skew value to 1UI .

DPHY:HSPEed:JITTer:SKEW:DACLock:VALUe? returns 1 as the value of data to clock skew.

DPHY:HSPEed:JITTer:DEEMphasis:ENABle

This command enables/disables de-emphasis.

Group High Speed Jitter

Syntax DPHY:HSPEed:JITTer:DEEMphasis:ENABle <0|1>

DPHY:HSPEed:JITTer:DEEMphasis:ENABle?

Arguments 0|1

0-Enables de-emphasis.

1-Disables de-emphasis.

Returns A single boolean value, <0|1>

Related commands *DPHY:HSPEed:JITTer:SKEW:DYNAmic:ENABle*

Example DPHY:HSPEed:JITTer:DEEMphasis:ENABle 1 enables de-emphasis.

DPHY:HSPEed:JITTer:DEEMphasis:ENABle? returns 1 indicating de-emphasis is enabled.

DPHY:HSPEed:JITTer:DEEMphasis:VALUe

This command sets or returns the de-emphasis value.

Condition De-Emphasis should be enabled.

Group High Speed Jitter

Syntax DPHY:HSPEed:JITTer:DEEMphasis:VALUe <NR1>

DPHY:HSPEed:JITTer:DEEMphasis:VALUe?

Arguments A single <NR1> value

Range: 0 to 12

Returns A single <NR1> value

Range: 0 to 12

Related commands *DPHY:HSPEed:JITTer:DEEMphasis:ENABle*

Examples DPHY:HSPEed:JITTer:DEEMphasis:VALUe 6 sets the de-emphasis value to 6dB.

DPHY:HSPEed:JITTer:DEEMphasis:VALUe? returns 6 as the de-emphasis value.

DPHY:HSPEed:JITTer:EMBEd:ENABle

This command enables/disables the embed channel.

Condition Embed channel and S-Parameter should be enabled.

Group High Speed Jitter

Syntax DPHY:HSPEed:JITTer:EMBEd:ENABle <0|1>

DPHY:HSPEed:JITTer:EMBEd:ENABle?

Arguments 0|1

0-Enables the embed channel.

1-Disables the embed channel.

Returns A single <boolean> value, <0|1>

Related commands *DPHY:HSPEed:JITTer:EMBEd:TYPE*

Example DPHY:HSPEed:JITTer:EMBEd:ENABle 1 enables the embed channel.

DPHY:HSPEed:JITTer:EMBEd:ENABle? returns 1 indicating embed channel is enabled.

DPHY:HSPEed:JITTer:EMBEd:TYPE

This command sets or returns the type of embed channel selected.

Condition Embed channel should be enabled.

Group High Speed Jitter

Syntax DPHY:HSPEed:JITTer:EMBEd:TYPE <FLT | SPRM>

DPHY:HSPEed:JITTer:EMBEd:TYPE?

Arguments FLT | SPRM

FLT - Selects Filter file

SPRM - Selects S-Parameter file

Returns FLT | SPRM

FLT - Selects Filter file

SPRM - Selects S-Parameter file

Related commands *DPHY:HSPEed:JITTer:EMBEd:ENABle*

Example DPHY:HSPEed:JITTer:EMBEd:TYPE FLT sets the embed channel type to filter File.

DPHY:HSPEed:JITTer:EMBEd:TYPE? returns FLT as embed channel type.

DPHY:HSPEed:JITTer:EMBEd:FILTer:DATA:ENABle

This command enables/disables the use of filter data.

Condition Embed channel should be enabled.

Group High Speed Jitter

Syntax DPHY:HSPEed:JITTer:EMBEd:FILTer:DATA:ENABle <0|1>

DPHY:HSPEed:JITTer:EMBEd:FILTer:DATA:ENABle?

Arguments 0|1

0-Disables the filter data.

1-Enables the filter data.

Returns A single <boolean> value, <0|1>

Related commands *DPHY:HSPEed:JITTer:EMBEd:FILTer:DATA:POSitive*

Example DPHY:HSPEed:JITTer:EMBEd:FILTer:DATA:ENABle 1 enables the filter data.

DPHY:HSPEed:JITTer:EMBEd:FILTer:DATA:ENABle? returns 1 indicating filter data is enabled.

DPHY:HSPEed:JITTer:EMBEd:FILTer:DATA:POSitive

This command sets or returns the path of data positive signal filter file.

Condition

Embed channel and filter file should be selected.

Filter file format .flt

Group

High Speed Jitter

Syntax

DPHY:HSPEed:JITTer:EMBEd:FILTer:DATA:POSitive <"file path">

DPHY:HSPEed:JITTer:EMBEd:FILTer:DATA:POSitive?

Arguments

<"file path">

Returns

<"file path">

Related commands

DPHY:HSPEed:JITTer:EMBEd:FILTer:DATA:NEGative

Example

DPHY:HSPEed:JITTer:EMBEd:FILTer:DATA:POSitive "C:\\1.flt" sets the positive signal filter file path.

DPHY:HSPEed:JITTer:EMBEd:FILTer:DATA:POSitive? returns "C:\\1.flt" as the positive signal filter file path.

DPHY:HSPEed:JITTer:EMBEd:FILTer:DATA:NEGative

This command sets or returns the filter file path of data negative signal.

Condition

Embed channel and filter file should be selected .

Filter file format .flt.

Group

High Speed Jitter

Syntax

DPHY:HSPEed:JITTer:EMBEd:FILTer:DATA:NEGative <"file path">

DPHY:HSPEed:JITTer:EMBEd:FILTer:DATA:NEGative?

Arguments

<"file path">

Returns

<" file path">

Related commands

DPHY:HSPEed:JITTer:EMBEd:FILTer:DATA:POSitive

Example

DPHY:HSPEed:JITTer:EMBEd:FILTer:DATA:NEGAtive "C:\
\NegativeSignal.flt" sets the negative signal filter file path.

DPHY:HSPEed:JITTer:EMBEd:FILTer:DATA:NEGAtive? returns "C:\
\NegativeSignal.flt" as negative signal filter file path.

DPHY:HSPEed:JITTer:EMBEd:FILTer:CLOCK:ENABle

This command enables/disables the filter clock.

Condition Embed channel should be enabled.

Group High Speed Jitter

Syntax DPHY:HSPEed:JITTer:EMBEd:FILTer:CLOCK:ENABle <0|1>

DPHY:HSPEed:JITTer:EMBEd:FILTer:CLOCK:ENABle?

Arguments 0|1

0-Disables the filter clock.

1-Enables the filter clock.

Returns A single <boolean> value, <0 |1>

Related commands *DPHY:HSPEed:JITTer:EMBEd:FILTer:CLOCK:POSItive*

Example DPHY:HSPEed:JITTer:EMBEd:FILTer:CLOCK:ENABle 1 enables the filter clock value.

DPHY:HSPEed:JITTer:EMBEd:FILTer:CLOCK:ENABle? returns 1 indicating the filter clock is enabled.

DPHY:HSPEed:JITTer:EMBEd:FILTer:CLOCK:POSitive

This command sets or returns the path of clock positive signal filter file.

Condition Embed channel and filter file should be selected.

Filter file format .flt

Group High Speed Jitter

Syntax DPHY:HSPEed:JITTer:EMBEd:FILTer:CLOCK:POSItive <path>

DPHY:HSPEed:JITTer:EMBEd:FILTer:CLOCK:POSItive?

Arguments <"file path">

Returns <"file path">

Related command *DPHY:HSPEed:JITTer:EMBEd:FILTer:CLOCK:NEGative*

Example DPHY:HSPEed:JITTer:EMBEd:FILTer:CLOCK:POSItive "C:\\1.flt" sets the clock positive signal filter file path.

DPHY:HSPEed:JITTer:EMBEd:FILTer:CLOCK:POSItive ? returns "C:\\1.flt" as the clock positive signal filter file path.

DPHY:HSPEed:JITTer:EMBEd:FILTer:CLOCK:NEGative

This command sets or returns the path of clock negative signal filter file.

Condition Embed channel and filter file should be selected.

Filter file format .flt

Group High Speed Jitter

Syntax DPHY:HSPEed:JITTer:EMBEd:FILTer:CLOCK:NEGative <path>

DPHY:HSPEed:JITTer:EMBEd:FILTer:CLOCK:NEGative?

Arguments <"file path">

Returns <"file path">

Related command *DPHY:HSPEed:JITTer:EMBEd:FILTer:CLOCK:POSItive*

Example DPHY:HSPEed:JITTer:EMBEd:FILTer:CLOCK:NEGative "C:\\1.flt" sets the clock negative signal filter file path.

DPHY:HSPEed:JITTer:EMBEd:FILTer:CLOCK:NEGative? returns C:\\1.flt as the clock negative signal filter file path.

DPHY:HSPEed:JITTer:EMBEd:FILTer:DATA:APPLy

This command enables/disables the option to apply positive Signal filter file to negative signal.

Condition Embed channel, filter file and data should be enabled.

Group High Speed Jitter

Syntax DPHY:HSPEed:JITTer:EMBEd:FILTer:DATA:APPLy <0|1>

DPHY:HSPEed:JITTer:EMBEd:FILTer:DATA:APPLy?

Arguments 0|1

0-Disables the filter data.

1-Enables the filter data.

Returns

Related commands *DPHY:HSPEed:JITTer:EMBEd:FILTer:CLOCK:APPLy*

Examples DPHY:HSPEed:JITTer:EMBEd:FILTer:DATA:APPLy 1 sets filter files to data.

DPHY:HSPEed:JITTer:EMBEd:FILTer:DATA:APPLy? returns 1 indicating data positive signal filter file will be applied to data negative signal.

DPHY:HSPEed:JITTer:EMBEd:FILTer:CLOCK:APPLy

This command sets or returns the application filter files to clock.

Condition Embed channel, filter file and data should be enabled.

Group High Speed Jitter

Syntax DPHY:HSPEed:JITTer:EMBEd:FILTer:CLOCK:APPLy <0|1>

DPHY:HSPEed:JITTer:EMBEd:FILTer:CLOCK:APPLy?

Arguments 0|1

0-Disables the filter data.

1-Enables the filter data.

Returns

Related commands *DPHY:HSPEed:JITTer:EMBEd:FILTer:DATA:APPLy*

Examples DPHY:HSPEed:JITTer:EMBEd:FILTer:CLOCK:APPLy 1 sets filter files to clock.

DPHY:HSPEed:JITTer:EMBEd:FILTer:CLOCK:APPLy? returns 1 indicating clock positive signal filter file will be applied to clock negative signal.

DPHY:HSPEed:JITTer:EMBEd:SPARameter:MODE? (Query only)

This command returns the mode type of S-Parameter.

Condition Embed channel and S-Parameter should be enabled.

Group High Speed Jitter

Syntax DPHY:HSPEed:JITTer:EMBEd:SPARameter:MODE?

Returns EMBD

Related commands *DPHY:HSPEed:JITTer:EMBEd:ENABle*

Example DPHY:HSPEed:JITTer:EMBEd:ENABle? returns EMBD as S-Parameter mode type.

DPHY:HSPEed:JITTer:EMBEd:SPARameter:BANDwidth:MODE

This command sets or returns the S-Parameter bandwidth mode.

Condition Embed channel and S-Parameter should be enabled.

Group High Speed Jitter

Syntax DPHY:HSPEed:JITT:EMBE:SPARameter:BANDwidth:MODE <value>

Arguments None | Auto | CUST

None sets S Parameter bandwidth type to None.

Auto sets S Parameter bandwidth type to Auto.

CUST sets S Parameter bandwidth type to Custom.

Returns None | Auto | CUST

Related commands *DPHY:HSPEed:JITTer:EMBEd:SPARameter:MODE?(Query only)*

Example DPHY:HSPEed:JITTer:EMBEd:SPARameter:BANDwidth:MODE Auto sets the S-Parameter bandwidth mode to auto.

DPHY:HSPEed:JITTer:EMBEd:SPARameter:BANDwidth:MODE? returns Auto as S-Parameter bandwidth mode.

DPHY:HSPEed:JITTer:EMBEd:SPARameter:BANDwidth:CUSTom

This commands sets or returns the custom bandwidth limit value.

Condition Embed channel and S-Parameter should be selected.

Group High Speed Jitter

Syntax DPHY:HSPEed:JITTer:EMBEd:SPARameter:BANDwidth:CUSTom <NRf>

DPHY:HSPEed:JITTer:EMBEd:SPARameter:BANDwidth:CUSTom?

Arguments A single <NRf> value

Range: Sample Rate/100 to Sample Rate/2.5

Returns A single <NRf> value

Range: Sample Rate/100 to Sample Rate/2.5

Related commands *DPHY:HSPEed:JITTer:EMBEd:SPARameter:BANDwidth:MODE*

Example DPHY:HSPEed:JITTer:EMBEd:SPARameter:BANDwidth:CUSTom 7E09 sets the custom bandwidth value to 7 GHz.

DPHY:HSPEed:JITTer:EMBEd:SPARameter:BANDwidth:CUSTom? returns 7E09 as custom bandwidth value.

DPHY:HSPEed:JITTer:EMBEd:SPARameter:PORT

This command sets or returns the S-Parameter file type.

Condition Embed channel and S-Parameter should be selected.

Group High Speed Jitter

Syntax DPHY:HSPEed:JITTer:EMBEd:SPARameter:PORT<value>

DPHY:HSPEed:JITTer:EMBEd:SPARameter:PORT?

Argument S2P|S4SE

Returns S2P|S4SE

Related command *DPHY:HSPEed:JITTer:EMBEd:SPARameter:MODE?(Query only)*

Example DPHY:HSPEed:JITTer:EMBEd:SPARameter:PORT S4SE sets the S-Parameter file type to S4 single ended.

DPHY:HSPEed:JITTer:EMBEd:SPARameter:PORT? returns S4SE as S-Parameter file type.

DPHY:HSPEed:JITTer:EMBEd:SPARameter:STWOp:DATA:ENABle

This command enables/disables the S2P data files.

Condition Embed channel, S-Parameter and S2P should be selected.

Group High Speed Jitter

Syntax DPHY:HSPEed:JITTer:EMBEd:SPARameter:STWOp:DATA:ENABle <0|1>

DPHY:HSPEed:JITTer:EMBEd:SPARameter:STWOp:DATA:ENABle?

Arguments 0|1

0-Disables the S2P data files.

1-Enables the S2P data files.

Returns A single <boolean> value, <0|1>

Related commands *DPHY:HSPEed:JITTer:EMBEd:SPARameter:STWOp:DATA:PORT:ONE*

Example DPHY:HSPEed:JITTer:EMBEd:SPARameter:STWOp:DATA:ENABle 1 enables S2P data files.

DPHY:HSPEed:JITTer:EMBEd:SPARameter:STWOp:DATA:ENABle? returns 1 indicating S2P data files is enabled.

DPHY:HSPEed:JITTer:EMBEd:SPARameter:STWOp:DATA:POSItive:PORT:INPUt

This command sets or returns the input type of S2P data positive signal.

Condition Embed channel, S-Parameter and S2P should be selected.

Group High Speed Jitter

Syntax DPHY:HSPEed:JITTer:EMBEd:SPARameter:STWOp:DATA:POSItive:PORT:INPUt <value>

DPHY:HSPEed:JITTer:EMBEd:SPARameter:STWOp:DATA:POSItive:PORT:INPUt?

Arguments P1|P2

Returns P1|P2

Related commands *DPHY:HSPEed:JITTer:EMBEd:SPARameter:STWOp:DATA:POSItive:PORT:OUTPut*

Example

DPHY:HSPEed:JITTer:EMBEd:SPARameter:STWOp:DATA:POSItive:PORT:INPUt P2 sets P2 as input for S2P positive signal.

DPHY:HSPEed:JITTer:EMBEd:SPARameter:STWOp:DATA:POSItive:PORT:INPUt? returns P2 as input for S2P positive signal.

DPHY:HSPEed:JITTer:EMBEd:SPARameter:STWOp:DATA:POSItive:PORT:OUTPut

This command sets or returns the output type of S2P positive signal.

Condition

Embed channel, S-Parameter and S2P should be selected.

Group

High Speed Jitter

Syntax

DPHY:HSPEed:JITTer:EMBEd:SPARameter:STWOp:DATA:POSItive:PORT:OUTPut <value>

DPHY:HSPEed:JITTer:EMBEd:SPARameter:STWOp:DATA:POSItive:PORT:OUTPut?

Arguments

P1|P2

Returns

P1|P2

Related commands

DPHY:HSPEed:JITTer:EMBEd:SPARameter:STWO:DATA:POSItive:PORT:INPUt

Example

DPHY:HSPEed:JITTer:EMBEd:SPARameter:STWOp:DATA:POSItive:PORT:OUTPut P1 sets the output type of positive signal to port 1.

DPHY:HSPEed:JITTer:EMBEd:SPARameter:STWOp:DATA:POSItive:PORT:OUTPut? returns P1 as output type of positive signal.

DPHY:HSPEed:JITTer:EMBEd:SPARameter:STWOp:DATA:NEGAtive:PORT:INPUt

This command sets or returns the input type of S2P data Negative signal.

Condition

Embed channel, S-Parameter and S2P should be selected.

Group

High Speed Jitter

Syntax

DPHY:HSPEed:JITTer:EMBEd:SPARameter:STWOp:DATA:Negative:PORT:INPUt <value>

DPHY:HSPEed:JITTer:EMBEd:SPARameter:STWOp:DATA:Negative:PORT:INPUt?

Arguments

P1|P2

Returns

P1|P2

Related commands

DPHY:HSPEed:JITTer:EMBEd:SPARameter:STWOp:DATA:NEGAtive:PORT:OUTPut

Example

DPHY:HSPEed:JITTer:EMBEd:SPARameter:STWOp:DATA:Negative:PORT:INPUt P2 sets Port2 as input for S2P Negative signal.

DPHY:HSPEed:JITTer:EMBEd:SPARameter:STWOp:DATA:Negative:PORT:INPUt? returns P2 as input for S2P Negative signal.

DPHY:HSPEed:JITTer:EMBEd:SPARameter:STWOp:DATA:NEGAtive:PORT:OUTPut

This command sets or returns the output type of S2P data Negative signal.

Condition

Embed channel, S-Parameter and S2P should be selected.

Group

High Speed Jitter

Syntax

DPHY:HSPEed:JITTer:EMBEd:SPARameter:STWOp:DATA:Negative:PORT:OUTPut <value>

DPHY:HSPEed:JITTer:EMBEd:SPARameter:STWOp:DATA:Negative:PORT:OUTPut?

Arguments

P1|P2

Returns

P1|P2

Related commands

DPHY:HSPEed:JITTer:EMBEd:SPARameter:STWOp:DATA:NEGAtive:PORT:INPUt

Example

DPHY:HSPEed:JITTer:EMBEd:SPARameter:STWOp:DATA:Negative:PORT:OUTPut P2 sets P2 as OUTPut for S2P Negative signal.

DPHY:HSPEed:JITTer:EMBEd:SPARameter:STWOp:DATA:Negative:PORT:OUTPut? returns P2 as OUTPut for S2P Negative signal.

DPHY:HSPEed:JITTer:EMBEd:SPARameter:STWOp:DATA:POSItive:PORT:FILE

This command sets or returns the file path of S2P data positive signal.

Condition

Embed channel, S-Parameter and S2P should be enabled.

Apply Positive signal S-paramater to Negative signal should be disabled.

Group

High Speed Jitter

Syntax

DPHY:HSPEed:JITTer:EMBEd:SPARameter:STWOp:DATA:POSItive:PORT:FILE <"File path">

DPHY:HSPEed:JITTer:EMBEd:SPARameter:STWOp:DATA:POSItive:PORT:FILE?

Arguments

<"file path">

Returns

<"file path">

Related commands

DPHY:HSPEed:JITTer:EMBEd:SPARameter:STWOp:DATA:NEGAtive:PORT:FILE

Example DPHY:HSPEed:JITTer:EMBEd:SPARameter:STWOp:DATA:POSItive:PORT:FILE "C:\\File.s2p" sets C:\\File.s2p as S2P data positive signal file path.

DPHY:HSPEed:JITTer:EMBEd:SPARameter:STWOp:DATA:POSItive:PORT:FILE ? returns "C:\\File.s2p" as S2P data positive signal path.

DPHY:HSPEed:JITTer:EMBEd:SPARameter:STWOp:DATA:NEGAtive:PORT:FILE

This command sets or returns the file path of S2P data negative signal.

Condition Embed channel, S-Parameter and S2P should be enabled.

Group High Speed Jitter

Syntax DPHY:HSPEed:JITTer:EMBEd:SPARameter:STWOp:DATA:NEGAtive:PORT:FILE <"File path">

DPHY:HSPEed:JITTer:EMBEd:SPARameter:STWOp:DATA:NEGAtive:PORT:FILE?

Arguments <"file path">

Returns <"file path">

Related commands *DPHY:HSPEed:JITTer:EMBEd:SPARameter:STWOp:DATA:POSItive:PORT:FILE*

Example DPHY:HSPEed:JITTer:EMBEd:SPARameter:STWOp:DATA:NEGAtive:PORT:FILE "C:\\File.s2p" sets C:\\File.s2p as S2P data negative signal file path.

DPHY:HSPEed:JITTer:EMBEd:SPARameter:STWOp:DATA:NEGAtive:PORT:FILE? returns "C:\\File.s2p" as S2P data negative signal path.

DPHY:HSPEed:JITTer:EMBEd:SPARameter:STWOp:CLOCK:ENABle

This command enables/disables the S2P clock files.

Group High Speed Jitter

Syntax DPHY:HSPEed:JITTer:EMBEd:SPARameter:STWOp:CLOCK:ENABle <0|1>

DPHY:HSPEed:JITTer:EMBEd:SPARameter:STWOp:CLOCK:ENABle?

Argument 0|1

0-Disables the S2P clock files.

1-Enables the S2P clock files.

Returns A single <boolean> value, <0|1>

Related commands *DPHY:HSPEed:JITTer:EMBEd:SPARameter:STWOp:CLOCk:POSItive:PORT:INPUt*

Example DPHY:HSPEed:JITTer:EMBEd:SPARameter:STWOp:CLOCK:ENABle 1 enables the S2P clock files.

DPHY:HSPEed:JITTer:EMBEd:SPARameter:STWOp:CLOCK:ENABle? returns 1 indicating S2P clock files is enabled.

DPHY:HSPEed:JITTer:EMBEd:SPARameter:STWOp:CLOCk:POSItive:PORT:INPUt

This command sets or returns the Input type of S2P clock positive signal.

Condition Embed channel, S-Parameter and S2P should be selected.

Group High Speed Jitter

Syntax DPHY:HSPEed:JITTer:EMBEd:SPARameter:STWOp:CLOCk:POSItive:PORT:INPUt <value>

DPHY:HSPEed:JITTer:EMBEd:SPARameter:STWOp:CLOCk:POSItive:PORT:INPUt?

Argument P1|P2

Returns P1|P2

Related command *DPHY:HSPEed:JITTer:EMBEd:SPARameter:STWOp:CLOCk:POSItive:PORT::OUTPut*

Example DPHY:HSPEed:JITTer:EMBEd:SPARameter:STWOp:CLOCk:POSItive:PORT:INPUt P2 sets P2 as input for S2P clock positive signal.

DPHY:HSPEed:JITTer:EMBEd:SPARameter:STWOp:CLOCk:POSItive:PORT:INPUt? returns P2 as input for S2P clock positive signal.

DPHY:HSPEed:JITTer:EMBEd:SPARameter:STWOp:CLOCk:POSItive:PORT:OUTPut

This command sets or returns the output type of S2P clock positive signal.

Condition Embed channel, S-Parameter and S2P should be selected.

Group High Speed Jitter

Syntax DPHY:HSPEed:JITTer:EMBEd:SPARameter:STWOp:CLOCk:POSItive:PORT:OUTPut <value>

DPHY:HSPEed:JITTer:EMBEd:SPARameter:STWOp:CLOCk:POSItive:PORT:OUTPut?

Arguments P1|P2

Returns P1|P2

Related commands *DPHY:HSPEed:JITTer:EMBEd:SPARameter:STWOp:CLOCk:POSItive:PORT:INPUt*

Example DPHY:HSPEed:JITTer:EMBEd:SPARameter:STWOp:CLOCk:POSItive:PORT:OUTPut P1 sets the output type of clock positive signal.

DPHY:HSPEed:JITTer:EMBEd:SPARameter:STWOp:CLOCk:POSItive:PORT:OUTPut? returns P1 as output type of clock positive signal.

DPHY:HSPEed:JITTer:EMBEd:SPARameter:SFSE:DATA:POSItive:PORT:APPLydatatoclock

This command enables/disables the option to apply data configuration to clock.

Condition Embed channel, S-Parameter and S4P should be enabled.

Group High Speed Jitter

Syntax DPHY:HSPEed:JITTer:EMBEd:SPARameter:SFSE:DATA:POSItive:PORT:APPLydatatoclock <0|1>

DPHY:HSPEed:JITTer:EMBEd:SPARameter:SFSE:DATA:POSItive:PORT:APPLydatatoclock?

Arguments 0|1

0-Disables the filter data.

1-Enables the filter data.

Returns

Example DPHY:HSPEed:JITTer:EMBEd:SPARameter:SFSE:DATA:POSItive:PORT:APPLydatatoclock 1 sets data configuration to Clock.

DPHY:HSPEed:JITTer:EMBEd:SPARameter:SFSE:DATA:POSItive:PORT:APPLydatatoclock? returns 1 indicating data configurations will be applied to Clock.

DPHY:HSPEed:JITTer:EMBEd:SPARameter:STWOp:CLOCk:NEGAtive:PORT:INPUt

This command sets or returns the Input type of S2P clock negative signal.

Condition Embed channel, S-Parameter and S2P should be selected.

Group High Speed Jitter

Syntax DPHY:HSPEed:JITTer:EMBEd:SPARameter:STWOp:CLOCk:NEGAtive:PORT:INPUt<value>

DPHY:HSPEed:JITTer:EMBEd:SPARameter:STWOp:CLOCk:NEGAtive:PORT:INPUt?

Arguments P1|P2

Returns P1|P2

Related commands *DPHY:HSPEed:JITTer:EMBEd:SPARameter:STWOp:CLOCk:NEGAtive:PORT:OUTPut*

Example DPHY:HSPEed:JITTer:EMBEd:SPARameter:STWOp:CLOCk:NEGAtive:PORT:INPUtP2 sets P2 as input for S2P clock negative signal.

DPHY:HSPEed:JITTer:EMBEd:SPARameter:STWOp:CLOCk:NEGAtive:PORT:INPUt? returns P2 as input for S2P clock negative signal.

DPHY:HSPEed:JITTer:EMBEd:SPARameter:STWOp:CLOCk:NEGAtive:PORT:OUTPut

This command sets or returns the output type of S2P clock negative signal.

Condition Embed channel, S-Parameter and S2P should be selected.

Group High Speed Jitter

Syntax DPHY:HSPEed:JITTer:EMBEd:SPARameter:STWOp:CLOCk:NEGAtive:PORT:OUTPut<value>

DPHY:HSPEed:JITTer:EMBEd:SPARameter:STWOp:CLOCk:NEGAtive:PORT:OUTPut?

Arguments P1|P2

Returns P1|P2

Related commands *DPHY:HSPEed:JITTer:EMBEd:SPARameter:STWOp:CLOCk:NEGAtive:PORT:INPUt*

Example DPHY:HSPEed:JITTer:EMBEd:SPARameter:STWOp:CLOCk:NEGAtive:PORT:OUTPut P1 sets the output type of clock negative signal.

DPHY:HSPEed:JITTer:EMBEd:SPARameter:STWOp:CLOCk:NEGAtive:PORT:OUTPut? returns P1 as output type of clock negative signal.

DPHY:HSPEed:JITTer:EMBEd:SPARameter:STWOp:CLOCk:POSItive:PORT:FILE

This command sets or returns the file path of S2P clock positive signal.

Condition Embed channel, S-Parameter and S2P should be enabled.

Group High Speed Jitter

Syntax DPHY:HSPEed:JITTer:EMBEd:SPARameter:STWOp:CLOCk:POSItive:PORT:FILE <"File path">

DPHY:HSPEed:JITTer:EMBEd:SPARameter:STWOp:CLOCk:POSItive:PORT:FILE?

Argument "file path"

Returns "file path"

Related command *DPHY:HSPEed:JITTer:EMBEd:SPARameter:STWOp:CLOCk:NEGAtive:PORT:OUTPut*

Example DPHY:HSPEed:JITTer:EMBEd:SPARameter:STWOp:CLOCk:POSItive:PORT:FILE "C:\\File.s2p" sets C:\\File.s2p as S2P clock positive signal file path.

DPHY:HSPEed:JITTer:EMBEd:SPARameter:STWOp:CLOCk:POSItive:PORT:FILE ? returns "C:\\File.s2p" as S2P clock positive signal path.

DPHY:HSPEed:JITTer:EMBEd:SPARameter:STWOp:CLOCk:NEGAtive:PORT:FILE

This command sets or returns the file path of S2P clock negative signal.

Condition Embed channel, S-Parameter and S2P should be enabled.

Group High Speed Jitter

Syntax DPHY:HSPEed:JITTer:EMBEd:SPARameter:STWOp:CLOCk:NEGAtive:PORT:FILE<"File path">

DPHY:HSPEed:JITTer:EMBEd:SPARameter:STWOp:CLOCk:NEGAtive:PORT:FILE?

Arguments "file path"

Returns "file path"

Related commands *DPHY:HSPEed:JITTer:EMBEd:SPARameter:STWOp:CLOCk:POSItive:PORT:FILE*

Example DPHY:HSPEed:JITTer:EMBEd:SPARameter:STWOp:CLOCk:NEGAtive:PORT:FILE"C:\\File.s2p" sets C:\\File.s2p as S2P clock negative signal file path.

DPHY:HSPEed:JITTer:EMBEd:SPARameter:STWOp:CLOCk:NEGAtive:PORT:FILE? returns "C:\\File.s2p" as S2P clock negative signal path.

DPHY:HSPEed:JITTer:EMBEd:SPARameter:STWOp:DATA:APPLy

This command enables/disables the option to apply data positive Signal S-Parameter file to negative signal.

Condition

Embed channel, S-Parameter file should be enabled.

S-Parameter file type should be S2P.

Group

High Speed Jitter

Syntax

DPHY:HSPEed:JITTer:EMBEd:SPARameter:STWOp:DATA:APPLy <0|1>

DPHY:HSPEed:JITTer:EMBEd:SPARameter:STWOp:DATA:APPLy?

Arguments

0|1

0-Disables the filter data.

1-Enables the filter data.

Returns

A single <boolean> value, <0|1>

Related commands

DPHY:HSPEed:JITTer:EMBEd:SPARameter:STWOp:CLOCk:APPLy

Examples

DPHY:HSPEed:JITTer:EMBEd:SPARameter:STWOp:DATA:APPLy 1 sets S2P files to data.

DPHY:HSPEed:JITTer:EMBEd:SPARameter:STWOp:DATA:APPLy? returns 1 indicating data positive Signal S-Parameter file is applied to negative signal.

DPHY:HSPEed:JITTer:EMBEd:SPARameter:STWOp:CLOCk:APPLy

This command enables/disables the option to apply clock positive Signal S-Parameter file to negative signal.

Condition Embed channel, S-Parameter file should be enabled.

S-Parameter file type should be S2P.

Group High Speed Jitter

Syntax DPHY:HSPEed:JITTer:EMBEd:SPARameter:STWOp:CLOCk:APPLy <0|1>

DPHY:HSPEed:JITTer:EMBEd:SPARameter:STWOp:CLOCk:APPLy?

Argument 0|1

0-Disables the filter data.

1-Enables the filter data.

Returns A single <boolean> value, <0|1>

Related command *DPHY:HSPEed:JITTer:EMBEd:SPARameter:STWOp:DATA:APPLy*

Examples DPHY:HSPEed:JITTer:EMBEd:SPARameter:STWOp:CLOCk:APPLy 1 sets S2P files to clock.

DPHY:HSPEed:JITTer:EMBEd:SPARameter:STWOp:CLOCk:APPLy? returns1 indicating clock positive Signal S-Parameter file is applied to negative signal.

DPHY:HSPEed:JITTer:EMBEd:SPARameter:SFSE:DATA:ENABle

This command enables/disables the S4 single ended data file.

Condition Embed channel, S-Parameter file should be enabled.

S-Parameter file type should be S4SE.

Group High Speed Jitter

Syntax DPHY:HSPEed:JITTer:EMBEd:SPARameter:SFSE:DATA:ENABle<0|1>

DPHY:HSPEed:JITTer:EMBEd:SPARameter:SFSE:DATA:ENABle?

Argument 0|1

0-Disables the S4 single ended data file.

1-Enables the S4 single ended data file.

Returns A single <boolean> value, <0|1>

Related command *DPHY:HSPEed:JITTer:EMBEd:SPARameter:SFSE:CLOCk:ENABle*

Example DPHY:HSPEed:JITTer:EMBEd:SPARameter:SFSE:DATA:ENABle 1 enables the S4 single ended data file.

DPHY:HSPEed:JITTer:EMBEd:SPARameter:SFSE:DATA:ENABle? returns 1 indicating the S4 single ended data file is enabled.

DPHY:HSPEed:JITTer:EMBEd:SPARameter:SFSE:DATA:POSItive:PORT:INPUt

This command sets or returns the input 1 in 4-port single ended data S-parameter mode.

Condition

Embed channel, S-Parameter file should be enabled.

S-Parameter file type should be S4SE.

Group

High Speed Jitter

Syntax

DPHY:HSPEed:JITTer:EMBEd:SPARameter:SFSE:DATA:POSItive:PORT:INPUt <value>

DPHY:HSPEed:JITTer:EMBEd:SPARameter:SFSE:DATA:POSItive:PORT:INPUt?

Arguments

P1 sets the input 1 in 4-port single ended S-parameter mode to Port1.

P2 sets the input 1 in 4-port single ended S-parameter mode to Port2.

P3 sets the input 1 in 4-port single ended S-parameter mode to Port3.

P4 sets the input 1 in 4-port single ended S-parameter mode to Port4.

Returns

P1

P2

P3

P4

Related command

DPHY:HSPEed:JITTer:EMBEd:SPARameter:SFSE:DATA:PORT:OUTPut

Example

DPHY:HSPEed:JITTer:EMBEd:SPARameter:SFSE:DATA:POSItive:PORT:INPUt P1 sets the input 1 in 4-port single ended data S-parameter mode to Port1.

DPHY:HSPEed:JITTer:EMBEd:SPARameter:SFSE:DATA:POSItive:PORT:INPUt ? returns P1 as input 1 in 4-port single ended data S-parameter mode.

DPHY:HSPEed:JITTer:EMBEd:SPARameter:SFSE:DATA:POSItive:PORT:OUTPut

This command sets or returns the output 1 in 4-port of S4 single ended data positive signal.

Condition

Embed channel, S-Parameter and S4 single ended should be enabled.

Groups

High Speed Jitter

Syntax

DPHY:HSPEed:JITTer:EMBEd:SPARameter:SFSE:DATA:POSItive:PORT:OUTPut <value>

DPHY:HSPEed:JITTer:EMBEd:SPARameter:SFSE:DATA:POSItive:PORT:OUTPut?

Arguments

P1 sets the output 1 in 4-port single ended S-parameter mode to Port1.

P2 sets the output 1 in 4-port single ended S-parameter mode to Port2.

P3 sets the output 1 in 4-port single ended S-parameter mode to Port3.

P4 sets the output 1 in 4-port single ended S-parameter mode to Port4.

Returns

P1

P2

P3

P4

Related commands *DPHY:HSPEed:JITTer:EMBEd:SPARameter:SFSE:DATA:POSItive:PORT:INPUt*

Example DPHY:HSPEed:JITTer:EMBEd:SPARameter:SFSE:DATA:POSItive:PORT:OUTPut P2 sets P2 as output 1 type of S4 single ended data positive signal.

DPHY:HSPEed:JITTer:EMBEd:SPARameter:SFSE:DATA:POSItive:PORT:OUTPut? returns P2 as output 1 of S4 single ended data positive signal.

DPHY:HSPEed:JITTer:EMBEd:SPARameter:SFSE:DATA:NEGAtive:PORT:INPUt

This command sets or returns the input 2 in 4-port type of S4 single ended data negative signal.

Condition Embed channel, S-Parameter and S4 single ended should be enabled.

Groups High Speed Jitter

Syntax DPHY:HSPEed:JITTer:EMBEd:SPARameter:SFSE:DATA:NEGAtive:PORT:INPUt <value>

DPHY:HSPEed:JITTer:EMBEd:SPARameter:SFSE:DATA:NEGAtive:PORT:INPUt?

Arguments P1 sets the input 2 in 4-port single ended S-parameter mode to Port1.

P2 sets the input 2 in 4-port single ended S-parameter mode to Port2.

P3 sets the input 2 in 4-port single ended S-parameter mode to Port3.

P4 sets the input 2 in 4-port single ended S-parameter mode to Port4.

Returns

P1

P2

P3

P4

Related commands

DPHY:HSPEed:JITTer:EMBEd:SPARameter:SFSE:DATA:NEGAtive:PORT:OUTPUt

Example

DPHY:HSPEed:JITTer:EMBEd:SPARameter:SFSE:DATA:NEGAtive:PORT:INPUt P2 sets the input 2 in 4-port type of S4 single ended data negative signal.

DPHY:HSPEed:JITTer:EMBEd:SPARameter:SFSE:DATA:NEGAtive:PORT:INPUt? returns P2 as input 2 in 4-port of S4 single ended data negative signal.

DPHY:HSPEed:JITTer:EMBEd:SPARameter:SFSE:DATA:NEGAtive:PORT:OUTPut

This command sets or returns the output 2 type of S4 single ended data negative signal.

Groups

High Speed Jitter

Syntax

DPHY:HSPEed:JITTer:EMBEd:SPARameter:SFSE:DATA:NEGAtive:PORT:OUTPut <value>

DPHY:HSPEed:JITTer:EMBEd:SPARameter:SFSE:DATA:NEGAtive:PORT:OUTPut ?

Arguments

P1 sets the output 2 in 4-port single ended S-parameter mode to Port1.

P2 sets the output 2 in 4-port single ended S-parameter mode to Port2.

P3 sets the output 2 in 4-port single ended S-parameter mode to Port3.

P4 sets the output 2 in 4-port single ended S-parameter mode to Port4.

Returns

P1

P2

P3

P4

Related commands

DPHY:HSPEed:JITTer:EMBEd:SPARameter:SFSE:DATA:NEGAtive:PORT:INPut

Example

DPHY:HSPEed:JITTer:EMBEd:SPARameter:SFSE:DATA:NEGAtive:PORT:OUTPut P2 sets the output 2 in 4-port type of S4 single ended data negative signal.

DPHY:HSPEed:JITTer:EMBEd:SPARameter:SFSE:DATA:NEGAtive:PORT:OUTPut? returns P2 as output 2 in 4-port type of S4 single ended data negative signal.

DPHY:HSPEed:JITTer:EMBEd:SPARameter:SFSE:CLOCK:NEGAtive:PORT:INPUt

This command sets or returns the input 2 type of S4 single ended clock negative signal.

Condition

Embed channel, S-Parameter and S4 single ended should be enabled.

Groups

High Speed Jitter

Syntax

DPHY:HSPEed:JITTer:EMBEd:SPARameter:SFSE:CLOCK:NEGAtive:PORT:INPUt <value>

DPHY:HSPEed:JITTer:EMBEd:SPARameter:SFSE:CLOCK:NEGAtive:PORT:INPUt?

Argument

P1 sets the input 2 in 4-port single ended S-parameter mode to Port1.

P2 sets the input 2 in 4-port single ended S-parameter mode to Port2.

P3 sets the input 2 in 4-port single ended S-parameter mode to Port3.

P4 sets the input 2 in 4-port single ended S-parameter mode to Port4.

Returns

P1

P2

P3

P4

Related command

DPHY:HSPEed:JITTer:EMBEd:SPARameter:SFSE:CLOCK:NEGAtive:PORT:OUTPut

Example

DPHY:HSPEed:JITTer:EMBEd:SPARameter:SFSE:CLOCK:NEGAtive:PORT:INPUt P2 sets P2 as input 2 type of S4 single ended clock negative signal.

DPHY:HSPEed:JITTer:EMBEd:SPARameter:SFSE:CLOCK:NEGAtive:PORT:INPUt? returns P2 as input 2 type of S4 single ended clock negative signal.

DPHY:HSPEed:JITTer:EMBEd:SPARameter:SFSE:DATA:FILE

This command sets or returns the file name of 4 port single ended S-parameter data mode.

Group

High Speed Jitter

Syntax

DPHY:HSPEed:JITTer:EMBEd:SPARameter:SFSE:DATA:FILE <"path of file">

DPHY:HSPEed:JITTer:EMBEd:SPARameter:SFSE:DATA:FILE?

Arguments <"path of file">

Returns <"path of file">

Related commands *DPHY:HSPEed:JITTer:EMBEd:SPARameter:SFSE:CLOCk:FILE*

Example DPHY:HSPEed:JITTer:EMBEd:SPARameter:SFSE:DATA:FILE "C:\Users \Public \Tektronix\DPHYXpress\DataFiles\S4P_file.s4p" sets the file name with full path of 4 port single ended S-parameter data mode.

DPHY:HSPEed:JITTer:EMBEd:SPARameter:SFSE:DATA:FILE? returns "C: \Users\Public\Tektronix\DPHYXpress\DataFiles\S4P_file.s4p" as file name of 4 port single ended S-parameter data mode.

DPHY:HSPEed:JITTer:EMBEd:SPARameter:SFSE:CLOCK:ENABle

This command enables/disables S4 single ended clock file.

Group High Speed Jitter

Syntax DPHY:HSPEed:JITTer:EMBEd:SPARameter:SFSE:CLOCK:ENABle <0|1>

DPHY:HSPEed:JITTer:EMBEd:SPARameter:SFSE:CLOCK:ENABle?

Arguments 0|1

0-Disables the clock.

1-Enables the clock.

Returns A single <boolean> value, <0|1>

Related commands *DPHY:HSPEed:JITTer:EMBEd:SPARameter:SFSE:CLOCK:POSItive:PORT:INPUt*

Example DPHY:HSPEed:JITTer:EMBEd:SPARameter:SFSE:CLOCK:ENABle 1 enables the S4 single ended clock file.

DPHY:HSPEed:JITTer:EMBEd:SPARameter:SFSE:CLOCK:ENABle? returns 1 indicating the S4 single ended clock file is enabled.

DPHY:HSPEed:JITTer:EMBEd:SPARameter:SFSE:CLOCK:POSItive:PORT:INPUt

This command sets or returns the input 1 of S2P clock S-Parameter mode.

Condition Embed channel, S-Parameter and S2P should be selected.

Group High Speed Jitter

Syntax DPHY:HSPEed:JITTer:EMBEd:SPARameter:SFSE:CLOCK:POSItive:PORT:INPUt <value>

DPHY:HSPEed:JITTer:EMBEd:SPARameter:SFSE:CLOCK:POSItive:PORT:INPUt?

Arguments P1|P2|P3|P4

Returns P1|P2|P3|P4

Related commands *DPHY:HSPEed:JITTer:EMBEd:SPARameter:SFSE:CLOCK:POSItive:PORT:OUTPut*

Example DPHY:HSPEed:JITTer:EMBEd:SPARameter:SFSE:CLOCK:POSItive:PORT:INPUt P2 sets P2 as input 1 type of S2P clock positive signal.

DPHY:HSPEed:JITTer:EMBEd:SPARameter:SFSE:CLOCK:POSItive:PORT:INPUt? returns P2 as input 1 type of S2P clock positive signal.

DPHY:HSPEed:JITTer:EMBEd:SPARameter:SFSE:CLOCK:POSItive:PORT:OUTPut

This command sets or returns the output 1 type of S4 single ended clock positive signal.

Condition Embed channel, S-Parameter and S4 single ended should be enabled.

Groups High Speed Jitter

Syntax DPHY:HSPEed:JITTer:EMBEd:SPARameter:SFSE:CLOCK:POSItive:PORT:OUTPut <value>

DPHY:HSPEed:JITTer:EMBEd:SPARameter:SFSE:CLOCK:POSItive:PORT:OUTPut?

Argument P1 sets the output 1 in 4-port single ended S-parameter mode to Port1.

P2 sets the output 1 in 4-port single ended S-parameter mode to Port2.

P3 sets the output 1 in 4-port single ended S-parameter mode to Port3.

P4 sets the output 1 in 4-port single ended S-parameter mode to Port4.

Returns

P1

P2

P3

P4

Related commands

DPHY:HSPEed:JITTer:EMBEd:SPARameter:SFSE:CLOCK:POSItive:PORT:INPUt

Example

DPHY:HSPEed:JITTer:EMBEd:SPARameter:SFSE:CLOCK:POSItive:PORT:OUTPut P2 sets P2 as output 1 type of S4 single ended positive signal.

DPHY:HSPEed:JITTer:EMBEd:SPARameter:SFSE:CLOCK:POSItive:PORT:OUTPut? returns P2 as output 1 type of S4 single ended positive signal.

DPHY:HSPEed:JITTer:EMBEd:SPARameter:SFSE:CLOCK:NEGAtive:PORT:OUTPut

This command sets or returns the output 2 type of S4 single clock ended negative signal.

Groups

High Speed Jitter

Syntax

DPHY:HSPEed:JITTer:EMBEd:SPARameter:SFSE:CLOCK:NEGAtive:PORT:OUTPut <value>

DPHY:HSPEed:JITTer:EMBEd:SPARameter:SFSE:CLOCK:NEGAtive:PORT:OUTPut ?

Arguments

P1 sets the output 2 in 4-port single ended S-parameter mode to Port1.

P2 sets the output 2 in 4-port single ended S-parameter mode to Port2.

P3 sets the output 2 in 4-port single ended S-parameter mode to Port3.

P4 sets the output 2 in 4-port single ended S-parameter mode to Port4.

Returns

P1

P2

P3

P4

Related commands

DPHY:HSPEed:JITTer:EMBEd:SPARameter:SFSE:CLOCK:NEGAtive:PORT:INPUt

Example

DPHY:HSPEed:JITTer:EMBEd:SPARameter:SFSE:CLOCK:NEGAtive:PORT:OUTPut P2 sets P2 as output 2 type of S4 single ended negative signal.

DPHY:HSPEed:JITTer:EMBEd:SPARameter:SFSE:CLOCK:NEGAtive:PORT:OUTPut ? returns P2 as output 2 type of S4 single ended negative signal.

DPHY:HSPEed:JITTer:EMBEd:SPARameter:SFSE:CLOCK:FILE

This command sets or returns the file name of 4 port single ended S-parameter clock mode.

Group

High Speed Jitter

Syntax

DPHY:HSPEed:JITTer:EMBEd:SPARameter:SFSE:CLOCK:FILE <"path of file">

DPHY:HSPEed:JITTer:EMBEd:SPARameter:SFSE:CLOCK:FILE?

Arguments

<"path of file">

Returns <"path of file">

Related commands *DPHY:HSPEed:JITTer:EMBEd:SPARameter:SFSE:DATA:FILE*

Example DPHY:HSPEed:JITTer:EMBEd:SPARameter:SFSE:CLOCK:FILE "C:\Users \Public \Tektronix\DPHYXpress\DataFiles\S4P_file.s4p" sets the file name of 4 port single ended S-parameter clock mode.

DPHY:HSPEed:JITTer:EMBEd:SPARameter:SFSE:CLOCK:FILE? returns "C: \Users\Public\Tektronix\DPHYXpress\DataFiles\S4P_file.s4p" as file name of 4 port single ended S-parameter clock mode.

DPHY:HSPEed:JITTer:SSC:ENABle

This command enables/disables SSC.

Group High Speed Jitter

Syntax DPHY:HSPEed:JITTer:SSC:ENABle <0|1>

DPHY:HSPEed:JITTer:SSC:ENABle?

Argument 0|1

0-Disables SSC.

1-Enables SSC.

Returns A single <boolean> value, <0|1>

Related commands *DPHY:HSPEed:JITTer:SSC:MODUlation*

Example DPHY:HSPEed:JITTer:SSC:ENABle 1 enables SSC.

DPHY:HSPEed:JITTer:SSC:ENABle? returns 1 indicating SSC is enabled.

DPHY:HSPEed:JITTer:SSC:MODUlation

This command sets or returns the SSC modulation rate.

Group High Speed Jitter

Syntax DPHY:HSPEed:JITTer:SSC:MODUlation <NRf>

DPHY:HSPEed:JITTer:SSC:MODUlation?

Argument A single <NRf> value

Range: 20E+3 to 50E+3

Returns A single <NRf> value

Range: 20E+3 to 50E+3

Related commands *DPHY:HSPEed:JITTer:SSC:DEVIation*

Example DPHY:HSPEed:JITTer:SSC:MODUlation 30E+3 sets the SSC modulation rate to 30kHz.

DPHY:HSPEed:JITTer:SSC:MODUlation? returns 30E+3 as SSC modulation rate.

DPHY:HSPEed:JITTer:SSC:DEVIation

This command sets or returns the SSC deviation.

Group High Speed Jitter

Syntax DPHY:HSPEed:JITTer:SSC:DEVIation <NR1>

DPHY:HSPEed:JITTer:SSC:DEVIation?

Argument A single <NR1> value

Range: -8000 to 0

Returns A single <NR1> value

Related commands *DPHY:HSPEed:JITTer:SSC:MODUlation*

Example DPHY:HSPEed:JITTer:SSC:DEVIation -3000 sets the SSC deviation to -3000ppm.

DPHY:HSPEed:JITTer:SSC:DEVIation? returns -3000 as SSC deviation.

DPHY:HSPEed:JITTer:SSC:PROFile

This command sets or returns the spread spectrum clocking profile type.

Condition SSC should be enabled.

Group High Speed Jitter

Syntax DPHY:HSPEed:JITTer:SSC:PROFile <SINUsoidal, TRIAngular>

DPHY:HSPEed:JITTer:SSC:PROFile?

Arguments <SINUsoidal, TRIAngular>

Returns <SINUsoidal, TRIAngular>

Example DPHY:HSPEed:JITTer:SSC:PROFile sets the spread spectrum clocking profile as TRIAngular.

DPHY:HSPEed:JITTer:SSC:PROFile? returns TRIAngular as SSC profile type.

DPHY:HSPEed:BURSt:SYNC:ENABle

This command enables/disables sync word.

Condition Signal mode should be either high speed or low power - high speed.

Group High Speed Jitter

Syntax DPHY:HSPEed:BURSt:SYNC:ENABle <0|1>

DPHY:HSPEed:BURSt:SYNC:ENABle?

Argument 0|1

0-Disables the sync word for high speed.

1-Enables the sync word for high speed.

Returns A single <boolean> value, <0 |1>

Related command *DPHY:HSPEed:BURSt:SYNC:WORD*

Example DPHY:HSPEed:BURSt:SYNC:ENABle 1 enables sync word.

DPHY:HSPEed:BURSt:SYNC:ENABle? returns 1 indicating sync word is enabled.

DPHY:HSPEed:BURSt:SYNC:WORD

This command sets or returns the sync word.

Condition Sync word should be enabled.

Groups High Speed Jitter

Syntax DPHY:HSPEed:BURSt:SYNC:WORD <string>

DPHY:HSPEed:BURSt:SYNC:WORD?

Argument <value>::= <string>

{"0000000" to "11111111"}

It should contain 7 symbols and each symbol value should be between 0 and 4.

Returns A string value indication of sync word.

The value is returned in a string format.

{"0000000" to "11111111"}

Related command *DPHY:HSPEed:BURSt:SYNC:REPEat*

Example DPHY:HSPEed:BURSt:SYNC:WORD "11111111" sets the sync word.

DPHY:HSPEed:BURSt:SYNC:WORD? returns "11111111" as the sync word.

DPHY:HSPEed:BURSt:SYNC:REPEat

This command sets or returns the repeat count of sync word.

Condition Sync word should be enabled.

Groups High Speed Jitter

Syntax DPHY:HSPEed:BURSt:SYNC:REPEat <NR1>
DPHY:HSPEed:BURSt:SYNC:REPEat?

Argument A single <NR1> value
Range: 1 to 10

Returns A single <NR1> value
Range: 1 to 10

Related command *DPHY:HSPEed:BURSt:SYNC:WORD*

Example DPHY:HSPEed:BURSt:SYNC:REPEat 1 sets sync repeat count to 1.
DPHY:HSPEed:BURSt:SYNC:REPEat? returns 1 as sync word repeat count.

DPHY:HSPEed:BURSt:SYNC:SYMBols? (Query only)

This command returns the sync word symbol value.

Condition Sync should be enabled.

Group High Speed Jitter

Syntax DPHY:HSPEed:BURSt:SYNC:SYMBols?

Returns A single NR1 value
Range: 10 to 80

Related commands *DPHY:HSPEed:BURSt:SYNC:REPEat*

Example DPHY:HSPEed:BURSt:SYNC:SYMBols? returns sync word symbol value.

DPHY:HSPEed:BURSt:CLOCk:MODE

This command sets or returns the burst clock mode.

Groups High Speed Jitter

Syntax DPHY:HSPEed:BURSt:CLOCk:MODE <BURSt, CONTinuous>
DPHY:HSPEed:BURSt:CLOCk:MODE?

Argument BURSt

CONTinuous

Returns BURSt

CONTinuous

Example DPHY:HSPEed:BURSt:CLOCk:MODE CONTinuous sets the burst clock mode to continuous.

DPHY:HSPEed:BURSt:CLOCk:MODE? returns continuous as burst clock mode.

DPHY:HSPEed:BURSt:DATA:TRAIL

This command sets or returns the data THS TRAIL value.

Groups High Speed Burst

Syntax DPHY:HSPEed:BURSt:DATA:TRAIL <value>

DPHY:HSPEed:BURSt:DATA:TRAIL?

Argument A single <NRf> value

Range: 0 to 150e-9

Returns A single <NRf> value

Range: 0 to 150e-9

Related command *DPHY:HSPEed:BURSt:DATA:PREPare*

Example DPHY:HSPEed:BURSt:DATA:TRAIl 80e-9 sets the value of data THS TRAIL to 80e-9.

DPHY:HSPEed:BURSt:DATA:TRAIl? returns 80e-9 as data THS Trail.

DPHY:HSPEed:BURSt:DATA:PREPare

This command sets or returns the data THS PREPARE value.

Groups High Speed Burst

Syntax DPHY:HSPEed:BURSt:DATA:PREPare <value>

DPHY:HSPEed:BURSt:DATA:PREPare?

Argument A single <NRf> value

Range: 0e-9 to 200e-9

Returns A single <NRf> value

Range: 0e-9 to 200e-9

Related command *DPHY:HSPEed:BURSt:DATA:REOT*

Example DPHY:HSPEed:BURSt:DATA:PREPare 44e-9 sets the data THS PREPARE value to 44e-9.

DPHY:HSPEed:BURSt:DATA:PREPare? returns 44e-9 as data THS PREPARE.

DPHY:HSPEed:BURSt:DATA:REOT

This command sets or returns the data THS REOT value.

Groups High Speed Burst

Syntax DPHY:HSPEed:BURSt:DATA:REOT <value>

DPHY:HSPEed:BURSt:DATA:REOT?

Argument A single <NRf> value

Range: 0 to 100e-9

Returns A single <NRf> value

Range: 0 to 100e-9

Related command *DPHY:HSPEed:BURSt:DATA:PREPare*

Example DPHY:HSPEed:BURSt:DATA:REOT 40e-9 sets the data THS REOT value to 40e-9.

DPHY:HSPEed:BURSt:DATA:REOT? returns 40e-9 as data THS REOT.

DPHY:HSPEed:BURSt:DATA:ZERO

This command sets or returns the data THS ZERO duration in time.

Group High Speed Burst

Syntax DPHY:HSPEed:BURSt:DATA:ZERO <value>

DPHY:HSPEed:BURSt:DATA:ZERO?

Argument A single <NRf> value

Range: 0e-9 to 400e-9

Returns A single <NRf> value

Range: 0e-9 to 400e-9

Related command *DPHY:HSPEed:BURSt:DATA:REOT*

Example DPHY:HSPEed:BURSt:DATA:ZERO 100e-9 sets the data THS ZERO value to 100e-9.

DPHY:HSPEed:BURSt:DATA:ZERO? returns 100e-9 as data THS ZERO.

DPHY:HSPEed:BURSt:CLOCk:TRAIl

This command sets or returns the clock TCLK TRAIL value.

Condition Clock mode should be Burst.

Groups High Speed Burst

Syntax DPHY:HSPEed:BURSt:CLOCk:TRAIl <value>

DPHY:HSPEed:BURSt:CLOCk:TRAIl?

Argument A single <NRf> value

Range: 0e-9 to 200e-9

Returns A single <NRf> value

Range: 0e-9 to 200e-9

Related command *DPHY:HSPEed:BURSt:CLOCk:PREPare*

Example DPHY:HSPEed:BURSt:CLOCk:TRAIl 200e-9 sets the clock TCLK TRAIL value.

DPHY:HSPEed:BURSt:CLOCk:TRAIl? returns 200e-9 as clock TCLK TRAIL.

DPHY:HSPEed:BURSt:CLOCk:PREPare

This command sets or returns the clock TCLK PREPARE value.

Condition Clock mode should be Burst.

Groups High Speed Burst

Syntax DPHY:HSPEed:BURSt:CLOCk:PREPare <value>

Argument A single <NRf> value

Range: 0e-9 to 200e-9

Returns A single <NRf> value

Range: 0e-9 to 200e-9

Related command *DPHY:HSPEed:BURSt:CLOCk:HSExit*

Example DPHY:HSPEed:BURSt:CLOCk:PREPare 120ns sets the clock TCLK PREPARE value to 120e-9.

DPHY:HSPEed:BURSt:CLOCk:PREPare? returns 120e-9 as TCLK PREPARE.

DPHY:HSPEed:BURSt:CLOCk:HSExit

This command sets or returns the clock TCLK HS-EXIT value.

Condition Clock mode should be Burst.

Groups High Speed Burst

Syntax DPHY:HSPEed:BURSt:CLOCk:HSExit <value>

DPHY:HSPEed:BURSt:CLOCk:HSExit?

Argument A single <NRf> value

Range: 50e-9 to 400e-9

Returns A single <NRf> value

Range: 50e-9 to 400e-9

Related command *DPHY:HSPEed:BURSt:CLOCk:PREPare*

Example DPHY:HSPEed:BURSt:CLOCk:HSExit 400e-9 sets the clock TCLK HS-EXIT value.

DPHY:HSPEed:BURSt:CLOCk:HSExit? returns 400e-9 as TCLK HS-EXIT.

DPHY:HSPEed:BURSt:CLOCk:POST

This command sets or returns the clock TCLK POST value.

Condition Clock mode should be Burst.

Groups High Speed Burst

Syntax DPHY:HSPEed:BURSt:CLOCk:POST <value>
DPHY:HSPEed:BURSt:CLOCk:POST?

Argument A single <NRf> value
Range: 50e-9 to 400e-9

Returns A single <NRf> value
Range: 50e-9 to 400e-9

Related command *DPHY:HSPEed:BURSt:CLOCk:HSExit*

Example DPHY:HSPEed:BURSt:CLOCk:POST 260e-9 sets the clock TCLK POST value.
DPHY:HSPEed:BURSt:CLOCk:POST? returns 260e-9 as TCLK POST.

DPHY:HSPEed:BURSt:CLOCk:PRE

This command sets or returns the clock TCLK PRE value.

Condition Clock mode should be Burst.

Groups High Speed Burst

Syntax DPHY:HSPEed:BURSt:CLOCk:PRE <value>
DPHY:HSPEed:BURSt:CLOCk:PRE?

Argument A single <NRf> value
Range: 5e-9 to 400e-9

Returns A single <NRf> value
Range: 5e-9 to 400e-9

Related command *DPHY:HSPEed:BURSt:CLOCk:POST*

Example DPHY:HSPEed:BURSt:CLOCk:PRE 100e-9 sets the clock TCLK PRE value.
DPHY:HSPEed:BURSt:CLOCk:PRE? returns 100e-9 as TCLK PRE.

DPHY:HSPEed:BURSt:CLOCk:REOT

This command sets or returns the clock TCLK REOT value.

Condition Clock mode should be Burst.

Groups High Speed Burst

Syntax DPHY:HSPEed:BURSt:CLOCk:REOT <value>
DPHY:HSPEed:BURSt:CLOCk:PRE?

Argument A single <NRf> value
Range: 0e-9 to 100e-9

Returns A single <NRf> value
Range: 0e-9 to 100e-9

Related command *DPHY:HSPEed:BURSt:CLOCk:POST*

Example DPHY:HSPEed:BURSt:CLOCk:REOT 40e-9 sets the clock TCLK REOT value.
DPHY:HSPEed:BURSt:CLOCk:REOT? returns 40e-9 as TCLK REOT.

DPHY:HSPEed:BURSt:CLOCK:ZERO

This command sets or returns the clock TCLK ZERO duration in time.

Condition Clock mode should be Burst.

Group High Speed Burst

Syntax DPHY:HSPEed:BURSt:CLOCK:ZERO <value>

DPHY:HSPEed:BURSt:CLOCK:ZERO?

Argument A single <NRf> value

Range: 0e-9 to 400e-9

Returns A single <NRf> value

Range: 0e-9 to 400e-9

Related command *DPHY:HSPEed:BURSt:CLOCK:REOT*

Example DPHY:HSPEed:BURSt:CLOCK:ZERO 200e-9 sets the clock TCLK ZERO value to 200e-9.

DPHY:HSPEed:BURSt:CLOCK:ZERO? returns 200e-9 as TCLK ZERO.

DPHY:LPOWer:PATTern

This command sets or returns the low power base pattern.

Condition Applicable for LP and LPHS signal mode.

Groups Low Power

Syntax DPHY:LPOWer:PATTern?

DPHY:LPOWer:PATTern <PRBS7 | PRBS9 | PRBS11 | PRBS15 | LPState | TEXT | NONE>

Argument PRBS7 | PRBS9 | PRBS11 | PRBS15 | LPState | TEXT | NONE

Returns PRBS7

PRBS9

PRBS11

PRBS15

LPState

TEXT

NONE

Related commands *DPHY:LPOWer:CUSTom:FILE*

Example DPHY:LPOWer:PATTern PRBS7 sets PRBS7 as the low power pattern.

DPHY:LPOWer:PATTern? returns PRBS7 as the low power pattern.

DPHY:LPOWer:CUSTom:FILE

This command sets or returns custom base pattern file for low power.

Condition This is applicable when the low power base pattern is set to Low power state or text file. Refer *DPHY:LPOWer:PATTern*

Group Low Power

Syntax DPHY:LPOWer:CUSTom:FILE <path>

DPHY:LPOWer:CUSTom:FILE?

Argument <path of the file>

Returns <path of the file>

Related command *DPHY:LPOWer:PATTern*

Example DPHY:LPOWer:CUSTom:FILE: "C:\Users\Public\Tektronix\DPHYXpress \DataFiles\Custom.txt" sets the custom base pattern file.

DPHY:LPOWer:CUSTom:FILE? returns "C:\Users\Public\Tektronix \DPHYXpress \DataFiles\Custom.txt" as custom base pattern file.

DPHY:LPOWer:DRATe

This command sets or returns the low power data rate.

Group Low Power

Syntax DPHY:LPOWer:DRATe <NRf>
DPHY:LPOWer:DRATe?

Argument A Single <NRf> value
Range: {10E6 to 100E6}

Returns A Single <NRf> value
Range: {10E6 to 100E6}

Related command *DPHY:LPOWer:TLPX?(Query only)*

Example DPHY:LPOWer:DRATe 100E+6 sets the data rate of low power to 100MHz.
DPHY:LPOWer:DRATe? returns 100E+6 as low power data rate.

DPHY:LPOWER:TLPX? (Query only)

This command returns the Low Power TLPX value.

Group Low Power

Syntax DPHY:LPOWer:TLPX?

Returns A Single <NRf> value

Related command *DPHY:LPOWer:RTFT:SECOnds?(Query only)*

Example DPHY:LPOWer:TLPX? returns the TLPX value.

DPHY:LPOWer:POSItive:HIGH

This command sets or returns the positive thevenin high voltage level.

Group Low Power

Syntax DPHY:LPOWer:POSItive:HIGH <value>
DPHY:LPOWer:POSItive:HIGH?

Arguments A single <NRf> value
Range: 500E-3 to 1.3. Range depends on the VHIGH.

Returns A single <NRf> value

Range: 500E-3 to 1.3. Range depends on the VHIGH.

Related commands *DPHY:LPOWer:VLOW*

Example DPHY:LPOWer:POSItive:HIGH 1.3 sets the positive thevenin high voltage level to 1.3 V.

DPHY:LPOWer:POSItive:HIGH? returns 1.3 as positive thevenin voltage level.

DPHY:LPOWer:POSItive:LOW

This command sets or returns the positive thevenin low voltage level.

Group Low Power

Syntax DPHY:LPOWer:POSItive:LOW <value>

DPHY:LPOWer:POSItive:LOW?

Arguments A single <NRf> value

Range: {-100E-3 to 700E-3}. Range depends on the VLOW.

Returns A single <NRf> value

Range: {-100E-3 to 700E-3}. Range depends on the VLOW.

Related commands *DPHY:LPOWer:POSItive:HIGH*

Example

DPHY:LPOWer:POSItive:LOW 100E-3 sets the positive thevenin low voltage level to 100E-3.

DPHY:LPOWer:POSItive:LOW? returns 100E-3 as positive thevenin low voltage level.

DPHY:LPOWer:NEGAtive:HIGH

This command sets or returns the negative thevenin high voltage level.

Group

Low Power

Syntax

DPHY:LPOWer:NEGAtive:HIGH <value>

DPHY:LPOWer:NEGAtive:HIGH?

Arguments

A single <NRf> value

Range: 500E-3 to 1.3. Range depends on the VHIGH.

Returns

A single <NRf> value, {500E-3 to 1.3}

Range: 500E-3 to 1.3. Range depends on the VHIGH.

Related commands

DPHY:LPOWer:NEGAtive:LOW

Example

DPHY:LPOWer:NEGAtive:HIGH 500E-3 sets the negative thevenin high voltage level to 100E-3.

DPHY:LPOWer:NEGAtive:HIGH? returns 500E-3 as the negative thevenin high voltage level.

DPHY:LPOWer:NEGAtive:LOW

This command sets or returns the negative thevenin low voltage level.

Group Low Power

Syntax DPHY:LPOWer:NEGAtive:LOW <value>

DPHY:LPOWer:NEGAtive:LOW?

Arguments A single <NRf> value

Range: {-100E-3 to 700E-3}. Range depends on the VLOW.

Returns A single <NRf> value

Range: {-100E-3 to 700E-3}. Range depends on the VLOW.

Related commands *DPHY:LPOWer:POSItive:HIGH*

Example DPHY:LPOWer:NEGAtive:LOW 100E-3 sets the negative thevenin low voltage level to100E-3.

DPHY:LPOWer:NEGAtive:LOW? returns 100E-3 as negative thevenin low voltage level.

DPHY:LPOWer:RTFT:VALUe

This command sets or returns the rise/fall time in UI.

Group Low Power

Syntax DPHY:LPOWer:RTFT:VALUe <value>
DPHY:LPOWer:RTFT:VALUe?

Arguments A single <NRf> value
Range: {0E-3 to 500-3}

Returns A single <NRf> value
Range: {0E-3 to 500-3}

Related commands *DPHY:LPOWer:RTFT:SECOnds*

Example DPHY:LPOWer:RTFT:VALUe 500E-3 sets the rise/ fall time to 0.5 UI.
DPHY:LPOWer:RTFT:VALUe? returns 500E-3 as rise/fall time value.

DPHY:LPOWer:RTFT:SECOnds?(Query only)

This command returns the rise/fall time in seconds.

Group Low Power

Syntax DPHY:LPOWer:RTFT:SECOnds?

Returns A single <NRf> value

Range: {0 to 25ns}

Related commands *DPHY:LPOWer:RTFT:VALUe*

Example DPHY:LPOWer:RTFT:SECOnds? returns the rise/fall time in seconds.

DPHY:LPOWer:POSItive:APPLytonegative

This command enables/disables the option to apply positive voltage levels to negative.

Group Low Power

Syntax DPHY:LPOWer:POSItive:APPLytonegative <0|1>

DPHY:LPOWer:POSItive:APPLytonegative?

Arguments 0|1

0-Disables the positive voltage levels to negative.

1-Enables the positive voltage levels to negative.

Returns A single <boolean> value, <0|1>

Examples DPHY:LPOWer:POSItive:APPLytonegative 1 enables the positive voltage levels to negative voltage levels.

DPHY:LPOWer:POSItive:APPLytonegative? returns 1 indicating positive voltage levels will be applied to negative voltage levels.

DPHY:LPOWer:NOISe:SINE:ENABle

This command enables/disables the low power sine noise.

Group Low Power Noise

Syntax DPHY:LPOWer:NOISe:SINE:ENABle <0|1>

DPHY:LPOWer:NOISe:SINE:ENABle?

Arguments 0|1

0-Disables the low power sine noise.

1-Enables the low power sine noise.

Returns A single <boolean> value, <0|1>

Related commands *DPHY:LPOWer:NOISe:SINE:AMPLitude*

Example DPHY:LPOWer:NOISe:SINE:ENABle 1 enables the low power sine noise.

DPHY:LPOWer:NOISe:SINE:ENABle? returns 1 indicating sine noise is enabled.

DPHY:LPOWer:NOISe:SINE:AMPLitude

This command sets or returns the low power sine noise amplitude.

Group Low Power Noise

Syntax DPHY:LPOWer:NOISe:SINE:AMPLitude <NRf>

DPHY:LPOWer:NOISe:SINE:AMPLitude?

Arguments A single <NRf> value

Range: {50E-3 to 300E-3}

Returns A single <NRf> value

Range: {50E-3 to 300E-3}

Example DPHY:LPOWer:NOISe:SINE:AMPLitude 300E-3 sets the low power sine noise amplitude to 300 mV.

DPHY:LPOWer:NOISe:SINE:AMPLitude? returns 300E-3 as the low power sine noise amplitude.

DPHY:LPOWer:NOISe:SINE:FREQuency

This command sets or returns the sine noise frequency.

Group Low Power Noise

Syntax DPHY:LPOWer:NOISe:SINE:FREQuency <NRf>

DPHY:LPOWer:NOISe:SINE:FREQuency?

Arguments A single <NRf> value

Range: {100E+3 to 100E+6}

Returns A single <NRf> value

Range: {100E+3 to 100E+6}

Example DPHY:LPOWer:NOISe:SINE:FREQuency 10E6 sets the low power sine noise frequency to 10 MHz.

DPHY:LPOWer:NOISe:SINE:FREQuency? returns 10E6 as the low power sine noise frequency.

DPHY:LPOWer:NOISe:SINE:DN:ENABle

This command enables/disables the sine noise to data negative lane.

Condition Sine noise should be enabled.

Group Low Power Noise

Syntax DPHY:LPOWer:NOISe:SINE:DN:ENABle <0|1>

DPHY:LPOWer:NOISe:SINE:DN:ENABle?

Arguments 0|1

0 – Disables the sine noise to data negative lane.

1 – Enables the sine noise to data negative lane.

Returns A single <boolean> value, <0|1>

Related commands *DPHY:LPOWer:NOISe:SINE:DP:ENABLe*

Example DPHY:LPOWer:NOISe:SINE:DN:ENABle 1 enables the sine noise to data negative lane.

DPHY:LPOWer:NOISe:SINE:DN:ENABle? returns 1 indicating sine noise is applied to data negative lane.

DPHY:LPOWer:NOISe:SQUArenoise:ENABle

This command enables/disables the low power square noise.

Group Low Power Noise

Syntax DPHY:LPOWer:NOISe:SQUArenoise:ENABle <0|1>

DPHY:LPOWer:NOISe:SQUArenoise:ENABle?

Arguments 0|1

0-Disables the low power square noise.

1-Enables the low power square noise.

Returns A single <boolean> value, <0|1>

Related commands *DPHY:LPOWer:NOISe:SQUArenoise:AMPLitude*

Example DPHY:LPOWer:NOISe:SQUArenoise:ENABle 1 enables the low power square noise.

DPHY:LPOWer:NOISe:SQUArenoise:ENABle? returns 1 indicating square noise is enabled.

DPHY:LPOWer:NOISe:SQUArenoise:AMPLitude

This command sets or returns the low power square noise amplitude.

Group Low Power Noise

Syntax DPHY:LPOWer:NOISe:SQUArenoise:AMPLitude <NRf>

DPHY:LPOWer:NOISe:SQUArenoise:AMPLitude?

Arguments A single <NRf> value

Range: {50E-3 to 300E-3}

Returns A single <NRf> value

Range: {50E-3 to 300E-3}

Related commands *DPHY:LPOWer:NOISe:SQUArenoise:ENABle*

Example DPHY:LPOWer:NOISe:SQUArenoise:AMPLitude 300E-3 sets the low power square noise amplitude to 300 mV.

DPHY:LPOWer:NOISe:SQUArenoise:AMPLitude? returns 300E-3 as the low power square noise amplitude.

DPHY:LPOWer:NOISe:SQUArenoise:FREQuency

This command sets or returns the square noise frequency.

Group Low Power Noise

Syntax DPHY:LPOWer:NOISe:SQUArenoise:FREQuency <NRf>

DPHY:LPOWer:NOISe:SQUArenoise:FREQuency?

Arguments A single <NRf> value

Range: {100E+3 to 1.5E+9}

Returns A single <NRf> value

Range: {100E+3 to 1.5E+9}

Related commands *DPHY:LPOWer:NOISe:SQUArenoise:AMPLitude*

Example DPHY:LPOWer:NOISe:SQUArenoise:FREQuency 1.5E+9 sets the low power sine noise frequency to 10 MHz.

DPHY:LPOWer:NOISe:SQUArenoise:FREQuency? returns 1.5E+9 as the low power sine noise frequency.

DPHY:LPOWer:NOISe:SQUArenoise:DP:ENABle

This command enables/disables the square noise to data positive lane.

Group Low Power Noise

Syntax DPHY:LPOWer:NOISe:SQUArenoise:DP:ENABle <0|1>

DPHY:LPOWer:NOISe:SQUArenoise:DP:ENABle?

Arguments 0|1

0-Disables the square noise to data positive lane.

1-Enables the square noise to data positive lane.

Returns A single <boolean> value,<0|1>

Related commands *DPHY:LPOWer:NOISe:SQUArenoise:DN:ENABle*

Example DPHY:LPOWer:NOISe:SQUArenoise:DP:ENABle 1 enables the square noise to data positive lane.

DPHY:LPOWer:NOISe:SQUArenoise:DP:ENABle? returns 1 indicating square noise is applied to data positive lane.

DPHY:LPOWer:NOISe:SQUArenoise:DN:ENABle

This command enables/disables the square noise to data negative lane.

Group Low Power Noise

Syntax DPHY:LPOWer:NOISe:SQUArenoise:DN:ENABle <0|1>>

DPHY:LPOWer:NOISe:SQUArenoise:DN:ENABle?

Arguments 0|1

0 - Disables the square noise to data negative lane.

1 - Enables the square noise to data negative lane.

Returns A single <boolean> value <0|1>

Related commands *DPHY:LPOWer:NOISe:SQUArenoise:DP:ENABle*

Example DPHY:LPOWer:NOISe:SQUArenoise:DN:ENABle 1 enables the square noise to data negative lane.

DPHY:LPOWer:NOISe:SQUArenoise:DN:ENABle ? returns 1 indicating square noise is applied to data negative lane.

DPHY:LPOWer:NOISe:ESPIke:ENABle

This command enables/disables the low power noise eSpike.

Group Low Power Noise

Syntax DPHY:LPOWer:NOISe:ESPIke:ENABle <0|1>

DPHY:LPOWer:NOISe:ESPIke:ENABle?

Arguments 0|1

0-Disables low power noise eSpike.

1-Enables the low power noise eSpike.

Returns A single <boolean> value, <0|1>

Related commands *DPHY:LPOWer:NOISe:SINE:DN:ENABle*

Example DPHY:LPOWer:NOISe:ESPIke:ENABle 1 enables the low power noise eSpike.

DPHY:LPOWer:NOISe:ESPIke:ENABle? returns1 indicating low power noise eSpike.

DPHY:LPOWer:NOISe:ESPIke:AREA

This command sets or returns the eSpike area.

Group Low Power Noise

Syntax DPHY:LPOWer:NOISe:ESPIke:AREA <NR1>

DPHY:LPOWer:NOISe:ESPIkeAREA?

Arguments A single <NR1>

Range: {100 to 400}

Returns A single <NR1>

Range: {100 to 400}

Related command *DPHY:LPOWer:NOISe:ESPIke:DURAtion*

Example DPHY:LPOWer:NOISe:ESPIke:AREA 400 sets the low power noise eSpike area to 400 Vps.

DPOWer:NOISe:ESPIkeAREA? returns 400 as eSpike area.

DPHY:LPOWer:NOISe:ESPIke:DURAtion

This command sets or returns the low power noise eSpike duration.

Group Low Power Noise

Syntax DPHY:LPOWer:NOISe:ESPIke:DURAtion <NRf>

DPHY:LPOWer:NOISe:ESPIke:DURAtion?

Arguments A single <NRf> value

Range: {1E-9 to 5E-9}

Returns A single <NRf> value, {1E-9 to 5E-9}

Related command *DPHY:POWer:NOISe:ESPIkeAREA*

Example DPHY:LPOWer:NOISe:ESPIke:DURAtion 5E-9 sets the low power noise eSpike duration to 5 ns.

DPHY:LPOWer:NOISe:ESPIke:DURAtion? returns 5E-9 as eSpike duration.

DPHY:LPOWer:NOISe:ESPIke:DP:ENABle

This command enables/disables the eSpike to data positive lane.

Group Low Power Noise

Syntax DPHY:LPOWer:NOISe:ESPIke:DP:ENABle <bool>

DPHY:LPOWer:NOISe:ESPIke:DP:ENABle?

Arguments 0|1

0–Disables the eSpike to data positive lane.

1–Enables the eSpike to data positive lane.

Returns A single <boolean> value, <0|1>

Related commands *DPHY:LPOWer:NOISe:ESPIke:DN:ENABle*

Example DPHY:LPOWer:NOISe:ESPIke:DP:ENABle 1 enables the eSpike to data positive lane.

DPHY:LPOWer:NOISe:ESPIke:DP:ENABle? returns 1 indicating eSpike is applied to data positive lane.

DPHY:LPOWer:NOISe:ESPIke:DN:ENABle

This command enables/disables the eSpike to data negative lane.

Group Low Power Noise

Syntax DPHY:LPOWer:NOISe:ESPIke:DN:ENABle <bool>

DPHY:LPOWer:NOISe:ESPIke:DN:ENABle?

Arguments 0|1

0–Disables the eSpike to data negative lane.

1–Enables the eSpike to data negative lane.

Returns A single <boolean> value, <0|1>

Related commands *DPHY:LPOWer:NOISe:ESPIke:DP:ENABle*

Example DPHY:LPOWer:NOISe:ESPIke:DN:ENABle 1enables the eSpike to data negative lane.

DPHY:LPOWer:NOISe:ESPIke:DN:ENABle? returns 1 indicating eSpike is applied to data negative lane.

DPHY:LPOWer:NOISE:TMIN:ENABle

This command enables/disables the noise TMin.

Ground Low Power Noise

Syntax DPHY:LPOWer:NOISE:TMIN:ENABle <0|1>
DPHY:LPOWer:NOISE:TMIN:ENABle?

Argumments 0|1
0-Disables low power noise TMin.
1-Dnables the low power noise TMin.

Returns A single <boolean> value, <0|1>

Examples DPHY:LPOWer:NOISE:TMIN:ENABle 1 enables low power noise TMin.
DPHY:LPOWer:NOISE:TMIN:ENABle? returns 1 indicating TMin is enabled.

DPHY:LPOWer:NOISE:TMIN:VALUe

This command sets or returns the low power noise TMin value.

Condition TMin should be enabled.

Group Low Power Noise

Syntax DPHY:LPOWer:NOISE:TMIN:VALUe <NR2>

DPHY:LPOWer:NOISE:TMIN:VALUe?

Arguments A single <NR2> value

Range: 10E-9 to 10E-9

Returns A single <NR2> value

Range: 10E-9 to 10E-9

Exmaples DPHY:LPOWer:NOISE:TMIN:VALUe 10E-9 sets the low power noise Tmin value to 10 ns.

DPHY:LPOWer:NOISE:TMIN:VALUe? returns 1 10E-9 as TMin.

DPHY:HSPEed:BATCh:ENABle

This command enables/disables the batch waveform creation.

Group High Speed Batch Mode

Syntax DPHY:HSPEed:BATCh:ENABle <0|1>

DPHY:HSPEed:BATCh:ENABle?

Arguments 0|1

0-Disables the batch waveform creation.

1- Enables the batch waveform creation.

Returns A single <boolean> value,<0|1>

Example DPHY:HSPEed:BATCh:ENABle 1 enables the batch waveform creation.

DPHY:HSPEed:BATCh:ENABle? returns 1 indicating batch waveform creation is enabled.

DPHY:HSPEed:BATCh:PARAmeter

This command sets or returns the batch parameter type.

Group High Speed Batch Mode

Syntax DPHY:HSPEed:BATCh:PARAmeter <PJ, PJF, RJ, DSKEw>

DPHY:HSPEed:BATCh:PARAmeter?

Arguments PJ, PJF, RJ, DSKEw

PJ - Periodic Jitter

PJF - Periodic Jitter Frequecny

RJ - Random Jitter

DSKEw - Dynamic Skew

Returns PJ, PJF, RJ, DSKEw

Example DPHY:HSPEed:BATCh:PARAmeter PJ sets the batch parameter as Periodic Jitter.

DPHY:HSPEed:BATCh:PARAmeter? returns PJ as the batch parameter.

DPHY:HSPEed:BATCh:STARt

This command sets or returns the start value of the selected batch mode parameter type.

Group High Speed Batch Mode

Syntax DPHY:HSPEed:BATCh:STARt <NR2>

DPHY:HSPEed:BATCh:STARt?

Arguments A single <NR2> value

Range: Depends on the parameter type.

Returns A single <NR2> value

Range: Depends on the parameter type.

Related commands *DPHY:HSPEed:BATCh:END*

Example DPHY:HSPEed:BATCh:STARt 0 sets the start value of the selected batch mode parameter type to 0.

DPHY:HSPEed:BATCh:STARt? returns 0 as start value.

DPHY:HSPEed:BATCh:END

This command sets or returns the end value of the selected batch mode parameter type.

Condition End value depends on the start value of corresponding parameter type.

Group High Speed Batch Mode

Syntax DPHY:HSPEed:BATCh:END <NR2>

DPHY:HSPEed:BATCh:END?

Arguments A single <NR2> value

Range: Depends on parameter type.

Returns A single <NR2> value

Range: Depends on parameter type.

Related Commands *DPHY:HSPEed:BATCh:STARt*

Example DPHY:HSPEed:BATCh:END 1 sets the end value of the selected batch mode parameter type to 1.

DPHY:HSPEed:BATCh:END? returns 1 as end value.

DPHY:HSPEed:BATCh:INCRement

This command sets or returns the increment value of the selected batch mode parameter type.

Condition Increment value depends on the End value of corresponding parameter type.

Group High Speed Batch Mode

Syntax DPHY:HSPEed:BATCh:INCRement <NR2>

DPHY:HSPEed:BATCh:INCRement?

Arguments A single <NR2> value

Range: Depends on parameter type.

Returns A single <NRf> value

Range: Depends on parameter type.

Related Commands *DPHY:HSPEed:BATCh:STARt*

Example DPHY:HSPEed:BATCh:INCRement 0.2 sets the increment value of the selected batch mode parameter type to 0.2.

DPHY:HSPEed:BATCh:INCRement? returns 0.2 as increment value.

DPHY:HSPEed:BATCh:WFMNo? (Query only)

This command sets or returns number of waveform sets created in batch mode.

Condition Batch waveform creation should be enabled.

Group High Speed Batch Mode

Syntax DPHY:HSPEed:BATCh:WFMNo?

Returns A single <NR1> value

Examples DPHY:HSPEed:BATCh:WFMNo? returns number of waveform sets created in batch mode.

DPHY:PREFerence:SRATe:MODE

This command sets or returns the sample rate mode.

Group Preferences

Syntax DPHY:PREFerence:SRATe:MODE <AUTO|MANUal>

DPHY:PREFerence:SRATe:MODE?

Arguments AUTO|MANUal

Returns AUTO|MANUal

Related commands *DPHY:PREFerence:SRATe:HIGH:VALUe?*
DPHY:PREFerence:SRATe:LOW:VALUe?

Example DPHY:PREFerence:SRATe:MODE AUTO sets the sample rate mode to Auto.
DPHY:PREFerence:SRATe:MODE? returns AUTO as sample rate mode.

DPHY:PREFerence:SRATe:HIGH:VALUe

This command returns the sample rate of High speed signal.

Group Preference

Syntax DDPHY:PREFerence:SRATe:HIGH:VALUe

Returns Single <NRf> value

Related commands *DPHY:PREFerence:SRATe:MODE*

Example DPHY:PREFerence:SRATe:HIGH:VALUe? returns the sample rate of High speed signal.

DPHY:PREFerence:SRATe:LOW:VALUe

This command returns the sample rate of Low power signal.

Group Preference

Syntax DDPHY:PREFerence:SRATe:LOW:VALUe

Returns Single <NRf> value

Related commands *DPHY:PREFerence:SRATe:MODE*

Example DPHY:PREFerence:SRATe:LOW:VALUe? returns the sample rate Low power signal.

DPHY:PREFerence:SAMPleseperui

This command sets or returns the value of samples per unit interval.

Conditions Signal Mode should be High speed to get samples per UI for High Speed.

Group Preferences

Syntax DPHY:PREFerence:SAMPlesperui <NR1>

DPHY:PREFerence:SAMPlesperui?

Arguments A single <NR1> value
Range: {4 to 16}

Returns A single <NR1> value
Range: {4 to 16}

Related commands *DPHY:PREFerence:SRATe:MODE*

Example DPHY:PREFerence:SAMPlesperui:HIGH 4 sets the samples per UI to 4.
DPHY:PREFerence:SAMPlesperui:HIGH? returns 4 as the sample per UI.

DPHY:PREFerence:SAMPlesperui:HIGH

This command sets or returns the samples per unit interval of High speed signal.

Conditions Signal Mode should be High speed.

Group Preferences

Syntax DPHY:PREFerence:SAMPlesperui:HIGH <NR1>
DPHY:PREFerence:SAMPlesperui:HIGH?

Arguments A single <NR1> value
Range: {4 to 416}

Returns A single <NR1> value
Range: {4 to 416}

Related commands *DPHY:PREFerence:SRATe:MODE*

Example DPHY:PREFerence:SAMPlesperui:HIGH 4 sets the samples per UI to 4.
DPHY:PREFerence:SAMPlesperui:HIGH? returns 4 as the sample per UI.

DPHY:PREFerence:SAMPlesperui:LOW

This command sets or returns the samples per unit interval of Low power signal.

Conditions Signal Mode should be Low Power.

Group Preferences

Syntax DPHY:PREFerence:SAMPlesperui:LOW <NR1>
DPHY:PREFerence:SAMPlesperui:LOW?

Arguments A single <NR1> value
Range: {4 to 25000}

Returns A single <NR1> value
Range: {4 to 25000}

Related commands *DPHY:PREFerence:SRATe:MODE*

Example DPHY:PREFerence:SAMPlesperui:LOW 4 sets the samples per UI to 4.

DPHY:PREFerence:SAMPlesperui:LOW? returns 4 as the sample per UI.

DPHY:PREFerence:PATTernrepeat:MODE

This command sets or returns the pattern repeat mode.

Group Preferences

Syntax DPHY:PREFerence:PATTernrepeat:MODE <AUTO|MANUAL>

DPHY:PREFerence:PATTernrepeat:MODE?

Arguments AUTO|MANUAL

Returns AUTO|MANUAL

Related commands *DPHY:PREFerence:PATTernrepeat:COUNt*

Examples DPHY:PREFerence:PATTernrepeat:MODE AUTO sets the pattern repeat count mode to Auto.

DPHY:PREFerence:PATTernrepeat:MODE? returns AUTO as pattern repeat count mode.

DPHY:PREFerence:PATTernrepeat:COUNt

This command sets or returns the pattern repeat count value.

Group Preferences

Syntax DPHY:PREFerence:PATTernrepeat:COUNt <NRf>
DPHY:PREFerence:PATTernrepeat:COUNt?

Arguments A single <NRf> value
Range: {1 to 1000}

Returns A single <NRf> value, {1 to 1000}

Related commands *DPHY:PREFerence:PATTernrepeat:MODE*

Examples DPHY:PREFerence:PATTernrepeat:COUNt 10 sets pattern repeat count to 10.
DPHY:PREFerence:PATTernrepeat:COUNt? returns 10 as pattern repeat count.

DPHY:PREFerence:AWGAmplitude:ENABLE

This command enables/disables AWG amplitude.

Group Preference

Syntax DPHY:PREFerence:AWGAmplitude:ENABLE <0|1>

DPHY:PREFerence:AWGAmplitude:ENABLE?

Argument 0|1

0-Disables the AWG amplitude.

1-Enables the AWG amplitude.

Returns A single <boolean> value, <0|1>

Related command *DPHY:PREFerence:AWGAmplitude:AMPLitude:VALUe*

Example DPHY:PREFerence:AWGAmplitude:ENABLE 1 enables the AWG amplitude.

DPHY:PREFerence:AWGAmplitude:ENABLE? returns 1 indicating AWG amplitude is enabled.

DPHY:PREFerence:AWGAmplitude:MODE

This command sets or returns the AWG voltage offset mode.

Group Preference

Syntax DPHY:PREFerence:AWGAmplitude:MODE {AUTO|MANUal}

DPHY:PREFerence:AWGAmplitude:MODE?

Arguments AUTO|MANUal

Returns AUTO|MANUal

Related command *DPHY:PREFerence:AWGAmplitude:OFFSet: VALUe*

Examples DPHY:PREFerence:AWGAmplitude:MODE AUTO sets the AWG voltage offset mode to Auto.

DPHY:PREFerence:AWGAmplitude:MODE? returns Auto as AWG voltage offset mode.

DPHY:PREFerence:AWGAmplitude:OFFSet:VALUe

This command sets or returns the AWG voltage offset value.

Condition This option will be enabled only when AWG voltage option is enabled.

Group Preference

Syntax DPHY:PREFerence:AWGAmplitude:OFFSet:VALUe <NRf>

DPHY:PREFerence:AWGAmplitude:OFFSet:VALUe?

Arguments A single <NRf> value

Range: {-400E-3 to 800E-3}

Returns A single <NRf> value

Range: {-400E-3 to 800E-3}

Related command *DPHY:PREFerence:AWGVoltage: MODE*

Examples DPHY:PREFerence:AWGAmplitude:OFFSet:VALUe 500E-3 sets the AWG voltage offset value to 500 mV.

DPHY:PREFerence:AWGAmplitude:OFFSet:VALUe? returns 500E-3 as AWG voltage offset.

DPHY:PREFerence:AWGAmplitude:AMPLitude:VALUe

This command sets or returns the AWG amplitude value.

Condition This option will be enabled only when AWG Voltage option is enabled.

Group Preference

Syntax DPHY:PREFerence:AWGAmplitude:AMPLitude:VALUe <NRf>

DPHY:PREFerence:AWGAmplitude:AMPLitude:VALUe?

Arguments A single <NRf> value

Range: {31E-3 to 1.2}

Returns A single <NRf> value, {31E-3 to 1.2}

Related commands *DPHY:PREFerence:AWGVoltage:OFFSet:MODE*

Examples DPHY:PREFerence:AWGVoltage:AMPLitude:VALUe 31E-3 sets the AWG amplitude value to 50 mV.

DPHY:PREFerence:AWGVoltage:AMPLitude:VALUe? returns 31E-3 as AWG amplitude.

DPHY:PREFerence:CORRection:APPLy

This command enables/disables the application of correction file to master and slave waveforms.

Group Preferences

Syntax DPHY:PREFerence:CORRection:APPLy <bool>

DPHY:PREFerence:CORRection:APPLy?

Arguments 0|1

0-Disables the application of correction file.

1-Enables the application of correction file.

Returns A single <boolean> value, <0|1>

Related commands *DPHY:PREFerence:CORRection:ENABle*

Example DPHY:PREFerence:CORRection:APPLy 1 enables the application of correction file to master and slave.

DPHY:PREFerence:CORRection:APPLy? returns 1 indicating application of correction file to master and slave is enabled.

DPHY:PREFerence:CORRection:ENABle

This command enables/disables the correction file.

Condition Correction file on any of the channels of master and slave should be enabled. A valid correction file must be given.

Group Compile settings

Syntax DPHY:PREFerence:CORRection:ENABle <0|1>

DPHY:PREFerence:CORRection:ENABle?

Arguments 0|1

0-Disables the application of correction file.

1-Enables the application of correction file.

Returns A single <boolean> value, <0|1>

Related commands *DPHY:PREFerence:CORRection:GAUSsian*

Example DPHY:PREFerence:CORRection:ENABle 1 enables the correction file.

DPHY:PREFerence:CORRection:ENABle? returns 1 indicating correction file is enabled.

DPHY:PREFerence:CORRection:GAUSsian

This command enables/disables the option to reduce the noise of filter files.

Condition

Group Preferences

Syntax DPHY:PREFerence:CORRection:GAUSsian <bool>

DPHY:PREFerence:CORRection:GAUSsian?

Arguments 0|1

0-Disables the option to reduce the noise of filter files.

1-Enables the application option to reduce the noise of filter files.

Returns A single <boolean> value, <0|1>

Related commands *DPHY:PREFerence:CORRection:GAUSsian:BANDwidth*

Examples DPHY:PREFerence:CORRection:ENABle 1 enables the option to reduce the noise of filter files.

DPHY:PREFerence:CORRection:ENABle? returns 1 indicating that the option to reduce the noise filter file is enabled.

DPHY:PREFerence:CORRection:GAUSsian:BANDwidth

This command sets and returns the Gaussian bandwidth.

Condition Apply correction file should be enabled.

Group Preferences

Syntax DPHY:PREFerence:CORRection:GAUSsian:BANDwidth <value>

DPHY:PREFerence:CORRection:GAUSsian:BANDwidth?

Arguments A single <NRF> value

Range: sample rate /100 to sample rate/2

Returns A single <NRF> value

Range: sample rate /100 to sample rate/2

Related commands *DPHY:PREFerence:CORRection:GAUSsian*

Examples DPHY:CSETtings:CORRection:GAUSsian:BANDwidth 340E6 sets the bandwidth to 340 MHz.

DPHY:CSETtings:CORRection:GAUSsian:BANDwidth? returns 340E6 as bandwidth value.

DPHY:PREFerence:CORRection:REMOve

This command enables/disables the removal of Sin(x)/x distortions from correction file.

Condition Apply correction and master channel one should be enabled.

Group Preferences

Syntax DPHY:PREFerence:CORRection:REMOve <bool>

DPHY:PREFerence:CORRection:REMOve?

Arguments A single <boolean> value, {0|1}

0-Disables the removal of Sin(x)/x distortions from correction file.

1-Enables the removal of Sin(x)/x distortions from correction file.

Returns A single <boolean> value, {0|1}

Related Commands *DPHY:PREFerence:CORRection:GAUSsian*

Example DPHY:PREFerence:CORRection:REMOve 1 enables the removal of Sin(x)/x distortions from correction file.

DPHY:PREFerence:CORRection:REMOve? returns 1 indicating removal of Sin(x)/x distortions from correction file is enabled.

DPHY:PREFerence:CORRection:MASTer:CHONe:ENABle

This command enables/disables the correction file on Master channel one.

Condition Apply correction file should be enabled.

Group Preferences

Syntax DPHY:PREFerence:CORRection:MASTer:CHONe:ENABle <0|1>

DPHY:PREFerence:CORRection:MASTer:CHONe:ENABle?

Arguments 0|1

0-Disables the application of correction file on Master channel one.

1-Enables the application of correction file on Master channel one.

Returns A single <boolean> value, <0|1>

Related Commands *DPHY:PREFerence:CORRection:MASTer:CHTWo:ENABle*

Example DPHY:PREFerence:CORRection:MASTer:CHONe:ENABle1 applies correction file on master channel one.

DPHY:PREFerence:CORRection:MASTer:CHONe:ENABle? returns 1 indicating correction file will be applied on master channel one.

DPHY:PREFerence:CORRection:MASTer:CHONe:FILE

This command sets or returns the correction file path of Master channel one.

Condition Apply correction and master channel one should be enabled.

Group Compile Settings

Syntax DPHY:PREFerence:CORRection:MASTer:CHONe:FILE <"file path">

DPHY:PREFerence:CORRection:MASTer:CHONe:FILE?

Related commands *DPHY:PREFerence:CORRection:MASTer:CHTWo:FILE*

Arguments "file path"

Returns "file path"

Examples DPHY:PREFerence:CORRection:MASTer:CHONe:FILE “C:\\sample.corr” sets the master channel one correction file path to “C:\\sample.corr”.

DPHY:PREFerence:CORRection:MASTer:CHONe:FILE? returns "C:\ \sample.corr" as the correction file path of master channel one.

DPHY:PREFerence:CORRection:MASTer:CHTWo:ENABle

This command enables/disables the correction file on Master channel two.

Condition Apply correction file should be enabled.

Group Preferences

Syntax DPHY:PREFerence:CORRection:MASTer:CHTWo:ENABle <0|1>

DPHY:PREFerence:CORRection:MASTer:CHTWo:ENABle?

Arguments 0|1

0-Disables the application of correction file on Master channel two.

1-Enables the application of correction file on Master channel two.

Returns A single <boolean> value, <0|1>

Related commands *DPHY:PREFerence:CORRection:MASTer:CHOne:ENABle*

Example DPHY:PREFerence:CORRection:MASTer:CHTWo:ENABle1 applies correction file on master channel two.

DPHY:PREFerence:CORRection:MASTer:CHTWo:ENABle? returns 1 indicating correction file will be applied on master channel two.

DPHY:PREFerence:CORRection:MASTer:CHTWo:FILE

This command sets or returns the correction file path of Master channel two.

Condition Apply correction and master channel two should be enabled.

Group Preferences

Syntax DPHY:PREFerence:CORRection:MASTer:CHTWo:FILE <"file path">

DPHY:PREFerence:CORRection:MASTer:CHTWo:FILE?

Related Commands *DPHY:PREFerence:CORRection:MASTer:CHOne:FILE*

Arguments "file path"

Returns "file path"

Example DPHY:PREFerence:CORRection:MASTer:CHTWo:FILE“C:\\sample.corr” sets the master channel two correction file path to C:\\sample.corr.

DPHY:PREFerence:CORRection:MASTer:CHTWo:FILE? returns "C:\\sample.corr" as the correction file path of master channel two.

DPHY:PREFerence:CORRection:SLAVe:CHONe:ENABle

This command enables/disables the application of correction file on slave channel one.

Condition Apply correction file should be enabled.

Group Preferences

Syntax DPHY:PREFerence:CORRection:SLAVe:CHONe:ENABle <0|1>

DPHY:PREFerence:CORRection:SLAVe:CHONe:ENABle?

Arguments 0|1

0-Disables the application of correction file on Slave channel one.

1-Enables the application of correction file on Slave channel one.

Returns A single <boolean> value, <0|1>

Related Commands *DPHY:PREFerence:CORRection:SLAVe:CHTWo:ENABle*

Example DPHY:PREFerence:CORRection:SLAVe:CHONe:ENABle1 applies correction file on slave channel one.

DPHY:PREFerence:CORRection:SLAVe:CHONe:ENABle? returns 1 indicating correction file will be applied on slave channel one.

DPHY:PREFerence:CORRection:SLAVe:CHONe:FILE

This command sets or returns the correction file path of slave channel one.

Condition Apply correction and slave channel one should be enabled.

Group Compile Settings

Syntax DPHY:PREFerence:CORRection:SLAVe:CHONe:FILE <"file path">

DPHY:PREFerence:CORRection:SLAVe:CHONe:FILE?

Related Commands *DPHY:PREFerence:CORRection:SLAVe:CHTWo:FILE*

Arguments "file path"

Returns "file path"

Example DPHY:PREFerence:CORRection:SLAVe:CHONe:FILE “C:\\sample.corr” sets the slave channel one correction file path to C:\\sample.corr.

DPHY:PREFerence:CORRection:SLAVe:CHONe:FILE? returns "C:\ \sample.corr" as the correction file path of slave channel one.

DPHY:PREFerence:CORRection:SLAVe:CHTWo:FILE

This command sets or returns the correction file path of slave channel two.

Condition Apply correction and slave channel two should be enabled.

Group Preferences

Syntax DPHY:PREFerence:CORRection:SLAVe:CHTWo:FILE <"file path">

DPHY:PREFerence:CORRection:SLAVe:CHTWo:FILE?

Related Commands *DPHY:PREFerence:CORRection:SLAVe:CHTWo:ENABle*

Arguments "file path"

Returns "file path"

Example DPHY:PREFerence:CORRection:SLAVe:CHTWo:FILE “C:\\sample.corr” sets the slave channel two correction file path to "C:\\sample.corr".

DPHY:PREFerence:CORRection:SLAVe:CHTWo:FILE? returns “C:\ \sample.corr” as the correction file path of slave channel two.

DPHY:PREFerence:STARtupsignal:ENABle

This command enables/disables the startup signal.

Group Preferences

Syntax DPHY:PREFerence:STARtupsignal:ENABle <0|1>

DPHY:PREFerence:STARtupsignal:ENABle?

Argument 0|1

0-Disables the application of Startup signal.

1-Enables the application of Startup signal.

Returns A single <boolean> value, <0|1>

Related commands *DPHY:PREFerence:STARtupsignal:DP*

DPHY:PREFerence:STARtupsignal:DN

DPHY:PREFerence:STARtupsignal:CP

DPHY:PREFerence:STARtupsignal:CN

Example DPHY:PREFerence:STARtupsignal:ENABle 1 enables the startup signal to be included in the waveform.

DPHY:PREFerence:STARtupsignal:ENABle? returns 1 indicating startup signal is enabled.

DPHY:PREFerence:STARtupsignal:DP

This command sets or returns the startup signal type of data positive.

Group Preferences

Syntax DPHY:PREFerence:STARtupsignal:DP <LPLOW | LPHIGH>

DPHY:PREFerence:STARtupsignal:DP?

Argument LPLOW | LPHIGH

Returns LPLOW | LPHIGH

Related command *DPHY:PREFerence:STARtupsignal:DN*

Example DPHY:PREFerence:STARtupsignal:DP LPHIGH sets the startup signal of data positive to LP High.

DPHY:PREFerence:STARtupsignal:DP? returns LPHIGH as the type of startup signal of data positive.

DPHY:PREFerence:STARtupsignal:DN

This command sets or returns the startup signal type of data negative.

Group Preferences

Syntax DPHY:PREFerence:STARtupsignal:DN <LPLOW | LPHIGH>

DPHY:PREFerence:STARtupsignal:DN?

Argument LPLOW | LPHIGH

Return LPLOW | LPHIGH

Related command *DPHY:PREFerence:STARtupsignal:DP*

Example DPHY:PREFerence:STARtupsignal:DN LPHIGH sets the startup signal type of data negative to LP High.

DPHY:PREFerence:STARtupsignal:DN? returns LPHIGH as the type of startup signal of data negative.

DPHY:PREFerence:STARtupsignal:CP

This command sets or returns the startup signal type of clock positive.

Group Preferences

Syntax DPHY:PREFerence:STARtupsignal:CP <LPLOW | LPHIGH>

DPHY:PREFerence:STARtupsignal:CP?

Argument LPLOW | LPHIGH

Return LPLOW | LPHIGH

Related command *DPHY:PREFerence:STARtupsignal:CN*

Example DPHY:PREFerence:STARtupsignal:CP LPHIGH sets the startup signal type of clock positive to LP High.

DPHY:PREFerence:STARtupsignal:CP? returns LPHIGH as the type of startup signal of clock positive.

DPHY:PREFerence:STARtupsignal:CN

This command sets or returns the startup signal type of clock negative.

Condition Starup signal should be selected.

Group Preferences

Syntax DPHY:PREFerence:STARtupsignal:CN <LPLOW | LPHIGH>

DPHY:PREFerence:STARtupsignal:CN?

Argument LPLOW | LPHIGH

Return LPLOW | LPHIGH

Related command *DPHY:PREFerence:STARtupsignal:CP*

Example DPHY:PREFerence:STARtupsignal:CP LPHIGH sets the startup signal type of clock negative to LP High.

DPHY:PREFerence:STARtupsignal:CP? returns LPHIGH as the type of startup signal of clock negative.

DPHY:CSETtings:WAVEform:SEQUence

This command sets or returns the name of the sequence.

Condition Compile and assign to option should be selected.

Group Compile settings

Syntax DPHY:CSETtings:WAVEform:SEQUence <string>

DPHY:CSETtings:WAVEform:SEQUence?

Related command *DPHY:CSETtings:WAVEform:APPEND*

Arguments <String>::= <Sequence name entered by user>

Returns <Sequence name>

Example DPHY:CSETtings:WAVEform:SEQUence "DPhySequence" sets the sequence.

DPHY:CSETtings:WAVEform:SEQUence? returns "DPhySequence" as the sequence.

DPHY:CSETtings:WAVEform:Name

This command sets or returns the name of the waveform.

Group Compile settings

Syntax DPHY:CSETtings:WAVEform:Name <String>

DPHY:CSETtings:WAVEform:Name?

Arguments <String>:= <Waveform name entered by the user>

Returns <Waveform name>

Example DPHY:CSETtings:WAVEform:Name "DPHY-Example" sets the waveform name as DPHY-Example.

DPHY:CSETtings:WAVEform:Name? returns "DPHY-Example" as the waveform name.

DPHY:CSETtings:WAVEform:OVERwrite

This command enables/disables the waveform name overwrite.

Condition There should be an existing waveform name.

Group Compile settings

Syntax

DPHY:CSETtings:WAVEform:OVERwrite <0|1>

DPHY:CSETtings:WAVEform:OVERwrite?

Arguments

0|1

0-Disables override waveform.

1-Enables override waveform.

Returns

A single boolean value, 0|1

Related commands

DPHY:CSETtings:COMPile

Example

DPHY:CSETtings:WAVEform:OVERwrite 1 enables override existing waveform.

DPHY:CSETtings:WAVEform:OVERwrite? returns 1 indicating override existing waveform is enabled.

DPHY:CSETtings:COMPile

This command sets or returns the type of Compile option.

Condition

For Compile and assign to option, slave should be enabled and connected.

Group

Compile settings

Syntax

DPHY:CSETtings:COMPile <value>

DPHY:CSETtings:COMPile?

Arguments COMPileonly
CSENd

Returns COMPileonly
CSENd

Related commands *DPHY:CSETtings:SLAVe:ENABle*

Example DPHY:CSETtings:COMPile COMP sets the compile option to COMPile only.
DPHY:CSETtings:COMPile? returns COMP as compile option.

DPHY:CSETtings:MASTer:CHONe

This command sets or returns the lane waveform of master channel one.

Condition This option will be enabled only when compile and assign to option is enabled.

Group Compile settings

Syntax DPHY:CSETtings:MASTer:CHONe <value>
DPHY:CSETtings:MASTer:CHONe?

Arguments DP | DN,| CLKP | CLKN

Returns DP | DN,| CLKP | CLKN

Related commands *DPHY:CSETtings:MASTer:CHTWo*

Example DPHY:CSETtings:MASTer:CHONe DP sets the master channel one to lane waveform DP.

DPHY:CSETtings:MASTer:CHONe? returns DP as the lane waveform of master channel one.

DPHY:CSETtings:MASTer:CHTWO

This command sets or returns the lane waveform of master channel two.

Condition This option will be enabled only when compile and assign to option is enabled.

Group Compile settings

Syntax DPHY:CSETtings:MASTer:CHTWo <value>

DPHY:CSETtings:MASTer:CHTWo?

Arguments DP | DN | CLKP | CLKN

Returns DP | DN | CLKP | CLKN

Related commands *DPHY:CSETtings:MASTer:CHONe*

Example DPHY:CSETtings:MASTer:CHTWo DP sets the master channel two to lane waveform DP.

DPHY:CSETtings:MASTer:CHTWo? returns DP as the lane waveform of master channel two.

DPHY:CSETtings:SLAVe:ENABle

This command enables/disables the slave.

Condition This option will be enabled only when compile and assign to option is enabled.

Group Compile settings

Syntax DPHY:CSETtings:SLAVe:ENABle <0|1>

DPHY:CSETtings:SLAVe:ENABle?

Arguments 0|1

0-Disables the slave.

1-Enables the slave.

Returns A single <boolean> value, <0|1>

Related commands *DPHY:CSETtings:COMPile*

Example DPHY:CSETtings:SLAVe:ENABle 1 enables the slave.

DPHY:CSETtings:SLAVe:ENABle? returns 1 indicating slave is enabled.

DPHY:CSETtings:SLAVe:IPADdress

This command sets or returns the slave IP address.

Condtion This option will be enabled only when slave is enabled.

Group Compile settings

Syntax DPHY:CSETtings:SLAVe:IPADdress <"Slave IP address">

DPHY:CSETtings:SLAVe:IPADdress?

Argument A single <"string"> value , should be a valid IPV6/IPV4

Returns A single <"string"> value

Related commands *DPHY:CSETtings:SLAVe:ENABLe*

Example DPHY:CSETtings:SLAVe:IPADdress "134.64.245.29" sets slave IP address to "134.64.245.29".

DPHY:CSETtings:SLAVe:IPADdress? returns "134.64.245.29" as slave IP address.

DPHY:CSETtings:SLAVE:ISCOnnected

This command sets or returns the value to connect/disconnect slave.

Condition Slave should be enabled and slave IP address should be valid.

Group Compile settings

Syntax DPHY:CSETtings:SLAVe:ISCOnnected {0|1}

DPHY:CSETtings:SLAVe:ISCOnnected?

Arguments 0|1

0-Disconnects the slave connection.

1-Establishes slave connection.

Returns A single <NR1> value, {0|1}

Related commands *DPHY:CSETtings:SLAVe:ENABLe*

Examples DPHY:CSETtings:SLAVe:ISCOnnected 1 establishes slave connection.

DPHY:CSETtings:SLAVe:ISCOnnected? returns 1 indicating the slave is connected.

DPHY:CSETtings:SLAVe:CHONe

This command sets or returns the lane waveform of slave channel one.

Conditions Slave should be enabled and connected to configure channel type.

Group Compile settings

Syntax DPHY:CSETtings:SLAVe:CHONe <value>

DPHY:CSETtings:SLAVe:CHONe?

Arguments {DP, DN, CLKP, CLKN}.

Returns DP

DN

CLKP

CLKN

Related commands *DPHY:CSETtings:SLAVe:CHTWo*

Example DPHY:CSETtings:SLAVe:CHONe DP sets the slave channel one to lane waveform DP.

DPHY:CSETtings:SLAVe:CHONe? returns DP as the lane waveform of slave channel one.

DPHY:CSETtings:SLAVe:CHTWo

This command sets or returns the lane waveform of slave channel two.

Conditions Slave should be enabled and connected to configure channel type.

Group Compile settings

Syntax DPHY:CSETtings:SLAVe:CHTWo <value>

DPHY:CSETtings:SLAVe:CHTWo?

Arguments DP |DN | CLKP | CLKN

Returns DP |DN | CLKP | CLKN

Related commands *DPHY:CSETtings:SLAVe:CHONe*

Example DPHY:CSETtings:SLAVe:CHTWo DP sets the slave channel two to lane waveform DP.

DPHY:CSETtings:SLAVe:CHTWo? Returns DP as lane waveform of the slave channel two.

DPHY:CSETtings:WAVEform:APPEND

This command enables/disable append to the waveform sequence in AWG.

Conditions This option will be enabled only when compile and assign to option is enabled.

Group Compile settings

Syntax DPHY:CSETtings:WAVEform:APPEND <0|1>

DPHY:CSETtings:WAVEform:APPEND?

Arguments 0|1

0-Disables overwrite existing sequence.

1-Enables overwrite existing sequence.

Returns A single <boolean> value, 0|1

Example DPHY:CSETtings:WAVEform:APPEND 1 enables append to the waveform sequence in AWG.

DPHY:CSETtings:WAVEform:APPEND? returns 1 indicating append to the waveform sequence in AWG is enabled.

DPHY:CSETtings:SWITchlogview

This command enables/disables switch log view.

Group Compile settings

Syntax DPHY:CSETtings:SWITchlogview <0|1>

DPHY:CSETtings:SWITchlogview?

Arguments 0|1

0-Disables switch log view.

1-Enables switch log view.

Returns

Example DPHY:CSETtings:SWITchlogview 1 enables switch log view.

DPHY:CSETtings:SWITchlogview? returns 1 indicating switch log view is enabled.

DPHY:SIGNal

This command sets or returns the signal mode.

Condition This is applicable when one of the signal mode is selected. Select any one signal mode HSPEed, LPOWer, LPHS.

Group Miscellaneous

Syntax DPHY:SIGNal <HSPEed | LPOWer | LPHS>

DPHY:SIGNal?

Arguments HSPEed | LPOWer | LPHS

Returns HSPEed

LPOWer

LPHS

Related Commands *DPHY:COMPile (No Query form)*

Example DPHY:SIGNal LP sets the selection of signal mode to LP.

DPHY:SIGNal? returns LP as the signal mode.

DPHY:COMPile (No Query form)

This command initiates to compile the waveform.

Conditions Configuration should be done to compile successfully. Active waveform plug-in should be DPHYXpress.

Group Miscellaneous

Syntax DPHY:COMPile

Example DPHY:COMPile sets to compile waveform.

DPHY:COMPile:STATus? (Query only)

This command returns the compile status.

Group Miscellaneous

Syntax DPHY:COMPile:STATus?

Returns 0 (None)

1

0 / None- Waveform compilation is in progress.

1- Waveform compilation is completed.

DPHY:COMPile:CANCel (No Query form)

This command enables cancel compilation.

Group Miscellaneous

Syntax DPHY:COMPile:CANCel

Example DPHY:COMPile:CANCel sets cancel compilation.

DPHY:RESET (No Query form)

This command starts compiling the waveform.

Conditions Configuration should be done to compile successfully.

Group Miscellaneous

Syntax DPHY:RESEt

Example DPHY:RESEt sets the reset module.

DPHY:VERSion? (Query only)

This command sets or returns DPHYxpress version.

Conditions Active waveform plug-in should be DPHYXpress.

Group Miscellaneous

Syntax DPHY:VERSion?

Returns A single <NRf> value

Example DPHY:VERSion? returns the DPHYXPRESS version.

WPLugin:ACTive

This command sets or returns the active waveform creation plug-in.

Condition This is an overlapping command.

Overlapping commands run concurrently with other commands, allowing additional commands to start before the overlapping command has finished.

Group Waveform plug-in

Syntax WPLugin:ACTive <plugin_name>

Arguments <plugin_name>::=<string>

Returns A single string representing the active waveform creation plug-in.

Examples WPLUGIN:ACTIVE "Multitone" sets Multitone plug-in as the active plug-in.

WPLUGIN:ACTIVE? might return "Multitone", indicating the Multitone plug-in is currently active.

WPLugin:PLUGins? (Query Only)

This command returns all the available waveform creation plug-ins installed.

Group Waveform plug-in

Syntax WPLugin:PLUGins?

Returns <string>::= <plugin_name>,<plugin_name>,....

Plugin_name is the waveform module name(s).

Examples WPLUGIN:PLUGINS? might return "Basic Waveform,Multitone" indicating that the Basic Waveform and Multitone plug-ins are installed.

Example code to use PI parameter

Example of PI command to create a waveform and assign them to AWG channels:

Task	PI Command
Set Plug-in Module DPHYXpress	WPLUgin:ACTive "DPHYXpress" (AWG PI Command)
Reset Module	DPHY:RESEt
Set the Signal Mode	DPHY:SIGNal LPHS
Set the HS Base Pattern	DPHY:HSPEed:PATTern PRBS7
Set HS Data rate	DPHY:HSPEed:DRATe 2E+9
Set voltage Levels	DPHY:HSPEed:DATA:VOD 300E-3 DPHY:HSPEed:DATA:VCM 200E-3 DPHY:HSPEed:CLOCk:VOD 300E-3 DPHY:HSPEed:CLOCk:VCM 200E-3
LP Pattern	DPHY:LPOWer:PATTern NONE
LP Data rate	DPHY:LPOWer:DRATe 50E6
LP line levels	DPHY:LPOWer:POSItive:HIGH 800E-3 DPHY:LPOWer:POSItive:LOW -100E-3 DPHY:LPOWer:POSItive:APPLytonegative 1
Set the waveform name	DPHY:CSETtings:WAVEform:Name "NameOfWfm"
Switch to ‘Compile and Assign to’ Assign waveforms to channels	DPHY:CSETtings:COMPile CSENd DPHY:CSETtings:MASTer:CHONe DP DPHY:CSETtings:MASTer:CHTWo DN
Enable Slave and configure IP address	DPHY:CSETtings:SLAVe:ENABle 1 DPHY:CSETtings:SLAVe:IPADdress "134.64.220.21" e.g. Here IP: 134.64.220.21
Connect Slave	DPHY:CSETtings:SLAVe:ISCOnnected
Assign signal to slave Channels	DPHY:CSETtings:SLAVe:CHONe:CLKP DPHY:CSETtings:SLAVe:CHTWo:CLKN
AWG Channel turn on (Separate for Master & Slave)	OUTPut1:STATE ON OUTPut2:STATE ON (AWG PI Command)
Compile	DPHY:COMPile

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