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

ZNA

ZNB

ZNBT

ZND

ROHDE&SCHWARZ

Make ideas real

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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**
ZNA	2.92	
ZNB	3.70	
ZNC	2.94	
ZND	3.70	
ZNBT	3.70	

2 Revision history

Version 3.70.1 / 09 – 2024

* New core 4.7.1

- Fixed error when reading float arrays in binary form, where the result array size was only half of the original size.

Version 3.70.0 / 07 – 2024

* Update for ZNA FW 2.92
* Update for ZNB FW 3.70
* New Core 4.7.0

* New:
- Simulation Data (Class)
- SNP Assistant (Class)
- SNPA DUT Topology (Class)
- SNPA Overview (Class)
- SNPA Measurements (Class)
- rsvna_DeleteAllAdditionalSimulationData
- rsvna_ModifyImportAdditionalSimulationData
- rsvna_DeleteAdditionalSimulationData
- rsvna_AdditionalSimulationDataLoadImportRule
- rsvna_SelectCapacitance
- rsvna_SelectInductance
- rsvna_SelectResistance
- rsvna_CopyTrace
- rsvna_ConfigureGlobalLimitCheckState
- rsvna_ConfigureLimitShiftLine
- rsvna_MarkerPeakType
- rsvna_ConfigureAveragePointCount
- rsvna_ConfigureAveragePointState
- rsvna_CheckPortAssignment
- rsvna_GenerateDefaultCalibrationOptimizedAssignment

- rsvna_QueryCalibrationUnitTemperature
- rsvna_AddCalibrationKit
- rsvna_CopyCalibrationKit
- rsvna_ConfigureCalibrationValidationMode
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- rsvna_AddAdvancedAdditionalHarmonicOrder
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- rsvna_ConfigureAdvancedHarmonicLOTrackingState
- rsvna_ConfigureAdvancedHarmonicDelayMixerFactor
- rsvna_ConfigureAdvancedHarmonicDelayMixerCalSweepsState
- rsvna_QueryNoiseFigureCalibrationStateLabel
- rsvna_CopyChannel
- rsvna_ConfigureParallelMeasurementPortDestination
- rsvna_ConfigureIntermodulationTwoToneDUT
- rsvna_ConfigureOffsetVelocityFactor
- rsvna_ConfigureVirtualNetworkAllDeembeddingActivated
- rsvna_QueryFixtureModelingQuickSetupRecommendedValues
- rsvna_ConfigureFixtureModelingISDSmoothingLevel
- rsvna_ClearFixtureModelingDeembedAssistantDUT
- rsvna_ConfigureFixtureModelingDeembedAssistantDUTFile
- rsvna_QueryFixtureModelingDeembedAssistantDUTRunResult
- rsvna_ConfigureDeltaLResonanceEnabled
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- rsvna_ConfigureSNPADUTLeftAndRightSideLabel
- rsvna_QuerySNPADUTTopologyTable
- rsvna_ConfigureSNPADUTWiring
- rsvna_ConfigureSNPADUTWirePolarity
- rsvna_ConfigureSNPADUTWireIdentity
- rsvna_MoveSNPADUTStructure
- rsvna_DeleteSNPADUTStructure
- rsvna_ConfigureSNPADUTPortPositionAndLabel
- rsvna_ConfigureSNPADUTAutoNumberPorts
- rsvna_ConfigureSNPADUTUseTemplate
- rsvna_ConfigureSNPADUTVNAPort
- rsvna_ConfigureSNPADUTReferenceImpedance
- rsvna_ConfigureSNPASParametersRange
- rsvna_ImportSNPASParametersData
- rsvna_ConfigureSNPASParametersUnmeasured
- rsvna_ConfigureSNPASParametersIdealized

- rsvna_QuerySNPAStepHeading
- rsvna_QuerySNPAMeasurementStepState
- rsvna_ImportSNPAStep
- rsvna_StartSNPASweep
- rsvna_ClearSNPAStep
- rsvna_RestoreSNPAMeasurementIntegrity
- rsvna_QuerySNPAMeasurementIntegrity
- rsvna_ConfigureUserPortKeepChannelBitsAtSweepEnd
- rsvna_ConfigureDisplaySingleWindowModeEnabled
- rsvna_QueryInstrumentHardwareInformation

* Updated:
- rsvna_SelectIntermodulationProducts - Range of Order changed
- rsvna_SelectInterceptPoints - Range of Order changed
- rsvna_ConfigureMarkerReferenceFormat - Range table updated
- rsvna_SelectCalibrationType - Range table changed
- rsvna_CalibrationAutoType - Range table changed
- rsvna_CalibrationAutoTypeSimplified - Range table changed
- rsvna_ConfigureCalibrationUnitStandard - Range table updated
- rsvna_ConfigureCalibrationValidationFormat - Range table changed, Real removed
- rsvna_QuerySourceLevelingState - SCPI command changed
- rsvna_ConfigureSweepSequencerRFFECommand - SCPI command changed
- rsvna_ConfigureSweepSequencerGPIOVoltage - SCPI command changed
- rsvna_ConfigureSweepSequencerDelayTime - SCPI command changed
- rsvna_ConfigureAGCGlobalMode - Range table updated
- rsvna_ConfigureAGCAllAAndBWaves - Range table updated
- rsvna_ConfigureFixtureModelingDeembedAssistantRightModel - Range table update
- rsvna_ConfigureFixtureModelingDeembedAssistantLeftModel - Range table updated

Version 3.46.0 / 01 – 2023

* Update for ZNA FW 2.71

* New:
- rsvna_SelectNoiseDensity
- rsvna_SelectSpectrumReference
- rsvna_SelectHarmonicMeasurementTHD
- rsvna_SelectTwoToneGroupDelayMeasurement
- rsvna_ConfigureTimeGateLinking
- rsvna_ConfigurePowerALCClamp
- rsvna_ConfigureSweepOnlyActiveChannelOn
- rsvna_ConfigureSweepMinimumWaitTime
- rsvna_ConfigureSweepFixedWaitTime
- rsvna_ConfigureSweepManualWaitTimeEnabled
- rsvna_ConfigureSweepMinimumWaitTimeInitializationChannel
- rsvna_ConfigureSweepMaximumWaitTimePort
- rsvna_ConfigureSweepMinimumWaitTimePort
- rsvna_ConfigureSweepSegmentWaitTimeFixed
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- rsvna_ConfigureSweepTimingInfoBoxEnabled
- rsvna_ConfigureSweepGenerationMode
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- rsvna_CalibrationConverterOffset
- rsvna_ConfigureCalibrationValidationAverageEnabled
- rsvna_ConfigureCalibrationValidationFormat

- rsvna_CalibrationValidationPreset
- rsvna_QueryCalibrationValidationResult
- rsvna_CalibrationValidationImaginary
- rsvna_CalibrationValidationReal
- rsvna_ConfigureMETASUncertainlyBand
- rsvna_ConfigureNoiseFigureCalibrationVirtualImageRejection
- rsvna_ConfigureNoiseFigureCalibrationSegmentVirtualImageRejection
- rsvna_ConfigureNoiseFigureCalibrationSegmentVirtualImageControlEnabled
- rsvna_ConfigureNoiseFigureQuicksetExternalAttenuatorReceiver
- rsvna_ConfigureNoiseFigureQuicksetExternalAttenuatorSource
- rsvna_ConfigureNoiseFigureQuicksetTraceNoise
- rsvna_ConfigureNoiseFigureQuicksetDUTExpectedNoiseFigure
- rsvna_ConfigureNoiseFigureQuicksetDUTExpectedGain
- rsvna_ConfigureNoiseFigureQuicksetDUTPower
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- rsvna_SourceLevelingClearAll
- rsvna_SourceLevelingClear
- rsvna_SourceLevelingRemove
- rsvna_ConfigureSourceLevelingLoad
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- rsvna_ConfigureSourceLevelingStopFrequency
- rsvna_ConfigureSourceLevelingStartPower
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- rsvna_ConfigureSourceLevelingALCStepSize
- rsvna_ConfigureSourceLevelingPowerStepSize
- rsvna_QuerySourceLevelingState
- rsvna_SourceLevelingStartCalSweep
- rsvna_ConfigureSourceLevelingPortEnabled
- rsvna_ConfigurePremeasurementEnabled
- rsvna_ConfigurePremeasurementMode
- rsvna_ConfigurePremeasurementPortEnabled
- rsvna_ConfigurePremeasurementConvergenceFactor
- rsvna_ConfigurePremeasurementDetector
- rsvna_ConfigurePremeasurementMaxPrecalSweeps
- rsvna_ConfigurePremeasurementTolerance
- rsvna_ConfigurePremeasurementReceiver
- rsvna_ConfigureSourcePowerThruMeas
- rsvna_QueryTriggerStatusReady
- rsvna_TriggerReadyTimeout
- rsvna_ConfigurePulseALCMeasurementDelay
- rsvna_ConfigureGainCompressionSkip
- rsvna_ConfigureGainCompressionSkipOffset
- rsvna_ConfigureSpectrumDetectorZeroPadding
- rsvna_ConfigureTDREyeTransferRateUnits
- rsvna_ConfigureIndependentGeneratorEnabled
- rsvna_ConfigureIndependentGeneratorFrequency
- rsvna_ConfigureIndependentGeneratorPower
- rsvna_ConfigureIndependentGeneratorRFOff
- rsvna_ConfigureIndependentGeneratorPortEnabled
- rsvna_ConfigureIndependentGeneratorPortFrequency
- rsvna_ConfigureIndependentGeneratorPortPower
- rsvna_ConfigureIndependentGeneratorPortRFOff
- rsvna_ConfigureIndependentGeneratorPortStepAttenuator
- rsvna_ConfigureFormatIdentify
- rsvna_GenericDeviceCalibrationMixer
- rsvna_ConfigureConverterPortRFSlope

* Updated:
- rsvna_ConfigureSweepTimeMode - 'Sweep Time Mode' data type changed from ViBoolean to ViInt32
- rsvna_SelectCalibrationType - Updated 'Parameters' ring values
- rsvna_SelectCalibrationTypeExtended - Updated 'Parameters' ring values
- rsvna_LoadCalibrationDataFromCalGroupFile - Updated 'Standard' ring values
- rsvna_CalibrationAutoType - Updated 'Cal Type' ring values
- rsvna_CalibrationAutoTypeSimplified - Updated 'Cal Type' ring values
- rsvna_ConfigureCalibrationAutoAssignmentType - Updated 'Cal Type' ring values
- rsvna_ConfigureConnector - Updated 'Calibration Connector' ring values
- rsvna_InsertNewSegment - not sending the last parameter for ZNA
- rsvna_RedefineSegment - not sending the last parameter for ZNA

Version 3.45.0 / 11 – 2022

* Update for ZNB FW 3.45
* New Core 4.3.0

* New:
- Deembed Assistant (Class)
- Coupon (Class)
- DUT (Class)
- rsvna_ConfigureTraceLOSupression
- rsvna_ConfigureLimitCheckPoints
- rsvna_ConfigureMarkerReferenceExcursion
- rsvna_MarkerReferenceMaximum
- rsvna_MarkerReferenceMinimum
- rsvna_ConfigureMarkerReferenceThreshold
- rsvna_MarkerSearchReference
- rsvna_ConfigureMarkerTargetValueReference
- rsvna_ConfigureMarkerTargetFormatReference
- rsvna_MarkerTargetFormatReferenceSearchLeft
- rsvna_MarkerTargetFormatReferenceSearchNext
- rsvna_MarkerTargetFormatReferenceSearchRight
- rsvna_MarkerTargetFormatReferenceSearchImmediate
- rsvna_ConfigureMarkerTrackingReference
- rsvna_ConfigureMarkerSearchRangeReference
- rsvna_ConfigureSweepRangeToMarkerReference
- rsvna_MarkerCenterSweepRangeToMarkerReference
- rsvna_ConfigureMarkerSearchRangeShowLimitLinesReference
- rsvna_CalibrationICSRepeat
- rsvna_ConfigureCalibrationICSTemperatureCompensation
- rsvna_ConfigureCalibrationICSUnknownThrough
- rsvna_JoinCalibrations
- rsvna_FixtureModelingISDCouponInvalidatesFilePath
- rsvna_FixtureModelingISDDUTInvalidatesFilePath
- rsvna_FixtureModelingISDResetToDefault
- rsvna_ConfigureFixtureModelingISDUseImpedanceCorrection
- rsvna_ConfigureFixtureModelingDirectory
- rsvna_FixtureModelingClearDefaultDirectory
- rsvna_FixtureModelingSFDCouponInvalidatesFilePath
- rsvna_FixtureModelingSFDDUTInvalidatesFilePath
- rsvna_ConfigureFixtureModelingSFDUseImpedanceCorrection
- rsvna_FixtureModelingSFDResetToDefault
- rsvna_FixtureModelingEZDDUTInvalidatesFilePath
- rsvna_ConfigureFixtureModelingEZDPortOrder
- rsvna_ConfigureFixtureModelingEZDResetToDefault
- rsvna_FixtureModelingDeembedAssistantReset

- rsvna_FixtureModelingDeembedAssistantRun
- rsvna_ConfigureFixtureModelingDeembedAssistantUseSameCoupon
- rsvna_ConfigureFixtureModelingDeembedAssistantIMPCorrect
- rsvna_ConfigureFixtureModelingDeembedAssistantTool
- rsvna_ConfigureFixtureModelingDeembedAssistantRightModel
- rsvna_ConfigureFixtureModelingDeembedAssistantLeftModel
- rsvna_FixtureModelingDeembedAssistantCouponLeftClear
- rsvna_FixtureModelingDeembedAssistantCouponRightClear
- rsvna_ConfigureFixtureModelingDeembedAssistantCouponLeftFile
- rsvna_ConfigureFixtureModelingDeembedAssistantCouponRightFile
- rsvna_ConfigureFixtureModelingDeembedAssistantCouponLeftMeasure
- rsvna_ConfigureFixtureModelingDeembedAssistantCouponRightMeasure
- rsvna_ConfigureFixtureModelingDeembedAssistantCouponLeftPort
- rsvna_ConfigureFixtureModelingDeembedAssistantCouponRightPort
- rsvna_ConfigureFixtureModelingDeembedAssistantCouponLeftType
- rsvna_ConfigureFixtureModelingDeembedAssistantCouponRightType
- rsvna_FixtureModelingDeembedAssistantDUTMeasure
- rsvna_ConfigureFixtureModelingDeembedAssistantDUTPort
- rsvna_ConfigureFixtureModelingDeembedAssistantDUTType
- rsvna_ConfigureDeltaLDirectory
- rsvna_DeltaLDirectoryDefault
- rsvna_DisplaySplitAll
- rsvna_DisplayOverlayAll
- rsvna_SaveColorSchemeHCOPY
- rsvna_RecallColorSchemeHCOPY
- rsvna_ConfigureDisplayXAxisGridLabels
- rsvna_QueryOPCCheckSelftest
- rsvna_QueryLevelOPCCheckPort
- rsvna_HUMSAddEvent
- rsvna_HUMSUpdateCustomEvent
- rsvna_HUMSUtilizationCreatesCustom
- rsvna_QueryHUMSUtilizationAll
- rsvna_HUMSUtilizationDeleteCustomAll
- rsvna_HUMSUtilizationDeleteCustom
- rsvna_QueryHUMSUtilizationHistoryDetailed
- rsvna_ConfigureGenericDevicesCharacterization
- rsvna_QueryGenericDeviceConfiguredDevices

* Updated:
- rsvna_ConfigurePowerMeterTestSetup - added parameter 'DeEmbedding Position'
- rsvna_PowerMeterInsertCoefficient - added parameter 'DeEmbedding Position'
- rsvna_PowerMeterDeleteCoefficient - added parameter 'DeEmbedding Position'
- rsvna_PowerMeterTraceToList - added parameter 'DeEmbedding Position'
- rsvna_QueryPowerMeterNumberOfPoints - added parameter 'DeEmbedding Position'
- rsvna_QueryPowerMeterPointValues - added parameter 'DeEmbedding Position'
- rsvna_ConfigureColorScheme - added 'User Defined Colours' to 'Color Scheme' parameter

* Deleted:
- rsvna_ReadInstrData

Version 3.35.1 / 03 – 2022

* Bugfix - affected functions:
- rsvna_TraceResponseData
- rsvna_TraceResponseDataAll
- rsvna_TraceResponseDataAllData

- rsvna_TraceResponseDataAllSData
- rsvna_ArbitraryTraceResponseData
- rsvna_WriteMemoryTraceData

Version 3.35.0 / 12 – 2021

* Update for ZNA FW 2.30

* New:
- Noise Figure (Class)
- Spectrum (Class)
- Gain Compression (Class)
- Harmonic Measurement (Class)
- Linearity Deviation (Class)
- Power ALC (Class)
- Advanced (Class)
- Noise Figure (Class)
- Mixer Phase (Class)
- Direct Generator Receiver Access (Class)
- Rear LO Out (Class)
- Lost Trigger (Class)
- Mixer Delay Measurements (Class)
- Pulse Measurement (Class)
- Source Coherence (Class)
- Gain Compression (Class)
- Spectrum (Class)
- Generic Device (Class)
- Frequency Converter (Class)
- Leveling Dataset (Class)
- rsvna_SelectMoreSParametersWithDetector
- rsvna_ConfigureWaveQuantitiesPhaseNormalizationEnabled
- rsvna_SelectNoiseLevel
- rsvna_SelectMainTone
- rsvna_MarkerSpectrumEqualsMarker
- rsvna_SelectExternalDLL
- rsvna_ConfigurePreamplifierEnabled
- rsvna_ConfigurePreamplifierGain
- rsvna_ConfigureChannelDynamicBwatLowFrequencies
- rsvna_ConfigureChannelAnalogIFFilter
- rsvna_ConfigureSweepWaitTimeperPoint
- rsvna_ConfigureSweepModeControlledTiming
- rsvna_ConfigureSweepTimeMode
- rsvna_ConfigureSweepFastPowerSweep
- rsvna_ConfigureSweepReverse
- rsvna_ConfigureSweepTimerMode
- rsvna_ConfigureCalibrationAutomaticVectorMixer
- rsvna_ConfigureCalibrationNoiseDataReceivingPort
- rsvna_ConfigureCalibrationSameSweepSetup
- rsvna_ConfigureCalibrationSweepSetup
- rsvna_ConfigureCalibrationReferenceReceiverAttenuation
- rsvna_ConfigureCalibrationIMDMethod
- rsvna_ConfigureCalibrationFastMultiportCorrection
- rsvna_ConfigureCalibrationInterpolationMethod
- rsvna_StartHarmonicReceiverCalibration
- rsvna_StartHarmonicSourceCalibration
- rsvna_ConfigureSourcePowerCalibration
- rsvna_ConfigureElectronicSourceAttenuation

- rsvna_ConfigureDummySourcePowerCalibrationEnabled
- rsvna_ConfigureFastSourcePowerCalibrationEnabled
- rsvna_ConfigureTrackLO
- rsvna_QueryTrackLOFrequencyDifference
- rsvna_ConfigureLOUsage
- rsvna_ConfigurePhaseMode
- rsvna_ConfigurePortConfigUsePrimedWaves
- rsvna_ConfigurePortConfigPrimedWavesFrequency
- rsvna_ConfigurePortConfigWavesFrequencyOffset
- rsvna_ConfigurePortConfigReceiverFrequencyConversion
- rsvna_ConfigureIntermodulationCombiner
- rsvna_IntermodulationAddCWMode
- rsvna_ConfigureTriggerExternalInput
- rsvna_ConfigureAUXTriggerOutDelay
- rsvna_ConfigureAUXTriggerOutSignalType
- rsvna_ConfigureTriggerLogic
- rsvna_ConfigureDeltaLSweepControlDynamicBandwidth
- rsvna_ConfigureReferenceOscillatorSMAInputFrequency
- rsvna_ConfigureReferenceOscillatorSMAOutputFrequency
- rsvna_ConfigureUserDefinedLedColor
- rsvna_ConfigureRFOffBehavior
- rsvna_ConfigureSystemPresetMode
- rsvna_ConfigurePortPowerLimitEnabled
- rsvna_ConfigureExternalGeneratorLimit

* Updated:
- rsvna_SelectMoreRatiosWithDetector - Added Primed Wave Quantities
- rsvna_SelectMoreWaveQuantitiesWithDetector - Added Primed Wave Quantities
- rsvna_SelectCalibrationType - Parameters control updated
- rsvna_SelectCalibrationTypeExtended - Parameters control updated
- rsvna_StartCalibration - Parameters control updated
- rsvna_LoadCalibrationDataFromCalGroupFile - Standard control updated
- rsvna_CalibrationAutoType - Parameters control updated
- rsvna_CalibrationAutoTypeSimplified - Parameters control updated
- rsvna_ConfigureCalibrationAutoAssignmentType - Calibration Type control updated
- rsvna_ConfigureMultipleTriggerSource - API changed - added Trigger Event (ZNA only) parameter
- rsvna_ConfigureReference - Reference control updated

* Deleted:
- rsvna_SetFastSweepMode

Version 3.30.0 / 08 – 2021

Update for ZNB FW 3.30
New Core 4.2.0. 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:
- External DLL (Class)
- Validation (Class)
- METAS (Class)
- EaZy Deembedding (Class)
- Advanced (Class)
- Delta-L (Class)
- Pipelining (Class)

- HUMS (Class)
- Service Date (Class)
- rsvna_ConfigureFileDecimalPlaces
- rsvna_ConfigureLimitLineTTLPassDefault
- rsvna_ConfigureMarkerFormat
- rsvna_ConfigureMarkerDefaultFormat
- rsvna_ExternalDLLList
- rsvna_ExternalDLLTaskList
- rsvna_ConfigureExternalDLL
- rsvna_QueryExternalDLLConfiguration
- rsvna_AddExternalDLL
- rsvna_RemoveExternalDLL
- rsvna_SweepOptimizeChannelSwitchingAuto
- rsvna_SweepOptimizeChannelSwitchingManual
- rsvna_ConfigureCalibrationDetectorType
- rsvna_ConfigureSourcePowerCalibrationPowerDeembedding
- rsvna_RunCalibrationValidation
- rsvna_ConfigureCalibrationValidationStandard
- rsvna_ConfigureCalibrationValidationCharacterization
- rsvna_ConfigureCalibrationValidationMagnitudeDeviation
- rsvna_ConfigureCalibrationValidationPhaseDeviation
- rsvna_ConfigureMETASCalibrationActive
- rsvna_QueryMETASCableCatalog
- rsvna_ConfigureMETASCableToPorts
- rsvna_METASCableReconnection
- rsvna_METASClearCableReconnectionHistory
- rsvna_METASCableMovement
- rsvna_METASClearCableMovementHistory
- rsvna_ConfigureDrivingMode
- rsvna_ConfigureDrivingModeAlternatedBlocks
- rsvna_ConfigureAGCGlobalMethod
- rsvna_ConfigureOneWayLossSecondFrequency
- rsvna_ConfigureVirtualNetworkWaveDeEmbedEnabled
- rsvna_ConfigureFixtureModelingEZDPortActive
- rsvna_FixtureModelingEZDStartCouponMeasurement
- rsvna_FixtureModelingEZDLoadTouchstoneFile
- rsvna_ConfigureFixtureModelingEZDDUTPortActive
- rsvna_FixtureModelingEZDMeasureDUT
- rsvna_ConfigureFixtureModelingEZDLoadDUTFile
- rsvna_FixtureModelingRunEZDSimulator
- rsvna_ConfigureFixtureModelingEZDApplyToPortEnabled
- rsvna_ConfigureFixtureModelingEZDGenerateSides
- rsvna_ConfigureFixtureModelingEZDDCExtrapolationEnabled
- rsvna_ConfigureFixtureModelingEZDImpedanceCorrection
- rsvna_ConfigureDeltaLCharacterization
- rsvna_ConfigureDeltaLPortOrder
- rsvna_ConfigureDeltaLFrequenciesUseDefaultEnabled
- rsvna_QueryDeltaLFequencyListCount
- rsvna_QueryDeltaLFrequencyList
- rsvna_DeltaLAddUserFrequency
- rsvna_DeltaLDeleteUserFrequency
- rsvna_DeltaLDeleteAllUserFrequencies
- rsvna_ConfigureDeltaLSweepControl
- rsvna_QueryDeltaLSweepControlConfiguration
- rsvna_ConfigureDeltaLSweepRange
- rsvna_ConfigureDeltaLUseRecommendedTraceConfigurationEnabled
- rsvna_ConfigureDeltaLShowTDRImpededancesEnabled
- rsvna_DeltaLLoadMeasurementFile
- rsvna_ConfigureDeltaLPortEnabled

- rsvna_ConfigureDeltaLLineLength
- rsvna_DeltaLMeasureLine
- rsvna_DeltaLRun
- rsvna_DeltaLClearAll1LMeasurements
- rsvna_DeltaLClear1LMeasurementFile
- rsvna_ConfigurePipeliningState
- rsvna_QueryPipeliningChannelResults
- rsvna_ConfigureExternalGeneratorState
- rsvna_ConfigurePermanentSignalGeneratorState
- rsvna_ConfigureHUMSEnabled
- rsvna_HUMSExportHistoryToFile
- rsvna_HUMSDeleteHistory
- rsvna_HUMSDeleteDeviceHistory
- rsvna_HUMSDeleteUtilizationHistory
- rsvna_HUMSQueryDataFromInstrument
- rsvna_HUMSSaveDataFromInstrumentToFile
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- rsvna_HUMSSNMPDefineUserProfile
- rsvna_QueryHUMSSNMPUserList
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- rsvna_HUMSTagDefineKeyValuePair
- rsvna_QueryHUMSTagKeyValuePair
- rsvna_QueryHUMSAllDeviceTags
- rsvna_HUMSTagDelete
- rsvna_HUMSTagDeleteAll
- rsvna_HUMSUtilizationTrackingEnable
- rsvna_QueryHUMSDeviceStatusSummary
- rsvna_QueryServiceCalibrationLastDate
- rsvna_QueryServiceCalibrationDueDate
- rsvna_QueryServiceCalibrationDueState
- rsvna_QueryServiceCalibrationInterval
- rsvna_QueryServiceLastServiceDate
- rsvna_QueryServiceDueState
- rsvna_ErrorCount

* Updated:
- rsvna_ConfigurePrintPageSetup - Diagram areas updated
- rsvna_ConfigurePrintColorScheme - Color schemes updated
- rsvna_ConfigureFileSymmetricParams - Help updated
- rsvna_ConfigureMarkerReferenceFormat - Rng values
- rsvna_ConfigureBandwidth - Selectivity values updated
- rsvna_ConfigureSweepType - Help updated
- rsvna_LoadCalibrationDataFromCalGroupFile - Attr, Rng, stds
- rsvna_ConfigureSourcePowerCalibrationPowerMeter - Attr deleted
- rsvna_ConfigureSweepSequencerRFFECommand - Seq repcap removed from segmented
- rsvna_ConfigureSweepSequencerGPIOVoltage - Seq repcap removed from segmented
- rsvna_ConfigureSweepSequencerDelayTime - Seq repcap removed from segmented
- rsvna_ConfigureSplitType - Range table values updated
- rsvna_ConfigureSplitGrid - Attribute added
- rsvna_ConfigureTDRStimulusRiseTime - Definition help, default updated

* Deleted:
- rsvna_ConfigureTraceProbeTipImpedance
- rsvna_QueryTraceProbeTipImpedance

Version 3.11.0 / 08 – 2020

- New core 3.10.0
- "Port" repeated capability now permits up to 312 physical ports

* New:
- Infinite Averaging (Class)
- Distance To Fault (Class)
- Display (Class)
- Test (Class)
- By Port Group (Class)
- Fixture Modeling (Class)
- Harmonic (Class)
- Info Window (Class)
- Menu Key (Class)
- TDR (Class)
- Data Memory (Class)
- rsvna_FileListofFavoriteRecallSet
- rsvna_ConfigurePrintColorScheme
- rsvna_FileStoreDistancetoFaultCableTypes
- rsvna_FileLoadDistancetoFaultCableTypes
- rsvna_FileAddedComment
- rsvna_ConfigureFileSymmetricParams
- rsvna_DefineSweepandMeasurement
- rsvna_DefineSweepandMeasurementWithArguments
- rsvna_QuerySweepandMeasurementDefinition
- rsvna_ConfigureTraceDisplayLabel
- rsvna_ConfigureTraceProbeTipImpedance
- rsvna_QueryTraceProbeTipImpedance
- rsvna_TraceUserDefinedMathFormatted
- rsvna_ConfigureTraceMathFormattedState
- rsvna_ConfigureTraceMathFormattedFunction
- rsvna_ConfigureTimeDomainVSWREnabled
- rsvna_ConfigureTraceStatisticalReference
- rsvna_ConfigureTraceStatisticalManualReferenceLevel
- rsvna_ConfigureTraceStatisticalManualReferencePhase
- rsvna_ConfigureTraceStatisticalReferenceMarker
- rsvna_ConfigureTraceStatisticalReferenceRange
- rsvna_ConfigureTraceStatisticalCompressionPhase
- rsvna_TraceDataExtrapolation
- rsvna_ConfigureLimitLineSegmentFormula
- rsvna_ConfigureLimitLineSegmentInterpolation
- rsvna_QueryLimitLineFailData
- rsvna_ConfigureMarkerReferenceFormat
- rsvna_ConfigureMarkerThreshold
- rsvna_ConfigureMarkerCoupledMarkers
- rsvna_ConfigureMarkerCouplingType
- rsvna_ConfigureMarkerExcursion
- rsvna_ConfigureMarkerMultiplePeakExcursion
- rsvna_ConfigureMarkerMultiplePeakThreshold
- rsvna_ConfigureSweepSegmentPortLevel
- rsvna_SelectCalibrationTypeSimple
- rsvna_ConfigureMulticalibrationType
- rsvna_ConfigureCalibrationAutoMinimumConnect
- rsvna_ConfigureCalibrationAutoCommonPort
- rsvna_CalibrationTerminateSystemErrorCorrection
- rsvna_CalibrationClean
- rsvna_ConfigureCalibrationWaveCorrectionEnabled

- rsvna_ConfigureCalibrationCalculateAfterDeembed
- rsvna_ConfigureCalibrationStandard
- rsvna_ConfigureSourcePowerFlatnessCalibrationState
- rsvna_ConfigureSourcePowerFlatnessCalibrationMethod
- rsvna_ConfigureSourcePowerCalibrationGeneratorMinimumSettlingDelay
- rsvna_ConfigureSourcePowerSweepEndMode
- rsvna_ConfigureSourcePowerSweepEndSettlingDelay
- rsvna_ConfigureReferenceReceiverEnabled
- rsvna_ConfigureGPIORange
- rsvna_QueryGPIOShunt
- rsvna_GPIOStartAllMeasurements
- rsvna_ConfigureGPIOMeasurementTime
- rsvna_QueryGPIOSum
- rsvna_GPIOCurrentMeasurement
- rsvna_GPIOCurrentMeasurementAll
- rsvna_GPIOVoltageMeasurement
- rsvna_GPIOVoltageMeasurementAll
- rsvna_ConfigureParallelMeasurementPortGroupsPortOrder
- rsvna_ConfigureParallelMeasurementPortGroupsWithFrequencyOffsetEnabled
- rsvna_QueryParallelMeasurementPortGroupsStateIndicationWarning
- rsvna_ConfigureFrequencyConversionMixer
- rsvna_ConfigureAGCAllAAndBWaves
- rsvna_ConfigureAGCSegmentAllAAndBWaves
- rsvna_LoadSingleEndedPortCircuitModelDataInverted
- rsvna_ConfigureVirtualNetworkGroundLoopPerPortGroup
- rsvna_ConfigureStartInPreset
- rsvna_ConfigureSetAllTracesto0
- rsvna_ConfigureUserPortOptionalColumns
- rsvna_ConfigureDisplayTitle
- rsvna_ConfigureDisplayNumberofTraceColours
- rsvna_QuerySystemSCPICommands
- rsvna_QueryImplementedSCPICommands
- rsvna_SystemHelpSyntax
- rsvna_ConfigureGPIBSupresses
- rsvna_ConfigureHostname
- rsvna_DisplayCorrectionWizardDialog
- rsvna_QueryExternalSwitchMatrices
- rsvna_QuerySwitchMatrixSerialNumber
- rsvna_SetAttributeViInt64
- rsvna_GetAttributeViInt64
- rsvna_SetAttributeRawString
- rsvna_GetAttributeRawString

* Updated:
- rsvna_ConfigureTraceFormat - Trace formats updated
- rsvna_AddLimitLineSegment - Bug fixed, segment parameter now reserved
- rsvna_ConfigureCircleLimitCheck - Ripple Check is now Circle Check
- rsvna_ConfigureMarkerProperties - Fixed Marker values, help updated
- rsvna_MarkerSearch - Search types updated
- rsvna_ConfigureAverageMode - Modes, help updated
- rsvna_ConfigureSweepMeasDelay - Delay range updated
- rsvna_ConfigureSweepType - Sweep Types updated
- rsvna_InsertNewSegment - Breaking: Parameters added
- rsvna_RedefineSegment - Breaking: Parameters added
- rsvna_ConfigureConnector - Connectors updated, ring value names and help corrected
- rsvna_ReadCalibrationData - Error Terms, helps updated
- rsvna_WriteCalibrationData - Error Terms, helps updated
- rsvna_ReadCalibrationDataPort - Error Terms, helps updated
- rsvna_WriteCalibrationDataPort - Error Terms, helps updated

- rsvna_ReadSwitchMatrixCalibrationData - Error Terms updated
- rsvna_WriteSwitchMatrixCalibrationData - Error Terms updated
- rsvna_ReadSwitchMatrixCalibrationDataPort - Error Terms updated
- rsvna_WriteSwitchMatrixCalibrationDataPort - Error Terms updated
- rsvna_QueryCalibrationDataParametersSpecific - Types updated
- rsvna_QueryCalibrationDataParametersPortSpecific - Types updated
- rsvna_DeleteCalibrationKit - Help updated
- rsvna_ConfigureCalibrationStandardWithLabel - Breaking: Many changes
- rsvna_DeleteCalibrationKitWithLabel - Help updated
- rsvna_QuerySourcePowerCalibrationDataParameters - Setting types, help updated
- rsvna_PowerMeterSavePowerLossList - Breaking: Channel parameter added
- rsvna_PowerMeterLoadPowerLossList - Breaking: Channel parameter added
- rsvna_ConfigureFrequencyConversionMeasurementMode - Modes updated; bug fixed
- rsvna_ConfigureAGCMode - Range table, default updated, parameter reserved
- rsvna_ConfigureAUXTriggerOut - Per Point parameter (bool) now Interval (int)
- rsvna_ConfigureVirtualNetworkSingleEndedPort - Ring value errors fixed
- rsvna_ConfigureVirtualNetworkBalancedData - Interchange values updated
- rsvna_ConfigureVirtualNetworkDifferentialMatchData - Helps
- rsvna_DiagramAreaCatalog - Window is now Reserved
- rsvna_ConfigureColorScheme - Schemes updated
- rsvna_ConfigureCalibrationAutoAveraging - Avaraging now Averaging
- rsvna_SetStatusRegister - Ring values now constants
- rsvna_GetStatusRegister - Ring values now constants
- rsvna_ConfigureSwitchMatrixState - Bug fixed, correctly resets Matrix repcap
- rsvna_SetOPCTimeout - Timeout control changed to ViInt32
- rsvna_GetOPCTimeout - Timeout control changed to ViInt32

Version 2.50.0 / 01 – 2019

- New core 3.x.x
- Added compatibility support for R&S ZNA Network Analyzer
* New
- rsvna_ConfigureAutoSystemErrQuery
- rsvna_ConfigureMultiThreadLocking
- rsvna_GetAttributeRepCapName
- rsvna_GetOPCTimeout
- rsvna_SetOPCTimeout

* Modified
- rsvna_ConfigureErrorChecking - changed API: added last parameter statusChecking

Version 2.42.0 / 01 – 2018

* Breaking Changes:
- Changed "Block Data" array parameter to content of a "Touchstone File":
  rsvna_ConfigureVirtualNetworkSingleEndedData
  rsvna_ConfigureVirtualNetworkBalancedData
  rsvna_ConfigureVirtualNetworkDifferentialMatchData

Version 2.41.0 / 11 – 2017

* Modified:
- rsvna_WriteFromFileToInstrument - fixed

- added rsvna_queryDataUnknownLengthString_ReadCallback:
  RSVNA_ATTR_FILE_RECALL_SET_CATALOG
  RSVNA_ATTR_TRACE_CHANNEL_CATALOG
  RSVNA_ATTR_TRACE_CHANNEL_CATALOG_BALANCED_PORTS
  RSVNA_ATTR_TRACE_CATALOG
  RSVNA_ATTR_TRACE_NAME_CATALOG
  RSVNA_ATTR_TRACE_RESPONSE_S_DATA_CATALOG
  RSVNA_ATTR_CALIBRATION_CONNECTOR_TYPE_CATALOG
  RSVNA_ATTR_CHANNEL_CATALOG
  RSVNA_ATTR_DISPLAY_DIAGRAM_AREA_CATALOG
  RSVNA_ATTR_DISPLAY_TRACE_DIAGRAM_AREA_CATALOG

Version 2.40.0 / 04 – 2017

* Analyzer port number extended from 8 to 24
* New:
- rsvna_TraceExportDataPortsVariable

* Breaking changes:
- rsvna_ConfigureCalibrationStandard - deleted, replacement is rsvna_ConfigureCalibrationStandardExt

Version 2.30.0 / 11 – 2016

* Added more rigorous check for Repeated Capabilities
* New:
- rsvna_ClearStatus
- rsvna_IDQueryResponse
- rsvna_ProcessAllPreviousCommands
- rsvna_QueryOPC
- rsvna_SetFastSweepMode
- rsvna_SetVISATimeout
- rsvna_GetVISATimeout
* Breaking Changes:
- rsvna_AddCalibrationKitAuto - added Timeout to API
- rsvna_CalibrationAutoSimplified - added Timeout to API
- rsvna_CalibrationAutoTypeSimplified - added Timeout to API
- rsvna_CalibrationAutoType - added Timeout to API
- rsvna_CalibrationAuto - added Timeout to API
- rsvna_ConfigureCalibrationKitAuto - added Timeout to API
* Modified:
- rsvna_SelectRatios - SCPI command parameters corrected for Ratios 2 (b2/a2 Src Port 2) and 3 (b1/a2 Src Port 2)
- rsvna_RecallSetManager - when loading Recall Set, dynamic repeated capabilities are synchronized with instrument's

Version 2.21.0 / 10 – 2015

* New:
- rsvna_SelectPowerSensorMeasurement
- rsvna_ConfigureFrequencyMinMax
- rsvna_ConfigureDisplayUpdate
- rsvna_DisplayUpdateOnce

- rsvna_ConfigureMarkerState
* Modified:
- rsvna_SelectRatios - SCPI command parameter array corrected
- Line 3 (MM) Standard SCPI command parameter (value 9) corrected in these functions:
  - rsvna_QueryCalibrationUnitCharacterizationData
  - rsvna_ConfigureCalibrationStandard
  - rsvna_ConfigureCalibrationStandardExt
  - rsvna_LoadCalibrationKit
  - rsvna_ConfigureCalibrationStandardWithLabel
  - rsvna_LoadCalibrationKitWithLabel
  - rsvna_ReadCalibrationKitWithLabelSParameterData

Version 2.20.2 / 01 – 2015

* Modified:
- rsvna_ActivatePowerCalibrations - added Channel parameter
- RSVNA_ATTR_CALIBRATION_CONNECTOR_TYPE_CATALOG - repeated capability 'Channel' removed
* Deleted:
- RSVNA_ATTR_SWEEP_SEGMENT_NUMBER duplicated, use RSVNA_ATTR_QUERY_SWEEP_SEGMENT_COUNT instead

Version 2.20.1 / 12 – 2014

* Added support for ZND instrument

Version 2.20.0 / 07 – 2014

* Support for firmware version 2.20
* New:
- rsvna_ConfigureLogicalPortReferenceImpedanceDefault
- rsvna_DeleteMemoryTraceAll
- rsvna_DeleteMemoryTraceAllChannel
- rsvna_ConfigureCalibrationStandardExt
- rsvna_ConfigureCalibrationDelayMode
- rsvna_LoadCalibrationKitWithLabel
- rsvna_ReadCalibrationKitWithLabelSParameterData
- rsvna_ConfigureRFFESettings
- rsvna_ConfigureRFFECommand
- rsvna_ConfigureGPIO
- rsvna_QuerySweepSequencerCount
- rsvna_DeleteAllSweepSequencerItems
- rsvna_ConfigureSweepSequencerRFFECommand
- rsvna_ConfigureSweepSequencerGPIOVoltage
- rsvna_ConfigureSweepSequencerDelayTime
- rsvna_DefineParallelMeasurementPortGroup
- rsvna_ConfigureParallelMeasurementPortGroupName
- rsvna_ConfigureParallelMeasurementNumberOfPorts
- rsvna_ConfigureParallelMeasurementDUTPort
- rsvna_ConfigureOffsetCompensation
- rsvna_DefineVirtualNetworkPortSet
- rsvna_ImportFixtureCompensation
- rsvna_ExportFixtureCompensation

- rsvna_ConfigureRemoteEncoding
- rsvna_QueryProgramReturnValue
* Modified:
- Removed range checking of attribute RSVNA_ATTR_STIMULUS_INTERNAL_SOURCE_POWER
- rsvna_TraceExportDataPorts - changed API
- rsvna_ConfigureCalibrationStandardWithLabel
- rsvna_ConfigureVirtualNetworkSingleEndedPort
- rsvna_ConfigureVirtualNetworkSingleEndedCircuitModel
- rsvna_ConfigureVirtualNetworkBalancedPort
- rsvna_ConfigureVirtualNetworkBalancedCircuitModel
- rsvna_ConfigureVirtualNetworkPortPair
- rsvna_ConfigureVirtualNetworkPortPairCircuitModel
- rsvna_ConfigureVirtualNetworkGroundLoop
- rsvna_ConfigureVirtualNetworkGroundLoopCircuitModel

Version 1.93.0 / 10 – 2013

* Support for firmware version 1.93
* New:
- rsvna_TraceImportDataAutoDistribute
- rsvna_QueryCalibrationDataParametersSpecific
- rsvna_QueryCalibrationDataParametersPortSpecific
- rsvna_QuerySourcePowerCalibrationDataParametersSwitchingMatrix
- rsvna_DefineVirtualNetworkPortPair
- rsvna_DeleteVirtualNetworkPortPair
- rsvna_ConfigureVirtualNetworkPortPairState
- rsvna_ConfigureVirtualNetworkPortPair
- rsvna_ConfigureVirtualNetworkPortPairCircuitModel
- rsvna_LoadPortPairCircuitModelData
- rsvna_ConfigureVirtualNetworkGroundLoopState
- rsvna_ConfigureVirtualNetworkGroundLoop
- rsvna_ConfigureVirtualNetworkGroundLoopCircuitModel
- rsvna_LoadGroundLoopCircuitModelData
- rsvna_ConfigureVirtualNetworkDifferentialMatchState
- rsvna_ConfigureVirtualNetworkDifferentialMatch
- rsvna_ConfigureVirtualNetworkDifferentialMatchData
- rsvna_ConfigureVirtualNetworkDifferentialMatchCircuitModel
- rsvna_LoadDifferentialMatchCircuitModelData
- rsvna_ConfigureRemotePreset
* Modified:
- rsvna_QuerySourcePowerCalibrationDataParameters

Version 1.90.0 / 08 – 2013

* Support for firmware version 1.90
* New:
- rsvna_SelectBalancedPortsSParameters
- rsvna_TraceListBalancedPorts
- rsvna_SelectCalibrationTypeExtended
- rsvna_LoadCalibrationKitByGenderFromFile
- rsvna_LoadCalibrationKitByGenderFromPool
- rsvna_QueryCalibrationKitData
- rsvna_QueryCalibrationKitInfo
- rsvna_ConfigureVirtualNetworkSingleEndedData
- rsvna_ConfigureVirtualNetworkBalancedData

- rsvna_QuerySwitchMatrixRelayCount
- rsvna_Configure User Defined Physical Port
- rsvna_DeleteUserDefinedPhysicalPorts
- RSVNA_ATTR_INIT_WAIT_STATE
- RSVNA_ATTR_LOGICAL_PORT_ALINGMENT
* Modified:
- rsvna_SelectCalibrationType
- rsvna_ConfigureVirtualNetworkSingleEndedPort
- rsvna_ConfigureSweepNumberOfPoints - range fixed

Version 1.80.0 / 03 – 2013

* Support for firmware version 1.80
* New:
- rsvna_ConfigureMarkerTargetFormat
- rsvna_GenerateDefaultCalibrationAutoAssignmentWithDetection
- rsvna_QueryAllCalibrationAutoAssignmentCount
- rsvna_AddCalibrationKitAuto
- rsvna_StartAGCLearningSweep
- rsvna_SaveAGCLearningResults
- rsvna_ConfigureUserDefinedPresetCalibration
- rsvna_ConfigureCalibrationAutoAveraging
* Modified:
- rsvna_GenerateDefaultCalibrationAutoAssignment
- rsvna_ConfigureVirtualNetworkSingleEndedPort
- rsvna_ConfigureVirtualNetworkSingleEndedCircuitModel
- RSVNA_ATTR_CALIBRATION_CONNECTOR – bug fixed (affected function rsvna_ConfigureConnector)

Version 1.70.0 / 12 – 2012

Support for firmware version 1.70

* New:
- Switch Matrix Support
- Calibration Auto Assignment support
- Logical Ports
- Port Groups
- rsvna_CreateTraceSParametersGroup
- rsvna_ConfigureTimeGateOffsetActivation
- rsvna_ClearLimitCheckResults
- rsvna_ClearRippleLimitGlobalCheckResult
- rsvna_ClearCircleLimitCheckResult
- rsvna_QuerySweepSegmentNumber
- rsvna_QueryCalibrationPortsState
- rsvna_ConfigurePortConnectorTypes
- rsvna_QueryCalibrationDataParametersCount
- rsvna_ConfigureExternalPowerSParameterCorrection
- rsvna_ConfigureCalibrationKitAuto
- rsvna_QuerySourcePowerCalibrationDataParameters
- rsvna_QuerySourcePowerCalibrationDataParametersCount
- rsvna_ConfigureReceiverPowerAttenuation
- rsvna_ConfigureReceiverFrequencyConversion
- rsvna_ConfigureMixerInputSignal
- rsvna_ConfigureCalibrationManagerState

- rsvna_ConfigureUIDataFlowDirection
- rsvna_ConfigureUIOutputPortsState
- rsvna_ConfigureUIDigitalSignal
* Modified:
- rsvna_DefineBalancedPort - calls into new function rsvna_DefineLogicalPort
- rsvna_DeleteBalancedPort - calls into new function rsvna_DeleteLogicalPort
- rsvna_DeleteAllBalancedPorts - calls into new function rsvna_DeleteAllLogicalPorts
- rsvna_SelectCalibrationType - added new calibration types
- rsvna_ConfigureMixerPower

Version 1.61.0 / 05 – 2012

Support for ZNB, ZNC firmware version 1.61

* New functions
- rsvna_ShowCircleLimits
- rsvna_ConfigureCircleLimitCheck
- rsvna_ConfigureCircleLimitLine
- rsvna_QueryCircleLimitCheckResult
- rsvna_ConfigureZoomOverview
- rsvna_ConfigureLayoutSimplified
- rsvna_ConfigureLayout
- rsvna_JoinLayouts
- rsvna_ConfigureCalibrationStandardWithLabels
- rsvna_ConfigureCalibrationKitWithLabel
- rsvna_ConfigureCalibrationKitUserConnectorTypeWithLabel
- rsvna_CalibrationKitCatalogWithLabel
- rsvna_CalibrationStandardsCatalogWithLabel
- rsvna_ConfigureCalibrationKitLabelWithLabel
- rsvna_DeleteCalibrationKitWithLabel
- rsvna_ExportKitWithLabel
- rsvna_QueryAvailableCalibrationDataCatalog
- rsvna_QueryAvailableCalibrationDataCatalogPort
- rsvna_ConfigureSweepMeasDelayInsertionPoint
- rsvna_ConfigureIntermodulationCalSourcePort
- rsvna_TemporaryDisableOption
* New Attribute only:
- RSVNA_ATTR_CIRCLE_FAIL_BEEP
- RSVNA_ATTR_DISPLAY_TRACE_INFO_STATE
- RSVNA_ATTR_ADJUST_TIME_GATE
* Modified functions:
- rsvna_ConfigureAGC
- rsvna_ConfigureAGCSegment

Version 1.50.0 / 04 – 2012

Support for ZNB, ZNC firmware version 1.50

Modifications:
* New subsystems:
- Mixer (option K4)
- Intermodulation Measurements (option K14)
- Fixture Compensation
- ENA support (AUX Trigger and Universal Interface)
- Automatic Gain Control

* Modified functions:
- rsvna_StartCalibration - added Power Meter
- rsvna_ConfigureMarkerBandfilterSearchMode - added None search mode
* New functions
- rsvna_QueryFrequencyRange
- rsvna_ConfigureAverageMode
- rsvna_ActivatePowerCalibrations
- rsvna_SystemVersion
- rsvna_setCheckStatus
- rsvna_ConfigureSplitType
- rsvna_ConfigureSplitGrid
*Fixed:
- rsvna_TraceListCatalog - fixed wrong attribute access that caused sending command with double question mark (RCDRV00001881)
- rsvna_ConfigureSourcePowerCalibrationGeneratorOffset - incorrect attribute used

Version 1.40.0 / 01 – 2012

Support for ZNB, ZNC firmware version 1.40

Modifications:
* New subsystems:
- Power Added Efficiency
- Source Power Calibration
- Reciever Power Calibration
- Power Meter Transmission Coefficients
- Port Config
- External Devices

* Modified functions:
- rsvna_ConfigureDCRange - parameters changed
- rsvna_ConfigureAcquisition
- attribute RSVNA_ATTR_SWEEP_MODE_CONTINUOUS_ALL_CHANNEL added
- rsvna_SelectCalibrationType - bug fixed
- rsvna_CalibrationAutoType - Parameters - Full N-port for SMARTerCal added
- rsvna_CalibrationAutoTypeSimplified - Parameters - Full N-port for SMARTerCal added
- rsvna_QueryCalibrationConnection - Channel ignored
- rsvna_ConfigureConnector - BNC added

* New functions:
- rsvna_TraceDeleteAll
- rsvna_TraceDeleteAllChannels
- rsvna_TraceResponseDataAllSData
- rsvna_TraceResponseSDataCatalog
- rsvna_TraceResponseSingleSweepDataFirstLast
- rsvna_ConfigurePowerStartStop
- rsvna_ConfigureSweepStimulusAxis
- rsvna_ConfigureSweepSegmentXAxis
- rsvna_CalibrationAutoPower
- rsvna_ConfigureCalibrationExternalPowerMeter
- rsvna_QueryCalibrationUnitCharacterizationsStandards
- rsvna_ReadCalibrationDataPort
- rsvna_WriteCalibrationDataPort
- rsvna_QueryCalibrationStimulusFrequenciesPort
- rsvna_QueryCalibrationDataParametersPort
- rsvna_ConfigureCalibrationKitPassword
- rsvna_SaveCalibrationKit

- rsvna_ConfigureTouchscreenLock
- rsvna_ConfigureUserKeyFunction

* New Attribute only:
- RSVNA_ATTR_LOAD_MATCH_CORRECTION_STATE
- RSVNA_ATTR_CALIBRATION_ALL_CHANNELS_STATE
- RSVNA_ATTR_DISPLAY_TRACE_COLOR_FOR_LIMIT_LINES
- RSVNA_ATTR_DISPLAY_COLORIZE_FAILED_SEGMENTS
- RSVNA_ATTR_DISPLAY_SHOW_FAILED_SYMBOLS
- RSVNA_ATTR_CALIBRATION_AUTOMATIC_POWER_REDUCTION
- RSVNA_ATTR_STATISTICAL_COMPRESSION_POINT_RESULT_STATE
- RSVNA_ATTR_DISPLAY_FREQUENCY_INFO_STATE
- RSVNA_ATTR_DISPLAY_CHANNEL_INFO_STATE
- RSVNA_ATTR_DISPLAY_ALL_MARKERS_SAME_COLOR
- RSVNA_ATTR_DISPLAY_TRACE_COLORS_PER_DIAGRAM
- RSVNA_ATTR_DISPLAY_FONT_SIZE
- RSVNA_ATTR_NUMBER_OF_TEST_PORTS
- RSVNA_ATTR_SOURCE_POWER_CALIBRATION_OTHER_SOURCES
- RSVNA_ATTR_CALIBRATION_AUTOMATIC_MEMORY_STATE
- RSVNA_ATTR_DISPLAY_HARDKEY_PANEL_STATE
- RSVNA_ATTR_DISPLAY_MENU_BAR_STATE
- RSVNA_ATTR_DISPLAY_STATUS_BAR_STATE
- RSVNA_ATTR_DISPLAY_SOFTTOOL_PANEL_STATE
- RSVNA_ATTR_DISPLAY_TITLE_BAR_STATE
- RSVNA_ATTR_DISPLAY_TOOLBAR_STATE
- RSVNA_ATTR_REPEAT_PREVIOUS_CALIBRATION_CURRENT

Version 1.20.0 / 07 – 2011

Support for ZNB, ZNC firmware version 1.20

Version 1.0.0 / 06 – 2011

Initial release

3 Getting Started

LabWindows/CVI driver

The Rohde & Schwarz **rsvna** 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:

- *rsvna.c + rsvna.h*
- *rsvna_attributes.c + rsvna_attributes.h*
- *rsvna_utility.c + rsvna_utility.h*
- *rscore.c + rscore.h*
- *rsvna_callbacks.c*
- *rsvna.fp + rsvna.sub*

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

The compiled source code from LabWindows/CVI driver is used. The compiled ANSI-C libraries exist for Windows 7 64-bit and newer.

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

- C:\Program Files\IVI Foundation\VISA\Win64\Include\rsvna.h
- C:\Program Files\IVI Foundation\VISA\Win64\Lib_x64\msc\rsvna64.lib (static)
- C:\Program Files\IVI Foundation\VISA\Win64\Bin\rsvna_64.dll (dynamic)
- C:\Program Files\IVI Foundation\VISA\Win64\rsvna\rsvna.fp (in CVI only)
- C:\Program Files\IVI Foundation\VISA\Win64\rsvna\rsvna.sub (in CVI only)

VXIplug&play driver in MATLAB

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

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

For more, refer to 1MA171 - How to use R&S instrument in MATLAB

Linux and Mac OS X

To be able to use Rohde & Schwarz **rsvna** Instrument driver in Linux or macOS, the functioning VISA is required. Check out R&S VISA for Linux or macOS.

Additional Help

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

C:\Program Files\IVI Foundation\VISA\Win64\rsvna\rsvna_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: