

LabWindows/CVI, VxiPnp driver history for the R&S® ZNL / ZNLE Vector Network Analyzers

Products:

| [R&S® ZNL / ZNLE](#)



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1 Supported Instruments

In the following table, the supported R&S instruments and firmware versions are listed:

Which instruments are supported?		
Instrument	Supported Firmware	Remarks
ZNL / ZNLE	1.70	

2 Revision History

2.1 Version 1.70.1 / 03 – 2024

* New core 4.7.0

* New:

- rsznl_ConfigureAutoSystemErrQuery
- rsznl_OPCTSyncWriteEnable
- rsznl_OPCTSyncQueryEnable
- rsznl_SetOpcSyncQueryMechanism

* Fixed:

- rsznl_TraceAddDiagramArea - works now also with previously non-existent Window(Diagram)
- Fixed rsznl_QueryCurrentReferenceType
- Fixed reading of traces
- rsznl_DataInstrumentSettingsRecall - added call to rsznl_SynchronizeDynamicRepeatedCapability()

* Deleted:

- RSZNL_ATTR_GENERAL_CURRENT_REFERENCE_TYPE

2.2 Version 1.70.0 / 05 – 2023

* Update for ZNL FW 1.70

* New core 4.4.0

* New:

- Validation (Class)
- Power Calibration Settings (Class)
- rsznl_ConfigureStimulusPowerSweepStart
- rsznl_ConfigureStimulusSourcePowerLinearFactor
- rsznl_ConfigureStimulusRFSourceEnabled
- rsznl_TraceCopy
- rsznl_ConfigureTimeGateLink
- rsznl_ConfigureStatisticsCompressionPointState
- rsznl_ConfigureStatisticsCompressionLevel
- rsznl_ConfigureStatisticsCompressionPhase
- rsznl_QueryStatisticsCompressionResult
- rsznl_ConfigureStatisticsCompressionReference
- rsznl_ConfigureStatisticsCompressionReferenceMarker
- rsznl_ConfigureStatisticsCompressionReferenceRange

- rsznl_ConfigureStatisticsCompressionRangeStartStop
- rsznl_ConfigureStatisticsCompressionShowRangeEnabled
- rsznl_ConfigureStatisticsCompressionReferenceLevel
- rsznl_ConfigureStatisticsCompressionReferencePhase
- rsznl_DefinePowerMeter
- rsznl_DeletePowerMeter
- rsznl_ConfigurePowerMeterAutoConfigure
- rsznl_SelectPowerMeter
- rsznl_PowerCalibrationReceiver
- rsznl_QueryPowerCalibrationLabel
- rsznl_WriteCalibrationPowerDataSet
- rsznl_ReadCalibrationPowerDataSet
- rsznl_ActivatePowerCalibration
- rsznl_DeactivatePowerCalibration
- rsznl_ConfigureCalibrationValidationLimitCheckFormat
- rsznl_ConfigureCalibrationValidationAverageState
- rsznl_RunCalibrationValidation
- rsznl_QueryCalibrationValidationResult
- rsznl_CalibrationValidationLimitsMagnitude
- rsznl_CalibrationValidationLimitsPhase
- rsznl_CalibrationValidationLimitsReal
- rsznl_CalibrationValidationLimitsImaginary
- rsznl_RestoreDefaultCalibrationValidationLimits
- rsznl_ConfigureCalibrationValidationCharacterization
- rsznl_ConfigureCalibrationValidationStandard
- rsznl_ConfigureItemsToStoreInstrumentCalibrationData
- rsznl_ConfigureItemsToStoreChannelCalibrationData
- rsznl_ConfigureGeneralTouchstoneExportComment

* Updated:

- rsznl_SelectCalibrationType - Added Star-Shaped Through to Calibration Type

* Deleted:

- rsznl_ConfigureCalibrationSignalBandwidth

2.3 Version 1.61.0 / 09 - 2022

* Update for ZNL FW 1.61

* New core 4.3.0

* New:

- rsznl_ConfigureReferenceMarkerExcursion
- rsznl_ConfigureReferenceMarkerThreshold
- rsznl_ReferenceMarkerSearch
- rsznl_ReferenceMarkerTargetSearch
- rsznl_ConfigureReferenceMarkerTargetValue
- rsznl_ConfigureReferenceMarkerTargetFormat
- rsznl_ReferenceMarkerBandfilterSearch
- rsznl_ReferenceConfigureMarkerTracking
- rsznl_ConfigureReferenceMarkerSearchRange
- rsznl_ConfigureReferenceMarkerSearchLimitLinesState
- rsznl_QueryReferenceMarkerSearchResults
- rsznl_ConfigureSweepRangeToReferenceMarker
- rsznl_RepeatCalibration
- rsznl_ConfigureCalibrationTemperatureCompensation
- rsznl_CalibrationUnknownThroughMeasurement
- rsznl_QueryAllCalibrationSubmoduleUnits

- rsznl_ConfigureCalibrationUnitCharacterization
- rsznl_JoinCalibrations
- rsznl_AreCalibrationsJoinable
- rsznl_LayoutOverlayAll
- rsznl_LayoutSplitAll
- rsznl_QueryLimitEffectivePoints
- rsznl_ConfigureHcopyPrintHeaders
- rsznl_ConfigureHcopyPrintDiagramArea
- rsznl_ConfigureCalibrationDueDays
- rsznl_ConfigureCalibrationDueSchedule
- rsznl_ConfigureCalibrationDueShutdown
- rsznl_ConfigureCalibrationDueTime
- rsznl_ConfigureCalibrationDueWarmup
- rsznl_ConfigureRemoteControl

* Updated:

- rsznl_QueryMarkerSearchResults - Stimulus output change to array of ViReal64
- rsznl_ConfigureDisplayDateAndTimeFormat - Added ISO to ring
- rsznl_QueryViBoolean - bugfix
- rsznl_QueryViInt32 - bugfix
- rsznl_QueryViReal64 - bugfix
- rsznl_QueryViString - bugfix

2.4 Version 1.40.0 / 01 – 2022

* Update for ZNL FW 1.40

* New core 4.2.1 The core is incompatible with the Cores 3.x. If you work with drivers that use both core 4.x and 3.x, please contact our customer support, we will update your Core 3.x drivers to the newest version.

* New:

- Multiple Peak (Class)
- Infinite Average (Class)
- Info Window (Class)
- Memory (Class)
- rsznl_ConfigureStimulusAttenuation
- rsznl_ConfigureMemoryTraceMathFormatted
- rsznl_ConfigureVSWREnabled
- rsznl_ConfigureMarkerCouplingType
- rsznl_ConfigureReferenceMarkerFormat
- rsznl_ConfigureMarkerExcursion
- rsznl_ConfigureMarkerThreshold
- rsznl_ConfigureInfiniteAverage
- rsznl_ConfigureAutomaticCalibration
- rsznl_CorrectionDiscard
- rsznl_CorrectionDelete
- rsznl_ConfigureWaveCorrectionLogicEnabled
- rsznl_ConfigureCorrectionCalculateAfterDeEmbed
- rsznl_ConfigureCorrectionMethod
- rsznl_ConfigureChannelSegment
- rsznl_ConfigureOneWayLossAtSecondFrequency
- rsznl_DisplayTraceLabel
- rsznl_QueryLayoutCatalog
- rsznl_ConfigureDisplayLock
- rsznl_QueryLimitFailSweepPoints

- rsznl_ConfigureLimitLineFormula
- rsznl_ConfigureLimitLineInterpolation
- rsznl_DataInstrumentSettingsRecallMode
- rsznl_QueryServiceFunctionBatteryLevel
- rsznl_PasswordReset
- rsznl_ConfigureSystemPassword

* Updated:

- rsznl_ConfigureTraceFormat - Format values updated
- rsznl_ConfigureDefaultMarkerFormat - Format values updated
- rsznl_LoadCalibrationDataFromCalGroupFile - Standard values updated
- rsznl_ConfigureConnector - Connector values updated
- rsznl_ConfigureVirtualNetworkSingleEndedData - Interchange values updated
- rsznl_ConfigureVirtualNetworkBalancedData - Interchange values updated
- rsznl_ConfigureVirtualNetworkDifferentialMatchData - Interchange values updated
- rsznl_DataDeleteFile - help updated
- rsznl_HcopyFileFormat - Format values updated
- rsznl_viWrite - renamed to rsznl_WriteInstrData

* Deleted:

- rsznl_ConfigureSound
- rsznl_SetAttributeRawString
- rsznl_GetAttributeRawString
- rsznl_viRead

2.5 Version 1.0.0 / 08 – 2018

- * Initial release

3 Getting Started

3.1 LabWindows/CVI driver

The Rohde & Schwarz **rsznl** Instrument driver can be used in LabWindows/CVI 6 and later. In order to be able to compile an application it is required to add following files to your LabWindows/CVI project:

- *rsznl.c* + *rsznl.h*
- *rsznl_attributes.c* + *rsznl_attributes.h*
- *rsznl_utility.c* + *rsznl_utility.h*
- *rscore.c* + *rscore.h*
- *rsznl_callbacks.c*
- *rsznl.fp* + *rsznl.sub*

3.2 VXIplug&play driver in C/C++, LabWindows/CVI

In this case, the compiled source code from LabWindows/CVI driver is used. The compiled ANSI-C libraries exist for Windows XP and newer, 32-bit / 64-bit.

Add the following files to your 64-bit target project:

- C:\Program Files\IVI Foundation\VISA\Win64\Include\rsznl.h
- C:\Program Files\IVI Foundation\VISA\Win64\Lib_x64\msc\rsznl64.lib (static)
- C:\Program Files\IVI Foundation\VISA\Win64\Bin\rsznl_64.dll (dynamic)
- C:\Program Files\IVI Foundation\VISA\Win64\rsznl\rsznl.fp (in CVI only)
- C:\Program Files\IVI Foundation\VISA\Win64\rsznl\rsznl.sub (in CVI only)

3.3 VXIplug&play driver in MATLAB

MATLAB instrument driver **rsznl.mdd** can be found here:

C:\Program Files\IVI Foundation\VISA\Win64\rsznl\rsznl.mdd

For more, refer to [1MA171 - How to use R&S instrument in MATLAB](#)

3.4 Linux and Mac OS X

To be able to use Rohde & Schwarz **rsznl** Instrument driver in Linux or macOS, the functioning VISA is required. Check out [R&S VISA](#) for Linux or macOS.

3.5 Additional Help

LabWindows/CVI and VXIplug&play instrument driver contains the documentation in a compressed HTML format (Windows CHM help file **rsznl_vxi.chm**):

C:\Program Files\IVI Foundation\VISA\Win64\rsznl\rsznl_vxi.chm

4 Customer support

Technical support – where and when you need it

For quick, expert help with any Rohde & Schwarz product, contact our customer support center. A team of highly qualified engineers provides support and works with you to find a solution to your query on any aspect of the operation, programming or applications of Rohde & Schwarz products.

Contact information

Contact our customer support center at www.rohde-schwarz.com/support or follow this QR code:

