

IVI.NET driver history for the R&S® FPL1000 Spectrum Analyzer

Products:

| R&S® FPL1000



| R&S® ZNL (Option B1)



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
FPL1000	1.90	
ZNL (Option B1)	1.35	

2 IVI.NET driver history

RsFpl Instrument Driver		
Driver history for C#, Visual Basic .NET		
Revision	Date	Note
1.90.0	08/2025	<ul style="list-style-type: none"> * Support for FPL FW 1.90 * Updated core to version 3.5.0 * New classes and interfaces: <ul style="list-style-type: none"> - RsFplAnalogDemodulationConfiguration and IRsFplAnalogDemodulationConfiguration added at RsFpl.AnalogDemodulation.Configuration - RsFplAnalogDemodulationResultsRange and IRsFplAnalogDemodulationResultsRange added at RsFpl.AnalogDemodulation.Results.Range - RsFplPhaseNoiseWindowTraceSubwindow and IRsFplPhaseNoiseWindowTraceSubwindow added at RsFpl.PhaseNoise.Configuration.Window.Trace.Subwindow * New properties/methods: <ul style="list-style-type: none"> - RsFpl.VerticalAxis.Scaling.Subwindow.ReferenceLevelPosition - RsFpl.VerticalAxis.Scaling.Subwindow.YRange - RsFpl.VerticalAxis.Scaling.Subwindow.GridSpacing - RsFpl.Frequency.AnnotationMode - RsFpl.Sweep.TypeMode - RsFpl.Sweep.FFTSubspan - RsFpl.Marker.Windows.Markers.Setup.LinkToAnotherDeltaMarker(int, bool) - RsFpl.Marker.Windows.DeltaMarkers.Setup.LinkToAnotherDeltaMarker(int, bool) - RsFpl.Trace.Windows.Traces.Subwindow.Mode - RsFpl.Display.Windows.Layout.WindowType - RsFpl.NoiseFigure.NoiseSource.Calibration.SmartSerialNumber - RsFpl.NoiseFigure.NoiseSource.Measurement.SmartSerialNumber - RsFpl.NoiseFigure.DUT.FrequencyConfig.FrequencyTable.QueryNoiseData(out double[], out double[], out double[]) - RsFpl.AnalogDemodulation.Demodulation.Demod.ZeroPhaseReferencePositionMode - RsFpl.AnalogDemodulation.Results.Summary.Windows.Traces.ResultDistortion - RsFpl.SettingsAndResultsManagement.ItemsToStore.Instrument.SourceCalibrationData - RsFpl.SettingsAndResultsManagement.ItemsToStore.Channel.SourceCalibrationData - RsFpl.System.QueryOPC() - RsFpl.System.QueryOPC(int) - RsFpl.System.InstrumentOptions() - RsFpl.System.HasOptionInstalled(string) * Modified properties/methods: <ul style="list-style-type: none"> - RsFpl.DataInputOutput.PowerSensor.Measurement.FrequencyCoupling - Parameter fixed - RsFpl.DataInputOutput.PowerSensor.Measurement.AbsolutePowerUnit - Parameters updated

RsFpl Instrument Driver		
Driver history for C#, Visual Basic .NET		
Revision	Date	Note
		<ul style="list-style-type: none"> - RsFpl.AutoAdjust.ManualLengthOfMeasurement - Command updated - RsFpl.AutoAdjust.LengthOfMeasurementMode - Command updated - RsFpl.Marker.Windows.Markers.PeakList.MaximumNumberOfPeaks - Range updated - RsFpl.Marker.Windows.Markers.MarkerDemodulation.Mode - Added values - RsFpl.Trace.Windows.AverageMode - Parameters updated - RsFpl.Trace.Windows.Traces.Detector - Parameters updated - RsFpl.Measurement.SpectrumEmissionMask.MultiSEMSubblocks.SweepListFastSEMEnabled - Help updated - RsFpl.Measurement.ListEvaluations.Define(bool, bool, bool, TriggerSource, PosNeg, double, double) - Trigger sources updated - RsFpl.Measurement.PulsePower.ConfigureAndInitiate(double, double, double, TriggerSource, double, double, PulsePowerDetector, int) - Trigger sources updated - RsFpl.Measurement.PulsePower.ConfigureAndInitiateSynchronized(double, double, double, TriggerSource, double, double, PulsePowerDetector, int) - Trigger sources updated - RsFpl.Measurement.PulsePower.ConfigureAndRead(double, double, double, TriggerSource, double, double, PulsePowerDetector, int) - Trigger sources updated - RsFpl.Limit.Lines.Units - Added values - RsFpl.IQAnalyzer.DataAcquisition.ConfigureIQSettings(double, TriggerSource, PosNeg, int, int) - Trigger sources updated - RsFpl.NoiseFigure.NoiseSource.Calibration.NoiseSource - Smart source added - RsFpl.NoiseFigure.NoiseSource.Measurement.NoiseSource - Smart source added - RsFpl.NoiseFigure.DUT.FrequencyConfig.FrequencyTable.Data(double[]) - Help updated - RsFpl.AnalogDemodulation.DataAcquisition.ConfigureDemodulator(double, int, TriggerSource, PosNeg, int, int) - Trigger sources updated - RsFpl.AnalogDemodulation.Results.Trace.ConfigureTrace(ADEMEvaluationMethod, ADEMTraceMode[]) - Added command - RsFpl.AnalogDemodulation.Results.Trace.ReadTrace(ADEMEvaluationMethod, ADEMTraceMode) - Added command - RsFpl.EMIMeasurement.VNetwork.Type - Parameters updated - RsFpl.VSA.Configuration.DigitalStandards.StandardPreset - Command updated - RsFpl.VSA.Configuration.SignalDescription.Structure.BurstMaxLength - New range: 0 to 128000 - RsFpl.VSA.Configuration.SignalDescription.Structure.RunIn - New range: 0 to 31990 - RsFpl.VSA.Configuration.ResultRange.Window.Trace.SymbolNumberAtReferenceStart - New range: -100000 to 100000 - RsFpl.VSA.Analysis.ModulationAccuracyLimitLines.EVM.PeakPeakResult - Command updated - RsFpl.VSA.Analysis.ModulationAccuracyLimitLines.FrequencyError.PeakCurrentResult - Command updated - RsFpl.PhaseNoise.Configuration.Window.Trace.Subwindow.YAxisAutoScaleOnce - - Added subwindow - RsFpl.PhaseNoise.Configuration.Window.Trace.Subwindow.PhaseNoiseYAxisTop - - Added subwindow - RsFpl.SettingsAndResultsManagement.DataStorageAndLoading.Delete(string) - Help updated - RsFpl.SettingsAndResultsManagement.DataStorageAndLoading.Delete - Command updated - RsFpl.SettingsAndResultsManagement.Screenshots.Printer.FileFormat - Removed WMF and EWMF values

RsFpl Instrument Driver		
Driver history for C#, Visual Basic .NET		
Revision	Date	Note
		<ul style="list-style-type: none"> - RsFpl.System.WriteCommandWithOPCSync(string, int?) - Timeout changed to nullable data type - RsFpl.System.QueryWithOPCSync(string, int?) - Timeout changed to nullable data type <p>* New Repeated Capabilities:</p> <ul style="list-style-type: none"> - DeltaMarker - DM1, DM2, DM3, DM4, DM5, DM6, DM7, DM8, DM9, DM10, DM11, DM12, DM13, DM14, DM15, DM16 <p>* Deleted properties/methods:</p> <ul style="list-style-type: none"> - RsFpl.VerticalAxis.Scaling.YRange - use RsFpl.VerticalAxis.Scaling.Subwindow.YRange - RsFpl.VerticalAxis.Scaling.GridSpacing - use RsFpl.VerticalAxis.Scaling.Subwindow.GridSpacing - RsFpl.VerticalAxis.Scaling.ReferenceLevelPosition - use RsFpl.VerticalAxis.Scaling.Subwindow.ReferenceLevelPosition - RsFpl.Trigger.RepetitionInterval - RsFpl.Trace.Windows.Traces.Mode - use RsFpl.Trace.Windows.Traces.Subwindow.Mode - RsFpl.NoiseFigure.DUT.FixedIFFrequency - RsFpl.AnalogDemodulation.Results.Summary.QueryFMCarrierOffset(ADEMSummaryResultType) - RsFpl.System.QueryOPC - use RsFpl.System.QueryOPC() or RsFpl.System.QueryOPC(int) <p>* Modified Range Tables:</p> <ul style="list-style-type: none"> - TraceAverageMode - RSFPL_ATTR_TRACE_AVERAGE_MODE Deleted items: Video - ROSCSource.External - RSFPL_ATTR_GENERAL_REFERENCE_OSCILLATOR_SOURCE Help changed ("", "The external reference from the [REF INPUT 10 MHZ] connector is used; if none is available, an error flag is displayed in the status bar") - LimitLineUnit.dBm - RSFPL_ATTR_LIMIT_LINE_UNITS Help changed ("", " ") - LimitLineUnit.V - RSFPL_ATTR_LIMIT_LINE_UNITS Help changed ("", " ") - LimitLineUnit.A - RSFPL_ATTR_LIMIT_LINE_UNITS Command changed ("AMP", "A") - LimitLineUnit.A - RSFPL_ATTR_LIMIT_LINE_UNITS Help changed ("", " ") - LimitLineUnit.W - RSFPL_ATTR_LIMIT_LINE_UNITS Help changed ("", " ") - LimitLineUnit.dBpW - RSFPL_ATTR_LIMIT_LINE_UNITS Help changed ("", " ") - LimitLineUnit.dBuV - RSFPL_ATTR_LIMIT_LINE_UNITS Help changed ("", " ") - LimitLineUnit.dBmV - RSFPL_ATTR_LIMIT_LINE_UNITS Help changed ("", " ") - LimitLineUnit.dBuA - RSFPL_ATTR_LIMIT_LINE_UNITS Help changed ("", " ")

RsFpl Instrument Driver		
Driver history for C#, Visual Basic .NET		
Revision	Date	Note
		<ul style="list-style-type: none"> - LimitLineUnit.dB - RSFPL_ATTR_LIMIT_LINE_UNITS Help changed ("", " ") - LimitLineUnit - RSFPL_ATTR_LIMIT_LINE_UNITS New items: dBmMHz, dBmVMHz, dBuVMMHz, dBuAMMHz, dBpWMHz, dBpTMHz, dBpT - DemodulationMode - RSFPL_ATTR_MARKER_DEMODULATION_MODE New items: PM, AC, Audio - HcopyFileFormat - RSFPL_ATTR_HCOPY_FILE_FORMAT Deleted items: WMF, EWMF - ADEMMode.Maxhold - RSFPL_ATTR_ADEM_AM_RELATIVE_DEMODULATION_RESULT_MODE, RSFPL_ATTR_ADEM_FM_RELATIVE_DEMODULATION_RESULT_MODE, RSFPL_ATTR_ADEM_PM_RELATIVE_DEMODULATION_RESULT_MODE Help changed ("The maximum value is determined over several sweeps and displayed. The R&S FPL1000 saves each result only if the new value is greater than the previous one.", "The maximum value is determined over several sweeps and displayed. The R&S FPL1000 saves each result only if the new value is greater than the previous one.") - ADEMEvaluationMethod - New items: AMAbsSpectrum, AFSpectrum, ACVTimedomain
1.70.0	03/2021	<ul style="list-style-type: none"> * Support for FPL FW 1.70 * Updated core to version 2.14.1 - Added Phase Noise subsystem * New properties/methods: <ul style="list-style-type: none"> - RsFpl.DataInputOutput.PowerSensor.Measurement.SensorLevelOffset - RsFpl.DataInputOutput.InternalGenerator.State - RsFpl.DataInputOutput.InternalGenerator.TrackingGeneratorState - RsFpl.DataInputOutput.InternalGenerator.PowerMode - RsFpl.DataInputOutput.InternalGenerator.Level - RsFpl.DataInputOutput.InternalGenerator.LevelOffset - RsFpl.DataInputOutput.InternalGenerator.CWFrequency - RsFpl.DataInputOutput.InternalGenerator.FrequencyOffset - RsFpl.DataInputOutput.InternalGenerator.CalibrationMethod - RsFpl.DataInputOutput.InternalGenerator.HiddenInternalGeneratorInitiateCalibration - RsFpl.DataInputOutput.InternalGenerator.CalibrateTransmission() - RsFpl.DataInputOutput.InternalGenerator.CalibrateReflection() - RsFpl.DataInputOutput.InternalGenerator.SaveCalibrationSettings() - RsFpl.DataInputOutput.InternalGenerator.QueryCalibrationSaveFilePath() - RsFpl.DataInputOutput.InternalGenerator.SaveAsTransducerFactor - RsFpl.DataInputOutput.InternalGenerator.LevelStart - RsFpl.DataInputOutput.InternalGenerator.LevelStop - RsFpl.DataInputOutput.Output.LoudspeakerMute - RsFpl.VerticalAxis.Scaling.Subwindow.ReferenceValue

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		<ul style="list-style-type: none"> - RsFpl.Marker.Windows.Markers.Setup.ZoomFactor - RsFpl.Trace.Windows.Traces.DisplayWindowPresetTraces - RsFpl.Trace.Windows.Traces.Subwindow.PresetTraces - RsFpl.Measurement.CompressionPoints.Enabled - RsFpl.Measurement.CompressionPoints.ReferenceMode - RsFpl.Measurement.CompressionPoints.ReferenceValue - RsFpl.Measurement.CompressionPoints.dB1PointEnabled - RsFpl.Measurement.CompressionPoints.dB3PointEnabled - RsFpl.Measurement.CompressionPoints.dBNPointEnabled - RsFpl.Measurement.CompressionPoints.CompressionPointMeasurementNdBPointValue - RsFpl.Measurement.CompressionPoints.Query1dBResult() - RsFpl.Measurement.CompressionPoints.Query3dBResult() - RsFpl.Measurement.CompressionPoints.QueryNdBResult() - RsFpl.Measurement.CompressionPoints.Raw.dB1Result - RsFpl.Measurement.CompressionPoints.Raw.dB3Result - RsFpl.Measurement.CompressionPoints.Raw.dBNResult - RsFpl.Measurement.SpectrumEmissionMask.MultiSEMSubblocks.SweepListSymmetricalSetupEnabled - RsFpl.Measurement.ThirdOrderIntercept.ResultMaximum - RsFpl.Measurement.ThirdOrderIntercept.ResultMinimum - RsFpl.Measurement.ListEvaluations.ConfigureAndInitiate() - RsFpl.Measurement.ListEvaluations.ConfigureAndInitiateSynchronized() - RsFpl.Display.Windows.SetFocus - RsFpl.Display.Windows.Subwindow.SetFocus - RsFpl.Display.Windows.DisplayLines.Vertical.Power.Enabled - RsFpl.Display.Windows.DisplayLines.Vertical.Power.Position - RsFpl.IQAnalyzer.Results.ImportExport.SelectIQDataFileRawString - RsFpl.IQAnalyzer.Results.ImportExport.SelectIQDataFile() - RsFpl.NoiseFigure.DUT.FrequencyConfig.FrequencyTable.QueryTableDataRaw - RsFpl.NoiseFigure.DUT.FrequencyConfig.FrequencyTable.QueryTableData() - RsFpl.NoiseFigure.Uncertainty.NoiseFigureUncertainty - RsFpl.NoiseFigure.Uncertainty.MeasSource.OutputMatchVSWR - RsFpl.NoiseFigure.Uncertainty.MeasSource.OutputMatchReturnLoss - RsFpl.NoiseFigure.Uncertainty.MeasSource.ENRUncertainty - RsFpl.NoiseFigure.Uncertainty.MeasSource.ResistorColdUncertainty - RsFpl.NoiseFigure.Uncertainty.MeasSource.ResistorHotUncertainty - RsFpl.NoiseFigure.Uncertainty.CalSource.SameSourceForMeasAndCalEnabled - RsFpl.NoiseFigure.Uncertainty.CalSource.OutputMatchVSWR - RsFpl.NoiseFigure.Uncertainty.CalSource.OutputMatchReturnLoss - RsFpl.NoiseFigure.Uncertainty.CalSource.ENRUncertainty - RsFpl.NoiseFigure.Uncertainty.CalSource.ResistorColdUncertainty

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		<ul style="list-style-type: none"> - RsFpl.NoiseFigure.Uncertainty.CalSource.ResistorHotUncertainty - RsFpl.NoiseFigure.Uncertainty.DUT.InputMatchVSWR - RsFpl.NoiseFigure.Uncertainty.DUT.InputMatchReturnLoss - RsFpl.NoiseFigure.Uncertainty.DUT.OutputMatchVSWR - RsFpl.NoiseFigure.Uncertainty.DUT.OutputMatchReturnLoss - RsFpl.NoiseFigure.Uncertainty.DUT.UseMeasurementValuesEnabled - RsFpl.NoiseFigure.Uncertainty.DUT.NoiseFigure - RsFpl.NoiseFigure.Uncertainty.DUT.Gain - RsFpl.NoiseFigure.Uncertainty.DUT.Frequency - RsFpl.NoiseFigure.Uncertainty.Analyzer.GainUncertainty - RsFpl.NoiseFigure.Uncertainty.Analyzer.NoiseFigureUncertainty - RsFpl.NoiseFigure.Uncertainty.Preamp.Enabled - RsFpl.NoiseFigure.Uncertainty.Preamp.PreampNoiseFigure - RsFpl.NoiseFigure.Uncertainty.Preamp.Gain - RsFpl.NoiseFigure.Uncertainty.Preamp.VSWR - RsFpl.NoiseFigure.Uncertainty.Preamp.ReturnLoss - RsFpl.VSA.Configuration.SignalDescription.Frame.APSKNState - RsFpl.VSA.Configuration.SignalDescription.Frame.ASKNState - RsFpl.VSA.Configuration.Window.MeasurementDirty - RsFpl.VSA.Measurement.Results.CurrentBER - RsFpl.VSA.Measurement.Results.BitErrorRate() - RsFpl.VSA.Measurement.Results.BurstandPattern.Marker.ToStartOfSelectedResultRange - RsFpl.VSA.Measurement.Results.BurstandPattern.Marker.DeltaToStartOfSelectedResultRange - RsFpl.VSA.Measurement.Results.BurstandPattern.CaptureNumberOfBursts - RsFpl.VSA.Measurement.Results.BurstandPattern.CaptureNumberOfPatterns - RsFpl.VSA.Measurement.Results.BurstandPattern.CurrentRangeBurstLength - RsFpl.VSA.Measurement.Results.BurstandPattern.CurrentRangeBurstPresent - RsFpl.VSA.Measurement.Results.BurstandPattern.CurrentRangeBurstStart - RsFpl.VSA.Measurement.Results.BurstandPattern.CurrentRangePatternConfidence - RsFpl.VSA.Measurement.Results.BurstandPattern.CurrentRangePatternCorrect - RsFpl.VSA.Measurement.Results.BurstandPattern.CurrentRangePatternPresent - RsFpl.VSA.Measurement.Results.BurstandPattern.VSADSPCurrentRangePatternStart - RsFpl.SettingsAndResultsManagement.DataStorageAndLoading.XValueDistribution - RsFpl.SettingsAndResultsManagement.Screenshots.Mode - RsFpl.SettingsAndResultsManagement.TestReports.Templates.PageFormat - RsFpl.SettingsAndResultsManagement.TestReports.Templates.PrinterFriendlyColorsEnabled - RsFpl.SettingsAndResultsManagement.TestReports.Templates.IncludeDate - RsFpl.SettingsAndResultsManagement.TestReports.Templates.IncludePageCount - RsFpl.SettingsAndResultsManagement.TestReports.Templates.RawDataStorage - RsFpl.SettingsAndResultsManagement.TestReports.Templates.HeaderLine.Title - RsFpl.SettingsAndResultsManagement.TestReports.Templates.HeaderLine.Value

RsFpl Instrument Driver		
Driver history for C#, Visual Basic .NET		
Revision	Date	Note
		<ul style="list-style-type: none"> - RsFpl.SettingsAndResultsManagement.TestReports.Templates.HeaderLine.Visibility - RsFpl.SettingsAndResultsManagement.TestReports.Templates.TitlePageLogo - RsFpl.SettingsAndResultsManagement.TestReports.Templates.TitlePageLogoVisibility - RsFpl.SettingsAndResultsManagement.TestReports.Templates.SelectedItemsRawString - RsFpl.SettingsAndResultsManagement.TestReports.Templates.SelectedItems() - RsFpl.SettingsAndResultsManagement.TestReports.Templates.SelectedItems() - RsFpl.SettingsAndResultsManagement.TestReports.Templates.CatalogueString - RsFpl.SettingsAndResultsManagement.TestReports.Templates.Catalogue() - RsFpl.SettingsAndResultsManagement.TestReports.Templates.HiddenTestReportTemplateSave - RsFpl.SettingsAndResultsManagement.TestReports.Templates.Save() - RsFpl.SettingsAndResultsManagement.TestReports.Templates.HiddenTestReportTemplateLoad - RsFpl.SettingsAndResultsManagement.TestReports.Templates.Load() - RsFpl.SettingsAndResultsManagement.TestReports.Templates.HiddenTestReportTemplateDelete - RsFpl.SettingsAndResultsManagement.TestReports.Templates.Delete() - RsFpl.SettingsAndResultsManagement.TestReports.TestReportRestoreDefaults - RsFpl.SettingsAndResultsManagement.TestReports.New - RsFpl.SettingsAndResultsManagement.TestReports.Append - RsFpl.SettingsAndResultsManagement.TestReports.IncludeUserDefinedInformation - RsFpl.SettingsAndResultsManagement.TestReports.IncludeTitlePage - RsFpl.SettingsAndResultsManagement.TestReports.Title - RsFpl.SettingsAndResultsManagement.TestReports.Description - RsFpl.SettingsAndResultsManagement.TestReports.ItemListActiveChannel - RsFpl.SettingsAndResultsManagement.TestReports.ItemList() - RsFpl.SettingsAndResultsManagement.TestReports.Save() - RsFpl.SettingsAndResultsManagement.TestReports.HiddenTestReportRemoveSet - RsFpl.SettingsAndResultsManagement.TestReports.RemoveSet() - RsFpl.SettingsAndResultsManagement.TestReports.RemoveAllSets - RsFpl.GeneralSettings.SystemDate - RsFpl.GeneralSettings.SystemTime - RsFpl.GeneralSettings.SetDateTime() - RsFpl.GeneralSettings.QueryDateTime() - RsFpl.CalibrationAndChecks.CalibrateAll - RsFpl.CalibrationAndChecks.RecallCalibration - RsFpl.CalibrationAndChecks.SaveCalibrationToPath - RsFpl.CalibrationAndChecks.CalibrationSaveFilePath <p>* Modified properties/methods:</p> <ul style="list-style-type: none"> - RsFpl.DataInputOutput.PowerSensor.Measurement.FrequencyCoupling - Parameter fixed - RsFpl.DataInputOutput.PowerSensor.Measurement.AbsolutePowerUnit - Parameters updated - RsFpl.AutoAdjust.ManualLengthOfMeasurement - Command updated - RsFpl.AutoAdjust.LengthOfMeasurementMode - Command updated

RsFpl Instrument Driver		
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		<ul style="list-style-type: none"> - RsFpl.Trigger.RepetitionInterval - New range: 2 ns to 5000 s - RsFpl.Marker.Windows.Markers.PeakList.MaximumNumberOfPeaks - Range updated - RsFpl.Trace.Windows.AverageMode - Parameters updated - RsFpl.Trace.Windows.Traces.Mode - Parameters updated - RsFpl.Trace.Windows.Traces.Detector - Parameters updated - RsFpl.Measurement.SpectrumEmissionMask.MultiSEMSubblocks.SweepListFastSEMEnabled - Help updated - RsFpl.Measurement.ListEvaluations.Define() - Trigger sources updated - RsFpl.Measurement.PulsePower.ConfigureAndInitiate() - Trigger sources updated - RsFpl.Measurement.PulsePower.ConfigureAndInitiateSynchronized() - Trigger sources updated - RsFpl.Measurement.PulsePower.ConfigureAndRead() - Trigger sources updated - RsFpl.IQAnalyzer.DataAcquisition.ConfigureIQSettings() - Trigger sources updated - RsFpl.NoiseFigure.NoiseSource.Calibration.NoiseSource - Smart source added - RsFpl.NoiseFigure.NoiseSource.Measurement.NoiseSource - Smart source added - RsFpl.NoiseFigure.DUT.FrequencyConfig.FrequencyTable.Data() - Help updated - RsFpl.AnalogDemodulation.DataAcquisition.ConfigureDemodulator() - Trigger sources updated - RsFpl.EMIMeasurement.VNetwork.Type - Parameters updated - RsFpl.VSA.Configuration.DigitalStandards.StandardPreset - Cmd updated - RsFpl.VSA.Configuration.SignalDescription.Structure.BurstMaxLength - New range: 0 to 128000 - RsFpl.VSA.Configuration.SignalDescription.Structure.RunIn - New range: 0 to 31990 - RsFpl.VSA.Configuration.ResultRange.Window.Trace.SymbolNumberAtReferenceStart - New range: -100000 to 100000 - RsFpl.VSA.Analysis.ModulationAccuracyLimitLines.EVM.PeakPeakResult - Cmd updated - RsFpl.VSA.Analysis.ModulationAccuracyLimitLines.FrequencyError.PeakCurrentResult - Cmd updated - RsFpl.SettingsAndResultsManagement.DataStorageAndLoading.Delete() - Help updated - RsFpl.SettingsAndResultsManagement.DataStorageAndLoading.Delete - Command updated <p>* Deleted properties/methods:</p> <ul style="list-style-type: none"> - RsFpl.VSA.Configuration.PatternSearch.PatternSymbolsCorrect - RsFpl.VSA.Measurement.Results.BERFormat <p>* Modified Range Tables:</p> <ul style="list-style-type: none"> - TraceDetector - RSFPL_ATTR_TRACE_DETECTOR New items: Quasipeak, CISPRAverage, CISPR_RMS - TraceAverageMode - RSFPL_ATTR_TRACE_AVERAGE_MODE New items: Logarithmic - RsFpl_rngMaxNoPeaks - RSFPL_ATTR_MARKER_PEAK_LIST_MAXIMUM_NUMBER_OF_PEAKS, RSFPL_ATTR_MARKER_PEAK_LIST_PEAKS Range changed to <1;500> - TraceMode - RSFPL_ATTR_TRACE_MODE

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		<p>New items: Density</p> <p>- TriggerSource - RSFPL_ATTR_TRIGGER_SOURCE</p> <p>New items: Line, RFPower, External2, External3, External4, LXI</p> <p>- RsFpl_rngTriggerRepetitionInterval - RSFPL_ATTR_TRIGGER_REPETITION_INTERVAL</p> <p>Range changed to <2e-9;5000></p> <p>- PowerSensorAbsolutePowerUnit.dBm - RSFPL_ATTR_POWER_SENSOR_ABSOLUTE_POWER_UNIT</p> <p>Help changed ("Decibel-milliwatts", " ")</p> <p>- PowerSensorAbsolutePowerUnit.W - RSFPL_ATTR_POWER_SENSOR_ABSOLUTE_POWER_UNIT</p> <p>Help changed ("Watts", " ")</p> <p>- PowerSensorAbsolutePowerUnit - RSFPL_ATTR_POWER_SENSOR_ABSOLUTE_POWER_UNIT</p> <p>New items: dB, Percent</p> <p>- ENRNoiseSource - RSFPL_ATTR_NOISE_CALIBRATION_NOISE_SOURCE, RSFPL_ATTR_NOISE_MEASUREMENT_NOISE_SOURCE</p> <p>New items: Smart</p> <p>- RsFpl_rngVSAEstOverSmplg - RSFPL_ATTR_VSA_DEMODULATION_ESTIMATION_POINTS</p> <p>Changed enum name ("", "EstOverSmplg_Generated_7")</p> <p>- RsFpl_rngVSAStructureMaxLength - RSFPL_ATTR_VSA_SIGNAL_STRUCTURE_BURST_MAX_LENGTH</p> <p>Range changed to <0;128000></p> <p>- RsFpl_rngVSAStructureMaxLength - RSFPL_ATTR_VSA_SIGNAL_STRUCTURE_BURST_MAX_LENGTH</p> <p>Changed units ("Symbols", "")</p> <p>- RsFpl_rngVSAStructureMinLength - RSFPL_ATTR_VSA_SIGNAL_STRUCTURE_BURST_MIN_LENGTH</p> <p>Changed units ("Symbols", "")</p> <p>- RsFpl_rngVSAStructureRunOut - RSFPL_ATTR_VSA_SIGNAL_STRUCTURE_RUN_OUT</p> <p>Changed units ("Symbols", "")</p> <p>- RsFpl_rngVSAResultPPS - RSFPL_ATTR_VSA_RESULT_RANGE_PPS</p> <p>Changed enum name ("", "DisplayPPS_Generated_327")</p> <p>- RsFpl_rngVSA SymbNumberAtRefStart - RSFPL_ATTR_VSA_RESULT_RANGE_SYMBOL_NUMBER_AT_REFERENCE_START</p> <p>Range changed to <-100000;100000></p> <p>- VSAModulationAPSKNStateENRNoiseSource - RSFPL_ATTR_NOISE_CALIBRATION_NOISE_SOURCE, RSFPL_ATTR_NOISE_MEASUREMENT_NOISE_SOURCE</p> <p>New items: Smart</p> <p>- VSAModulationAPSKNState - RSFPL_ATTR_VSA_MODULATION_APSK_N_STATE, RSFPL_ATTR_VSA_FRAME_APSK_N_STATE</p> <p>Changed enum name ("VSAModulationAPSKNState", "")</p> <p>- VSAModulationASKNStateENRNoiseSource - RSFPL_ATTR_NOISE_CALIBRATION_NOISE_SOURCE,</p>

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Revision	Date	Note
		<p>RSFPL_ATTR_NOISE_MEASUREMENT_NOISE_SOURCE</p> <p>New items: Smart</p> <ul style="list-style-type: none"> - VSAModulationASKNState - RSFPL_ATTR_VSA_MODULATION_ASK_N_STATE, RSFPL_ATTR_VSA_FRAME_ASK_N_STATE <li style="padding-left: 20px;">Changed enum name ("VSAModulationASKNState", "") - RsFpl_rngVSASignalStructureRunIn - RSFPL_ATTR_VSA_SIGNAL_STRUCTURE_RUN_IN <li style="padding-left: 20px;">Range changed to <0;31990> - RsFpl_rngVSASignalStructureRunIn - RSFPL_ATTR_VSA_SIGNAL_STRUCTURE_RUN_IN <li style="padding-left: 20px;">Changed units ("Symbols", "") - RsFpl_rngGatePeriod - RSFPL_ATTR_SIGNAL_STATISTIC_GATE_PERIOD <li style="padding-left: 20px;">Range changed to <100e-9;1000> - EMILISNVNetworkType.ENV216 - RSFPL_ATTR_EMI_LISN_V_NETWORK_TYPE <li style="padding-left: 20px;">Command changed ("ENV216", "ENV2") - EMILISNVNetworkType.ENV4200 - RSFPL_ATTR_EMI_LISN_V_NETWORK_TYPE <li style="padding-left: 20px;">Command changed ("ENV4200", "ENV4") - EMILISNVNetworkType.ESH2Z5 - RSFPL_ATTR_EMI_LISN_V_NETWORK_TYPE <li style="padding-left: 20px;">Command changed ("ESH2Z5", "ESH2") - EMILISNVNetworkType.ESH3Z5 - RSFPL_ATTR_EMI_LISN_V_NETWORK_TYPE <li style="padding-left: 20px;">Command changed ("ESH3Z5", "ESH3") - EMILISNVNetworkType - RSFPL_ATTR_EMI_LISN_V_NETWORK_TYPE <li style="padding-left: 20px;">New items: ENV432 - SpectrogramTrace.Trace1 - RSFPL_ATTR_SPECTROGRAM_SELECT_TRACE <li style="padding-left: 20px;">Command changed ("TRACE1", "TRACe1") - SpectrogramTrace.Trace2 - RSFPL_ATTR_SPECTROGRAM_SELECT_TRACE <li style="padding-left: 20px;">Command changed ("TRACE2", "TRACe2") - SpectrogramTrace.Trace3 - RSFPL_ATTR_SPECTROGRAM_SELECT_TRACE <li style="padding-left: 20px;">Command changed ("TRACE3", "TRACe3") - SpectrogramTrace.Trace4 - RSFPL_ATTR_SPECTROGRAM_SELECT_TRACE <li style="padding-left: 20px;">Command changed ("TRACE4", "TRACe4") - SpectrogramTrace.Trace5 - RSFPL_ATTR_SPECTROGRAM_SELECT_TRACE <li style="padding-left: 20px;">Command changed ("TRACE5", "TRACe5") - SpectrogramTrace.Trace6 - RSFPL_ATTR_SPECTROGRAM_SELECT_TRACE <li style="padding-left: 20px;">Command changed ("TRACE6", "TRACe6")
1.30.0.0	08/2019	<ul style="list-style-type: none"> - Added Vector Signal Analysis <li style="padding-left: 20px;">* New properties/methods: <li style="padding-left: 40px;">- RsFpl.DataInputOutput.RFInput.Select <li style="padding-left: 40px;">- RsFpl.DataInputOutput.RFInput.SAWFilter <li style="padding-left: 40px;">- RsFpl.VerticalAxis.Scaling.Subwindow.Scaling <li style="padding-left: 40px;">- RsFpl.VerticalAxis.Scaling.Subwindow.ScalingMode <li style="padding-left: 40px;">- RsFpl.Frequency.Windows.Subwindow.Scale

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		<ul style="list-style-type: none"> - RsFpl.Sweep.Window.SweepPoints - RsFpl.Trigger.ExternalTrigger.Port.Level - RsFpl.Marker.GeneralSettings.LinkedReaders - RsFpl.Marker.Windows.Markers.Setup.Amplitude - RsFpl.Marker.Windows.Markers.Setup.Probability - RsFpl.Marker.Windows.Markers.NoiseMeasurement.AllOff - RsFpl.Marker.Windows.Markers.BandPower.AllOff - RsFpl.Trace.Windows.Traces.Subwindow.Enabled - RsFpl.Trace.Windows.Traces.Subwindow.HoldEnabled - RsFpl.Trace.Windows.Traces.Subwindow.SmoothingEnabled - RsFpl.Trace.Windows.Traces.Subwindow.SmoothingValue - RsFpl.Trace.Spectrogram.ThreeDimensionalEnabled - RsFpl.Trace.Spectrogram.Windows.SelectTrace - RsFpl.Measurement.SpectrumEmissionMask.MultiSEMSubblocks.Ranges.PreamplifierLevel - RsFpl.Measurement.SpuriousEmissions.BreakMeasurementEnabled - RsFpl.Measurement.SpuriousEmissions.AdjustXAxis - RsFpl.Measurement.SignalStatistic.APDEnabled - RsFpl.Measurement.SignalStatistic.CCDFEnabled - RsFpl.Measurement.SignalStatistic.NumberOfSamples - RsFpl.Measurement.SignalStatistic.XRefLevel - RsFpl.Measurement.SignalStatistic.XRRange - RsFpl.Measurement.SignalStatistic.YUnit - RsFpl.Measurement.SignalStatistic.YMinimum - RsFpl.Measurement.SignalStatistic.YMaximum - RsFpl.Measurement.SignalStatistic.AdjustSettings - RsFpl.Measurement.SignalStatistic.Preset - RsFpl.Measurement.SignalStatistic.QueryResults() - RsFpl.Measurement.SignalStatistic.QueryCCDFLevel() - RsFpl.Measurement.SignalStatistic.GatedTriggering.Trace.Range.Enabled - RsFpl.Measurement.SignalStatistic.GatedTriggering.Trace.Range.Start - RsFpl.Measurement.SignalStatistic.GatedTriggering.Trace.Range.Stop - RsFpl.Measurement.SignalStatistic.GatedTriggering.Trace.Period - RsFpl.Measurement.SignalStatistic.GatedTriggering.Trace.Comment - RsFpl.Display.ScreenLayout.General.Format - RsFpl.Display.Windows.SingleZoom.Subwindow.Enabled - RsFpl.Display.Windows.SingleZoom.Subwindow.Zoom() - RsFpl.Display.Windows.MultipleZoomWindows.Subwindow.Enabled - RsFpl.Display.Windows.MultipleZoomWindows.Subwindow.Zoom() - RsFpl.NoiseFigure.AdditionalNoise.Input.Temperature - RsFpl.NoiseFigure.AdditionalNoise.Input.TableList - RsFpl.NoiseFigure.AdditionalNoise.Output.Temperature

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		<ul style="list-style-type: none"> - RsFpl.NoiseFigure.AdditionalNoise.Output.TableList - RsFpl.NoiseFigure.AdditionalNoise.CalibrationLoss.Mode - RsFpl.NoiseFigure.AdditionalNoise.CalibrationLoss.Constant - RsFpl.NoiseFigure.AdditionalNoise.CalibrationLoss.Temperature - RsFpl.NoiseFigure.AdditionalNoise.CalibrationLoss.SelectedTable - RsFpl.NoiseFigure.AdditionalNoise.CalibrationLoss.DefineTable() - RsFpl.NoiseFigure.AdditionalNoise.CalibrationLoss.DeleteTable() - RsFpl.NoiseFigure.AdditionalNoise.CalibrationLoss.TableList - RsFpl.NoiseFigure.DUT.LOType - RsFpl.NoiseFigure.DUT.FixedIFFrequency - RsFpl.NoiseFigure.DUT.FrequencyConfig.MeasurementPoints - RsFpl.NoiseFigure.Measurement.MarkerResults() - RsFpl.NoiseFigure.Measurement.DeltaMarkerResults() - RsFpl.AnalogDemodulation.Results.Summary.Windows.Traces.ModulationFrequency - RsFpl.AnalogDemodulation.Results.Summary.Windows.Traces.CarrierPower - RsFpl.EMIMeasurement.Enabled - RsFpl.EMIMeasurement.DwellTime - RsFpl.EMIMeasurement.Window.Markers.MarkerPeakSearch - RsFpl.EMIMeasurement.Window.Markers.Detector - RsFpl.EMIMeasurement.Window.Markers.EMIMeasurementMarkerResult - RsFpl.EMIMeasurement.Window.Markers.Limits.Condition - RsFpl.EMIMeasurement.Window.Markers.Limits.VerticalDistance - RsFpl.EMIMeasurement.Window.DeltaMarkers.DeltaMarkerPeakSearch - RsFpl.EMIMeasurement.Window.DeltaMarkers.Detector - RsFpl.EMIMeasurement.Window.DeltaMarkers.Result - RsFpl.EMIMeasurement.Window.DeltaMarkers.Limits.Condition - RsFpl.EMIMeasurement.Window.DeltaMarkers.Limits.VerticalDistance - RsFpl.EMIMeasurement.VNetwork.Type - RsFpl.EMIMeasurement.VNetwork.HighPassFilter - RsFpl.EMIMeasurement.VNetwork.Phase - RsFpl.SettingsAndResultsManagement.InstrumentSettings.RecallMode - RsFpl.SettingsAndResultsManagement.Result.Windows.ImportTrace() - RsFpl.GeneralSettings.ReferenceOscillatorOutput100MHzEnabled - RsFpl.GeneralSettings.GetIDNStringFactory - RsFpl.GeneralSettings.DisplayLockEnabled - RsFpl.CalibrationAndChecks.CalibrationSignalFrequency43MHzPlus - RsFpl.CalibrationAndChecks.CalibrationSignalPeakDistance - RsFpl.CalibrationAndChecks.CalibrationSignalFrequency7GHzPlus - RsFpl.CalibrationAndChecks.CalibrationSignalWidebandFrequency - RsFpl.System.BatteryLevel - RsFpl.System.ClearErrors

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		<ul style="list-style-type: none"> - RsFpl.System.QueryAllSystemErrorsExtended() - RsFpl.System.SystemErrorList - RsFpl.System.QueryRemoteErrors() - RsFpl.System.ClearRemoteErrorsTable <p>* Modified properties/methods:</p> <ul style="list-style-type: none"> - RsFpl.OperatingMode.ChannelSetup.Select() - Range table updated - RsFpl.VerticalAxis.Scanning.Scanning - Added Percent - RsFpl.Frequency.Windows.Scale - Short command modified - RsFpl.BandwidthAndFilter.RBWFilterType - Range table updated - RsFpl.Trigger.Source - Added Baseband Power - RsFpl.Measurement.ChannelPowerAndACLR.AdjacentChannel.Spacing - Using new range table - RsFpl.Measurement.ChannelPowerAndACLR.AdjacentChannel.Limit.Absolute() - zmena: LIMit na LIMit - RsFpl.Measurement.ChannelPowerAndACLR.AdjacentChannel.Limit.RelativeCheckEnabled() - command LIMit to LIMit - RsFpl.Measurement.ChannelPowerAndACLR.AdjacentChannel.Limit.Relative() - command LIMit to LIMit - RsFpl.Measurement.ChannelPowerAndACLR.AdjacentChannel.Limit.LimitCheckResult() - zmena v commandu LIMit na LIMit - RsFpl.Measurement.ChannelPowerAndACLR.AlternateChannels.Spacing - Using new range table - RsFpl.Measurement.ChannelPowerAndACLR.AlternateChannels.Limit.RelativeCheckEnabled() - command LIMit to LIMit - RsFpl.Measurement.SpectrumEmissionMask.SEMNumberOfSubBlocks - SCPI command updated - RsFpl.Measurement.SpectrumEmissionMask.MultiSEMSubblocks.Ranges.FilterType - Range table updated, long SCPI command updated - RsFpl.Measurement.SpectrumEmissionMask.MultiSEMSubblocks.Ranges.PowerClasses.LimitMax - command PCLass to PCLass - RsFpl.Measurement.SpuriousEmissions.Ranges.FilterType - Range table updated, long SCPI command updated - RsFpl.Measurement.ListEvaluations.ConfigureAndInitiate() - Range table for Filter Type updated - RsFpl.Measurement.ListEvaluations.ConfigureAndInitiateSynchronized() - Range table for Filter Type updated - RsFpl.Measurement.ListEvaluations.Read() - Range table for Filter Type updated - RsFpl.System.SetStatusRegister() - Correction commands added, range table updated - RsFpl.System.GetStatusRegister() - Correction commands added, range table updated - RsFpl.System.IDNNQueryResponse - Short command modified, access modified <p>* Modified Range Tables:</p> <ul style="list-style-type: none"> - FilterType - RSFPL_ATTR_RBW_FILTER_TYPE, RSFPL_ATTR_SWEEP_LIST_RANGE_FILTER_TYPE, RSFPL_ATTR_SPURIOUS_EMISSIONS_RANGE_FILTER_TYPE, RSFPL_ATTR_PULSE_POWER_MEASUREMENT_FILTER_TYPE <p style="text-align: right;">New items: FivePoleFilters, RRC, CISPR, MIL_Std</p>

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		<ul style="list-style-type: none"> - BandPowerMode.Power - RSFPL_ATTR_BAND_POWER_MARKER_MODE, RSFPL_ATTR_BAND_POWER_DELTA_MARKER_MODE Help changed ("Result is displayed as an absolute power. The power unit depends on the RSFPL_ATTR_AMPLITUDE_UNIT setting.", "Result is displayed as an absolute power. The power unit depends on the CALCulate<n>:Äçâ, ã€'UNIT:Äçâ, ã€'POWer setting.") - HcopyFileFormat.BMP - RSFPL_ATTR_HCOPY_FILE_FORMAT Help changed ("BMP", "") - HcopyFileFormat.PNG - RSFPL_ATTR_HCOPY_FILE_FORMAT Help changed ("PNG", "") - HcopyFileFormat.JPG - RSFPL_ATTR_HCOPY_FILE_FORMAT Help changed ("JPG", "") - HcopyFileFormat - RSFPL_ATTR_HCOPY_FILE_FORMAT New items: WMF, EWMF, PDF, SVG, DOC, RTF - TriggerSource - RSFPL_ATTR_TRIGGER_SOURCE New items: BasebandPower - StatusRegister - New items: Correction - DisplayLanguage.EN - RSFPL_ATTR_GENERAL_DISPLAY_LANGUAGE Command changed ("EN", "EN") - DisplayLanguage.ZH_CH - RSFPL_ATTR_GENERAL_DISPLAY_LANGUAGE Command changed ("ZH_CH", "ZH_CH") - DisplayLanguage.ZH_TW - RSFPL_ATTR_GENERAL_DISPLAY_LANGUAGE Command changed ("ZH_TW", "ZH_TW") - DisplayLanguage.JA - RSFPL_ATTR_GENERAL_DISPLAY_LANGUAGE Command changed ("JA", "JA") - DisplayLanguage.KO - RSFPL_ATTR_GENERAL_DISPLAY_LANGUAGE Command changed ("KO", "KO") - DisplayLanguage.RU - RSFPL_ATTR_GENERAL_DISPLAY_LANGUAGE Command changed ("RU", "RU") - ChannelType - New items: VSA - NoiseResultType.Noise - RSFPL_ATTR_NOISE_LIMIT_LINE_RESULT_TYPE Help changed ("Noise", "") - NoiseResultType.Gain - RSFPL_ATTR_NOISE_LIMIT_LINE_RESULT_TYPE Help changed ("Gain", "") - NoiseResultType.Temperature - RSFPL_ATTR_NOISE_LIMIT_LINE_RESULT_TYPE Help changed ("Temperature", "") - NoiseResultType.YFactor - RSFPL_ATTR_NOISE_LIMIT_LINE_RESULT_TYPE Help changed ("Y-Factor", "") - NoiseResultType.PowerHot - RSFPL_ATTR_NOISE_LIMIT_LINE_RESULT_TYPE Help changed ("Power (Hot)", "")

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		<ul style="list-style-type: none"> - NoiseResultType.PowerCold - RSFPL_ATTR_NOISE_LIMIT_LINE_RESULT_TYPE Help changed ("Power (Cold)", "") - NoiseResultType.CalYFactor - RSFPL_ATTR_NOISE_LIMIT_LINE_RESULT_TYPE Help changed ("Cal Y-Factor", "") - NoiseResultType.CalPowerHot - RSFPL_ATTR_NOISE_LIMIT_LINE_RESULT_TYPE Help changed ("Cal Power (Hot)", "") - NoiseResultType.CalPowerCold - RSFPL_ATTR_NOISE_LIMIT_LINE_RESULT_TYPE Help changed ("Cal Power (Cold)", "") - NoiseResultType.NoiseUncertainty - RSFPL_ATTR_NOISE_LIMIT_LINE_RESULT_TYPE Help changed ("Noise Figure Uncertainty", "")
1.20.0.0	07/2018	<ul style="list-style-type: none"> - Added Noise Figure measurement - Added Analog Demodulation measurement
1.1.0.0	07/2018	- Added IQ Analyzer
1.0.0.0	06/2018	Initial Release

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