

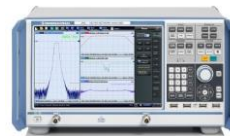
LabWindows/CVI, VXIppnp driver history for the R&S® Vector Network Analyzers Driver Documentation

Products:

| R&S®ZNA



| R&S®ZND



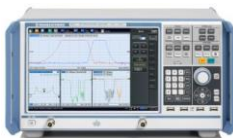
| R&S®ZNB



| R&S®ZNB1



| R&S®ZNC



Driver history for LabWindows/CVI and VXIplug&play Instrument Driver for C#, C/C++, Visual Basic .NET, VEE, etc.

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1 Supported Instruments

In the following table, the supported Rohde & Schwarz instruments and firmware versions are listed:

Which instruments are supported?		
Current revision of instrument driver supports these instruments and firmware versions:		
Instrument	Supported Firmware	Remarks
ZNA	2.30	
ZNB	3.30	
ZNC	2.94	
ZND	3.30	
ZNBT	3.30	

2 LabWindows/CVI and VXIplug&play history

rsvna Instrument Driver		
Driver history for LabWindows/CVI and VXIplug&play		
Revision	Date	Note
3.35.1	03/2022	<ul style="list-style-type: none"> * Bugfix - affected functions: - rsvna_TraceResponseData - rsvna_TraceResponseDataAll - rsvna_TraceResponseDataAllData - rsvna_TraceResponseDataAllSData - rsvna_ArbitraryTraceResponseData - rsvna_WriteMemoryTraceData
3.35.0	12/2021	<ul style="list-style-type: none"> * 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 Instrument Driver		
Driver history for LabWindows/CVI and VXIplug&play		
Revision	Date	Note
		<ul style="list-style-type: none"> - 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 Instrument Driver		
Driver history for LabWindows/CVI and VXIplug&play		
Revision	Date	Note
		<ul style="list-style-type: none"> - rsvna_ConfigureUserDefinedLedColor - rsvna_ConfigureRFOffBehavior - rsvna_ConfigureSystemPresetMode - rsvna_ConfigurePortPowerLimitEnabled - rsvna_ConfigureExternalGeneratorLimit <p>* Updated:</p> <ul style="list-style-type: none"> - 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 <p>* Deleted:</p> <ul style="list-style-type: none"> - rsvna_SetFastSweepMode
3.30.0	08/2021	<p>Update for ZNB FW 3.30</p> <p>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.</p> <p>* New:</p> <ul style="list-style-type: none"> - 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 Instrument Driver		
Driver history for LabWindows/CVI and VXIplug&play		
Revision	Date	Note
		<ul style="list-style-type: none"> - 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_ConfigureMETASCableActive - 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 Instrument Driver		
Driver history for LabWindows/CVI and VXIplug&play		
Revision	Date	Note
		<ul style="list-style-type: none"> - rsvna_QueryDeltaLFequencyListCount - rsvna_QueryDeltaLFequencyList - rsvna_DeltaLAddUserFrequency - rsvna_DeltaLDeleteUserFrequency - rsvna_DeltaLDeleteAllUserFrequencies - rsvna_ConfigureDeltaLSweepControl - rsvna_QueryDeltaLSweepControlConfiguration - rsvna_ConfigureDeltaLSweepRange - rsvna_ConfigureDeltaLUseRecommendedTraceConfigurationEnabled - rsvna_ConfigureDeltaLShowTDRImpedancesEnabled - 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 - rsvna_ConfigureHUMSSNMPCommunityStrings - rsvna_ConfigureHUMSSNMPSystemInfo - rsvna_QueryHUMSSNMPSystemInfo - rsvna_HUMSSNMPDefineUserProfile - rsvna_QueryHUMSSNMPUserList - rsvna_HUMSSNMPDeleteUser - rsvna_HUMSSNMPDeleteAllUsers - rsvna_HUMSTagDefineKeyValuePair - rsvna_QueryHUMSTagKeyValuePair - rsvna_QueryHUMSAllDeviceTags - rsvna_HUMSTagDelete - rsvna_HUMSTagDeleteAll - rsvna_HUMSUtilizationTrackingEnable

rsvna Instrument Driver		
Driver history for LabWindows/CVI and VXIplug&play		
Revision	Date	Note
		<ul style="list-style-type: none"> - rsvna_QueryHUMSDeviceStatusSummary - rsvna_QueryServiceCalibrationLastDate - rsvna_QueryServiceCalibrationDueDate - rsvna_QueryServiceCalibrationDueState - rsvna_QueryServiceCalibrationInterval - rsvna_QueryServiceLastServiceDate - rsvna_QueryServiceDueState - rsvna_ErrorCount <p>* Updated:</p> <ul style="list-style-type: none"> - 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_ConfigureSweepSequencerRFFCommand - 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 <p>* Deleted:</p> <ul style="list-style-type: none"> - rsvna_ConfigureTraceProbeTipImpedance - rsvna_QueryTraceProbeTipImpedance
3.11.1	04/2021	<ul style="list-style-type: none"> - New core 3.13.0 - Adding missing header file to the installers
3.11.0	08/2020	<ul style="list-style-type: none"> - New core 3.10.0 - "Port" repeated capability now permits up to 312 physical ports <p>* New:</p> <ul style="list-style-type: none"> - Infinite Averaging (Class) - Distance To Fault (Class) - Display (Class) - Test (Class) - By Port Group (Class) - Fixture Modeling (Class)

rsvna Instrument Driver		
Driver history for LabWindows/CVI and VXIplug&play		
Revision	Date	Note
		<ul style="list-style-type: none"> - 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

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Driver history for LabWindows/CVI and VXIplug&play		
Revision	Date	Note
		<ul style="list-style-type: none"> - 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_ConfigureAGCAIIAAndBWaves - rsvna_ConfigureAGCSegmentAIIAAndBWaves - 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 Instrument Driver		
Driver history for LabWindows/CVI and VXIplug&play		
Revision	Date	Note
		<ul style="list-style-type: none"> - rsvna_QueryExternalSwitchMatrices - rsvna_QuerySwitchMatrixSerialNumber - rsvna_SetAttributeVilnt64 - rsvna_GetAttributeVilnt64 - rsvna_SetAttributeRawString - rsvna_GetAttributeRawString <p>* Updated:</p> <ul style="list-style-type: none"> - 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 Instrument Driver		
Driver history for LabWindows/CVI and VXIplug&play		
Revision	Date	Note
		<ul style="list-style-type: none"> - 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 Vilnt32 - rsvna_GetOPCTimeout - Timeout control changed to Vilnt32
2.50.0	01/2019	<ul style="list-style-type: none"> - 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
2.42.0	01/2018	<ul style="list-style-type: none"> * Breaking Changes: - Changed "Block Data" array parameter to content of a "Touchstone File": <li style="padding-left: 20px;">rsvna_ConfigureVirtualNetworkSingleEndedData <li style="padding-left: 20px;">rsvna_ConfigureVirtualNetworkBalancedData <li style="padding-left: 20px;">rsvna_ConfigureVirtualNetworkDifferentialMatchData
2.41.0	12/2017	<ul style="list-style-type: none"> * Modified: - rsvna_WriteFromFileToInstrument - fixed - added rsvna_queryDataUnknownLengthString_ReadCallback: <li style="padding-left: 20px;">RSVNA_ATTR_FILE_RECALL_SET_CATALOG <li style="padding-left: 20px;">RSVNA_ATTR_TRACE_CHANNEL_CATALOG <li style="padding-left: 20px;">RSVNA_ATTR_TRACE_CHANNEL_CATALOG_BALANCED_PORTS <li style="padding-left: 20px;">RSVNA_ATTR_TRACE_CATALOG <li style="padding-left: 20px;">RSVNA_ATTR_TRACE_NAME_CATALOG <li style="padding-left: 20px;">RSVNA_ATTR_TRACE_RESPONSE_S_DATA_CATALOG <li style="padding-left: 20px;">RSVNA_ATTR_CALIBRATION_CONNECTOR_TYPE_CATALOG <li style="padding-left: 20px;">RSVNA_ATTR_CHANNEL_CATALOG <li style="padding-left: 20px;">RSVNA_ATTR_DISPLAY_DIAGRAM_AREA_CATALOG <li style="padding-left: 20px;">RSVNA_ATTR_DISPLAY_TRACE_DIAGRAM_AREA_CATALOG
2.40.0	04/2017	<ul style="list-style-type: none"> * Analyzer port number extended from 8 to 24 * New: - rsvna_TraceExportDataPortsVariable

rsvna Instrument Driver		
Driver history for LabWindows/CVI and VXIplug&play		
Revision	Date	Note
		<ul style="list-style-type: none"> * Breaking changes: - rsvna_ConfigureCalibrationStandard - deleted, replacement is rsvna_ConfigureCalibrationStandardExt
2.30.0	11/2016	<ul style="list-style-type: none"> * 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
2.21.0	10/2015	<ul style="list-style-type: none"> * 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_ReadCalibrationKitWithLabelSPParameterData

rsvna Instrument Driver		
Driver history for LabWindows/CVI and VXIplug&play		
Revision	Date	Note
2.20.2	01/2015	<ul style="list-style-type: none"> * 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
2.20.1	12/2014	<ul style="list-style-type: none"> * Added support for ZND instrument
2.20.0	07/2014	<ul style="list-style-type: none"> * Support for firmware version 2.20 * New: - rsvna_ConfigureLogicalPortReferenceImpedanceDefault - rsvna_DeleteMemoryTraceAll - rsvna_DeleteMemoryTraceAllChannel - rsvna_ConfigureCalibrationStandardExt - rsvna_ConfigureCalibrationDelayMode - rsvna_LoadCalibrationKitWithLabel - rsvna_ReadCalibrationKitWithLabelSParameterData - rsvna_ConfigureRFFESettings - rsvna_ConfigureRFFESettingsCommand - rsvna_ConfigureGPIO - rsvna_QuerySweepSequencerCount - rsvna_DeleteAllSweepSequencerItems - rsvna_ConfigureSweepSequencerRFFESettingsCommand - 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 Instrument Driver		
Driver history for LabWindows/CVI and VXIplug&play		
Revision	Date	Note
		<ul style="list-style-type: none"> - rsvna_ConfigureVirtualNetworkBalancedPort - rsvna_ConfigureVirtualNetworkBalancedCircuitModel - rsvna_ConfigureVirtualNetworkPortPair - rsvna_ConfigureVirtualNetworkPortPairCircuitModel - rsvna_ConfigureVirtualNetworkGroundLoop - rsvna_ConfigureVirtualNetworkGroundLoopCircuitModel <p>2013-10-18, Martin Krcmar</p> <ul style="list-style-type: none"> * Version 1.93.0 * Support for firmware version 1.93 * New: <ul style="list-style-type: none"> - 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 * Modified: <ul style="list-style-type: none"> - rsvna_QuerySourcePowerCalibrationDataParameters
1.93.0	10/2013	<ul style="list-style-type: none"> * Support for firmware version 1.93 * New: <ul style="list-style-type: none"> - rsvna_TraceImportDataAutoDistribute - rsvna_QueryCalibrationDataParametersSpecific - rsvna_QueryCalibrationDataParametersPortSpecific - rsvna_QuerySourcePowerCalibrationDataParametersSwitchingMatrix - rsvna_DefineVirtualNetworkPortPair

rsvna Instrument Driver		
Driver history for LabWindows/CVI and VXIplug&play		
Revision	Date	Note
		<ul style="list-style-type: none"> - 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
1.90.0	08/2013	<ul style="list-style-type: none"> * 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
1.80.0	03/2013	<ul style="list-style-type: none"> * Support for firmware version 1.80 * New: - rsvna_ConfigureMarkerTargetFormat - rsvna_GenerateDefaultCalibrationAutoAssignmentWithDetection

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		<ul style="list-style-type: none"> - 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)
1.70.0	12/2012	<p>Support for firmware version 1.70</p> <p>* New:</p> <ul style="list-style-type: none"> - 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 <p>* Modified:</p> <ul style="list-style-type: none"> - rsvna_DefineBalancedPort - calls into new function rsvna_DefineLogicalPort

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		<ul style="list-style-type: none"> - rsvna_DeleteBalancedPort - calls into new function rsvna_DeleteLogicalPort - rsvna_DeleteAllBalancedPorts - calls into new function rsvna_DeleteAllLogicalPorts - rsvna_SelectCalibrationType - added new calibration types - rsvna_ConfigureMixerPower
1.61.0	05/2012	<p>Support for ZNB, ZNC firmware version 1.61</p> <p>* New functions</p> <ul style="list-style-type: none"> - 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 <p>* New Attribute only:</p> <ul style="list-style-type: none"> - RSVNA_ATTR_CIRCLE_FAIL_BEEP - RSVNA_ATTR_DISPLAY_TRACE_INFO_STATE - RSVNA_ATTR_ADJUST_TIME_GATE <p>* Modified functions:</p> <ul style="list-style-type: none"> - rsvna_ConfigureAGC - rsvna_ConfigureAGCsegment
1.50.0	04/2012	<p>Support for ZNB, ZNC firmware version 1.50</p> <p>Modifications:</p> <p>* New subsystems:</p> <ul style="list-style-type: none"> - Mixer (option K4) - Intermodulation Measurements (option K14)

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Revision	Date	Note
		<ul style="list-style-type: none"> - Fixture Compensation - ENA support (AUX Trigger and Universal Interface) - Automatic Gain Control * Modified functions: <ul style="list-style-type: none"> - rsvna_StartCalibration - added Power Meter - rsvna_ConfigureMarkerBandfilterSearchMode - added None search mode * New functions <ul style="list-style-type: none"> - rsvna_QueryFrequencyRange - rsvna_ConfigureAverageMode - rsvna_ActivatePowerCalibrations - rsvna_SystemVersion - rsvna_setCheckStatus - rsvna_ConfigureSplitType - rsvna_ConfigureSplitGrid *Fixed: <ul style="list-style-type: none"> - rsvna_TraceListCatalog - fixed wrong attribute access that caused sending command with double question mark (RCDRV00001881) - rsvna_ConfigureSourcePowerCalibrationGeneratorOffset - incorrect attribute used
1.40.0	01/2012	<p>Support for ZNB, ZNC firmware version 1.40</p> <p>Modifications:</p> <ul style="list-style-type: none"> * New subsystems: <ul style="list-style-type: none"> - Power Added Efficiency - Source Power Calibration - Receiver Power Calibration - Power Meter Transmission Coefficients - Port Config - External Devices * Modified functions: <ul style="list-style-type: none"> - 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: <ul style="list-style-type: none"> - rsvna_TraceDeleteAll

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		<ul style="list-style-type: none"> - 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 <p>* New Attribute only:</p> <ul style="list-style-type: none"> - 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

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Revision	Date	Note
		- RSVNA_ATTR_REPEAT_PREVIOUS_CALIBRATION_CURRENT
1.20.0	07/2011	Support for ZNB, ZNC firmware version 1.20
1.0.0	06/2011	Initial release

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Regional contact

USA & Canada

USA: 1-888-TEST-RSA (1-888-837-8772)

from outside USA: +1 410 910 7800

CustomerSupport@rohde-schwarz.com

East Asia

+65 65 13 04 88

CustomerSupport@rohde-schwarz.com

Rest of the World

+49 89 4129 123 45

CustomerSupport@rohde-schwarz.com

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Rohde & Schwarz GmbH & Co. KG

Mühlendorfstraße 15 | D - 81671 München

Phone + 49 89 4129 - 0 | Fax + 49 89 4129 - 13777

www.rohde-schwarz.com