

Keysight N6462A/N6462B DDR4 Compliance Test Application

Notices

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Safety Notices

CAUTION

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A **WARNING** notice denotes a hazard. It calls attention to an operating procedure, practice, or the like that, if not correctly performed or adhered to, could result in personal injury or death. Do not proceed beyond a **WARNING** notice until the indicated conditions are fully understood and met.

In This Book

This book is your guide to programming the Keysight Technologies N6462A/N6462B DDR4 Compliance Test Application.

- **Chapter 1**, “Introduction to Programming,” starting on page 7, describes compliance application programming basics.
- **Chapter 2**, “Configuration Variables and Values,” starting on page 11, **Chapter 3**, “Test Names and IDs,” starting on page 61, and **Chapter 4**, “Instruments,” starting on page 71, provide information specific to programming the N6462A/N6462B DDR4 Compliance Test Application.

How to Use This Book

Programmers who are new to compliance application programming should read all of the chapters in order. Programmers who are already familiar with this may review chapters 2, 3, and 4 for changes.

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1 Introduction to Programming

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This chapter introduces the basics for remote programming a compliance application. The programming commands provide the means of remote control. Basic operations that you can do remotely with a computer and a compliance app running on an oscilloscope include:

- Launching and closing the application.
- Configuring the options.
- Running tests.
- Getting results.
- Controlling when and where dialogs get displayed
- Saving and loading projects.

You can accomplish other tasks by combining these functions.

Remote Programming Toolkit

The majority of remote interface features are common across all the Keysight Technologies, Inc. family of compliance applications. Information on those features is provided in the N5452A Compliance Application Remote Programming Toolkit available for download from Keysight here:

["www.keysight.com/find/scope-apps-sw"](http://www.keysight.com/find/scope-apps-sw). The N6462A/N6462B DDR4 Compliance Test Application uses Remote Interface Revision 3.40. The help files provided with the toolkit indicate which features are supported in this version.

In the toolkit, various documents refer to "application-specific configuration variables, test information, and instrument information". These are provided in Chapters 2, 3, and 4 of this document, and are also available directly from the application's user interface when the remote interface is enabled (View>Preferences::Remote tab::Show remote interface hints). See the toolkit for more information.

Licensing

To enable programming of compliance applications on your oscilloscope, please visit "www.keysight.com/find/scope-apps" to purchase an N5452A remote programming option license.

1 Introduction to Programming

2 Configuration Variables and Values

The following table contains a description of each of the N6462A/N6462B DDR4 Compliance Test Application options that you may query or set remotely using the appropriate remote interface method. The columns contain this information:

- GUI Location – Describes which graphical user interface tab contains the control used to change the value.
- Label – Describes which graphical user interface control is used to change the value.
- Variable – The name to use with the SetConfig method.
- Values – The values to use with the SetConfig method.
- Description – The purpose or function of the variable.

For example, if the graphical user interface contains this control on the **Set Up** tab:

- Enable Advanced Features

then you would expect to see something like this in the table below:

Table 1 Example Configuration Variables and Values

GUI Location	Label	Variable	Values	Description
Set Up	Enable Advanced Features	EnableAdvanced	True, False	Enables a set of optional features.

and you would set the variable remotely using:

ARSL syntax

```
arsl -a ipaddress -c "SetConfig 'EnableAdvanced' 'True'"
```

C# syntax

```
-----
remoteAte.SetConfig("EnableAdvanced", "True");
```

Here are the actual configuration variables and values used by this application:

NOTE

Some of the values presented in the table below may not be available in certain configurations. Always perform a "test run" of your remote script using the application's graphical user interface to ensure the combinations of values in your program are valid.

NOTE

The file, ""ConfigInfo.txt"", which may be found in the same directory as this help file, contains all of the information found in the table below in a format suitable for parsing.

Table 2 Configuration Variables and Values

GUI Location	Label	Variable	Values	Description
Configure	A12-BC Channel	A12BCDigChannel	NA, DIGital0, DIGital1, DIGital2, DIGital3, DIGital4, DIGital5, DIGital6, DIGital7, DIGital8, DIGital9, DIGital10, DIGital11, DIGital12, DIGital13, DIGital14, DIGital15	Identifies the channel source selection of the A12-BC digital signal to be analyzed for burst length detection.
Configure	ACT Channel	ACTDigChannel	DIGital0, DIGital1, DIGital2, DIGital3, DIGital4, DIGital5, DIGital6, DIGital7, DIGital8, DIGital9, DIGital10, DIGital11, DIGital12, DIGital13, DIGital14, DIGital15	Identifies the channel source selection of the ACT digital signal to be analyzed for MSOx Logic Triggering.
Configure	Base Ratio	BurstTriggerBaseRatio_Channel1	(Accepts user-defined text), 0.20	Specify the value of the base ratio used when triggering for the READ/WRITE burst data. The value set here is applicable ONLY when the "Threshold Mode" option is set to "TopBaseRatio".
Configure	Base Ratio	BurstTriggerBaseRatio_Channel2	(Accepts user-defined text), 0.20	Specify the value of the base ratio used when triggering for the READ/WRITE burst data. The value set here is applicable ONLY when the "Threshold Mode" option is set to "TopBaseRatio".
Configure	Base Ratio	BurstTriggerBaseRatio_Channel3	(Accepts user-defined text), 0.20	Specify the value of the base ratio used when triggering for the READ/WRITE burst data. The value set here is applicable ONLY when the "Threshold Mode" option is set to "TopBaseRatio".

Table 2 Configuration Variables and Values (continued)

GUI Location	Label	Variable	Values	Description
Configure	Base Ratio	BurstTriggerBaseRatio_Channel4	(Accepts user-defined text), 0.20	Specify the value of the base ratio used when triggering for the READ/WRITE burst data. The value set here is applicable ONLY when the "Threshold Mode" option is set to "TopBaseRatio".
Configure	Burst Clock Minimum Transistion	MinClock Cycles	(Accepts user-defined text), 202	This value is set when burst clock is selected. This value is used to set the number of clock transistions to test in a given burst - min is 202. This is to optimize both triggering capabilities (by setting a user expectation of consistant burst lengths) and maximize the number of measurements that can be made in a burst. This value can be typed to any value > 202.
Configure	Burst Envelope Threshold	BurstEnv Thres	(Accepts user-defined text), 0.5	This setting is used to determine the Data Strobe burst sensitivity level when performing the READ/WRITE burst separation process. Setting this option to a smaller value will increase the sensitivity of the algorithm. This option can be used to detect and identify the smallest valid READ/WRITE Data Strobe burst within a data acquisition if there are significant difference in amplitude between the Data Strobe bursts. However, setting this option too small may cause noise to be interpreted as valid burst data.

Table 2 Configuration Variables and Values (continued)

GUI Location	Label	Variable	Values	Description
Configure	Burst Length Limit	MaxBurstLenLimit	(Accepts user-defined text), 4, 8, 10000	This value is used to limit the maximum number of bits used in a valid data burst found when generating an eye diagram(Read or Write). For example, when this value is set to '8', the maximum number of bits used in a data burst to generate an eye diagram is limit to the first 8 data bit. User can specify custom value for this option.
Configure	Burst Length Stimulus Mode	BurstLengthStimulusMode	FixedBurstLength, A12BCOnTheFly	This configuration for the selection of burst length stimulus mode. For "Fixed Burst Length" selection, application will assume all the burst occurrence have the same length of sub-burst. For "A12-BC Signal(Support On-The-Fly)" selection, the burst length of a sub-burst is depend on the logic state of BC signal at the moment Read/Write command queried.
Configure	CAS Channel	CASDigChannel	DIGital0, DIGital1, DIGital2, DIGital3, DIGital4, DIGital5, DIGital6, DIGital7, DIGital8, DIGital9, DIGital10, DIGital11, DIGital12, DIGital13, DIGital14, DIGital15	Identifies the channel source selection of the CAS digital signal to be analyzed for MSOx Logic Triggering.
Configure	CKE Channel	CKEDigChannel	Ignore, DIGital0, DIGital1, DIGital2, DIGital3, DIGital4, DIGital5, DIGital6, DIGital7, DIGital8, DIGital9, DIGital10, DIGital11, DIGital12, DIGital13, DIGital14, DIGital15	Identifies the channel source selection of the CKE digital signal to be analyzed for MSOx Logic Triggering.
Configure	CS Channel	CSDigChannel	DIGital0, DIGital1, DIGital2, DIGital3, DIGital4, DIGital5, DIGital6, DIGital7, DIGital8, DIGital9, DIGital10, DIGital11, DIGital12, DIGital13, DIGital14, DIGital15	Identifies the channel source selection of the CS digital signal to be analyzed for MSOx Logic Triggering.

Table 2 Configuration Variables and Values (continued)

GUI Location	Label	Variable	Values	Description
Configure	Channel 1	MyCH1	NA_, Clock_DCK0, Clock_DCK1, Clock_DCK2, Clock_SCK0, Clock_SCK1, Clock_SCK2, Data_DQ0, Data_DQ1, Data_DQ2, Data_DQ3, Data_DQ4, Data_DQ5, Data_DQ6, Data_DQ7, Data_DQ8, Data_DQ9, Data_DQ10, Data_DQ11, Data_DQ12, Data_DQ13, Data_DQ14, Data_DQ15, Data_DQ16, Data_DQ17, Data_DQ18, Data_DQ19, Data_DQ20, Data_DQ21, Data_DQ22, Data_DQ23, Data_DQ24, Data_DQ25, Data_DQ26, Data_DQ27, Data_DQ28, Data_DQ29, Data_DQ30, Data_DQ31, Data_DQ32, Data_DQ33, Data_DQ34, Data_DQ35, Data_DQ36, Data_DQ37, Data_DQ38, Data_DQ39, Data_DQ40, Data_DQ41, Data_DQ42, Data_DQ43, Data_DQ44, Data_DQ45, Data_DQ46, Data_DQ47, Data_DQ48, Data_DQ49, Data_DQ50, Data_DQ51, Data_DQ52, Data_DQ53, Data_DQ54, Data_DQ55, Data_DQ56, Data_DQ57, Data_DQ58, Data_DQ59, Data_DQ60, Data_DQ61, Data_DQ62, Data_DQ63, Data_DQ64, Data_DQ65, Data_DQ66, Data_DQ67, Data_DQ68, Data_DQ69, Data_DQ70, Data_DQ71, Control_NCS0, Control_NCS1, Strobe_DDQS0, Strobe_DDQS1, Strobe_DDQS2, Strobe_DDQS3, Strobe_DDQS4, Strobe_DDQS5, Strobe_DDQS6, Strobe_DDQS7, Strobe_DDQS8, Strobe_SDQS0, Strobe_SDQS1, Strobe_SDQS2, Strobe_SDQS3, Strobe_SDQS4, Strobe_SDQS5, Strobe_SDQS6, Strobe_SDQS7, Strobe_SDQS8, DM_DM0, DM_DM1, DM_DM2, DM_DM3, DM_DM4, DM_DM5, DM_DM6, DM_DM7, CommandAddress_CA1, CommandAddress_CA2, CommandAddress_CS, LP_NA_, LP_Clock_DCK, LP_Clock_SCK, LP_Data_DQ0, LP_Data_DQ1, LP_Data_DQ2, LP_Data_DQ3, LP_Data_DQ4, LP_Data_DQ5, LP_Data_DQ6, LP_Data_DQ7, LP_Data_DQ8, LP_Data_DQ9, LP_Data_DQ10, LP_Data_DQ11, LP_Data_DQ12, LP_Data_DQ13, LP_Data_DQ14, LP_Data_DQ15, LP_Data_DQ16, LP_Data_DQ17, LP_Data_DQ18, LP_Data_DQ19, LP_Data_DQ20, LP_Data_DQ21, LP_Data_DQ22, LP_Data_DQ23, LP_Data_DQ24, LP_Data_DQ25, LP_Data_DQ26, LP_Data_DQ27, LP_Data_DQ28, LP_Data_DQ29, LP_Data_DQ30, LP_Data_DQ31, LP_Control_NCS, LP_Strobe_DDQS0, LP_Strobe_DDQS1, LP_Strobe_DDQS2, LP_Strobe_DDQS3, LP_Strobe_SDQS0, LP_Strobe_SDQS1, LP_Strobe_SDQS2, LP_Strobe_SDQS3, LP_DM_DM0, LP_DM_DM1, LP_DM_DM2, LP_DM_DM3	Please select the signal parameter connected to Channel 1

Table 2 Configuration Variables and Values (continued)

GUI Location	Label	Variable	Values	Description
Configure	Channel 1	MyCH1_DQ	NA_, Clock_DCK0, Clock_DCK1, Clock_DCK2, Clock_SCK0, Clock_SCK1, Clock_SCK2, Data_DQ0, Data_DQ1, Data_DQ2, Data_DQ3, Data_DQ4, Data_DQ5, Data_DQ6, Data_DQ7, Data_DQ8, Data_DQ9, Data_DQ10, Data_DQ11, Data_DQ12, Data_DQ13, Data_DQ14, Data_DQ15, Data_DQ16, Data_DQ17, Data_DQ18, Data_DQ19, Data_DQ20, Data_DQ21, Data_DQ22, Data_DQ23, Data_DQ24, Data_DQ25, Data_DQ26, Data_DQ27, Data_DQ28, Data_DQ29, Data_DQ30, Data_DQ31, Data_DQ32, Data_DQ33, Data_DQ34, Data_DQ35, Data_DQ36, Data_DQ37, Data_DQ38, Data_DQ39, Data_DQ40, Data_DQ41, Data_DQ42, Data_DQ43, Data_DQ44, Data_DQ45, Data_DQ46, Data_DQ47, Data_DQ48, Data_DQ49, Data_DQ50, Data_DQ51, Data_DQ52, Data_DQ53, Data_DQ54, Data_DQ55, Data_DQ56, Data_DQ57, Data_DQ58, Data_DQ59, Data_DQ60, Data_DQ61, Data_DQ62, Data_DQ63, Data_DQ64, Data_DQ65, Data_DQ66, Data_DQ67, Data_DQ68, Data_DQ69, Data_DQ70, Data_DQ71, Control_NCS0, Control_NCS1, Strobe_DDQS0, Strobe_DDQS1, Strobe_DDQS2, Strobe_DDQS3, Strobe_DDQS4, Strobe_DDQS5, Strobe_DDQS6, Strobe_DDQS7, Strobe_DDQS8, Strobe_SDQS0, Strobe_SDQS1, Strobe_SDQS2, Strobe_SDQS3, Strobe_SDQS4, Strobe_SDQS5, Strobe_SDQS6, Strobe_SDQS7, Strobe_SDQS8, DM_DM0, DM_DM1, DM_DM2, DM_DM3, DM_DM4, DM_DM5, DM_DM6, DM_DM7, CommandAddress_CA1, CommandAddress_CA2, CommandAddress_CS, LP_NA_, LP_Clock_DCK, LP_Clock_SCK, LP_Data_DQ0, LP_Data_DQ1, LP_Data_DQ2, LP_Data_DQ3, LP_Data_DQ4, LP_Data_DQ5, LP_Data_DQ6, LP_Data_DQ7, LP_Data_DQ8, LP_Data_DQ9, LP_Data_DQ10, LP_Data_DQ11, LP_Data_DQ12, LP_Data_DQ13, LP_Data_DQ14, LP_Data_DQ15, LP_Data_DQ16, LP_Data_DQ17, LP_Data_DQ18, LP_Data_DQ19, LP_Data_DQ20, LP_Data_DQ21, LP_Data_DQ22, LP_Data_DQ23, LP_Data_DQ24, LP_Data_DQ25, LP_Data_DQ26, LP_Data_DQ27, LP_Data_DQ28, LP_Data_DQ29, LP_Data_DQ30, LP_Data_DQ31, LP_Control_NCS, LP_Strobe_DDQS0, LP_Strobe_DDQS1, LP_Strobe_DDQS2, LP_Strobe_DDQS3, LP_Strobe_SDQS0, LP_Strobe_SDQS1, LP_Strobe_SDQS2, LP_Strobe_SDQS3, LP_DM_DM0, LP_DM_DM1, LP_DM_DM2, LP_DM_DM3	Please select the signal parameter connected to Channel 1

Table 2 Configuration Variables and Values (continued)

GUI Location	Label	Variable	Values	Description
Configure	Channel 2	MyCH2	NA_, Clock_DCK0, Clock_DCK1, Clock_DCK2, Clock_SCK0, Clock_SCK1, Clock_SCK2, Data_DQ0, Data_DQ1, Data_DQ2, Data_DQ3, Data_DQ4, Data_DQ5, Data_DQ6, Data_DQ7, Data_DQ8, Data_DQ9, Data_DQ10, Data_DQ11, Data_DQ12, Data_DQ13, Data_DQ14, Data_DQ15, Data_DQ16, Data_DQ17, Data_DQ18, Data_DQ19, Data_DQ20, Data_DQ21, Data_DQ22, Data_DQ23, Data_DQ24, Data_DQ25, Data_DQ26, Data_DQ27, Data_DQ28, Data_DQ29, Data_DQ30, Data_DQ31, Data_DQ32, Data_DQ33, Data_DQ34, Data_DQ35, Data_DQ36, Data_DQ37, Data_DQ38, Data_DQ39, Data_DQ40, Data_DQ41, Data_DQ42, Data_DQ43, Data_DQ44, Data_DQ45, Data_DQ46, Data_DQ47, Data_DQ48, Data_DQ49, Data_DQ50, Data_DQ51, Data_DQ52, Data_DQ53, Data_DQ54, Data_DQ55, Data_DQ56, Data_DQ57, Data_DQ58, Data_DQ59, Data_DQ60, Data_DQ61, Data_DQ62, Data_DQ63, Data_DQ64, Data_DQ65, Data_DQ66, Data_DQ67, Data_DQ68, Data_DQ69, Data_DQ70, Data_DQ71, Control_NCS0, Control_NCS1, Strobe_DDQS0, Strobe_DDQS1, Strobe_DDQS2, Strobe_DDQS3, Strobe_DDQS4, Strobe_DDQS5, Strobe_DDQS6, Strobe_DDQS7, Strobe_DDQS8, Strobe_SDQS0, Strobe_SDQS1, Strobe_SDQS2, Strobe_SDQS3, Strobe_SDQS4, Strobe_SDQS5, Strobe_SDQS6, Strobe_SDQS7, Strobe_SDQS8, DM_DM0, DM_DM1, DM_DM2, DM_DM3, DM_DM4, DM_DM5, DM_DM6, DM_DM7, CommandAddress_CA1, CommandAddress_CA2, CommandAddress_CS, LP_NA_, LP_Clock_DCK, LP_Clock_SCK, LP_Data_DQ0, LP_Data_DQ1, LP_Data_DQ2, LP_Data_DQ3, LP_Data_DQ4, LP_Data_DQ5, LP_Data_DQ6, LP_Data_DQ7, LP_Data_DQ8, LP_Data_DQ9, LP_Data_DQ10, LP_Data_DQ11, LP_Data_DQ12, LP_Data_DQ13, LP_Data_DQ14, LP_Data_DQ15, LP_Data_DQ16, LP_Data_DQ17, LP_Data_DQ18, LP_Data_DQ19, LP_Data_DQ20, LP_Data_DQ21, LP_Data_DQ22, LP_Data_DQ23, LP_Data_DQ24, LP_Data_DQ25, LP_Data_DQ26, LP_Data_DQ27, LP_Data_DQ28, LP_Data_DQ29, LP_Data_DQ30, LP_Data_DQ31, LP_Control_NCS, LP_Strobe_DDQS0, LP_Strobe_DDQS1, LP_Strobe_DDQS2, LP_Strobe_DDQS3, LP_Strobe_SDQS0, LP_Strobe_SDQS1, LP_Strobe_SDQS2, LP_Strobe_SDQS3, LP_DM_DM0, LP_DM_DM1, LP_DM_DM2, LP_DM_DM3	Please select the signal parameter connected to Channel 2

Table 2 Configuration Variables and Values (continued)

GUI Location	Label	Variable	Values	Description
Configure	Channel 2	MyCH2_DQ	NA_, Clock_DCK0, Clock_DCK1, Clock_DCK2, Clock_SCK0, Clock_SCK1, Clock_SCK2, Data_DQ0, Data_DQ1, Data_DQ2, Data_DQ3, Data_DQ4, Data_DQ5, Data_DQ6, Data_DQ7, Data_DQ8, Data_DQ9, Data_DQ10, Data_DQ11, Data_DQ12, Data_DQ13, Data_DQ14, Data_DQ15, Data_DQ16, Data_DQ17, Data_DQ18, Data_DQ19, Data_DQ20, Data_DQ21, Data_DQ22, Data_DQ23, Data_DQ24, Data_DQ25, Data_DQ26, Data_DQ27, Data_DQ28, Data_DQ29, Data_DQ30, Data_DQ31, Data_DQ32, Data_DQ33, Data_DQ34, Data_DQ35, Data_DQ36, Data_DQ37, Data_DQ38, Data_DQ39, Data_DQ40, Data_DQ41, Data_DQ42, Data_DQ43, Data_DQ44, Data_DQ45, Data_DQ46, Data_DQ47, Data_DQ48, Data_DQ49, Data_DQ50, Data_DQ51, Data_DQ52, Data_DQ53, Data_DQ54, Data_DQ55, Data_DQ56, Data_DQ57, Data_DQ58, Data_DQ59, Data_DQ60, Data_DQ61, Data_DQ62, Data_DQ63, Data_DQ64, Data_DQ65, Data_DQ66, Data_DQ67, Data_DQ68, Data_DQ69, Data_DQ70, Data_DQ71, Control_NCS0, Control_NCS1, Strobe_DDQS0, Strobe_DDQS1, Strobe_DDQS2, Strobe_DDQS3, Strobe_DDQS4, Strobe_DDQS5, Strobe_DDQS6, Strobe_DDQS7, Strobe_DDQS8, Strobe_SDQS0, Strobe_SDQS1, Strobe_SDQS2, Strobe_SDQS3, Strobe_SDQS4, Strobe_SDQS5, Strobe_SDQS6, Strobe_SDQS7, Strobe_SDQS8, DM_DM0, DM_DM1, DM_DM2, DM_DM3, DM_DM4, DM_DM5, DM_DM6, DM_DM7, CommandAddress_CA1, CommandAddress_CA2, CommandAddress_CS, LP_NA_, LP_Clock_DCK, LP_Clock_SCK, LP_Data_DQ0, LP_Data_DQ1, LP_Data_DQ2, LP_Data_DQ3, LP_Data_DQ4, LP_Data_DQ5, LP_Data_DQ6, LP_Data_DQ7, LP_Data_DQ8, LP_Data_DQ9, LP_Data_DQ10, LP_Data_DQ11, LP_Data_DQ12, LP_Data_DQ13, LP_Data_DQ14, LP_Data_DQ15, LP_Data_DQ16, LP_Data_DQ17, LP_Data_DQ18, LP_Data_DQ19, LP_Data_DQ20, LP_Data_DQ21, LP_Data_DQ22, LP_Data_DQ23, LP_Data_DQ24, LP_Data_DQ25, LP_Data_DQ26, LP_Data_DQ27, LP_Data_DQ28, LP_Data_DQ29, LP_Data_DQ30, LP_Data_DQ31, LP_Control_NCS, LP_Strobe_DDQS0, LP_Strobe_DDQS1, LP_Strobe_DDQS2, LP_Strobe_DDQS3, LP_Strobe_SDQS0, LP_Strobe_SDQS1, LP_Strobe_SDQS2, LP_Strobe_SDQS3, LP_DM_DM0, LP_DM_DM1, LP_DM_DM2, LP_DM_DM3	Please select the signal parameter connected to Channel 2

Table 2 Configuration Variables and Values (continued)

GUI Location	Label	Variable	Values	Description
Configure	Channel 3	MyCH3	NA_, Clock_DCK0, Clock_DCK1, Clock_DCK2, Clock_SCK0, Clock_SCK1, Clock_SCK2, Data_DQ0, Data_DQ1, Data_DQ2, Data_DQ3, Data_DQ4, Data_DQ5, Data_DQ6, Data_DQ7, Data_DQ8, Data_DQ9, Data_DQ10, Data_DQ11, Data_DQ12, Data_DQ13, Data_DQ14, Data_DQ15, Data_DQ16, Data_DQ17, Data_DQ18, Data_DQ19, Data_DQ20, Data_DQ21, Data_DQ22, Data_DQ23, Data_DQ24, Data_DQ25, Data_DQ26, Data_DQ27, Data_DQ28, Data_DQ29, Data_DQ30, Data_DQ31, Data_DQ32, Data_DQ33, Data_DQ34, Data_DQ35, Data_DQ36, Data_DQ37, Data_DQ38, Data_DQ39, Data_DQ40, Data_DQ41, Data_DQ42, Data_DQ43, Data_DQ44, Data_DQ45, Data_DQ46, Data_DQ47, Data_DQ48, Data_DQ49, Data_DQ50, Data_DQ51, Data_DQ52, Data_DQ53, Data_DQ54, Data_DQ55, Data_DQ56, Data_DQ57, Data_DQ58, Data_DQ59, Data_DQ60, Data_DQ61, Data_DQ62, Data_DQ63, Data_DQ64, Data_DQ65, Data_DQ66, Data_DQ67, Data_DQ68, Data_DQ69, Data_DQ70, Data_DQ71, Control_NCS0, Control_NCS1, Strobe_DDQS0, Strobe_DDQS1, Strobe_DDQS2, Strobe_DDQS3, Strobe_DDQS4, Strobe_DDQS5, Strobe_DDQS6, Strobe_DDQS7, Strobe_DDQS8, Strobe_SDQS0, Strobe_SDQS1, Strobe_SDQS2, Strobe_SDQS3, Strobe_SDQS4, Strobe_SDQS5, Strobe_SDQS6, Strobe_SDQS7, Strobe_SDQS8, DM_DM0, DM_DM1, DM_DM2, DM_DM3, DM_DM4, DM_DM5, DM_DM6, DM_DM7, CommandAddress_CA1, CommandAddress_CA2, CommandAddress_CS, LP_NA_, LP_Clock_DCK, LP_Clock_SCK, LP_Data_DQ0, LP_Data_DQ1, LP_Data_DQ2, LP_Data_DQ3, LP_Data_DQ4, LP_Data_DQ5, LP_Data_DQ6, LP_Data_DQ7, LP_Data_DQ8, LP_Data_DQ9, LP_Data_DQ10, LP_Data_DQ11, LP_Data_DQ12, LP_Data_DQ13, LP_Data_DQ14, LP_Data_DQ15, LP_Data_DQ16, LP_Data_DQ17, LP_Data_DQ18, LP_Data_DQ19, LP_Data_DQ20, LP_Data_DQ21, LP_Data_DQ22, LP_Data_DQ23, LP_Data_DQ24, LP_Data_DQ25, LP_Data_DQ26, LP_Data_DQ27, LP_Data_DQ28, LP_Data_DQ29, LP_Data_DQ30, LP_Data_DQ31, LP_Control_NCS, LP_Strobe_DDQS0, LP_Strobe_DDQS1, LP_Strobe_DDQS2, LP_Strobe_DDQS3, LP_Strobe_SDQS0, LP_Strobe_SDQS1, LP_Strobe_SDQS2, LP_Strobe_SDQS3, LP_DM_DM0, LP_DM_DM1, LP_DM_DM2, LP_DM_DM3	Please select the signal parameter connected to Channel 3

Table 2 Configuration Variables and Values (continued)

GUI Location	Label	Variable	Values	Description
Configure	Channel 3	MyCH3_DQ	NA_, Clock_DCK0, Clock_DCK1, Clock_DCK2, Clock_SCK0, Clock_SCK1, Clock_SCK2, Data_DQ0, Data_DQ1, Data_DQ2, Data_DQ3, Data_DQ4, Data_DQ5, Data_DQ6, Data_DQ7, Data_DQ8, Data_DQ9, Data_DQ10, Data_DQ11, Data_DQ12, Data_DQ13, Data_DQ14, Data_DQ15, Data_DQ16, Data_DQ17, Data_DQ18, Data_DQ19, Data_DQ20, Data_DQ21, Data_DQ22, Data_DQ23, Data_DQ24, Data_DQ25, Data_DQ26, Data_DQ27, Data_DQ28, Data_DQ29, Data_DQ30, Data_DQ31, Data_DQ32, Data_DQ33, Data_DQ34, Data_DQ35, Data_DQ36, Data_DQ37, Data_DQ38, Data_DQ39, Data_DQ40, Data_DQ41, Data_DQ42, Data_DQ43, Data_DQ44, Data_DQ45, Data_DQ46, Data_DQ47, Data_DQ48, Data_DQ49, Data_DQ50, Data_DQ51, Data_DQ52, Data_DQ53, Data_DQ54, Data_DQ55, Data_DQ56, Data_DQ57, Data_DQ58, Data_DQ59, Data_DQ60, Data_DQ61, Data_DQ62, Data_DQ63, Data_DQ64, Data_DQ65, Data_DQ66, Data_DQ67, Data_DQ68, Data_DQ69, Data_DQ70, Data_DQ71, Control_NCS0, Control_NCS1, Strobe_DDQS0, Strobe_DDQS1, Strobe_DDQS2, Strobe_DDQS3, Strobe_DDQS4, Strobe_DDQS5, Strobe_DDQS6, Strobe_DDQS7, Strobe_DDQS8, Strobe_SDQS0, Strobe_SDQS1, Strobe_SDQS2, Strobe_SDQS3, Strobe_SDQS4, Strobe_SDQS5, Strobe_SDQS6, Strobe_SDQS7, Strobe_SDQS8, DM_DM0, DM_DM1, DM_DM2, DM_DM3, DM_DM4, DM_DM5, DM_DM6, DM_DM7, CommandAddress_CA1, CommandAddress_CA2, CommandAddress_CS, LP_NA_, LP_Clock_DCK, LP_Clock_SCK, LP_Data_DQ0, LP_Data_DQ1, LP_Data_DQ2, LP_Data_DQ3, LP_Data_DQ4, LP_Data_DQ5, LP_Data_DQ6, LP_Data_DQ7, LP_Data_DQ8, LP_Data_DQ9, LP_Data_DQ10, LP_Data_DQ11, LP_Data_DQ12, LP_Data_DQ13, LP_Data_DQ14, LP_Data_DQ15, LP_Data_DQ16, LP_Data_DQ17, LP_Data_DQ18, LP_Data_DQ19, LP_Data_DQ20, LP_Data_DQ21, LP_Data_DQ22, LP_Data_DQ23, LP_Data_DQ24, LP_Data_DQ25, LP_Data_DQ26, LP_Data_DQ27, LP_Data_DQ28, LP_Data_DQ29, LP_Data_DQ30, LP_Data_DQ31, LP_Control_NCS, LP_Strobe_DDQS0, LP_Strobe_DDQS1, LP_Strobe_DDQS2, LP_Strobe_DDQS3, LP_Strobe_SDQS0, LP_Strobe_SDQS1, LP_Strobe_SDQS2, LP_Strobe_SDQS3, LP_DM_DM0, LP_DM_DM1, LP_DM_DM2, LP_DM_DM3	Please select the signal parameter connected to Channel 3

Table 2 Configuration Variables and Values (continued)

GUI Location	Label	Variable	Values	Description
Configure	Channel 4	MyCH4	NA_, Clock_DCK0, Clock_DCK1, Clock_DCK2, Clock_SCK0, Clock_SCK1, Clock_SCK2, Data_DQ0, Data_DQ1, Data_DQ2, Data_DQ3, Data_DQ4, Data_DQ5, Data_DQ6, Data_DQ7, Data_DQ8, Data_DQ9, Data_DQ10, Data_DQ11, Data_DQ12, Data_DQ13, Data_DQ14, Data_DQ15, Data_DQ16, Data_DQ17, Data_DQ18, Data_DQ19, Data_DQ20, Data_DQ21, Data_DQ22, Data_DQ23, Data_DQ24, Data_DQ25, Data_DQ26, Data_DQ27, Data_DQ28, Data_DQ29, Data_DQ30, Data_DQ31, Data_DQ32, Data_DQ33, Data_DQ34, Data_DQ35, Data_DQ36, Data_DQ37, Data_DQ38, Data_DQ39, Data_DQ40, Data_DQ41, Data_DQ42, Data_DQ43, Data_DQ44, Data_DQ45, Data_DQ46, Data_DQ47, Data_DQ48, Data_DQ49, Data_DQ50, Data_DQ51, Data_DQ52, Data_DQ53, Data_DQ54, Data_DQ55, Data_DQ56, Data_DQ57, Data_DQ58, Data_DQ59, Data_DQ60, Data_DQ61, Data_DQ62, Data_DQ63, Data_DQ64, Data_DQ65, Data_DQ66, Data_DQ67, Data_DQ68, Data_DQ69, Data_DQ70, Data_DQ71, Control_NCS0, Control_NCS1, Strobe_DDQS0, Strobe_DDQS1, Strobe_DDQS2, Strobe_DDQS3, Strobe_DDQS4, Strobe_DDQS5, Strobe_DDQS6, Strobe_DDQS7, Strobe_DDQS8, Strobe_SDQS0, Strobe_SDQS1, Strobe_SDQS2, Strobe_SDQS3, Strobe_SDQS4, Strobe_SDQS5, Strobe_SDQS6, Strobe_SDQS7, Strobe_SDQS8, DM_DM0, DM_DM1, DM_DM2, DM_DM3, DM_DM4, DM_DM5, DM_DM6, DM_DM7, CommandAddress_CA1, CommandAddress_CA2, CommandAddress_CS, LP_NA_, LP_Clock_DCK, LP_Clock_SCK, LP_Data_DQ0, LP_Data_DQ1, LP_Data_DQ2, LP_Data_DQ3, LP_Data_DQ4, LP_Data_DQ5, LP_Data_DQ6, LP_Data_DQ7, LP_Data_DQ8, LP_Data_DQ9, LP_Data_DQ10, LP_Data_DQ11, LP_Data_DQ12, LP_Data_DQ13, LP_Data_DQ14, LP_Data_DQ15, LP_Data_DQ16, LP_Data_DQ17, LP_Data_DQ18, LP_Data_DQ19, LP_Data_DQ20, LP_Data_DQ21, LP_Data_DQ22, LP_Data_DQ23, LP_Data_DQ24, LP_Data_DQ25, LP_Data_DQ26, LP_Data_DQ27, LP_Data_DQ28, LP_Data_DQ29, LP_Data_DQ30, LP_Data_DQ31, LP_Control_NCS, LP_Strobe_DDQS0, LP_Strobe_DDQS1, LP_Strobe_DDQS2, LP_Strobe_DDQS3, LP_Strobe_SDQS0, LP_Strobe_SDQS1, LP_Strobe_SDQS2, LP_Strobe_SDQS3, LP_DM_DM0, LP_DM_DM1, LP_DM_DM2, LP_DM_DM3	Please select the signal parameter connected to Channel 4

Table 2 Configuration Variables and Values (continued)

GUI Location	Label	Variable	Values	Description
Configure	Channel 4	MyCH4_DQ	NA_, Clock_DCK0, Clock_DCK1, Clock_DCK2, Clock_SCK0, Clock_SCK1, Clock_SCK2, Data_DQ0, Data_DQ1, Data_DQ2, Data_DQ3, Data_DQ4, Data_DQ5, Data_DQ6, Data_DQ7, Data_DQ8, Data_DQ9, Data_DQ10, Data_DQ11, Data_DQ12, Data_DQ13, Data_DQ14, Data_DQ15, Data_DQ16, Data_DQ17, Data_DQ18, Data_DQ19, Data_DQ20, Data_DQ21, Data_DQ22, Data_DQ23, Data_DQ24, Data_DQ25, Data_DQ26, Data_DQ27, Data_DQ28, Data_DQ29, Data_DQ30, Data_DQ31, Data_DQ32, Data_DQ33, Data_DQ34, Data_DQ35, Data_DQ36, Data_DQ37, Data_DQ38, Data_DQ39, Data_DQ40, Data_DQ41, Data_DQ42, Data_DQ43, Data_DQ44, Data_DQ45, Data_DQ46, Data_DQ47, Data_DQ48, Data_DQ49, Data_DQ50, Data_DQ51, Data_DQ52, Data_DQ53, Data_DQ54, Data_DQ55, Data_DQ56, Data_DQ57, Data_DQ58, Data_DQ59, Data_DQ60, Data_DQ61, Data_DQ62, Data_DQ63, Data_DQ64, Data_DQ65, Data_DQ66, Data_DQ67, Data_DQ68, Data_DQ69, Data_DQ70, Data_DQ71, Control_NCS0, Control_NCS1, Strobe_DDQS0, Strobe_DDQS1, Strobe_DDQS2, Strobe_DDQS3, Strobe_DDQS4, Strobe_DDQS5, Strobe_DDQS6, Strobe_DDQS7, Strobe_DDQS8, Strobe_SDQS0, Strobe_SDQS1, Strobe_SDQS2, Strobe_SDQS3, Strobe_SDQS4, Strobe_SDQS5, Strobe_SDQS6, Strobe_SDQS7, Strobe_SDQS8, DM_DM0, DM_DM1, DM_DM2, DM_DM3, DM_DM4, DM_DM5, DM_DM6, DM_DM7, CommandAddress_CA1, CommandAddress_CA2, CommandAddress_CS, LP_NA_, LP_Clock_DCK, LP_Clock_SCK, LP_Data_DQ0, LP_Data_DQ1, LP_Data_DQ2, LP_Data_DQ3, LP_Data_DQ4, LP_Data_DQ5, LP_Data_DQ6, LP_Data_DQ7, LP_Data_DQ8, LP_Data_DQ9, LP_Data_DQ10, LP_Data_DQ11, LP_Data_DQ12, LP_Data_DQ13, LP_Data_DQ14, LP_Data_DQ15, LP_Data_DQ16, LP_Data_DQ17, LP_Data_DQ18, LP_Data_DQ19, LP_Data_DQ20, LP_Data_DQ21, LP_Data_DQ22, LP_Data_DQ23, LP_Data_DQ24, LP_Data_DQ25, LP_Data_DQ26, LP_Data_DQ27, LP_Data_DQ28, LP_Data_DQ29, LP_Data_DQ30, LP_Data_DQ31, LP_Control_NCS, LP_Strobe_DDQS0, LP_Strobe_DDQS1, LP_Strobe_DDQS2, LP_Strobe_DDQS3, LP_Strobe_SDQS0, LP_Strobe_SDQS1, LP_Strobe_SDQS2, LP_Strobe_SDQS3, LP_DM_DM0, LP_DM_DM1, LP_DM_DM2, LP_DM_DM3	Please select the signal parameter connected to Channel 4

Table 2 Configuration Variables and Values (continued)

GUI Location	Label	Variable	Values	Description
Configure	Chip Select Source	AdvDbg_Source3	-1, 1, 2, 3, 4	Identifies the source of the Chip Select signal for eye diagram tests(Rank separation option ONLY).
Configure	Clock - Continuous or Burst	ContOBurst	Continuous, Burst	This option is to select if the Clock signal is continuous or Bursted.
Configure	Clock Lane	AdvDbgSupportClockMSOXLogicTrig	CK0, CK1, CK2	Identifies the Clock lane for the eye diagram tests using MSOX Logic input.
Configure	Clock Source	AdvDbg_SourceClockMSOXLogicTrig	-1, 1, 2, 3, 4	Identifies the source of the Clock for eye diagram tests using MSOX Logic input.
Configure	Clocking Method	Clocking Method	1, 2	This option is used to select the clocking method used in the selected PUT(under the Command and Address Timing tests section). The clocking method is typically determined by the memory controller where it could use "1T Timing" or "2T Timing" method on the address and command buses. This clocking method option will ONLY affect tIS and tIS(derate) tests.
Configure	DQ to DQS phase shift for Read(%)	Read_Phase	(Accepts user-defined text), 20	This setting allow user to modify the expected phase shift of DQ-DQS for specific case. The number represent the % of phase shift expected for Read cycle.
Configure	DQ to DQS phase shift for Write(%)	Write_Phase	(Accepts user-defined text), 40	This setting allow user to modify the expected phase shift of DQ-DQS for specific case. The number represent the % of phase shift expected for Write cycle.

Table 2 Configuration Variables and Values (continued)

GUI Location	Label	Variable	Values	Description
Configure	Data Lane	AdvDbgInputDataMSOXLogicTrig	DQ0, DQ1, DQ2, DQ3, DQ4, DQ5, DQ6, DQ7, DQ8, DQ9, DQ10, DQ11, DQ12, DQ13, DQ14, DQ15, DQ16, DQ17, DQ18, DQ19, DQ20, DQ21, DQ22, DQ23, DQ24, DQ25, DQ26, DQ27, DQ28, DQ29, DQ30, DQ31, DQ32, DQ33, DQ34, DQ35, DQ36, DQ37, DQ38, DQ39, DQ40, DQ41, DQ42, DQ43, DQ44, DQ45, DQ46, DQ47, DQ48, DQ49, DQ50, DQ51, DQ52, DQ53, DQ54, DQ55, DQ56, DQ57, DQ58, DQ59, DQ60, DQ61, DQ62, DQ63, DQ64, DQ65, DQ66, DQ67, DQ68, DQ69, DQ70, DQ71	Identifies the Data lane for the eye diagram tests using MSOX Logic input.
Configure	Data Lane	AdvDbgInput_Eye	DQ0, DQ1, DQ2, DQ3, DQ4, DQ5, DQ6, DQ7, DQ8, DQ9, DQ10, DQ11, DQ12, DQ13, DQ14, DQ15, DQ16, DQ17, DQ18, DQ19, DQ20, DQ21, DQ22, DQ23, DQ24, DQ25, DQ26, DQ27, DQ28, DQ29, DQ30, DQ31, DQ32, DQ33, DQ34, DQ35, DQ36, DQ37, DQ38, DQ39, DQ40, DQ41, DQ42, DQ43, DQ44, DQ45, DQ46, DQ47, DQ48, DQ49, DQ50, DQ51, DQ52, DQ53, DQ54, DQ55, DQ56, DQ57, DQ58, DQ59, DQ60, DQ61, DQ62, DQ63, DQ64, DQ65, DQ66, DQ67, DQ68, DQ69, DQ70, DQ71	Identifies the data lane for the eye diagram tests.
Configure	Data Source	AdvDbg_Source1	1, 2, 3, 4	Identifies the source of the data to be analyzed for eye diagram tests.
Configure	Data Source	AdvDbg_SourceDataMSOXLogicTrig	1, 2, 3, 4	Identifies the source of the Data for eye diagram tests using MSOX Logic input.
Configure	Data Strobe Lane	AdvDbgSupport	DQS0, DQS1, DQS2, DQS3, DQS4, DQS5, DQS6, DQS7, DQS8	Identifies the data strobe lane for the eye diagram tests.
Configure	Data Strobe Lane	AdvDbgSupportStrobeMSOXLogicTrig	DQS0, DQS1, DQS2, DQS3, DQS4, DQS5, DQS6, DQS7, DQS8	Identifies the Data Strobe lane for the eye diagram tests using MSOX Logic input.
Configure	Data Strobe Source	AdvDbg_Source2	-1, 1, 2, 3, 4	Identifies the source of the data strobe for eye diagram tests.
Configure	Data Strobe Source	AdvDbg_SourceStrobeMSOXLogicTrig	-1, 1, 2, 3, 4	Identifies the source of the Data Strobe for eye diagram tests using MSOX Logic input.

Table 2 Configuration Variables and Values (continued)

GUI Location	Label	Variable	Values	Description
Configure	Data Transfer Cycle	EyeDiagramOpt	R, W	Select Data Transfer Cycle For Eye Diagram Test
Configure	Debug Info Logging	EnableDebugLogging	0, 1	This option enables/disables additional debug information logging during test run. This option is ONLY used for internal debugging purposes and should not be enable during normal test run.
Configure	Derated Limit Method	DeratedLimitMethod	0, 1	This option is used to select the method to determine the derating values used in calculation of the dynamic test limit for tests that support derating [tDS-Diff(derate),tDH-Diff(derate),tIS(derate),tIH(derate)]. When the "Nominal Method" option is selected, the nominal slew rates of the relevant test signals(DQ or ADD/CMD) will be used to determine the derating value. Otherwise if "Tangent Method" option is selected, the slew rates of a tangent line to the actual test signals(DQ or ADD/CMD) will be used to determine the derating value instead.
Configure	Edge Type for HoldTime measurements	CAEdgeOfInterest_HoldTime	0, 1, 2	This option is used to select the type of CA signal edge (Rising/Falling/Both) that will be processed when performing the hold time measurements for Command and Address Timing tests section. This option will ONLY affect tIH and tIH(derate) tests.

Table 2 Configuration Variables and Values (continued)

GUI Location	Label	Variable	Values	Description
Configure	Edge Type for SetupTime measurements	CAEdgeOfInterest_SetupTime	0, 1, 2	This option is used to select the type of CA signal edge (Rising/Falling/Both) that will be processed when performing the setup time measurements for Command and Address Timing tests section. This option will ONLY affect tIS and tIS(derate) tests.
Configure	Fixed Burst Length	FixBurstLength_Timing	4, 8	This value is used ONLY when the "Rank Separation" option is enabled. The value is used in the process to identify and eliminate bubble states(if any) from a valid back-to-back data burst found when performing the Data Strobe Timing and Data Timing tests. For example, when this value is set to '8', all the data burst that has more than 8 data bit long will be scan for any bubble states within the data burst. It is assume that all the multiple data bursts will have the same fixed data length(in this example, 8 data bit). User can select from the available values for this option.
Configure	Fixed Burst Length	FixedBurstLength_LogicMSOx	NA, 4, 8	This value is to define the Fix Burst Length of sub-burst. The value is used to determine the continuity of the sub-burst to the next sub-burst according to the Logic Pattern.
Configure	Lower Threshold (V)	Chan1_Low_Thresh	(Accepts user-defined text), -0.50	Specify the lower measurement threshold used for Channel 1. The value set here is applicable ONLY when the "Threshold Mode" option is set to "Custom Threshold".

Table 2 Configuration Variables and Values (continued)

GUI Location	Label	Variable	Values	Description
Configure	Lower Threshold (V)	Chan2_Low_Thresh	(Accepts user-defined text), -0.50	Specify the lower measurement threshold used for Channel 2. The value set here is applicable ONLY when the "Threshold Mode" option is set to "Custom Threshold".
Configure	Lower Threshold (V)	Chan3_Low_Thresh	(Accepts user-defined text), 0.680	Specify the lower measurement threshold used for Channel 3. The value set here is applicable ONLY when the "Threshold Mode" option is set to "Custom Threshold".
Configure	Lower Threshold (V)	Chan4_Low_Thresh	(Accepts user-defined text), 0.680	Specify the lower measurement threshold used for Channel 4. The value set here is applicable ONLY when the "Threshold Mode" option is set to "Custom Threshold".
Configure	Mark Worst Case Cycles	MarkWorstCaseCycles	true, false	Places markers around the worst case cycles (test-dependent). Slows runtime performance.
Configure	Max Acquisition Count	MaxAcqCount	(Accepts user-defined text), 5, 10, 20, 50	Determine the maximum number of acquisition that the app will used to try and achieved the required READ/WRITE measurement burst count(as specified in the "Multi Burst Count" option) when performing the tests. *Note: This option is applicable to all READ /WRITE burst related tests in the Electrical Tests group and Timing Tests group.
Configure	Max Measurement Count	MaxNumOfEdgeCount	(Accepts user-defined text), 1, 10, 100, 1000	Determine the maximum number of measurement edge count (including both rising and falling edges of the selected Command and Address signal) that the app will used when performing the Command and Address Timing Tests(tIS, tIH, etc)

Table 2 Configuration Variables and Values (continued)

GUI Location	Label	Variable	Values	Description
Configure	Middle Threshold (V)	Chan1_Mid_Thresh	(Accepts user-defined text), 0.00	Specify the middle measurement threshold used for Channel 1. The value set here is applicable ONLY when the "Threshold Mode" option is set to "Custom Threshold".
Configure	Middle Threshold (V)	Chan2_Mid_Thresh	(Accepts user-defined text), 0.00	Specify the middle measurement threshold used for Channel 2. The value set here is applicable ONLY when the "Threshold Mode" option is set to "Custom Threshold".
Configure	Middle Threshold (V)	Chan3_Mid_Thresh	(Accepts user-defined text), 0.800	Specify the middle measurement threshold used for Channel 3. The value set here is applicable ONLY when the "Threshold Mode" option is set to "Custom Threshold".
Configure	Middle Threshold (V)	Chan4_Mid_Thresh	(Accepts user-defined text), 0.800	Specify the middle measurement threshold used for Channel 4. The value set here is applicable ONLY when the "Threshold Mode" option is set to "Custom Threshold".
Configure	Minimum Data Amplitude	DataVolt Range	(Accepts user-defined text), 0.5	Determine the minimum amplitude of a Data burst (DQ/DM) that can be identified as a valid READ/WRITE burst data. If the actual amplitude of a burst data is lower than the value specified in this option, then that particular burst data will be ignored.

Table 2 Configuration Variables and Values (continued)

GUI Location	Label	Variable	Values	Description
Configure	Multi Burst Count	MultiBurstCount	(Accepts user-defined text), 1, 10, 100, 1000	Determine the number of READ/WRITE measurement burst(s) that is required when performing the tests. *Note: This option is applicable to all READ /WRITE burst related tests in the Electrical Tests group and Timing Tests group with the exception of VOH(AC), VOH(DC), VOL(AC), VOL(DC), VIHdiff(AC), VILdiff(AC), VOHdiff(AC) and VOLdiff(AC) tests.
Configure	Number of Clock Measurements	NumClockMeas	(Accepts user-defined text), 200	This value is used to set the number of total clock transitions to be measured - min 200. If Continuous clock is selected, the memory depth will be set accordingly to capture enough clock edges. For bursted clock, it will first measure the number of clocks set in Burst clock transitions and then repeat as many acquisitions needed to meet the value set.
Configure	OfflineCA FilePath(Must be hidden)	OfflineCA FilePath	(Accepts user-defined text), C:\	For supporting offline.
Configure	OfflineCS FilePath(Must be hidden)	OfflineCS FilePath	(Accepts user-defined text), C:\	For supporting offline.
Configure	OfflineClockFilePath(Must be hidden)	OfflineClockFilePath	(Accepts user-defined text), C:\	For supporting offline.
Configure	OfflineClockMinusFilePath(Must be hidden)	OfflineClockMinusFilePath	(Accepts user-defined text), C:\	For supporting offline.

Table 2 Configuration Variables and Values (continued)

GUI Location	Label	Variable	Values	Description
Configure	OfflineClockPlusFilePath(Must be hidden)	OfflineClockPlusFilePath	(Accepts user-defined text), C:\	For supporting offline.
Configure	OfflineDQFilePath(Must be hidden)	OfflineDQFilePath	(Accepts user-defined text), C:\	For supporting offline.
Configure	OfflineDQSFFilePath(Must be hidden)	OfflineDQSFFilePath	(Accepts user-defined text), C:\	For supporting offline.
Configure	OfflineDQSMinusFilePath(Must be hidden)	OfflineDQSMinusFilePath	(Accepts user-defined text), C:\	For supporting offline.
Configure	OfflineDQSPPlusFilePath(Must be hidden)	OfflineDQSPPlusFilePath	(Accepts user-defined text), C:\	For supporting offline.
Configure	OfflineDataFolder(Must be hidden)	OfflineDataFolder	(Accepts user-defined text), C:\	For supporting offline.
Configure	OfflineDataMode(Must be hidden)	OfflineDataMode	(Accepts user-defined text), 0.0, 1.0	For supporting offline
Configure	Option	TypeOfSignalCH1_CAT	NA, PUT, SP, LP_NA, LP_PUT, LP_SP	Identifies the signal to use for Channel 1 Command and Address Timing Test.
Configure	Option	TypeOfSignalCH2_CAT	NA, PUT, SP, LP_NA, LP_PUT, LP_SP	Identifies the signal to use for Channel 2 Command and Address Timing Test.
Configure	Option	TypeOfSignalCH3_CAT	NA, PUT, SP, LP_NA, LP_PUT, LP_SP	Identifies the signal to use for Channel 3 Command and Address Timing Test.

Table 2 Configuration Variables and Values (continued)

GUI Location	Label	Variable	Values	Description
Configure	Option	TypeOfSignalCH4_CAT	NA, PUT, SP, LP_NA, LP_PUT, LP_SP	Identifies the signal to use for Channel 4 Command and Address Timing Test.
Configure	PUT Source	ElecDiffCKVihVilPut_Source	1, 2, 3, 4	Identifies the source of the PUT for Differential VIHdiff.CK/ VILdiff.CK tests.
Configure	PUT Source	ElecDiffDQSVihVilPut_Source	1, 2, 3, 4	Identifies the source of the PUT for Differential VIHdiff.DQS/ VILdiff.DQS tests.
Configure	PUT Source	ElecDiffOutputPut_Source	1, 2, 3, 4	Identifies the source of the PUT for Differential AC Output Tests.
Configure	PUT Source	ElecSEVsVselClockPut_Source	1, 2, 3, 4	Identifies the source of the PUT for VSEH/VSEL Tests for Clock.
Configure	PUT Source	ElecSEVsVselStrobePut_Source	1, 2, 3, 4	Identifies the source of the PUT for VSEH/VSEL Tests for Strobe.
Configure	PUT Source	ElecSE_Source1	1, 2, 3, 4	Identifies the source of the PUT for "VOH/VOL and Output Slew Rate tests" test group.
Configure	PUT Source	ElecSE_Source1_CA	1, 2, 3, 4	Identifies the source channel of the PUT for "VIH/VIL for Command and Address" test group.
Configure	PUT Source	ElecSE_Source1_DQ	1, 2, 3, 4	Identifies the source channel of the PUT for "VIH/VIL for DQ and DM" test group.
Configure	PUT Source	OvrShtSeCA_LP_Source	1, 2, 3, 4	Identifies the source channel of the PUT for Overshoot/Undershoot (Address, Control, Clock, Chip Select, Clock Enable) tests.
Configure	PUT Source	OvrShtSeDQ_LP_Source	1, 2, 3, 4	Identifies the source channel of the PUT for Overshoot/Undershoot (Data, Strobe, Mask) tests.

Table 2 Configuration Variables and Values (continued)

GUI Location	Label	Variable	Values	Description
Configure	PUT Source	OvrShtSe_Source	1, 2, 3, 4	Identifies the source channel of the PUT for Overshoot/Undershoot (Address, Control) tests.
Configure	PUT Source	OvrShtSe_Source2	1, 2, 3, 4	Identifies the source channel of the PUT for Overshoot/Undershoot (Data, Strobe, Mask) tests.
Configure	PUT Source	OvrShtSe_Source3	1, 2, 3, 4	Identifies the source channel of the PUT for Overshoot/Undershoot (Clock) tests.
Configure	PUT(+) Source	ElecDIFF_Source1	1, 2, 3, 4	Identifies the source channel of the PUT(+) for Differential AC Input Tests.
Configure	PUT(+) Source	ElecDiffVixCaPutSourcePlus	1, 2, 3, 4	Identifies the source of the PUT(+) for VIXCA Test.
Configure	PUT(+) Source	ElecDiffVixDqPutSourcePlus	1, 2, 3, 4	Identifies the source of the PUT(-) for VIXDQ Test.
Configure	PUT(-) Source	ElecDIFF_Source2	1, 2, 3, 4	Identifies the source channel of the PUT(-) for Differential AC Input Tests.
Configure	PUT(-) Source	ElecDiffVixCaPutSourceMinus	1, 2, 3, 4	Identifies the source of the PUT(-) for VIXCA Test.
Configure	PUT(-) Source	ElecDiffVixDqPutSourceMinus	1, 2, 3, 4	Identifies the source of the PUT(-) for VIXDQ Test.
Configure	Pin Under Test, PUT	ElecDiffCKVihVilPut	Clock_DCK0, Clock_DCK1, Clock_DCK2, LP_Clock_DCK	Identifies the Pin Under Test for Differential VIHdiff.CK/VILdiff.CK tests.
Configure	Pin Under Test, PUT	ElecDiffDQSVihVilPut	Strobe_DDQS0, Strobe_DDQS1, Strobe_DDQS2, Strobe_DDQS3, Strobe_DDQS4, Strobe_DDQS5, Strobe_DDQS6, Strobe_DDQS7, Strobe_DDQS8, LP_Strobe_DDQS0, LP_Strobe_DDQS1, LP_Strobe_DDQS2, LP_Strobe_DDQS3	Identifies the Pin Under Test for Differential VIHdiff.DQS/VILdiff.DQS tests.

Table 2 Configuration Variables and Values (continued)

GUI Location	Label	Variable	Values	Description
Configure	Pin Under Test, PUT	ElecDiffVixDqPut	Strobe_DDQS0, Strobe_DDQS1, Strobe_DDQS2, Strobe_DDQS3, Strobe_DDQS4, Strobe_DDQS5, Strobe_DDQS6, Strobe_DDQS7, Strobe_DDQS8, LP_Strobe_DDQS0, LP_Strobe_DDQS1, LP_Strobe_DDQS2, LP_Strobe_DDQS3	Identifies the Pin Under Test for VIXDQ Test.
Configure	Pin Under Test, PUT	ElecParamDiInput	Clock_DCK0, Clock_DCK1, Clock_DCK2, Strobe_DDQS0, Strobe_DDQS1, Strobe_DDQS2, Strobe_DDQS3, Strobe_DDQS4, Strobe_DDQS5, Strobe_DDQS6, Strobe_DDQS7, Strobe_DDQS8	Identifies the Pin Under Test for Differential AC Input Tests parameters.
Configure	Pin Under Test, PUT	ElecParamDiffOutput	Strobe_DDQS0, Strobe_DDQS1, Strobe_DDQS2, Strobe_DDQS3, Strobe_DDQS4, Strobe_DDQS5, Strobe_DDQS6, Strobe_DDQS7, Strobe_DDQS8, LP_Strobe_DDQS0, LP_Strobe_DDQS1, LP_Strobe_DDQS2, LP_Strobe_DDQS3	Identifies the Pin Under Test for Differential AC output parameters.

Table 2 Configuration Variables and Values (continued)

GUI Location	Label	Variable	Values	Description
Configure	Pin Under Test, PUT	ElecParamSelInput	Data_DQ0, Data_DQ1, Data_DQ2, Data_DQ3, Data_DQ4, Data_DQ5, Data_DQ6, Data_DQ7, Data_DQ8, Data_DQ9, Data_DQ10, Data_DQ11, Data_DQ12, Data_DQ13, Data_DQ14, Data_DQ15, Data_DQ16, Data_DQ17, Data_DQ18, Data_DQ19, Data_DQ20, Data_DQ21, Data_DQ22, Data_DQ23, Data_DQ24, Data_DQ25, Data_DQ26, Data_DQ27, Data_DQ28, Data_DQ29, Data_DQ30, Data_DQ31, Data_DQ32, Data_DQ33, Data_DQ34, Data_DQ35, Data_DQ36, Data_DQ37, Data_DQ38, Data_DQ39, Data_DQ40, Data_DQ41, Data_DQ42, Data_DQ43, Data_DQ44, Data_DQ45, Data_DQ46, Data_DQ47, Data_DQ48, Data_DQ49, Data_DQ50, Data_DQ51, Data_DQ52, Data_DQ53, Data_DQ54, Data_DQ55, Data_DQ56, Data_DQ57, Data_DQ58, Data_DQ59, Data_DQ60, Data_DQ61, Data_DQ62, Data_DQ63, Data_DQ64, Data_DQ65, Data_DQ66, Data_DQ67, Data_DQ68, Data_DQ69, Data_DQ70, Data_DQ71, Strobe_SDQS0, Strobe_SDQS1, Strobe_SDQS2, Strobe_SDQS3, Strobe_SDQS4, Strobe_SDQS5, Strobe_SDQS6, Strobe_SDQS7, Strobe_SDQS8, LP_Data_DQ0, LP_Data_DQ1, LP_Data_DQ2, LP_Data_DQ3, LP_Data_DQ4, LP_Data_DQ5, LP_Data_DQ6, LP_Data_DQ7, LP_Data_DQ8, LP_Data_DQ9, LP_Data_DQ10, LP_Data_DQ11, LP_Data_DQ12, LP_Data_DQ13, LP_Data_DQ14, LP_Data_DQ15, LP_Data_DQ16, LP_Data_DQ17, LP_Data_DQ18, LP_Data_DQ19, LP_Data_DQ20, LP_Data_DQ21, LP_Data_DQ22, LP_Data_DQ23, LP_Data_DQ24, LP_Data_DQ25, LP_Data_DQ26, LP_Data_DQ27, LP_Data_DQ28, LP_Data_DQ29, LP_Data_DQ30, LP_Data_DQ31, LP_Strobe_SDQS0, LP_Strobe_SDQS1, LP_Strobe_SDQS2, LP_Strobe_SDQS3	Identifies the Pin Under Test for "VOH/VOL and Output Slew Rate tests" test group.

Table 2 Configuration Variables and Values (continued)

GUI Location	Label	Variable	Values	Description
Configure	Pin Under Test, PUT	ElecParamSelInput_CA	Control_NRAS, Control_NWE, Control_NCAS, Control_NCS0, Control_NCS1, Control_CKE0, Control_CKE1, Control_ODT0, Control_ODT1, Address_A0, Address_A1, Address_A2, Address_A3, Address_A4, Address_A5, Address_A6, Address_A7, Address_A8, Address_A9, Address_A10, Address_A11, Address_A12, Address_A13, Address_A14, Address_A15, Control_BA0, Control_BA1, Control_BA2, LP_CommandAddress_CA0, LP_CommandAddress_CA1, LP_CommandAddress_CA2, LP_CommandAddress_CA3, LP_CommandAddress_CA4, LP_CommandAddress_CA5, LP_CommandAddress_CA6, LP_CommandAddress_CA7, LP_CommandAddress_CA8, LP_CommandAddress_CA9, LP_Control_NCS	Identifies the Pin Under Test for "VIH/VIL for Command and Address" test group.

Table 2 Configuration Variables and Values (continued)

GUI Location	Label	Variable	Values	Description
Configure	Pin Under Test, PUT	ElecParamSelInput_DQ	Data_DQ0, Data_DQ1, Data_DQ2, Data_DQ3, Data_DQ4, Data_DQ5, Data_DQ6, Data_DQ7, Data_DQ8, Data_DQ9, Data_DQ10, Data_DQ11, Data_DQ12, Data_DQ13, Data_DQ14, Data_DQ15, Data_DQ16, Data_DQ17, Data_DQ18, Data_DQ19, Data_DQ20, Data_DQ21, Data_DQ22, Data_DQ23, Data_DQ24, Data_DQ25, Data_DQ26, Data_DQ27, Data_DQ28, Data_DQ29, Data_DQ30, Data_DQ31, Data_DQ32, Data_DQ33, Data_DQ34, Data_DQ35, Data_DQ36, Data_DQ37, Data_DQ38, Data_DQ39, Data_DQ40, Data_DQ41, Data_DQ42, Data_DQ43, Data_DQ44, Data_DQ45, Data_DQ46, Data_DQ47, Data_DQ48, Data_DQ49, Data_DQ50, Data_DQ51, Data_DQ52, Data_DQ53, Data_DQ54, Data_DQ55, Data_DQ56, Data_DQ57, Data_DQ58, Data_DQ59, Data_DQ60, Data_DQ61, Data_DQ62, Data_DQ63, Data_DQ64, Data_DQ65, Data_DQ66, Data_DQ67, Data_DQ68, Data_DQ69, Data_DQ70, Data_DQ71, DM_DM0, DM_DM1, DM_DM2, DM_DM3, DM_DM4, DM_DM5, DM_DM6, DM_DM7, LP_Data_DQ0, LP_Data_DQ1, LP_Data_DQ2, LP_Data_DQ3, LP_Data_DQ4, LP_Data_DQ5, LP_Data_DQ6, LP_Data_DQ7, LP_Data_DQ8, LP_Data_DQ9, LP_Data_DQ10, LP_Data_DQ11, LP_Data_DQ12, LP_Data_DQ13, LP_Data_DQ14, LP_Data_DQ15, LP_Data_DQ16, LP_Data_DQ17, LP_Data_DQ18, LP_Data_DQ19, LP_Data_DQ20, LP_Data_DQ21, LP_Data_DQ22, LP_Data_DQ23, LP_Data_DQ24, LP_Data_DQ25, LP_Data_DQ26, LP_Data_DQ27, LP_Data_DQ28, LP_Data_DQ29, LP_Data_DQ30, LP_Data_DQ31, LP_DM_DM0, LP_DM_DM1, LP_DM_DM2, LP_DM_DM3	Identifies the Pin Under Test for "VIH/VIL for DQ and DM" test group.
Configure	Pin Under Test, PUT	ElecSEVs ehVselClockPut	Clock_SCK0, Clock_SCK1, Clock_SCK2, Clock_NCK0, Clock_NCK1, Clock_NCK2, LP_Clock_SCK, LP_Clock_NCK	Identifies the Pin Under Test for VSEH/VSEL Tests for Clock.
Configure	Pin Under Test, PUT	ElecSEVs ehVselStrobePut	Strobe_SDQS0, Strobe_SDQS1, Strobe_SDQS2, Strobe_SDQS3, Strobe_SDQS4, Strobe_SDQS5, Strobe_SDQS6, Strobe_SDQS7, Strobe_SDQS8, Strobe_NDQS0, Strobe_NDQS1, Strobe_NDQS2, Strobe_NDQS3, Strobe_NDQS4, Strobe_NDQS5, Strobe_NDQS6, Strobe_NDQS7, Strobe_NDQS8, LP_Strobe_SDQS0, LP_Strobe_SDQS1, LP_Strobe_SDQS2, LP_Strobe_SDQS3	Identifies the Pin Under Test for VSEH/VSEL Tests for Strobe.

Table 2 Configuration Variables and Values (continued)

GUI Location	Label	Variable	Values	Description
Configure	Pin Under Test, PUT	OvrShtSe CA_LP_Input	CKE, CS_n, ODT, CA0, CA1, CA2, CA3, CA4, CA5, CA6, CA7, CA8, CA9, CK_t, CK_c	Identifies the Pin Under Test for Overshoot/Undershoot (Address, Control, Clock, Chip Select, Clock Enable) parameters.
Configure	Pin Under Test, PUT	OvrShtSe DQ_LP_Input	DQ0, DQ1, DQ2, DQ3, DQ4, DQ5, DQ6, DQ7, DQ8, DQ9, DQ10, DQ11, DQ12, DQ13, DQ14, DQ15, DQ16, DQ17, DQ18, DQ19, DQ20, DQ21, DQ22, DQ23, DQ24, DQ25, DQ26, DQ27, DQ28, DQ29, DQ30, DQ31, DQS0_t, DQS1_t, DQS2_t, DQS3_t, DQS0_c, DQS1_c, DQS2_c, DQS3_c, DM0, DM1, DM2, DM3	Identifies the Pin Under Test for Overshoot/Undershoot (Data, Strobe, Mask) parameters.
Configure	Pin Under Test, PUT	OvrShtSe Input	/RAS, /WE, /CAS, /CS0, /CS1, CKE0, CKE1, ODT0, ODT1, A0, A1, A2, A3, A4, A5, A6, A7, A8, A9, A10, A11, A12, A13, A14, A15, BA0, BA1, BA2	Identifies the Pin Under Test for Overshoot/Undershoot (Address, Control) parameters.
Configure	Pin Under Test, PUT	OvrShtSe Input2	DQ0, DQ1, DQ2, DQ3, DQ4, DQ5, DQ6, DQ7, DQ8, DQ9, DQ10, DQ11, DQ12, DQ13, DQ14, DQ15, DQ16, DQ17, DQ18, DQ19, DQ20, DQ21, DQ22, DQ23, DQ24, DQ25, DQ26, DQ27, DQ28, DQ29, DQ30, DQ31, DQ32, DQ33, DQ34, DQ35, DQ36, DQ37, DQ38, DQ39, DQ40, DQ41, DQ42, DQ43, DQ44, DQ45, DQ46, DQ47, DQ48, DQ49, DQ50, DQ51, DQ52, DQ53, DQ54, DQ55, DQ56, DQ57, DQ58, DQ59, DQ60, DQ61, DQ62, DQ63, DQ64, DQ65, DQ66, DQ67, DQ68, DQ69, DQ70, DQ71, DQS0, DQS1, DQS2, DQS3, DQS4, DQS5, DQS6, DQS7, DQS8, DQS0/, DQS1/, DQS2/, DQS3/, DQS4/, DQS5/, DQS6/, DQS7/, DQS8/, DM0, DM1, DM2, DM3, DM4, DM5, DM6, DM7	Identifies the Pin Under Test for Overshoot/Undershoot (Data, Strobe, Mask) parameters.
Configure	Pin Under Test, PUT	OvrShtSe Input3	CK0, CK1, CK2, /CK0, /CK1, /CK2	Identifies the Pin Under Test for Overshoot/Undershoot (Clock) parameters.
Configure	Pin Under Test, PUT	TypeOfSignalCH2	NA, Clock, Strobe, Data, DM, CommandAddress, Control, LP_NA, LP_Clock, LP_Strobe, LP_Data, LP_DM, LP_Control	Identifies the signal to use for Channel2 timing test.
Configure	Pin Under Test, PUT	TypeOfSignalCH2_DQ	NA, Clock, Strobe, Data, DM, CommandAddress, Control, LP_NA, LP_Clock, LP_Strobe, LP_Data, LP_DM, LP_Control	Identifies the signal to use for Channel2 timing test.
Configure	Pin Under Test, PUT	TypeOfSignalCH3	NA, Clock, Strobe, Data, DM, CommandAddress, Control, LP_NA, LP_Clock, LP_Strobe, LP_Data, LP_DM, LP_Control	Identifies the signal to use for Channel3 timing test.

Table 2 Configuration Variables and Values (continued)

GUI Location	Label	Variable	Values	Description
Configure	Pin Under Test, PUT	TypeOfSignalCH3_DQ	NA, Clock, Strobe, Data, DM, CommandAddress, Control, LP_NA, LP_Clock, LP_Strobe, LP_Data, LP_DM, LP_Control	Identifies the signal to use for Channel3 timing test.
Configure	Pin Under Test, PUT	TypeOfSignalCH4	NA, Clock, Strobe, Data, DM, CommandAddress, Control, LP_NA, LP_Clock, LP_Strobe, LP_Data, LP_DM, LP_Control	Identifies the signal to use for Channel4 timing test.
Configure	Pin Under Test, PUT	TypeOfSignalCH4_DQ	NA, Clock, Strobe, Data, DM, CommandAddress, Control, LP_NA, LP_Clock, LP_Strobe, LP_Data, LP_DM, LP_Control	Identifies the signal to use for Channel4 timing test.
Configure	Pin Under Test, PUT Parameters for Channel 1	TypeOfSignalCH1	NA, Clock, Strobe, Data, DM, CommandAddress, Control, LP_NA, LP_Clock, LP_Strobe, LP_Data, LP_DM, LP_Control	Identifies the signal to use for Channel 1 timing tests.
Configure	Pin Under Test, PUT Parameters for Channel 1	TypeOfSignalCH1_DQ	NA, Clock, Strobe, Data, DM, CommandAddress, Control, LP_NA, LP_Clock, LP_Strobe, LP_Data, LP_DM, LP_Control	Identifies the signal to use for Channel 1 timing tests.
Configure	RAS Channel	RASDigChannel	DIGital0, DIGital1, DIGital2, DIGital3, DIGital4, DIGital5, DIGital6, DIGital7, DIGital8, DIGital9, DIGital10, DIGital11, DIGital12, DIGital13, DIGital14, DIGital15	Identifies the channel source selection of the RAS digital signal to be analyzed for MSOx Logic Triggering.
Configure	READ Latency	ReadLatency	1.0, 2.0, 3.0, 4.0, 5.0, 6.0, 7.0, 8.0, 9.0, 10.0, 11.0, 12.0, 13.0, 14.0, 15.0, 16.0, 17.0, 18.0, 19.0, 20.0	This value is used ONLY when the "Rank Separation" option is enabled. This allow user to specify the overall Read latency(RL) value to be used in performing the Data Strobe Timing and Data Timing tests when the "Rank Separation" option is enabled. By definition, the Read Latency (RL) = Additive Latency (AL) + CAS Latency (CL); RL = AL + CL.

Table 2 Configuration Variables and Values (continued)

GUI Location	Label	Variable	Values	Description
Configure	READ Latency Value	RLValue	1.0, 2.0, 3.0, 4.0, 5.0, 6.0, 7.0, 8.0, 9.0, 10.0, 11.0, 12.0, 13.0, 14.0, 15.0, 16.0, 17.0, 18.0, 19.0, 20.0	This value is used ONLY when the "Rank Separation" option is enabled. This allow user to specify the overall Read latency(RL) value to be used in generating the READ eye diagram when the "Rank Separation" option is enabled. By definition, the Read Latency (RL) = Additive Latency (AL) + CAS Latency (CL); $RL = AL + CL$.
Configure	Rank Separation	CSDQSCYC	0.0, 1.0	Enable/disable the rank separation option when running the Data Strobe Timing and Data Timing tests. When this option is enabled, an additional channel for Chip Select(CS) signal will be required. Measurements will only be done on selected Rank based on the Chip Select signal connected to the oscilloscope. This Rank Separation mode is also used to handle a valid back-to-back data burst found when running the selected Data Strobe Timing and Data Timing tests. The bubble states(if any) that exist during a valid back-to-back data burst will be identified and ignored based on the Chip Select signal with reference to the "READ/WRITE Latency" and "Fix Burst Length" settings.

Table 2 Configuration Variables and Values (continued)

GUI Location	Label	Variable	Values	Description
Configure	Rank Separation	RankEyeDiagramOpt	0, 1	Enable/disable the rank separation option for generating the READ/WRITE eye diagram. When this option is enabled, the eye diagram generated will be qualified based on an additional Chip Select input signal besides the DQS and DQ signals. When this option is disabled, the eye diagram will be generated based on DQS and DQ signal ONLY (Chip Select input will be ignored).
Configure	Re-scale Test Mask	ReScaleMask	true, false	Enable/disable horizontal re-scaling of selected test mask to be loaded in the eye diagram tests.
Configure	Sampling Points (Pts) Electrical and Timing Tests Only	Sampling Points	(Accepts user-defined text), 2000000, 1000000, 500000	Specifies the sampling points to be captured in all the tests except Clock Timing tests and Eye Diagram tests. Reduce the sampling points if the read/write bursts are occurring very frequently.
Configure	Sampling Points (Pts) Eye Diagram Tests using MS0x Logic Triggering	SamplingPointsLynxEyeDiagram	(Accepts user-defined text), 8000000, 2000000, 1000000	Specifies the sampling points to be captured in Eye Diagram Test which using MS0x Logic Triggering. Reduce the sampling points if the read/write bursts are occurring very frequently.

Table 2 Configuration Variables and Values (continued)

GUI Location	Label	Variable	Values	Description
Configure	Signal selected	MyCH1_C AT	NA_, Clock_DCK0, Clock_DCK1, Clock_DCK2, Clock_SCK0, Clock_SCK1, Clock_SCK2, Control_NCS0, Control_NCS1, Control_BA0, Control_BA1, Control_BA2, Control_NRAS, Control_NWE, Control_NCAS, Control_CKE0, Control_CKE1, Control_ODT0, Control_ODT1, Address_A0, Address_A1, Address_A2, Address_A3, Address_A4, Address_A5, Address_A6, Address_A7, Address_A8, Address_A9, Address_A10, Address_A11, Address_A12, Address_A13, Address_A14, Address_A15, LP_Clock_DCK, LP_Clock_SCK, LP_Control_NCS, LP_Control_CKE, LP_CommandAddress_CA0, LP_CommandAddress_CA1, LP_CommandAddress_CA2, LP_CommandAddress_CA3, LP_CommandAddress_CA4, LP_CommandAddress_CA5, LP_CommandAddress_CA6, LP_CommandAddress_CA7, LP_CommandAddress_CA8, LP_CommandAddress_CA9	Please select the signal parameter connected to Channel 1 for Command and Address Timing tests.
Configure	Signal selected	MyCH2_C AT	NA_, Clock_DCK0, Clock_DCK1, Clock_DCK2, Clock_SCK0, Clock_SCK1, Clock_SCK2, Control_NCS0, Control_NCS1, Control_BA0, Control_BA1, Control_BA2, Control_NRAS, Control_NWE, Control_NCAS, Control_CKE0, Control_CKE1, Control_ODT0, Control_ODT1, Address_A0, Address_A1, Address_A2, Address_A3, Address_A4, Address_A5, Address_A6, Address_A7, Address_A8, Address_A9, Address_A10, Address_A11, Address_A12, Address_A13, Address_A14, Address_A15, LP_Clock_DCK, LP_Clock_SCK, LP_Control_NCS, LP_Control_CKE, LP_CommandAddress_CA0, LP_CommandAddress_CA1, LP_CommandAddress_CA2, LP_CommandAddress_CA3, LP_CommandAddress_CA4, LP_CommandAddress_CA5, LP_CommandAddress_CA6, LP_CommandAddress_CA7, LP_CommandAddress_CA8, LP_CommandAddress_CA9	Please select the signal parameter connected to Channel 2 for Command and Address Timing tests.

Table 2 Configuration Variables and Values (continued)

GUI Location	Label	Variable	Values	Description
Configure	Signal selected	MyCH3_C AT	NA_, Clock_DCK0, Clock_DCK1, Clock_DCK2, Clock_SCK0, Clock_SCK1, Clock_SCK2, Control_NCS0, Control_NCS1, Control_BA0, Control_BA1, Control_BA2, Control_NRAS, Control_NWE, Control_NCAS, Control_CKE0, Control_CKE1, Control_ODT0, Control_ODT1, Address_A0, Address_A1, Address_A2, Address_A3, Address_A4, Address_A5, Address_A6, Address_A7, Address_A8, Address_A9, Address_A10, Address_A11, Address_A12, Address_A13, Address_A14, Address_A15, LP_Clock_DCK, LP_Clock_SCK, LP_Control_NCS, LP_Control_CKE, LP_CommandAddress_CA0, LP_CommandAddress_CA1, LP_CommandAddress_CA2, LP_CommandAddress_CA3, LP_CommandAddress_CA4, LP_CommandAddress_CA5, LP_CommandAddress_CA6, LP_CommandAddress_CA7, LP_CommandAddress_CA8, LP_CommandAddress_CA9	Please select the signal parameter connected to Channel 3 for Command and Address Timing tests.
Configure	Signal selected	MyCH4_C AT	NA_, Clock_DCK0, Clock_DCK1, Clock_DCK2, Clock_SCK0, Clock_SCK1, Clock_SCK2, Control_NCS0, Control_NCS1, Control_BA0, Control_BA1, Control_BA2, Control_NRAS, Control_NWE, Control_NCAS, Control_CKE0, Control_CKE1, Control_ODT0, Control_ODT1, Address_A0, Address_A1, Address_A2, Address_A3, Address_A4, Address_A5, Address_A6, Address_A7, Address_A8, Address_A9, Address_A10, Address_A11, Address_A12, Address_A13, Address_A14, Address_A15, LP_Clock_DCK, LP_Clock_SCK, LP_Control_NCS, LP_Control_CKE, LP_CommandAddress_CA0, LP_CommandAddress_CA1, LP_CommandAddress_CA2, LP_CommandAddress_CA3, LP_CommandAddress_CA4, LP_CommandAddress_CA5, LP_CommandAddress_CA6, LP_CommandAddress_CA7, LP_CommandAddress_CA8, LP_CommandAddress_CA9	Please select the signal parameter connected to Channel 4 for Command and Address Timing tests.

Table 2 Configuration Variables and Values (continued)

GUI Location	Label	Variable	Values	Description
Configure	Skip Connection Diagram Prompt	EnableConnection Prompt	1, 0	By selecting "No", system will prompt for required connection diagram change when running selected tests. By selecting "Yes", system will NOT prompt for any connection diagram change when running the selected tests. This option is used to enable continuous running of tests from different test groups (that may require different scope connections) without having to respond to a pop-up connection diagram change. However, user are expected to be responsible of ensuring the correct scope connections that will be used for running all selected tests.
Configure	Skip Error Message	ErrorMsg Off	1, 0	By selecting "No", system will prompt error message. By selecting "Yes", system will bypass all error message that occur and continue to next test. The test result for those tests that encounter errors will be set to a default invalid value that would cause a failure. Hint: This is useful when the user wants to run multiple trials overnight.

Table 2 Configuration Variables and Values (continued)

GUI Location	Label	Variable	Values	Description
Configure	Supporting Pin	ElecDiffDQSVihVilSupport	Data_DQ0, Data_DQ1, Data_DQ2, Data_DQ3, Data_DQ4, Data_DQ5, Data_DQ6, Data_DQ7, Data_DQ8, Data_DQ9, Data_DQ10, Data_DQ11, Data_DQ12, Data_DQ13, Data_DQ14, Data_DQ15, Data_DQ16, Data_DQ17, Data_DQ18, Data_DQ19, Data_DQ20, Data_DQ21, Data_DQ22, Data_DQ23, Data_DQ24, Data_DQ25, Data_DQ26, Data_DQ27, Data_DQ28, Data_DQ29, Data_DQ30, Data_DQ31, Data_DQ32, Data_DQ33, Data_DQ34, Data_DQ35, Data_DQ36, Data_DQ37, Data_DQ38, Data_DQ39, Data_DQ40, Data_DQ41, Data_DQ42, Data_DQ43, Data_DQ44, Data_DQ45, Data_DQ46, Data_DQ47, Data_DQ48, Data_DQ49, Data_DQ50, Data_DQ51, Data_DQ52, Data_DQ53, Data_DQ54, Data_DQ55, Data_DQ56, Data_DQ57, Data_DQ58, Data_DQ59, Data_DQ60, Data_DQ61, Data_DQ62, Data_DQ63, Data_DQ64, Data_DQ65, Data_DQ66, Data_DQ67, Data_DQ68, Data_DQ69, Data_DQ70, Data_DQ71, LP_Data_DQ0, LP_Data_DQ1, LP_Data_DQ2, LP_Data_DQ3, LP_Data_DQ4, LP_Data_DQ5, LP_Data_DQ6, LP_Data_DQ7, LP_Data_DQ8, LP_Data_DQ9, LP_Data_DQ10, LP_Data_DQ11, LP_Data_DQ12, LP_Data_DQ13, LP_Data_DQ14, LP_Data_DQ15, LP_Data_DQ16, LP_Data_DQ17, LP_Data_DQ18, LP_Data_DQ19, LP_Data_DQ20, LP_Data_DQ21, LP_Data_DQ22, LP_Data_DQ23, LP_Data_DQ24, LP_Data_DQ25, LP_Data_DQ26, LP_Data_DQ27, LP_Data_DQ28, LP_Data_DQ29, LP_Data_DQ30, LP_Data_DQ31	Identifies the required supporting pin for Differential VIHdiff.DQS/ VILdiff.DQS tests.

Table 2 Configuration Variables and Values (continued)

GUI Location	Label	Variable	Values	Description
Configure	Supporting Pin	ElecDiffVixDqSupportPin	Data_DQ0, Data_DQ1, Data_DQ2, Data_DQ3, Data_DQ4, Data_DQ5, Data_DQ6, Data_DQ7, Data_DQ8, Data_DQ9, Data_DQ10, Data_DQ11, Data_DQ12, Data_DQ13, Data_DQ14, Data_DQ15, Data_DQ16, Data_DQ17, Data_DQ18, Data_DQ19, Data_DQ20, Data_DQ21, Data_DQ22, Data_DQ23, Data_DQ24, Data_DQ25, Data_DQ26, Data_DQ27, Data_DQ28, Data_DQ29, Data_DQ30, Data_DQ31, Data_DQ32, Data_DQ33, Data_DQ34, Data_DQ35, Data_DQ36, Data_DQ37, Data_DQ38, Data_DQ39, Data_DQ40, Data_DQ41, Data_DQ42, Data_DQ43, Data_DQ44, Data_DQ45, Data_DQ46, Data_DQ47, Data_DQ48, Data_DQ49, Data_DQ50, Data_DQ51, Data_DQ52, Data_DQ53, Data_DQ54, Data_DQ55, Data_DQ56, Data_DQ57, Data_DQ58, Data_DQ59, Data_DQ60, Data_DQ61, Data_DQ62, Data_DQ63, Data_DQ64, Data_DQ65, Data_DQ66, Data_DQ67, Data_DQ68, Data_DQ69, Data_DQ70, Data_DQ71, LP_Data_DQ0, LP_Data_DQ1, LP_Data_DQ2, LP_Data_DQ3, LP_Data_DQ4, LP_Data_DQ5, LP_Data_DQ6, LP_Data_DQ7, LP_Data_DQ8, LP_Data_DQ9, LP_Data_DQ10, LP_Data_DQ11, LP_Data_DQ12, LP_Data_DQ13, LP_Data_DQ14, LP_Data_DQ15, LP_Data_DQ16, LP_Data_DQ17, LP_Data_DQ18, LP_Data_DQ19, LP_Data_DQ20, LP_Data_DQ21, LP_Data_DQ22, LP_Data_DQ23, LP_Data_DQ24, LP_Data_DQ25, LP_Data_DQ26, LP_Data_DQ27, LP_Data_DQ28, LP_Data_DQ29, LP_Data_DQ30, LP_Data_DQ31, DQ0, DQ1, DQ2, DQ3, DQ4, DQ5, DQ6, DQ7, DQ8, DQ9, DQ10, DQ11, DQ12, DQ13, DQ14, DQ15, DQ16, DQ17, DQ18, DQ19, DQ20, DQ21, DQ22, DQ23, DQ24, DQ25, DQ26, DQ27, DQ28, DQ29, DQ30, DQ31	Identifies the supporting pin for VIXDQ Test.

Table 2 Configuration Variables and Values (continued)

GUI Location	Label	Variable	Values	Description
Configure	Supporting Pin	ElecParamDiSupport	N/A, Data_DQ0, Data_DQ1, Data_DQ2, Data_DQ3, Data_DQ4, Data_DQ5, Data_DQ6, Data_DQ7, Data_DQ8, Data_DQ9, Data_DQ10, Data_DQ11, Data_DQ12, Data_DQ13, Data_DQ14, Data_DQ15, Data_DQ16, Data_DQ17, Data_DQ18, Data_DQ19, Data_DQ20, Data_DQ21, Data_DQ22, Data_DQ23, Data_DQ24, Data_DQ25, Data_DQ26, Data_DQ27, Data_DQ28, Data_DQ29, Data_DQ30, Data_DQ31, Data_DQ32, Data_DQ33, Data_DQ34, Data_DQ35, Data_DQ36, Data_DQ37, Data_DQ38, Data_DQ39, Data_DQ40, Data_DQ41, Data_DQ42, Data_DQ43, Data_DQ44, Data_DQ45, Data_DQ46, Data_DQ47, Data_DQ48, Data_DQ49, Data_DQ50, Data_DQ51, Data_DQ52, Data_DQ53, Data_DQ54, Data_DQ55, Data_DQ56, Data_DQ57, Data_DQ58, Data_DQ59, Data_DQ60, Data_DQ61, Data_DQ62, Data_DQ63, Data_DQ64, Data_DQ65, Data_DQ66, Data_DQ67, Data_DQ68, Data_DQ69, Data_DQ70, Data_DQ71	Identifies the supporting pin for Differential AC Input Tests parameters.

Table 2 Configuration Variables and Values (continued)

GUI Location	Label	Variable	Values	Description
Configure	Supporting Pin	ElecParamDiffOutputSupport	Data_DQ0, Data_DQ1, Data_DQ2, Data_DQ3, Data_DQ4, Data_DQ5, Data_DQ6, Data_DQ7, Data_DQ8, Data_DQ9, Data_DQ10, Data_DQ11, Data_DQ12, Data_DQ13, Data_DQ14, Data_DQ15, Data_DQ16, Data_DQ17, Data_DQ18, Data_DQ19, Data_DQ20, Data_DQ21, Data_DQ22, Data_DQ23, Data_DQ24, Data_DQ25, Data_DQ26, Data_DQ27, Data_DQ28, Data_DQ29, Data_DQ30, Data_DQ31, Data_DQ32, Data_DQ33, Data_DQ34, Data_DQ35, Data_DQ36, Data_DQ37, Data_DQ38, Data_DQ39, Data_DQ40, Data_DQ41, Data_DQ42, Data_DQ43, Data_DQ44, Data_DQ45, Data_DQ46, Data_DQ47, Data_DQ48, Data_DQ49, Data_DQ50, Data_DQ51, Data_DQ52, Data_DQ53, Data_DQ54, Data_DQ55, Data_DQ56, Data_DQ57, Data_DQ58, Data_DQ59, Data_DQ60, Data_DQ61, Data_DQ62, Data_DQ63, Data_DQ64, Data_DQ65, Data_DQ66, Data_DQ67, Data_DQ68, Data_DQ69, Data_DQ70, Data_DQ71, LP_Data_DQ0, LP_Data_DQ1, LP_Data_DQ2, LP_Data_DQ3, LP_Data_DQ4, LP_Data_DQ5, LP_Data_DQ6, LP_Data_DQ7, LP_Data_DQ8, LP_Data_DQ9, LP_Data_DQ10, LP_Data_DQ11, LP_Data_DQ12, LP_Data_DQ13, LP_Data_DQ14, LP_Data_DQ15, LP_Data_DQ16, LP_Data_DQ17, LP_Data_DQ18, LP_Data_DQ19, LP_Data_DQ20, LP_Data_DQ21, LP_Data_DQ22, LP_Data_DQ23, LP_Data_DQ24, LP_Data_DQ25, LP_Data_DQ26, LP_Data_DQ27, LP_Data_DQ28, LP_Data_DQ29, LP_Data_DQ30, LP_Data_DQ31	Identifies the required supporting pin for Differential AC output parameters.

Table 2 Configuration Variables and Values (continued)

GUI Location	Label	Variable	Values	Description
Configure	Supporting Pin	ElecParamSupport	Data_DQ0, Data_DQ1, Data_DQ2, Data_DQ3, Data_DQ4, Data_DQ5, Data_DQ6, Data_DQ7, Data_DQ8, Data_DQ9, Data_DQ10, Data_DQ11, Data_DQ12, Data_DQ13, Data_DQ14, Data_DQ15, Data_DQ16, Data_DQ17, Data_DQ18, Data_DQ19, Data_DQ20, Data_DQ21, Data_DQ22, Data_DQ23, Data_DQ24, Data_DQ25, Data_DQ26, Data_DQ27, Data_DQ28, Data_DQ29, Data_DQ30, Data_DQ31, Data_DQ32, Data_DQ33, Data_DQ34, Data_DQ35, Data_DQ36, Data_DQ37, Data_DQ38, Data_DQ39, Data_DQ40, Data_DQ41, Data_DQ42, Data_DQ43, Data_DQ44, Data_DQ45, Data_DQ46, Data_DQ47, Data_DQ48, Data_DQ49, Data_DQ50, Data_DQ51, Data_DQ52, Data_DQ53, Data_DQ54, Data_DQ55, Data_DQ56, Data_DQ57, Data_DQ58, Data_DQ59, Data_DQ60, Data_DQ61, Data_DQ62, Data_DQ63, Data_DQ64, Data_DQ65, Data_DQ66, Data_DQ67, Data_DQ68, Data_DQ69, Data_DQ70, Data_DQ71, Strobe_DDQS0, Strobe_DDQS1, Strobe_DDQS2, Strobe_DDQS3, Strobe_DDQS4, Strobe_DDQS5, Strobe_DDQS6, Strobe_DDQS7, Strobe_DDQS8, Strobe_SDQS0, Strobe_SDQS1, Strobe_SDQS2, Strobe_SDQS3, Strobe_SDQS4, Strobe_SDQS5, Strobe_SDQS6, Strobe_SDQS7, Strobe_SDQS8, LP_Data_DQ0, LP_Data_DQ1, LP_Data_DQ2, LP_Data_DQ3, LP_Data_DQ4, LP_Data_DQ5, LP_Data_DQ6, LP_Data_DQ7, LP_Data_DQ8, LP_Data_DQ9, LP_Data_DQ10, LP_Data_DQ11, LP_Data_DQ12, LP_Data_DQ13, LP_Data_DQ14, LP_Data_DQ15, LP_Data_DQ16, LP_Data_DQ17, LP_Data_DQ18, LP_Data_DQ19, LP_Data_DQ20, LP_Data_DQ21, LP_Data_DQ22, LP_Data_DQ23, LP_Data_DQ24, LP_Data_DQ25, LP_Data_DQ26, LP_Data_DQ27, LP_Data_DQ28, LP_Data_DQ29, LP_Data_DQ30, LP_Data_DQ31, LP_Strobe_DDQS0, LP_Strobe_DDQS1, LP_Strobe_DDQS2, LP_Strobe_DDQS3, LP_Strobe_SDQS0, LP_Strobe_SDQS1, LP_Strobe_SDQS2, LP_Strobe_SDQS3	Identifies the required supporting pin for "VOH/VOL and Output Slew Rate tests" test group.

Table 2 Configuration Variables and Values (continued)

GUI Location	Label	Variable	Values	Description
Configure	Supporting Pin	ElecParamSeSupport_DQ	Strobe_DDQS0, Strobe_DDQS1, Strobe_DDQS2, Strobe_DDQS3, Strobe_DDQS4, Strobe_DDQS5, Strobe_DDQS6, Strobe_DDQS7, Strobe_DDQS8, Strobe_SDQS0, Strobe_SDQS1, Strobe_SDQS2, Strobe_SDQS3, Strobe_SDQS4, Strobe_SDQS5, Strobe_SDQS6, Strobe_SDQS7, Strobe_SDQS8, LP_Strobe_DDQS0, LP_Strobe_DDQS1, LP_Strobe_DDQS2, LP_Strobe_DDQS3, LP_Strobe_SDQS0, LP_Strobe_SDQS1, LP_Strobe_SDQS2, LP_Strobe_SDQS3	Identifies the required supporting pin for "VIH/VIL for DQ and DM" test group.
Configure	Supporting Pin	ElecSEVs ehVselStrobeSupport	Data_DQ0, Data_DQ1, Data_DQ2, Data_DQ3, Data_DQ4, Data_DQ5, Data_DQ6, Data_DQ7, Data_DQ8, Data_DQ9, Data_DQ10, Data_DQ11, Data_DQ12, Data_DQ13, Data_DQ14, Data_DQ15, Data_DQ16, Data_DQ17, Data_DQ18, Data_DQ19, Data_DQ20, Data_DQ21, Data_DQ22, Data_DQ23, Data_DQ24, Data_DQ25, Data_DQ26, Data_DQ27, Data_DQ28, Data_DQ29, Data_DQ30, Data_DQ31, Data_DQ32, Data_DQ33, Data_DQ34, Data_DQ35, Data_DQ36, Data_DQ37, Data_DQ38, Data_DQ39, Data_DQ40, Data_DQ41, Data_DQ42, Data_DQ43, Data_DQ44, Data_DQ45, Data_DQ46, Data_DQ47, Data_DQ48, Data_DQ49, Data_DQ50, Data_DQ51, Data_DQ52, Data_DQ53, Data_DQ54, Data_DQ55, Data_DQ56, Data_DQ57, Data_DQ58, Data_DQ59, Data_DQ60, Data_DQ61, Data_DQ62, Data_DQ63, Data_DQ64, Data_DQ65, Data_DQ66, Data_DQ67, Data_DQ68, Data_DQ69, Data_DQ70, Data_DQ71, LP_Data_DQ0, LP_Data_DQ1, LP_Data_DQ2, LP_Data_DQ3, LP_Data_DQ4, LP_Data_DQ5, LP_Data_DQ6, LP_Data_DQ7, LP_Data_DQ8, LP_Data_DQ9, LP_Data_DQ10, LP_Data_DQ11, LP_Data_DQ12, LP_Data_DQ13, LP_Data_DQ14, LP_Data_DQ15, LP_Data_DQ16, LP_Data_DQ17, LP_Data_DQ18, LP_Data_DQ19, LP_Data_DQ20, LP_Data_DQ21, LP_Data_DQ22, LP_Data_DQ23, LP_Data_DQ24, LP_Data_DQ25, LP_Data_DQ26, LP_Data_DQ27, LP_Data_DQ28, LP_Data_DQ29, LP_Data_DQ30, LP_Data_DQ31	Identifies the supporting pin for VSEH/VSEL Tests for Strobe.
Configure	Supporting Pin Source	ElecDIFF_Source3	-1, 1, 2, 3, 4	Identifies the source channel of the supporting pin for Differential AC Input Tests.

Table 2 Configuration Variables and Values (continued)

GUI Location	Label	Variable	Values	Description
Configure	Supporting Pin Source	ElecDiffDQSVihVilSupprt_Source	1, 2, 3, 4	Identifies the source of the supporting pin for Differential VIHdiff.DQS/ VILdiff.DQS tests.
Configure	Supporting Pin Source	ElecDiffOutputSupport_Source	1, 2, 3, 4	Identifies the source of the supporting pin for Differential AC Output Tests.
Configure	Supporting Pin Source	ElecDiffVixDqSupportPinSource	1, 2, 3, 4	Identifies the source of the supporting pin for VIXDQ Test.
Configure	Supporting Pin Source	ElecSEVsehVselStrobeSupport_Source	1, 2, 3, 4	Identifies the source of the supporting pin for VSEH/VSEL Tests for Strobe.
Configure	Supporting Pin Source	ElecSE_Source2	1, 2, 3, 4	Identifies the source of the supporting pin for "VOH/VOL and Output Slew Rate tests" test group.
Configure	Supporting Pin Source	ElecSE_Source2_DQ	-1, 1, 2, 3, 4	Identifies the source channel of the supporting pin for "VIH/VIL for DQ and DM" test group.
Configure	Threshold Mode	ThreshSetMode	1, 0	By selecting "TopBaseRatio", the system will automatically determine the threshold settings that are used for the READ/WRITE burst triggering and identification using the TopRatio and BaseRatio specified for a particular channel input. Setting "Custom Threshold" allows user to directly set the threshold settings used instead.

Table 2 Configuration Variables and Values (continued)

GUI Location	Label	Variable	Values	Description
Configure	Top Ratio	BurstTriggerTopRatio_Channel 1	(Accepts user-defined text), 0.80	Specify the value of the top ratio used when triggering for the READ/WRITE burst data. The value set here is applicable ONLY when the "Threshold Mode" option is set to "TopBaseRatio".
Configure	Top Ratio	BurstTriggerTopRatio_Channel 2	(Accepts user-defined text), 0.80	Specify the value of the top ratio used when triggering for the READ/WRITE burst data. The value set here is applicable ONLY when the "Threshold Mode" option is set to "TopBaseRatio".
Configure	Top Ratio	BurstTriggerTopRatio_Channel 3	(Accepts user-defined text), 0.80	Specify the value of the top ratio used when triggering for the READ/WRITE burst data. The value set here is applicable ONLY when the "Threshold Mode" option is set to "TopBaseRatio".
Configure	Top Ratio	BurstTriggerTopRatio_Channel 4	(Accepts user-defined text), 0.80	Specify the value of the top ratio used when triggering for the READ/WRITE burst data. The value set here is applicable ONLY when the "Threshold Mode" option is set to "TopBaseRatio".
Configure	Total Bit Display(cycle)	myDisBit	(Accepts user-defined text), 2, 4, 10, 20, 50	This option allows the user to select how many data bits to be displayed by end of the test. More bits selected will enable user to have a clearer view of the whole burst of signals.
Configure	Total CA Waveform	EyeDiagramCANumOfWave	(Accepts user-defined text), 500, 1000, 1500, 3000, 5000	Select or type the total number of waveforms required for CA eye diagram tests.
Configure	Total Waveform	EyeDiagramNumOfWave	(Accepts user-defined text), 500, 1000, 1500, 3000, 5000	Select or type the total number of waveforms required for eye diagram tests.

Table 2 Configuration Variables and Values (continued)

GUI Location	Label	Variable	Values	Description
Configure	Trigger timeout (ms)	TimeOut_Compliance	(Accepts user-defined text), 5000, 10000, 15000, 20000, 30000	Identifies the trigger time out value. This represent the time taken to terminate the test when the scope unable to trigger any signal.
Configure	Triggering READ Latency	TriggeringReadLatency	1.0, 2.0, 3.0, 4.0, 5.0, 6.0, 7.0, 8.0, 9.0, 10.0, 11.0, 12.0, 13.0, 14.0, 15.0, 16.0, 17.0, 18.0, 19.0, 20.0, 21.0, 22.0, 23.0, 24.0, 25.0, 26.0, 27.0, 28.0, 29.0, 30.0, 31.0, 32.0, 33.0, 34.0, 35.0, 36.0, 37.0, 38.0, 39.0, 40.0, 41.0, 42.0, 43.0, 44.0, 45.0, 46.0, 47.0, 48.0, 49.0, 50.0, 51.0, 52.0, 53.0, 54.0, 55.0, 56.0, 57.0, 58.0, 59.0, 60.0, 61.0, 62.0, 63.0, 64.0, 65.0, 66.0, 67.0, 68.0, 69.0, 70.0, 71.0, 72.0, 73.0, 74.0, 75.0, 76.0, 77.0, 78.0, 79.0, 80.0, 81.0, 82.0, 83.0, 84.0, 85.0, 86.0, 87.0, 88.0, 89.0, 90.0, 91.0, 92.0, 93.0, 94.0, 95.0, 96.0, 97.0, 98.0, 99.0, 100.0	This value is used ONLY when the "Logic Triggering" option is enabled. This allow user to specify the overall Read latency(RL) value to be used to determine the burst location from event of Read Burst logic pattern.
Configure	Triggering WRITE Latency	TriggeringWriteLatency	1.0, 2.0, 3.0, 4.0, 5.0, 6.0, 7.0, 8.0, 9.0, 10.0, 11.0, 12.0, 13.0, 14.0, 15.0, 16.0, 17.0, 18.0, 19.0, 20.0, 21.0, 22.0, 23.0, 24.0, 25.0, 26.0, 27.0, 28.0, 29.0, 30.0, 31.0, 32.0, 33.0, 34.0, 35.0, 36.0, 37.0, 38.0, 39.0, 40.0, 41.0, 42.0, 43.0, 44.0, 45.0, 46.0, 47.0, 48.0, 49.0, 50.0, 51.0, 52.0, 53.0, 54.0, 55.0, 56.0, 57.0, 58.0, 59.0, 60.0, 61.0, 62.0, 63.0, 64.0, 65.0, 66.0, 67.0, 68.0, 69.0, 70.0, 71.0, 72.0, 73.0, 74.0, 75.0, 76.0, 77.0, 78.0, 79.0, 80.0, 81.0, 82.0, 83.0, 84.0, 85.0, 86.0, 87.0, 88.0, 89.0, 90.0, 91.0, 92.0, 93.0, 94.0, 95.0, 96.0, 97.0, 98.0, 99.0, 100.0	This value is used ONLY when the "Logic Triggering" option is enabled. This allow user to specify the overall Write latency(WL) value to be used to determine the burst location from event of Write Burst logic pattern.
Configure	Upper Threshold (V)	Chan1_Up_Thresh	(Accepts user-defined text), 0.50	Specify the upper measurement threshold used for Channel 1. The value set here is applicable ONLY when the "Threshold Mode" option is set to "Custom Threshold".
Configure	Upper Threshold (V)	Chan2_Up_Thresh	(Accepts user-defined text), 0.50	Specify the upper measurement threshold used for Channel 2. The value set here is applicable ONLY when the "Threshold Mode" option is set to "Custom Threshold".

Table 2 Configuration Variables and Values (continued)

GUI Location	Label	Variable	Values	Description
Configure	Upper Threshold (V)	Chan3_Up_Thresh	(Accepts user-defined text), 0.920	Specify the upper measurement threshold used for Channel 3. The value set here is applicable ONLY when the "Threshold Mode" option is set to "Custom Threshold".
Configure	Upper Threshold (V)	Chan4_Up_Thresh	(Accepts user-defined text), 0.920	Specify the upper measurement threshold used for Channel 4. The value set here is applicable ONLY when the "Threshold Mode" option is set to "Custom Threshold".
Configure	User Defined Vcent	UserDefinedVcent	(Accepts user-defined text), 0.800	Identifies the user defined Vcent level for shifting of the tDIVW/vDIVW mask. The value set here is applicable ONLY when the "Vcent Evaluation Mode" option is set to "User defined Vcent".
Configure	VDD (V)	InputVDD	(Accepts user-defined text), 1.275, 1.200, 1.125	Identifies the input supply voltage.
Configure	VDD1 (V)	InputVDD1	(Accepts user-defined text), 1.950, 1.800, 1.700	Identifies the input supply voltage.
Configure	VDD2 (V)	InputVDD2	(Accepts user-defined text), 1.275, 1.200, 1.125	Identifies the input supply voltage.
Configure	VDDQ (V)	InputVDDQ	(Accepts user-defined text), 1.275, 1.200, 1.125	Identifies the input supply voltage for data signal.
Configure	VIH.CA_AC (V)	InputThreshold_Vih_ac_CA	(Accepts user-defined text), 0.920	Identifies the ac input logic HIGH voltage for Address and Command inputs.
Configure	VIH.CA_DC (V)	InputThreshold_Vih_dc_CA	(Accepts user-defined text), 0.900	Identifies the dc input logic HIGH voltage for Address and Command inputs.
Configure	VIH.DQ_AC (V)	InputThreshold_Vih_ac_DQ	(Accepts user-defined text), 0.920	Identifies the ac input logic HIGH voltage for DQ and DM inputs.
Configure	VIH.DQ_DC (V)	InputThreshold_Vih_dc_DQ	(Accepts user-defined text), 0.900	Identifies the dc input logic HIGH voltage for DQ and DM inputs.
Configure	VIHdiff.CK_AC (V)	VIHdiff_ac_CK	(Accepts user-defined text), 0.240	Differential input high. Affects only differential CK only.

Table 2 Configuration Variables and Values (continued)

GUI Location	Label	Variable	Values	Description
Configure	VIHdiff.DQS_AC (V)	VIHdiff_ac_DQS	(Accepts user-defined text), 0.240	Differential input high. Affects only differential DQS only.
Configure	VIHdiff_min/VIHdiff_DC (V)	VIHdiff_min	(Accepts user-defined text), 0.200	Minimum differential input high. This value is used solely to define a differential signal slew rate. Affects only differential DQS and CK.
Configure	VILCA_AC (V)	InputThreshold_Vil_ac_CA	(Accepts user-defined text), 0.680	Identifies the ac input logic LOW voltage for Address and Command inputs.
Configure	VILCA_DC (V)	InputThreshold_Vil_dc_CA	(Accepts user-defined text), 0.700	Identifies the dc input logic LOW voltage for Address and Command inputs.
Configure	VILDQ_AC (V)	InputThreshold_Vil_ac_DQ	(Accepts user-defined text), 0.680	Identifies the ac input logic LOW voltage for DQ and DM inputs.
Configure	VILDQ_DC (V)	InputThreshold_Vil_dc_DQ	(Accepts user-defined text), 0.700	Identifies the dc input logic LOW voltage for DQ and DM inputs.
Configure	VILdiff.CK_AC (V)	VILdiff_ac_CK	(Accepts user-defined text), -0.240	Differential input high. Affects only differential CK only.
Configure	VILdiff.DQS_AC (V)	VILdiff_ac_DQS	(Accepts user-defined text), -0.240	Differential input high. Affects only differential DQS only.
Configure	VILdiff_max/VILdiff_DC (V)	VILdiff_max	(Accepts user-defined text), -0.200	Maximum differential input low. This value is used solely to define a differential signal slew rate. Affects only differential DQS and CK.
Configure	VOH_AC (V)	InputThreshold_Voh_ac	(Accepts user-defined text), 1.020	Identifies the ac output logic HIGH voltage.
Configure	VOH_DC (V)	InputThreshold_Voh_dc	(Accepts user-defined text), 1.32	Identifies the dc output logic HIGH voltage.
Configure	VOHdiff_AC (V)	VOHdiff_ac	(Accepts user-defined text), 0.360	Differential output high. Affects only differential DQS only.

Table 2 Configuration Variables and Values (continued)

GUI Location	Label	Variable	Values	Description
Configure	VOL_AC (V)	InputThreshold_Vol_ac	(Accepts user-defined text), 0.660	Identifies the ac output logic LOW voltage.
Configure	VOL_DC (V)	InputThreshold_Vol_dc	(Accepts user-defined text), 0.600	Identifies the dc output logic LOW voltage.
Configure	VOLdiff_AC (V)	VOLdiff_ac	(Accepts user-defined text), -0.360	Differential output high. Affects only differential DQS only.
Configure	VQW (V)	InputThreshold_VQW	(Accepts user-defined text), 0.0, 0.140	Identifies the voltage data input valid window for DQ Read.
Configure	VRef A12-BC Signal(V)	InputRef V_VrefA12BCLogic	(Accepts user-defined text), NA, 0.735, 0.750, 0.765	Identifies the A12-BC reference voltage for MS0x Logic Triggering.
Configure	VRef ACT Signal(V)	InputRef V_VrefACTLogic	(Accepts user-defined text), 0.735, 0.750, 0.765	Identifies the ACT reference voltage for MS0x Logic Triggering.
Configure	VRef CAS Signal(V)	InputRef V_VrefCASLogic	(Accepts user-defined text), 0.735, 0.750, 0.765	Identifies the CAS reference voltage for MS0x Logic Triggering.
Configure	VRef CKE Signal(V)	InputRef V_VrefCKELogic	(Accepts user-defined text), NA, 0.735, 0.750, 0.765	Identifies the CKE reference voltage for MS0x Logic Triggering.
Configure	VRef CS Signal(V)	InputRef V_VrefCSLogic	(Accepts user-defined text), 0.735, 0.750, 0.765	Identifies the CS reference voltage for MS0x Logic Triggering.
Configure	VRef RAS Signal(V)	InputRef V_VrefRASLogic	(Accepts user-defined text), 0.735, 0.750, 0.765	Identifies the RAS reference voltage for MS0x Logic Triggering.
Configure	VRef WE Signal(V)	InputRef V_VrefWELogic	(Accepts user-defined text), 0.735, 0.750, 0.765	Identifies the WE reference voltage for MS0x Logic Triggering.
Configure	VRefCA (V)	InputRef V_VrefCA	(Accepts user-defined text), 0.950, 0.800, 0.650	Identifies the input reference voltage for Address and Command inputs.
Configure	VRefDQ (V)	InputRef V_VrefDQ	(Accepts user-defined text), 0.950, 0.800, 0.650	Identifies the input reference voltage for DQ and DM inputs.

Table 2 Configuration Variables and Values (continued)

GUI Location	Label	Variable	Values	Description
Configure	VTT (V)	InputRef V_VTT	(Accepts user-defined text), 0.950, 0.800, 0.650	Identifies the output reference voltage for data outputs.
Configure	Vcent Evaluation Mode	VcentEval Mode	0, 1	Select the method of Vcent level evaluation for shifting of the tDIVW/vDIVW mask.
Configure	VciVW (V)	InputThreshold_VciVW	(Accepts user-defined text), 0.155	Identifies the voltage CA input valid window.
Configure	VdiVW (V)	InputThreshold_VdiVW	(Accepts user-defined text), 0.120, 0.140	Identifies the voltage data input valid window for DQ.
Configure	Vref Source	Vref_Meas_Source	1, 2, 3, 4	Identifies the source channel of the Vref Signal for Vref Measurement..
Configure	WE Channel	WEDigChannel	DIGital0, DIGital1, DIGital2, DIGital3, DIGital4, DIGital5, DIGital6, DIGital7, DIGital8, DIGital9, DIGital10, DIGital11, DIGital12, DIGital13, DIGital14, DIGital15	Identifies the channel source selection of the WE digital signal to be analyzed for MSOx Logic Triggering.
Configure	WRITE Latency	WriteLatency	1.0, 2.0, 3.0, 4.0, 5.0, 6.0, 7.0, 8.0, 9.0, 10.0, 11.0, 12.0, 13.0, 14.0, 15.0, 16.0, 17.0, 18.0, 19.0, 20.0	This value is used ONLY when the "Rank Separation" option is enabled. This allow user to specify the overall Write latency(WL) value to be used in performing the Data Strobe Timing and Data Timing tests when the "Rank Separation" option is enabled. By definition, the Write Latency (WL) = Additive Latency (AL) + CAS Write Latency (CWL); WL = AL + CWL.

Table 2 Configuration Variables and Values (continued)

GUI Location	Label	Variable	Values	Description
Configure	WRITE Latency Value	WLValue	1.0, 2.0, 3.0, 4.0, 5.0, 6.0, 7.0, 8.0, 9.0, 10.0, 11.0, 12.0, 13.0, 14.0, 15.0, 16.0, 17.0, 18.0, 19.0, 20.0	This value is used ONLY when the "Rank Separation" option is enabled. This allow user to specify the overall Write latency(WL) value to be used in generating the WRITE eye diagram when the "Rank Separation" option is enabled. By definition, the Write Latency (WL) = Additive Latency (AL) + CAS Write Latency (CWL); WL = AL + CWL.
Configure	Waveform File Type	WfmFileType	.wfm, .h5	By selecting ".wfm", the application will save the waveform in wfm format for measurement. While selecting ".h5", the application will save the waveform in h5 format for measurement.
Configure	Waveform Source	Source	1, 2, 3, 4	Identifies the source Channel of the data to be analyzed.
Configure	Window Width	WindowSize	(Accepts user-defined text), 200	Identifies the number of periods in the main sliding window.
Configure	Write Preamble Pattern	WritePreamblePattern	LPDDR4, DDR3	This option is used to indicate the expected Write Preamble pattern so that the correct first edge of a burst can be identified.
Configure	tCIVW	Window Width_tCIVW	(Accepts user-defined text), 0.300	This value multiplied with the Clock Rate is the width of the mask to measure tCIVW.
Configure	tDIVW	Window Width_tDIVW	(Accepts user-defined text), 0.220, 0.250	This value multiplied with the UI is the width of the mask to measure tDIVW.
Configure	tDQSK Delay (cycle)	tDQSKDelay	(Accepts user-defined text), 1, 2, 3, 4, 5, 6	The distance from first rising strobe to Read Latency(RL) clock edge.
Configure	tQW	Window Width_tQW	(Accepts user-defined text), 0.700, 0.700, 0.730, 0.750	This value multiplied with the UI is the width of the mask to measure tQW.

Table 2 Configuration Variables and Values (continued)

GUI Location	Label	Variable	Values	Description
Configure	terr(nper) Maximum N Width Value	nper_max	(Accepts user-defined text), 50	Sets the upper bound (inclusive) of the inner sliding window for the terr(nper) series.
Configure	terr(nper) Minimum N Width Value	nper_min	(Accepts user-defined text), 13	Sets the lower bound (inclusive) of the inner sliding window for the terr(nper) series.
Run Tests	Event	RunEvent	(None), Fail, Margin < N, Pass	Names of events that can be used with the StoreMode=Event or RunUntil RunEventAction options
Run Tests	RunEvent =Margin < N: Minimum required margin %	RunEvent _Margin < N_MinPer cent	Any integer in range: 0 <= value <= 100	Specify N using the 'Minimum required margin %' control.
Set Up	Burst Triggerin g Method	BurstTrig Method	DQS-DQ Phase Difference, MSOx Logic Triggering	This option allow user to select burst triggering method.
Set Up	Custom Data Rate	pcboCust omSG	(Accepts user-defined text), 1600, 1866, 2133, 2400, 2666, 3200, 4266	This option allow user to key in specific data rate.
Set Up	Device ID	pcboOver allDeviceI D	(Accepts user-defined text)	This option allow user to key in related test details.
Set Up	LPDDR4	chkLPDD R4	0.0, 1.0	This option allow user to select LPDDR4 SDRAM Type.
Set Up	ReadWrit eOpt	ReadWrit eOpt	Rd or Wrt ONLY, DQS/DQ Setup, CA1, CA2	This option allows the user to select which method is used for read/write separation
Set Up	Speed Grade	DeviceTy pe	DDR4-1600, DDR4-1866, DDR4-2133, DDR4-2400, DDR4-2666, DDR4-3200	This option allow user to select specific speed grade.
Set Up	Speed Grade	DeviceTy peLPDDR 4	LPDDR4-1600, LPDDR4-1866, LPDDR4-2133, LPDDR4-2400, LPDDR4-2666, LPDDR4-3200, LPDDR4-4266	This option allow user to select specific speed grade.
Set Up	Test Mode	AcLevels _CA	110, 120	This option allow user to select test mode.
Set Up	Test Mode	AcLevels _DQ	110, 120	This option allow user to select test mode.

Table 2 Configuration Variables and Values (continued)

GUI Location	Label	Variable	Values	Description
Set Up	Test Mode	TestMode	Compliance, Custom	This option allow user to select test mode.
Set Up	User Comment	txtOverall UserCom ment	(Accepts user-defined text)	This option allow user to key in related test detail.
Set Up	User Description	pcboOver allDevice Descripti on	(Accepts user-defined text)	This option allow user to key in test detail.

2 Configuration Variables and Values

3 Test Names and IDs

The following table shows the mapping between each test's numeric ID and name. The numeric ID is required by various remote interface methods.

- Name – The name of the test as it appears on the user interface **Select Tests** tab.
- Test ID – The number to use with the RunTests method.
- Description – The description of the test as it appears on the user interface **Select Tests** tab.

For example, if the graphical user interface displays this tree in the **Select Tests** tab:

- All Tests
 - Rise Time
 - Fall Time

then you would expect to see something like this in the table below:

Table 3 Example Test Names and IDs

Name	Test ID	Description
Fall Time	110	Measures clock fall time.
Rise Time	100	Measures clock rise time.

and you would run these tests remotely using:

ARSL syntax

```
arsl -a ipaddress -c "SelectedTests '100,110'"  
arsl -a ipaddress -c "Run"
```

C# syntax

```
remoteAte.SelectedTests = new int[] {100,110};  
remoteAte.Run();
```

Here are the actual Test names and IDs used by this application:

NOTE

The file, "TestInfo.txt", which may be found in the same directory as this help file, contains all of the information found in the table below in a format suitable for parsing.

Table 4 Test IDs and Names

Name	TestID	Description
CA VIH(ac)	30403	CA VIH(ac) voltage must meet or exceed VIH at any time in the UI (with not time requirement above VIH)
DQ VIH(ac)	20408	DQ VIH(ac) voltage must meet or exceed VIH at any time in the UI (with not time requirement above VIH)
DummyTestToShowDDR4Config	6	DummyTestToShowDDR4Config
DummyTestToShowDQSDQPhaseConfig1	3	DummyTestToShowDQSDQPhaseConfig1
DummyTestToShowLPDDR4Config	7	DummyTestToShowLPDDR4Config
DummyTestToShowLogicTrigConfig	5	DummyTestToShowLogicTrigConfig
Eye Diagram Test For Read Cycle	20401	User Defined Real-Time Eye Diagram Test For Read Cycle
Eye Diagram Test For Read Cycle	20405	User Defined Real-Time Eye Diagram Test For Read Cycle (MSOX version)
Eye Diagram Test For Write Cycle	20402	User Defined Real-Time Eye Diagram Test For Write Cycle
Eye Diagram Test For Write Cycle	20406	User Defined Real-Time Eye Diagram Test For Write Cycle (MSOX version)
Overshoot amplitude (Address, Control)	10351	Peak amplitude of AC overshoot
Overshoot amplitude (Address, Control)	50351	Peak amplitude of AC overshoot
Overshoot amplitude (Address, Control, Clock, Chip Select, Clock Enable)	10355	Peak amplitude of AC overshoot
Overshoot amplitude (Clock)	10359	Peak amplitude of AC overshoot
Overshoot amplitude (Clock)	50359	Peak amplitude of AC overshoot
Overshoot amplitude (Data, Strobe, Mask)	10353	Peak amplitude of AC overshoot
Overshoot amplitude (Data, Strobe, Mask)	10357	Peak amplitude of AC overshoot

Table 4 Test IDs and Names (continued)

Name	TestID	Description
Overshoot amplitude (Data, Strobe, Mask)	50353	Peak amplitude of AC overshoot
Overshoot area (Address, Control)	10352	OverShoot area above VDD
Overshoot area (Address, Control)	50352	OverShoot area above VDD
Overshoot area (Address, Control, Clock, Chip Select, Clock Enable)	10356	OverShoot area above VDDCA
Overshoot area (Clock)	10360	OverShoot area above VDDQ
Overshoot area (Clock)	50360	OverShoot area above VDDQ
Overshoot area (Data, Strobe, Mask)	10354	OverShoot area above VDDQ
Overshoot area (Data, Strobe, Mask)	10358	OverShoot area above VDDQ
Overshoot area (Data, Strobe, Mask)	50354	OverShoot area above VDDQ
Read Define	50001	This test is a setup test to define zone criteria for read/write separation - when config option set to DQS/DQ only.
SLEWf	10342	Input signal minimum falling slew rate
SLEWr	10341	Input signal minimum rising slew rate
SRIN_dIVW	20409	Measures rising and falling slew rates over vDIVW
SRQdiffF	11414	Differential Output Falling Slew Rate
SRQdiffF	51414	Differential Output Falling Slew Rate
SRQdiffR	11413	Differential Output Rising Slew Rate
SRQdiffR	51413	Differential Output Rising Slew Rate
SRQseF	11342	Output signal minimum falling slew rate
SRQseF	51342	Output signal minimum falling slew rate
SRQseR	11341	Output signal minimum rising slew rate
SRQseR	51341	Output signal minimum rising slew rate
Undershoot amplitude (Address, Control)	10361	Peak amplitude of AC undershoot
Undershoot amplitude (Address, Control)	50361	Peak amplitude of AC undershoot

Table 4 Test IDs and Names (continued)

Name	TestID	Description
Undershoot amplitude (Address, Control, Clock, Chip Select, Clock Enable)	10365	Peak amplitude of AC undershoot
Undershoot amplitude (Clock)	10369	Peak amplitude of AC undershoot
Undershoot amplitude (Clock)	50369	Peak amplitude of AC undershoot
Undershoot amplitude (Data, Strobe, Mask)	10363	Peak amplitude of AC undershoot
Undershoot amplitude (Data, Strobe, Mask)	10367	Peak amplitude of AC undershoot
Undershoot amplitude (Data, Strobe, Mask)	50363	Peak amplitude of AC undershoot
Undershoot area (Address, Control)	10362	UnderShoot area below VSS
Undershoot area (Address, Control)	50362	UnderShoot area below VSS
Undershoot area (Address, Control, Clock, Chip Select, Clock Enable)	10366	UnderShoot area below VSS
Undershoot area (Clock)	10370	UnderShoot area below VSSQ
Undershoot area (Clock)	50370	UnderShoot area below VSSQ
Undershoot area (Data, Strobe, Mask)	10368	UnderShoot area below VSS
Undershoot area (Data, Strobe, Mask)	10364	UnderShoot area below VSSQ
Undershoot area (Data, Strobe, Mask)	50364	UnderShoot area below VSSQ
VIH.CA(AC)	10311	AC Input Logic High
VIH.CA(DC)	10312	DC Input Logic High
VIH.DQ(AC)	10313	AC Input Logic High
VIH.DQ(DC)	10314	DC Input Logic High
VIHdiff.CK(AC)	10411	Differential AC Input Logic High Voltage
VIHdiff.CK(AC)	50411	Differential AC Input Logic High Voltage
VIHdiff.CK(DC)	10415	Differential DC Input Logic High Voltage
VIHdiff.CK(DC)	50415	Differential DC Input Logic High Voltage
VIHdiff.DQS(AC)	10413	Differential AC Input Logic High Voltage

Table 4 Test IDs and Names (continued)

Name	TestID	Description
VIHdiff.DQS(DC)	10417	Differential DC Input Logic High Voltage
VIL.CA(AC)	10321	AC Input Logic Low
VIL.CA(DC)	10322	DC Input Logic Low
VIL.DQ(AC)	10323	AC Input Logic Low
VIL.DQ(DC)	10324	DC Input Logic Low
VILdiff.CK(AC)	10412	Differential AC Input Logic Low Voltage
VILdiff.CK(AC)	50412	Differential AC Input Logic Low Voltage
VILdiff.CK(DC)	10416	Differential DC Input Logic Low Voltage
VILdiff.CK(DC)	50416	Differential DC Input Logic Low Voltage
VILdiff.DQS(AC)	10414	Differential AC Input Logic Low Voltage
VILdiff.DQS(DC)	10418	Differential DC Input Logic Low Voltage
VIX	10380	AC differential input cross point voltage
VIX(CK)	10381	Clock Cross Point Voltage Test
VIX(DQS)	10382	Strobe Cross Point Voltage Test
VOH(AC)	11311	AC Output Logic High
VOH(AC)	51311	AC Output Logic High
VOH(DC)	11312	DC Output Logic High
VOH(DC)	51312	DC Output Logic High
VOHdiff(AC)	11411	Differential AC Output Logic High Voltage
VOHdiff(AC)	51411	Differential AC Output Logic High Voltage
VOL(AC)	11321	AC Output Logic Low
VOL(AC)	51321	AC Output Logic Low
VOL(DC)	11322	DC Output Logic Low
VOL(DC)	51322	DC Output Logic Low
VOLdiff(AC)	11412	Differential AC Output Logic Low Voltage
VOLdiff(AC)	51412	Differential AC Output Logic Low Voltage
VSEH(Clock)	10333	Single-ended High Level Voltage
VSEH(Clock)	50333	Single-ended High Level Voltage
VSEH(Strobe)	10331	Single-ended High Level Voltage for Strobes
VSEH(Strobe)	50331	Single-ended High Level Voltage for Strobes
VSEL(Clock)	10334	Single-ended Low Level Voltage

Table 4 Test IDs and Names (continued)

Name	TestID	Description
VSEL(Clock)	50334	Single-ended Low Level Voltage
VSEL(Strobe)	10332	Single-ended Low Level Voltage for Strobes
VSEL(Strobe)	50332	Single-ended Low Level Voltage for Strobes
Vref Measurement	10371	Vref Measurement
Write Define	50000	This test is a setup test to define zone criteria for read/write separation - when config option set to DQS/DQ only.
tCH Average High Measurements	2000	tCH Average High Measurements
tCH Average High Measurements	52000	tCH Average High Measurements
tCH(abs)	2001	tCH Abs High Measurements
tCIPW	30401	Command Address Input Pulse Width
tCIVW	30400	Command Address Valid Window
tCK(abs) Period Rising Edge Measurements	1	tCK Period Rising Edge Measurements
tCK(abs) Rising Edge Measurements	2	tCK(abs) Rising Edge Measurements
tCK(abs) Rising Edge Measurements	50002	tCK(abs) Rising Edge Measurements
tCK(avg) Rising Edge Measurements	200	tCK(avg) Rising Edge Measurements
tCK(avg) Rising Edge Measurements	50200	tCK(avg) Rising Edge Measurements
tCKE	30206	CKE Minimum Pulse Width
tCL Average Low Measurements	2050	tCL Average LowMeasurements
tCL Average Low Measurements	52050	tCL Average LowMeasurements
tCL(abs)	2051	tCL Abs LowMeasurements
tDH(base)	30302	DQ and DM input hold time - Differential
tDH-Diff(derate)	30304	DQ and DM input hold time - Differential
tDIPW	30305	DQ and DM input pulse width
tDIPW	20410	Data Input Pulse Width
tDIVW	50403	tDIVW

Table 4 Test IDs and Names (continued)

Name	TestID	Description
tDIVW Margin	20403	tDIVW Margin
tDQS2DQ	20407	tDQS2DQ
tDQSCK	30021	DQS output access time from CK,/CK
tDQSCK	50021	DQS output access time from CK,/CK
tDQSH	30107	DQS input high pulse width
tDQSH	50107	DQS input high pulse width
tDQSL	30108	DQS input low pulse width
tDQSL	50108	DQS input low pulse width
tDQSQ	30104	DQS-DQ skew for DQS and associated DQ signals
tDQSQ	50104	DQS-DQ skew for DQS and associated DQ signals
tDQSQ_DBI	30501	DQS-DQ skew for DQS and associated DQ signals with DBI enabled
tDQSS	30106	DQS latching transition to associated clock edge
tDQSS	50106	DQS latching transition to associated clock edge
tDS(base)	30301	DQ and DM input setup time - Differential
tDS-Diff(derate)	30303	DQ and DM input setup time - Differential
tDSH	30110	DQS falling edge hold time from CK
tDSH	50110	DQS falling edge hold time from CK
tDSS	30109	DQS falling edge to CK setup time
tDSS	50109	DQS falling edge to CK setup time
tDVAC(Clock)	30022	tDVAC(Clock)
tDVAC(Strobe)	30117	tDVAC(Strobe)
tHZDQ	30101	DQ out high-impedance time from CK,/CK
tHZDQ	50101	DQ out high-impedance time from CK,/CK
tHZDQS	30118	DQS high-impedance time from CK,/CK
tHZDQS	50118	DQS high-impedance time from CK,/CK
tIH(base)	30202	Address and control input hold time
tIH(derate)	30204	Address and control input hold time
tIS(base)	30201	Address and control input setup time
tIS(derate)	30203	Address and control input setup time
tLZDQ	30102	DQ low-impedance time from CK,/CK

Table 4 Test IDs and Names (continued)

Name	TestID	Description
tLZDQ	50102	DQ low-impedance time from CK,/CK
tLZDQS	30103	DQS low-impedance time from CK,/CK
tLZDQS	50103	DQS low-impedance time from CK,/CK
tQH	30105	DQ/DQS output hold time from DQS
tQH	50105	DQ/DQS output hold time from DQS
tQH_DBI	30502	DQ/DQS output hold time from DQS with DBI enabled
tQSH	30115	DQS output high time
tQSH	50115	DQS output high time
tQSH_DBI	30503	DQS output high time with DBI enabled
tQSL	30116	DQS output low time
tQSL	50116	DQS output low time
tQSL_DBI	30504	DQS output low time with DBI enabled
tQW_total	30505	tQW_total
tQW_total_DBI	30506	tQW_total with DBI
tRPRE	30113	Read preamble
tRPRE	50113	Read preamble
tRPST	30114	Read postamble
tRPST	50114	Read postamble
tVAC(CS,CA)	30205	tVAC(CS,CA)
tVAC(Data)	30306	tVAC(Data)
tWPRE	30111	Write preamble
tWPRE	50111	Write preamble
tWPST	30112	Write postamble
tWPST	50112	Write postamble
terr(10per) Rising Edge Measurements	1200	terr(10per) Rising Edge Measurements
terr(10per) Rising Edge Measurements	51200	terr(10per) Rising Edge Measurements
terr(11per) Rising Edge Measurements	1300	terr(11per) Rising Edge Measurements
terr(11per) Rising Edge Measurements	51300	terr(11per) Rising Edge Measurements

Table 4 Test IDs and Names (continued)

Name	TestID	Description
terr(12per) Rising Edge Measurements	1400	terr(12per) Rising Edge Measurements
terr(12per) Rising Edge Measurements	51400	terr(12per) Rising Edge Measurements
terr(2per) Rising Edge Measurements	400	terr(2per) Rising Edge Measurements
terr(2per) Rising Edge Measurements	50400	terr(2per) Rising Edge Measurements
terr(3per) Rising Edge Measurements	500	terr(3per) Rising Edge Measurements
terr(3per) Rising Edge Measurements	50500	terr(3per) Rising Edge Measurements
terr(4per) Rising Edge Measurements	600	terr(4per) Rising Edge Measurements
terr(4per) Rising Edge Measurements	50600	terr(4per) Rising Edge Measurements
terr(5per) Rising Edge Measurements	700	terr(5per) Rising Edge Measurements
terr(5per) Rising Edge Measurements	50700	terr(5per) Rising Edge Measurements
terr(6per) Rising Edge Measurements	800	terr(6per) Rising Edge Measurements
terr(6per) Rising Edge Measurements	50800	terr(6per) Rising Edge Measurements
terr(7per) Rising Edge Measurements	900	terr(7per) Rising Edge Measurements
terr(7per) Rising Edge Measurements	50900	terr(7per) Rising Edge Measurements
terr(8per) Rising Edge Measurements	1000	terr(8per) Rising Edge Measurements
terr(8per) Rising Edge Measurements	51000	terr(8per) Rising Edge Measurements
terr(9per) Rising Edge Measurements	1100	terr(9per) Rising Edge Measurements
terr(9per) Rising Edge Measurements	51100	terr(9per) Rising Edge Measurements
terr(nper) Rising Edge Measurements	3000	terr(nper) Rising Edge Measurements

Table 4 Test IDs and Names (continued)

Name	TestID	Description
terr(nper) Rising Edge Measurements	53000	terr(nper) Rising Edge Measurements
tjit(CC) Rising Edge Measurements	100	tjit(CC) Rising Edge Measurements for 800MT/s
tjit(CC) Rising Edge Measurements	50100	tjit(CC) Rising Edge Measurements for 800MT/s
tjit(duty-high) Jitter Average High Measurements	2100	tjit(duty-high) Jitter Average High Measurements
tjit(duty-high) Jitter Average High Measurements	52100	tjit(duty-high) Jitter Average High Measurements
tjit(duty-low) Jitter Average Low Measurements	2150	tjitduty-low Jitter Average LowMeasurements
tjit(duty-low) Jitter Average Low Measurements	52150	tjitduty-low Jitter Average LowMeasurements
tjit(per) Rising Edge Measurements	300	tjit(per) Rising Edge Measurements
tjit(per) Rising Edge Measurements	50300	tjit(per) Rising Edge Measurements
vCIVW	30402	vCIVW
vDIVW	50404	vDIVW
vDIVW Margin	20404	vDIVW Margin

4 Instruments

The following table shows the instruments used by this application. The name is required by various remote interface methods.

- Instrument Name – The name to use as a parameter in remote interface commands.
- Description – The description of the instrument.

For example, if an application uses an oscilloscope and a pulse generator, then you would expect to see something like this in the table below:

Table 5 Example Instrument Information

Name	Description
scope	The primary oscilloscope.
Pulse	The pulse generator used for Gen 2 tests.

and you would be able to remotely control an instrument using:

ARSL syntax (replace [description] with actual parameter)

```
-----  
arsl -a ipaddress -c "SendScpiCommandCustom 'Command=[scpi  
command];Timeout=100;Instrument=pulsegen'"
```

```
arsl -a ipaddress -c "SendScpiQueryCustom 'Command=[scpi  
query];Timeout=100;Instrument=pulsegen'"
```

C# syntax (replace [description] with actual parameter)

```
-----  
SendScpiCommandOptions commandOptions = new SendScpiCommandOptions();  
commandOptions.Command = "[scpi command]";  
commandOptions.Instrument = "[instrument name]";  
commandOptions.Timeout = [timeout];  
remoteAte.SendScpiCommand(commandOptions);
```

```
SendScpiQueryOptions queryOptions = new SendScpiQueryOptions();  
queryOptions.Query = "[scpi query]";  
queryOptions.Instrument = "[instrument name]";
```

```
queryOptions.Timeout = [timeout];  
remoteAte.SendScpiQuery(queryOptions);
```

Here are the actual instrument names used by this application:

NOTE

The file, "InstrumentInfo.txt", which may be found in the same directory as this help file, contains all of the information found in the table below in a format suitable for parsing.

Table 6 Instrument Names

Instrument Name	Description
scope	The primary oscilloscope

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