

IVI.NET driver history for the R&S® SMA100B RF and Microwave Analog Signal Generator

Products:

| R&S®SMA100B



| R&S®SMB100B



Driver history for IVI.NET - C#, Visual Basic .NET

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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?		
Current revision of instrument driver supports these instruments and firmware versions:		
Instrument	Supported Firmware	Remarks
SMA100B	4.70	
SMB100B	4.70	

2 IVI.NET driver history

RsSmx Instrument Driver		
Driver history for C#, Visual Basic .NET		
Revision	Date	Note
4.70.0	05/2021	<ul style="list-style-type: none"> * Aligned version of the driver with the version of the instrument firmware * Added support for firmware version 4.70 * New core 3.0.0 * New properties/methods: <ul style="list-style-type: none"> - RsSmx.RFSignal.RFLevelSettings.RangeMin - RsSmx.RFSignal.RFLevelSettings.RangeMax - RsSmx.RFSignal.RFLevelSettings.RFALCSettings.ALCMode - RsSmx.RFSignal.AnalogModulations.ChirpModulation.State - RsSmx.RFSignal.AnalogModulations.ChirpModulation.Bandwidth - RsSmx.RFSignal.AnalogModulations.ChirpModulation.CompressionRatio - RsSmx.RFSignal.AnalogModulations.ChirpModulation.Direction - RsSmx.RFSignal.AnalogModulations.ChirpModulation.PulsePeriod - RsSmx.RFSignal.AnalogModulations.ChirpModulation.PulseWidth - RsSmx.RFSignal.AnalogModulations.ChirpModulation.ChirpModulationTriggerMode - RsSmx.RFSignal.AnalogModulations.ChirpModulation.ExecuteSingleTrigger - RsSmx.RFSignal.SweepMode.RFCombinedSweep.ExecuteSingleSweep - RsSmx.RFSignal.SweepMode.RFCombinedSweep.Mode - RsSmx.RFSignal.SweepMode.RFCombinedSweep.TriggerSource - RsSmx.RFSignal.SweepMode.RFCombinedSweep.Retrace - RsSmx.RFSignal.SweepMode.RFCombinedSweep.Shape - RsSmx.RFSignal.SweepMode.RFCombinedSweep.DwellTime - RsSmx.RFSignal.SweepMode.RFCombinedSweep.FrequencyStart - RsSmx.RFSignal.SweepMode.RFCombinedSweep.FrequencyStop - RsSmx.RFSignal.SweepMode.RFCombinedSweep.PowerStart - RsSmx.RFSignal.SweepMode.RFCombinedSweep.PowerStop - RsSmx.RFSignal.SweepMode.RFCombinedSweep.StepCount - RsSmx.PowerMeasurement.PowerSensorMapping.AddLANSensor - RsSmx.PowerMeasurement.PowerSensorMapping.AddUSBSENSORAttribute - RsSmx.PowerMeasurement.PowerSensorMapping.AddUSBSENSOR() - RsSmx.PowerMeasurement.PowerSensorMapping.RemoveLANSENSORS - RsSmx.PowerMeasurement.PowerSensorMapping.RemoveUSBSENSORS - RsSmx.PowerMeasurement.PowerSensorMapping.RemoveAll - RsSmx.GeneralInstrumentSettings.SystemSubsystem.SystemError.Oldest - RsSmx.UtilityFunctions.QueryOPC() - RsSmx.UtilityFunctions.InstrumentOptions() - RsSmx.UtilityFunctions.HasOptionInstalled()

RsSmx Instrument Driver		
Driver history for C#, Visual Basic .NET		
Revision	Date	Note
		<p>* Modified properties/methods:</p> <ul style="list-style-type: none"> - RsSmx.RFSignal.RFLevelSettings.VariationStep - new range: <0;200> - RsSmx.RFSignal.RFPhaseSettings.DeltaPhase - new range: <-36000;36000> - RsSmx.RFSignal.AnalogModulations.PulseModulation.PulseModulationTrain.Catalog - Return type is now IEnumerable - RsSmx.RFSignal.SweepMode.RFFrequencySweep.GeneralSettings.DwellTime - new range: <0.001;100> - RsSmx.RFSignal.SweepMode.LFFrequencySweep.GeneralSettings.DwellTime - Changed default value - RsSmx.RFSignal.SweepMode.LFFrequencySweep.FrequencyRange.StepLog - new range: <0.01;100> - RsSmx.RFSignal.SweepMode.RFLevelSweep.LevelRange.Step - new range: <0.01;139> - RsSmx.RFSignal.ListMode.DataSettings.Catalog - Return type is now IEnumerable - RsSmx.RFSignal.ListMode.ImportExport.Catalog - Return type is now IEnumerable - RsSmx.RFSignal.RFUserCorrectionData.Catalog - Data type changed from ReadOnlyCollection to IEnumerable - RsSmx.RFSignal.RFUserCorrectionData.DataExchange.Catalog - Return type is now IEnumerable - RsSmx.RFSignal.AvionicStandards.VOR.General.SettingsCatalog - Return type is now IEnumerable - RsSmx.RFSignal.AvionicStandards.ILS.General.SettingsCatalog - Return type is now IEnumerable - RsSmx.RFSignal.AvionicStandards.ADF.General.SettingsCatalog - Return type is now IEnumerable - RsSmx.ClockSynthesis.Frequency - Range table removed - RsSmx.PowerMeasurement.PowerFilter.FilterLength - new range: <1;65536> - RsSmx.GeneralInstrumentSettings.Diagnostic.ModuleNames - Return type is now IEnumerable - RsSmx.GeneralInstrumentSettings.Diagnostic.TestPoints - Return type is now IEnumerable - RsSmx.GeneralInstrumentSettings.Display.DisplayUpdate - Changed SCPI command - RsSmx.GeneralInstrumentSettings.SystemSubsystem.AllDataSheets - Return type is now IEnumerable - RsSmx.GeneralInstrumentSettings.SystemSubsystem.DataSheetVersion - Changed to R/W - RsSmx.GeneralInstrumentSettings.SystemSubsystem.DataSheetIDs - Return type is now IEnumerable - RsSmx.GeneralInstrumentSettings.SystemSubsystem.TimeZoneCatalog - Return type is now IEnumerable <p>* Deleted properties/methods:</p> <ul style="list-style-type: none"> - RsSmx.UtilityFunctions.QueryOPC - replaced with a method of the same name <p>* Modified Range Tables:</p> <ul style="list-style-type: none"> - RFFrequencyMode - RSSMX_ATTR_RF_FREQUENCY_MODE New items: Combined
1.3.1	02/2021	<p>* New core 2.13.0</p> <p>* Fixed setting of initial VISA Timeout which previously led to VISA timeout error in the driver constructor.</p>
1.3.0	01/2021	<p>* New core 2.12.0 – there is only one universal driver assembly compiled for AnyCPU. You can use it</p>

RsSmx Instrument Driver		
Driver history for C#, Visual Basic .NET		
Revision	Date	Note
		for 32-bit, 64-bit, or AnyCPU builds.
1.2.0.0	06/2019	<ul style="list-style-type: none"> * Added support for firmware version 4.60 * New subsystems: <ul style="list-style-type: none"> - Avionic - Power Analysis * New properties/methods: <ul style="list-style-type: none"> - RsSmx.RFSignal.RFFrequencySettings.PhaseContinuity.Enabled - RsSmx.RFSignal.RFFrequencySettings.PhaseContinuity.Mode - RsSmx.RFSignal.RFFrequencySettings.PhaseContinuity.Max - RsSmx.RFSignal.RFFrequencySettings.PhaseContinuity.Min - RsSmx.RFSignal.AnalogModulations.AmplitudeModulation.Mode - RsSmx.RFSignal.AnalogModulations.AmplitudeModulation.AMType - RsSmx.RFSignal.AnalogModulations.AmplitudeModulation.DeviationMode - RsSmx.RFSignal.AnalogModulations.AmplitudeModulation.AMDepthTotal - RsSmx.RFSignal.AnalogModulations.AmplitudeModulation.Path.DepthLinear - RsSmx.RFSignal.AnalogModulations.AmplitudeModulation.Path.DepthExponential - RsSmx.RFSignal.AnalogModulations.AmplitudeModulation.Path.SensitivityExponential - RsSmx.RFSignal.AnalogModulations.AmplitudeModulation.Path.SensitivityLinear - RsSmx.RFSignal.AnalogModulations.FrequencyModulation.DeviationMode - RsSmx.RFSignal.AnalogModulations.FrequencyModulation.DeviationTotal - RsSmx.RFSignal.AnalogModulations.PhaseModulation.DeviationMode - RsSmx.RFSignal.AnalogModulations.PhaseModulation.DeviationTotal - RsSmx.RFSignal.AnalogModulations.PulseModulation.PulseGenerator.TriggerPulseGenerator - RsSmx.RFSignal.SweepMode.SweepType - RsSmx.RFSignal.SweepMode.RFFrequencySweep.GeneralSettings.Time - RsSmx.RFSignal.SweepMode.LFFrequencySweep.GeneralSettings.TriggerLFFrequencySweepAuto - RsSmx.RFSignal.SweepMode.Output.VoltageMode - RsSmx.RFSignal.SweepMode.Output.MarkerMode - RsSmx.RFSignal.SweepMode.MarkerSettings.Polarity - RsSmx.RFSignal.SweepMode.MarkerSettings.ActiveMarker - RsSmx.RFSignal.SweepMode.MarkerSettings.Markers.Enabled - RsSmx.RFSignal.SweepMode.MarkerSettings.Markers.Frequency - RsSmx.ReferenceOscillator.NominalSynchronizationBandwidth - RsSmx.ReferenceOscillator.MinimumLockingRange - RsSmx.PowerMeasurement.PowerSensorMapping.Mapping() - RsSmx.GeneralInstrumentSettings.SaveImmediate() - RsSmx.GeneralInstrumentSettings.RecallImmediate() - RsSmx.GeneralInstrumentSettings.Calibration.Information - RsSmx.GeneralInstrumentSettings.Calibration.TimeSinceLastFullAdjustment - RsSmx.GeneralInstrumentSettings.SystemSubsystem.DeleteTemporaryFiles

RsSmx Instrument Driver		
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		<ul style="list-style-type: none"> - RsSmx.GeneralInstrumentSettings.SystemSubsystem.NTPEnabled - RsSmx.GeneralInstrumentSettings.SystemSubsystem.NTPAddress - RsSmx.System.ReadBytes() - RsSmx.System.ReadString() - RsSmx.System.WriteBytes() - RsSmx.System.WriteString() - RsSmx.System.IOTimeout <p>* Modified properties/methods:</p> <ul style="list-style-type: none"> - RsSmx.RFSignal.RFLevelSettings.SettingCharacteristics - Added to range table - High Dyn. Uninterrupted - RsSmx.RFSignal.RFLevelSettings.VariationStep - new range: <0;200> - RsSmx.RFSignal.RFPhaseSettings.DeltaPhase - new range: <-36000;36000> - RsSmx.RFSignal.SweepMode.TriggerSourceForAllSweeps - Added EAUTO - RsSmx.RFSignal.SweepMode.LFFrequencySweep.GeneralSettings.DwellTime - Changed default value - RsSmx.RFSignal.SweepMode.RFLevelSweep.LevelRange.Step - new range: <0.01;139> - RsSmx.PowerMeasurement.PowerFilter.FilterLength - new range: <1;65536> - RsSmx.GeneralInstrumentSettings.Display.DisplayUpdate - Changed SCPI command - RsSmx.GeneralInstrumentSettings.SystemSubsystem.DataSheetVersion - Changed to R/W <p>* Modified Range Tables:</p> <ul style="list-style-type: none"> - RsSmx_rngPowerFilterLength - RSSMX_ATTR_POWER_FILTER_LENGTH Range changed to <1;65536> - TriggerSourceForAllSweeps - RSSMX_ATTR_TRIGGER_SOURCE_FOR_ALL_SWEEPS New items: ExternalAuto - RsSmx_rngRFDeltaPhase - RSSMX_ATTR_RF_DELTA_PHASE Range changed to <-36000;36000> - RsSmx_rngRFLevelVariationStep - RSSMX_ATTR_RF_LEVEL_VARIATION_STEP Range changed to <0.0;200.0> - RsSmx_rngLevelStep - RSSMX_ATTR_RF_LEVEL_SWEEP_STEP Range changed to <0.01;139.00> - RFLevelSettingCharacteristics - RSSMX_ATTR_RF_LEVEL_SETTING_CHARACTERISTICS New items: HighDynUninterrupted
1.1.0.0	05/2018	<p>* New attribute:</p> <ul style="list-style-type: none"> - RsSmx.RFSignal.AnalogModulations.PulseModulation.PulseGenerator.ModeDouble <p>* Modified:</p> <ul style="list-style-type: none"> - RsSmx.RFSignal.RFLevelSettings.RFALCSettings.ALCEEnabled - "Off" value added (for backward compatibility)
1.0.0.0	11/2017	Initial Release

About Rohde & Schwarz

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- Continuous improvement in environmental sustainability
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Regional contact

Europe, Africa, Middle East

+49 89 4129 12345

customersupport@rohde-schwarz.com

North America

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

customer.support@rsa.rohde-schwarz.com

Latin America

+1-410-910-7988

customersupport.la@rohde-schwarz.com

Asia/Pacific

+65 65 13 04 88

customersupport.asia@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