

History and release notes for the Rohde&Schwarz Vector Network Analyzers ZVB, ZVA and the Multiport Vector Network Analyzer ZVT

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ZVB/ZVA/ZVT driver history		
Revision	Date	Note
2.30.1	05/2008	<p>- Release for ZVB/ZVT/ZVA Firmware 2.30</p> <p>Modified functions (frequency/offset range checking removed):</p> <ul style="list-style-type: none"> rszvb_SetStartFrequency rszvb_SetStopFrequency rszvb_SetCenterFrequency rszvb_SetFrequencySpan rszvb_SetCWFrequency rszvb_InsertNewSegment rszvb_RedefineSegment rszvb_SetSweepSegmentStartFrequency rszvb_SetSweepSegmentStopFrequency rszvb_SetFrequencyConversion rszvb_SetPowerMeterFrequencyConversion rszvb_SetGeneratorFrequencyConversion
2.30	12/2007	<p>- Release for ZVB/ZVT/ZVA Firmware 2.20</p> <p>New functions:</p> <ul style="list-style-type: none"> rszvb_ChannelTraceExportData rszvb_ChannelTraceExportDataWithOptions rszvb_SetRippleCheckOn rszvb_GetRippleCheckOn rszvb_GetRippleLimitGlobalCheckResult rszvb_SetCheckRippleLimitRangeSegment rszvb_GetCheckRippleLimitRangeSegment rszvb_GetRippleLimitCheckSegmentResult rszvb_SetRippleLimitsDisplayState rszvb_GetRippleLimitsDisplayState rszvb_SetRippleFailBeepOn rszvb_GetRippleFailBeepOn rszvb_AddRippleLimitLineRangesSegment rszvb_EditRippleLimitLineSegment rszvb_DeleteAllRippleLimitRanges rszvb_SetRippleLimitPhysicalUnits rszvb_SetRippleLimitResponseDomainFormatUnits rszvb_GetNumberRippleLimitRanges rszvb_SetRippleLimitRange rszvb_GetRippleLimitRange rszvb_SaveRecallRippleLimit rszvb_SetSourceCombinerState rszvb_GetSourceCombinerState rszvb_DeleteAllCalibrationData rszvb_CalibrationAutoType rszvb_CalibrationAutoTypeSimplified rszvb_AdditionalDirectoryCalibrationKit rszvb_DiagramAreaName rszvb_DiagramAreaCatalog rszvb_TraceDiagramAreaCatalog rszvb_AutoZeroingExternalPowerMeter rszvb_SetAutoConfigNRPZxx rszvb_GetAutoConfigNRPZxx <p>Modified functions (panel control corrected):</p> <ul style="list-style-type: none"> rszvb_SetAlarmSoundsState rszvb_SetStatusSoundsState rszvb_SetErrorDisplayState

ZVB/ZVA/ZVT driver history

Revision	Date	Note
		rszvb_SetAverageFactor fixed
2.20	10/2007	<p>- Release for ZVB/ZVT/ZVA Firmware 2.20</p> <p>New functions:</p> <ul style="list-style-type: none"> rszvb_TraceAssignWindowDiagramArea rszvb_TraceGetChannelName rszvb_TraceGetChannelNumber rszvb_SetTimeDomainTransformationResolutionEfactor rszvb_GetTimeDomainTransformationResolutionEfactor rszvb_SetTDIFSourcePowerMode rszvb_GetTDIFSourcePowerMode rszvb_SetTDIFCompensationState rszvb_GetTDIFCompensationState rszvb_GeneratorPowerCalibrationHarmonic rszvb_SetSourcePowerCalibrationState rszvb_GetSourcePowerCalibrationState rszvb_SetReferenceReceiverCalibrationState rszvb_GetReferenceReceiverCalibrationState rszvb_ReceiverPowerCalibrationHarmonic rszvb_SetFrequencyConversionType rszvb_GetFrequencyConversionType rszvb_SetFrequencyConversionSource rszvb_GetFrequencyConversionSource <p>Modified functions:</p> <ul style="list-style-type: none"> rszvb_GetDisplayUpdate rszvb_TraceStatisticalEvaluation
2.10.1	04/2007	<p>- Release for ZVB/ZVT/ZVA Firmware 2.10</p> <p>New functions:</p> <ul style="list-style-type: none"> rszvb_SetUserDefinedPresetState rszvb_GetUserDefinedPresetState rszvb_SetUserDefinedPresetFile rszvb_GetUserDefinedPresetFile rszvb_setCheckOption <p>Modified functions:</p> <ul style="list-style-type: none"> rszvb_checkOption
2.10.0	03/2007	<p>- Driver update for ZVB/ZVT/ZVA Firmware 2.10</p> <p>New functions:</p> <ul style="list-style-type: none"> rszvb_SelectPowerMeter rszvb_ChannelGetChannelName rszvb_ChannelGetChannelNumber rszvb_ChannelSetActive rszvb_ChannelGetActive rszvb_ChannelRename rszvb_TraceGetTraceNumber rszvb_TraceGetTraceName rszvb_TraceSetRGBColor rszvb_TraceGetRGBColor rszvb_SetAutomaticLevelControlState rszvb_GetAutomaticLevelControlState rszvb_QueryVerificationSweepResults rszvb_SetTDIFState rszvb_GetTDIFState rszvb_SetTDIFAmplitudeImbalanceLogicalPort

ZVB/ZVA/ZVT driver history

Revision	Date	Note
		rszvb_GetTDIFAmplitudeImbalanceLogicalPort rszvb_SetTDIFAmplitudeImbalanceStartPower rszvb_GetTDIFAmplitudeImbalanceStartPower rszvb_SetTDIFAmplitudeImbalanceStopPower rszvb_GetTDIFAmplitudeImbalanceStopPower rszvb_SetTDIFPhaseImbalanceLogicalPort rszvb_GetTDIFPhaseImbalanceLogicalPort rszvb_SetTDIFPhaseImbalanceStartPhase rszvb_GetTDIFPhaseImbalanceStartPhase rszvb_SetTDIFPhaseImbalanceStopPhase rszvb_GetTDIFPhaseImbalanceStopPhase rszvb_TraceListCatalog Modified functions: rszvb_ChannelAddTrace rszvb_TraceAssignDiagramArea rszvb_SetDisplayResultsState rszvb_GetDisplayResultsState rszvb_TraceStatisticalEvaluation rszvb_SetSweepType rszvb_GetSweepType
2.02.0	01/2007	- Driver update for ZVB/ZVT/ZVA Firmware 2.02 New functions: rszvb_SetTraceScaleDivisionsByName rszvb_SetTraceRefValueByName rszvb_SetTraceRefPositionByName rszvb_TraceRename rszvb_ChannelTraceRename rszvb_setTimeout rszvb_getTimeout Modified functions: rszvb_ChannelAdd Modified Front Panel help for functions: rszvb_RFSourceCalibration rszvb_IFReceiverCalibration rszvb_LOSourceCalibration rszvb_AcquireSourcePowerCalibration rszvb_InitiateSourcePowerCalibration rszvb_SetVerificationSweepState rszvb_GetVerificationSweepState rszvb_AcquireReceiverPowerCalibration rszvb_SetCalibrationDataCurrentState rszvb_GetCalibrationDataCurrentState rszvb_SetCalibrationDataDefaultState rszvb_GetCalibrationDataDefaultState rszvb_StartCalibration
2.00.2	01/2007	Readded to the header file rszvb_ConfigureSourcePowerCalibration rszvb_ConfigureReceiverPowerCalibration
2.00.1	01/2007	Front Panel Name fixed for function Auto Length And Loss Modified functions: rszvb_TraceResponseDataZVR rszvb_TraceStimulusDataZVR rszvb_TraceResponseDataSParameterGroup Modified Front Panel help for functions: rszvb_SetCalibrationPowerGeneratorOffset rszvb_GetCalibrationPowerGeneratorOffset

ZVB/ZVA/ZVT driver history

Revision	Date	Note
2.00.00	12/2006	<p>- Driver update for ZVB/ZVT/ZVA Firmware 2.00</p> <p>New functions:</p> <ul style="list-style-type: none"> rszvb_TraceAutoscaleByName rszvb_TraceAddSParameterGroup rszvb_QueryTraceAddSParameterGroup rszvb_SetTimeGateDisplayState rszvb_GetTimeGateDisplayState rszvb_SetDisplayResultsState rszvb_GetDisplayResultsState rszvb_SetTraceFormatZVR rszvb_GetTraceFormatZVR rszvb_TraceResponseDataZVR rszvb_TraceStimulusDataZVR rszvb_TraceResponseDataSParameterGroup rszvb_TraceExportDataWithOptions rszvb_MarkerdBBandwidthZVR rszvb_MarkerBandfilterResultsZVR rszvb_SetMarkerSearchResultState rszvb_GetMarkerSearchResultState rszvb_RecallLimitLineWithOptions rszvb_SetGeneratorStepAttenuators rszvb_GetGeneratorStepAttenuators rszvb_SetAutomaticGeneratorAttenuator rszvb_GetAutomaticGeneratorAttenuator rszvb_SetMeasBandwidthSelectivity rszvb_GetMeasBandwidthSelectivity rszvb_SetPulseTimeStart rszvb_GetPulseTimeStart rszvb_SetPulseTimeStop rszvb_GetPulseTimeStop rszvb_SetPulseTimeBandwidth rszvb_GetPulseTimeBandwidth rszvb_SetPulseCoupledSectionLimitLinesState rszvb_GetPulseCoupledSectionLimitLinesState rszvb_SetPulseEvaluationMode rszvb_GetPulseEvaluationMode rszvb_SetPulseEvaluationSectionStart rszvb_GetPulseEvaluationSectionStart rszvb_SetPulseEvaluationSectionStop rszvb_GetPulseEvaluationSectionStop rszvb_SetPulseSectionLimitLinesState rszvb_GetPulseSectionLimitLinesState rszvb_SetPulseShiftStimulus rszvb_GetPulseShiftStimulus rszvb_SetFrequencyStimulus rszvb_GetFrequencyStimulus rszvb_SetPowerStimulus rszvb_GetPowerStimulus rszvb_SetUserConnector rszvb_GetUserConnector rszvb_SetCalibrationPowerGeneratorOffset rszvb_GetCalibrationPowerGeneratorOffset rszvb_SetCalibrationKitUserConnectorType rszvb_GetCalibrationKitUserConnectorType rszvb_ConfigureLoss rszvb_SetLossAtDC rszvb_GetLossAtDC

ZVB/ZVA/ZVT driver history

Revision	Date	Note
		rszvb_SetLossAtFrequency rszvb_GetLossAtFrequency rszvb_SetLossReferenceFrequency rszvb_GetLossReferenceFrequency rszvb_AutoLengthAndLoss rszvb_SetDataTransfer rszvb_GetDataTransfer rszvb_SetErrorDisplayState rszvb_GetErrorDisplayState Modified functions: rszvb_TraceAutoscale rszvb_SetSweepType rszvb_GetSweepType rszvb_StartCalibration rszvb_setStatusRegister rszvb_getStatusRegister rszvb_GetCalibrationState rszvb_defaultInstrSetup
1.90.0	06/2006	- Driver update for ZVB/ZVT/ZVA Firmware 1.90 New functions: rszvb_checkModel rszvb_TraceResponseDataError rszvb_SetTimeGateShape rszvb_GetTimeGateShape rszvb_SetTimeGateSpan rszvb_GetTimeGateSpan rszvb_SetSAWSimulationType rszvb_GetSAWSimulationType rszvb_SetLimitResponseDomainComplexUnits rszvb_SetLimitResponseDomainFormatUnits rszvb_SetLimitResponseDomainSpacingUnits rszvb_SetLimitDomainUnits rszvb_GetReferenceMarkerResponse rszvb_SetTraceMathFunction rszvb_GetTraceMathFunction rszvb_SetTraceMathWaveQuantityState rszvb_GetTraceMathWaveQuantityState rszvb_SetTraceCompressionValue rszvb_GetTraceCompressionValue rszvb_GetTraceCompressionPoint rszvb_SetTraceTransformConversion rszvb_GetTraceTransformConversion rszvb_SetVirtualTransformBalancedPort rszvb_GetVirtualTransformBalancedPort rszvb_SetVirtualTransformBalancedState rszvb_GetVirtualTransformBalancedState rszvb_SetVirtualTransformBalancedCircuitModel rszvb_GetVirtualTransformBalancedCircuitModel rszvb_LoadBalancedPortCircuitModelData rszvb_SetVirtualTransformSingleEndedPort rszvb_GetVirtualTransformSingleEndedPort rszvb_SetVirtualTransformSingleEndedState rszvb_GetVirtualTransformSingleEndedState rszvb_SetVirtualTransformSingleEndedCircuitModel rszvb_GetVirtualTransformSingleEndedCircuitModel rszvb_LoadSingleEndedPortCircuitModelData

ZVB/ZVA/ZVT driver history

Revision	Date	Note
		<p>rszvb_SetMarkerColorState rszvb_GetMarkerColorState rszvb_SetRGBColor rszvb_GetRGBColor rszvb_SetTraceColorState rszvb_GetTraceColorState rszvb_LoadColorScheme rszvb_SaveColorScheme rszvb_SetTraceBottom rszvb_GetTraceBottom rszvb_SetTraceTop rszvb_GetTraceTop rszvb_LoadCalibrationKit rszvb_ImportKit rszvb_ExportKit rszvb_SetSweepSegmentSelectivity rszvb_GetSweepSegmentSelectivity rszvb_LoadSegment rszvb_SaveSegment rszvb_QueryOverlappingSweepSegments rszvb_SaveAllMarkers rszvb_SetCalibrationConnector rszvb_GetCalibrationConnector rszvb_DeleteCalibrationConnector rszvb_SetCalibrationDataCurrentState rszvb_GetCalibrationDataCurrentState rszvb_SetCalibrationDataDefaultState rszvb_GetCalibrationDataDefaultState rszvb_CalibrationAutoSimplified rszvb_GetCalibrationConnection rszvb_GenerateDefaultCalibrationData rszvb_SetFactoryCalibrationState rszvb_GetFactoryCalibrationState rszvb_SetFrequencyConversion rszvb_GetFrequencyConversion rszvb_SetMeasureAWavesState rszvb_GetMeasureAWavesState rszvb_SetLocalOscillatorAState rszvb_GetLocalOscillatorAState rszvb_SetLocalOscillatorBState rszvb_GetLocalOscillatorBState rszvb_SetLogicalPortCommonRefImpedance rszvb_GetLogicalPortCommonRefImpedance rszvb_SetLogicalPortDifferentialRefImpedance rszvb_GetLogicalPortDifferentialRefImpedance rszvb_SetPhysicalPortRefImpedance rszvb_GetPhysicalPortRefImpedance rszvb_SetIFGain rszvb_GetIFGain rszvb_SetRFSignalSourceState rszvb_GetRFSignalSourceState rszvb_SetPermanentSignalSourceState rszvb_GetPermanentSignalSourceState rszvb_SetSlope rszvb_GetSlope rszvb_SetLowPhaseNoiseState rszvb_GetLowPhaseNoiseState</p>

ZVB/ZVA/ZVT driver history

Revision	Date	Note
		rszvb_SetReferenceFrequency rszvb_GetReferenceFrequency rszvb_SetSourcePort rszvb_GetSourcePort rszvb_SetFrequencyStepSize rszvb_GetFrequencyStepSize rszvb_SetReceiverStepAttenuators rszvb_GetReceiverStepAttenuators rszvb_SetAlarmSoundsState rszvb_GetAlarmSoundsState rszvb_SetStatusSoundsState rszvb_GetStatusSoundsState rszvb_DeleteMemoryTrace rszvb_AcquireReceiverPowerCalibration Fixed functions: rszvb_ConfigureMechanicalLength rszvb_TraceResponseData rszvb_ResetOffsets rszvb_QueryResetOffsets rszvb_GetPortPowerOffset Removed from the Front Panel: rszvb_ConfigureReceiverPowerCalibration
1.4.2	04/2006	Modifications: New functions: rszvb_AcquireSourcePowerCalibration Fixed functions: rszvb_ReadSourcePowerCorrectionData rszvb_SetFundamentalPowerSignal rszvb_GetFundamentalPowerSignal rszvb_SetFixedPower rszvb_GetFixedPower rszvb_SetTimeGateState rszvb_GetTimeGateState rszvb_QueryExternalGenerator rszvb_QueryExternalPowerMeter rszvb_SetCalibrationPowerOffset rszvb_GetCalibrationPowerOffset rszvb_ModifySourcePowerCalibrationSettings rszvb_ConfigureSourcePowerCalibration Removed from the Front Panel: rszvb_ConfigureSourcePowerCalibration
1.4.1	04/2006	Modifications: Fixed functions: rszvb_ModifySourcePowerCalibrationSettings rszvb_GetCalibrationPowerOffset rszvb_SetAWaveReceiverPowerCalibrationState rszvb_GetAWaveReceiverPowerCalibrationState
1.4	04/2006	Modifications: Mixer Mode Measurement added Power Calibration added New functions: rszvb_SetCorrectionState rszvb_GetCorrectionState

ZVB/ZVA/ZVT driver history

Revision	Date	Note
		rszvb_SetSourcePowerCorrectionState rszvb_GetSourcePowerCorrectionState rszvb_SetReceiverPowerCorrectionState rszvb_GetReceiverPowerCorrectionState rszvb_ConfigureExternalGenerator rszvb_QueryExternalGenerator rszvb_DeleteExternalGenerator rszvb_ConfigureExternalPowerMeter rszvb_QueryExternalPowerMeter rszvb_DeleteExternalPowerMeter
1.3	03/2006	Modifications: - ZVA support added New functions: rszvb_GetCalibrationType rszvb_ExpCharDataTouchstoneFile rszvb_GetCalibrationDate rszvb_GetCalibrationState rszvb_GetCalibrationDataParameters rszvb_SaveCalibrationKit rszvb_SystemKeylock rszvb_SetSoftKeyLabel rszvb_GetPressedSoftKey rszvb_SetActiveCalibrationUnit rszvb_GetActiveCalibrationUnit rszvb_GetAllCalibrationUnits rszvb_ConfigureCalibrationUnitStandard Modified functions: rszvb_SetTimeDomainTransformationType
1.2	07/2005	Modifications: Fixed functions: - rszvb_SelectCalibrationType - fixed string concatenation - rszvb_StartCalibration - fixed port2 range checking Added new function - rszvb_CalibrationAutoEx with user defined timeout Added new harmonic measurement functions: - rszvb_ConfigureHarmonicMeasurement - rszvb_SetHarmonicMeasurementState - rszvb_GetHarmonicMeasurementState - rszvb_SetHarmonicOrder - rszvb_GetHarmonicOrder - rszvb_SetHarmonicSourcePort - rszvb_GetHarmonicSourcePort - rszvb_SetHarmonicReceivePort - rszvb_GetHarmonicReceivePort - rszvb_SetHarmonicRelativeState
1.1	04/2005	Modifications: Driver update for Time Domain Measurement and ZVT support Port checking fixed in many functions. New Functions: - rszvb_SelectMoreRatiosWithDetector - rszvb_SelectMoreWaveQuantitiesWithDetector - rszvb_SetTraceTransformDomain - rszvb_GetTraceTransformDomain

ZVB/ZVA/ZVT driver history

Revision	Date	Note
		<ul style="list-style-type: none"> - rszvb_SetTimeDomainStartTime - rszvb_GetTimeDomainStartTime - rszvb_SetTimeDomainStopTime - rszvb_GetTimeDomainStopTime - rszvb_SetTimeDomainCenterTime - rszvb_GetTimeDomainCenterTime - rszvb_SetTimeDomainTimeSpan - rszvb_GetTimeDomainTimeSpan - rszvb_SetTimeDomainTimeAxisScaling - rszvb_GetTimeDomainTimeAxisScaling - rszvb_SetTimeDomainTransformationType - rszvb_GetTimeDomainTransformationType - rszvb_SetTimeDomainTransformationFilter - rszvb_GetTimeDomainTransformationFilter - rszvb_SetTimeDomainTransformationSidebandSuppression - rszvb_GetTimeDomainTransformationSidebandSuppression - rszvb_SetHarmonicGridAndKeep - rszvb_SetDCValue - rszvb_GetDCValue - rszvb_ExtrapolateDCValue - rszvb_SetContinuousExtrapolation - rszvb_GetContinuousExtrapolation - rszvb_CalculateHarmonicGrid - rszvb_SetTimeGateState - rszvb_GetTimeGateState - rszvb_SetTimeGateStartTime - rszvb_GetTimeGateStartTime - rszvb_SetTimeGateStopTime - rszvb_GetTimeGateStopTime - rszvb_SetTimeGateCenterTime - rszvb_GetTimeGateCenterTime - rszvb_SetTimeGateType - rszvb_GetTimeGateType - rszvb_SetTimeGateFilter - rszvb_GetTimeGateFilter - rszvb_SetTimeGateSidebandSuppression - rszvb_GetTimeGateSidebandSuppression
1.0	10/2004	Created.

Supported interfaces

The current revision of instrument driver supports interfaces:

- IEEE 488.2 (IEC-625, GPIB)
- RSIB
- VXI-11

LabWindows/CVI

CVI Version

Use National Instruments LabWindows/CVI 6 or later.

Additional Help

The LabWindows/CVI instrument driver consists of a ZIP archive containing the driver sources. In addition, the instrument driver documentation is also included in compressed HTML format (Windows CHM help file) and stored together with the driver sources.

VXIplug&play Instrument Driver for VEE, C++, C#, Visual Basic, Visual Basic .NET etc.

C#

A wrapper is necessary to enable a direct access to the driver DLL.
The rszvb.cs wrapper for C# is automatically installed in the ~VXIpnP\WinNt\include directory.

Visual Basic .NET

A wrapper is necessary to enable a direct access to the driver DLL.
The rszvb.vb wrapper for .NET is automatically installed in the ~VXIpnP\WinNt\include directory.
See the Visual Basic .NET examples.

VEE Version

Use VEE 6 or later.

Additional Help

In addition, the instrument driver documentation is also included in compressed HTML format (Windows CHM help file) and stored together with the driver sources in the ~VXIpnP\WinNT\rszvb directory.

Additional Information

For more information regarding the VXIPnP instrument drivers, please read the readme.txt file that comes with each driver.

Linux

Drivers for Linux are available - Please contact Rohde & Schwarz Customer Support Center

Driver Manual and Instrument's Operating Manual

The R&S ZVB/ZVT/ZVA driver and instrument's operating manuals comprise a comprehensive **info** and **help system**. To merge the helps it is necessary to copy the Instrument's Operating Manual for R&S ZVB (rszvbhelp.chm)/ZVT (rszvthelp.chm) / ZVA (rszvahelp.chm) to the folder of the driver Manual (rszvb.chm).

ZVB:

Download the Compressed Online Help for R&S ZVB (rszvbhelp.chm) from:
<http://www.rohde-schwarz.com/downloads/help/zvb.html>

ZVT:

Download the Compressed Online Help for R&S ZVT (rszvthelp.chm) from:
<http://www.rohde-schwarz.com/downloads/help/zvt.html>

ZVA:

Download the Compressed Online Help for R&S ZVA (rszvahelp.chm) from:
<http://www.rohde-schwarz.com/downloads/help/zva.html>

After copying the driver help contains the instrument help.

