S1210 EMI Pre-compliance Software Data Sheet
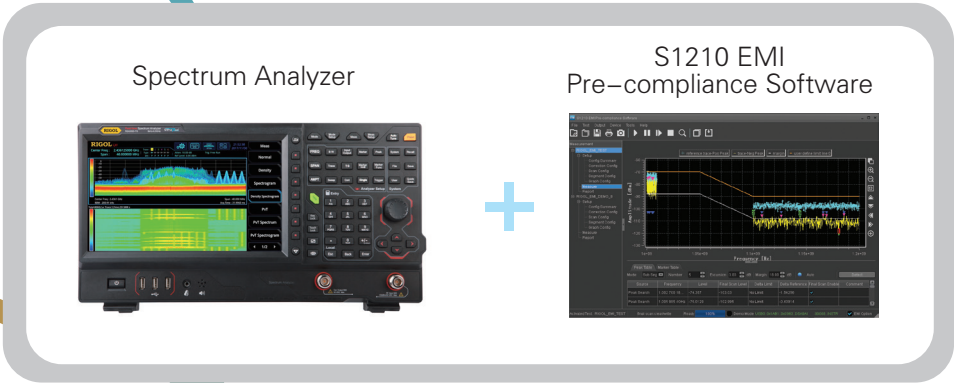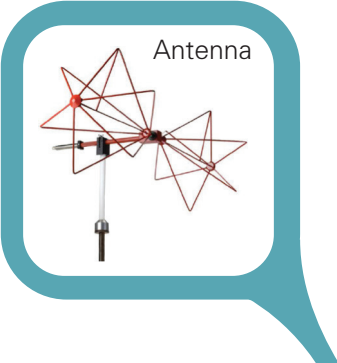
S1210 EMI Pre-compliance Software
Spectrum Analyzer
EMC Laboratory

Antenna

Near Field Probe

Spectrum Analyzer

S1210 EMI
Pre−compliance Software

+

LISN

RIGOL TECHNOLOGIES, INC.

Product Overview

S1210 EMI Pre-compliance Software is a PC application software developed by **RIGOL** for RSA5000, RSA3000 (with the RSA3000-EMC option), DSA1000A, DSA1000, DSA800, DSA800E and DSA700(with the EMI-DSA800 option) with the EMI function. This software is designed on the basis of the standard drive VISA and you can realize the communication between the software and instrument via USB-TMC or LAN interface to control the instrument.

You can perform conduction and radiation tests using S1210 EMI Pre-compliance Software and **RIGOL** spectrum analyzer. You can measure the interference voltage on the power cable using the linear impedance stability network (LISN) and perform amplitude correction on the results by loading the correction factor (preamplifier, attenuator, antenna, cable, or correction array) automatically in the radiation test.

This software also provides various functions to facilitate your measurements. You can set various parameters (such as the frequency range, resolution bandwidth, and scan time) via the scan table. After performing a scan, the results can be displayed in log or linear format. You can search for signal peak value and view the results displayed in the peak table. Besides, you can mark and delete the undesired signal, as well as easily recognize signals that do not pass the standard limit line. The software also supports the marker table. In the marker table, you can double click the table to add a marker to mark any frequency point that interests you.

Product Features

- Introduce the workspace concept; manage multiple measurements
- Support the demo mode for you to enjoy a great user experience with the software, without connecting the instrument or obtaining a license
- Provide data manager function for you to edit required files for the software
- Provide amplitude correction function for you to preview the correction setting and get the calibration results in a timely manner
- Provide pre san and final scan, support three trace display modes: "Clear/Write", "Repeat Clear/Write", and "Repeat Max Hold"
- Provide the limit line for you to quickly judge the measurement results
- Support segment scanning and editing for the table to accelerate the measurement speed
- Frequency axis supports the scale display in linear or log format
- Amplitude axis supports multiple amplitude units
- Provide comprehensive peak search settings for you to search for the desired peaks that meet with your search conditions
- Support importing and exporting the peak table
- Support editing the marker table, marking any frequency point that interest you
- Support the reference trace, easy for you to compare the measurement results
- Support easy operation on the spectrum graph, convenient for you to analyze the results
- Provide report generation function

Product Functions

To quickly perform the EMI test with the software, we recommend you to follow the measurement procedures as shown in the figure below.
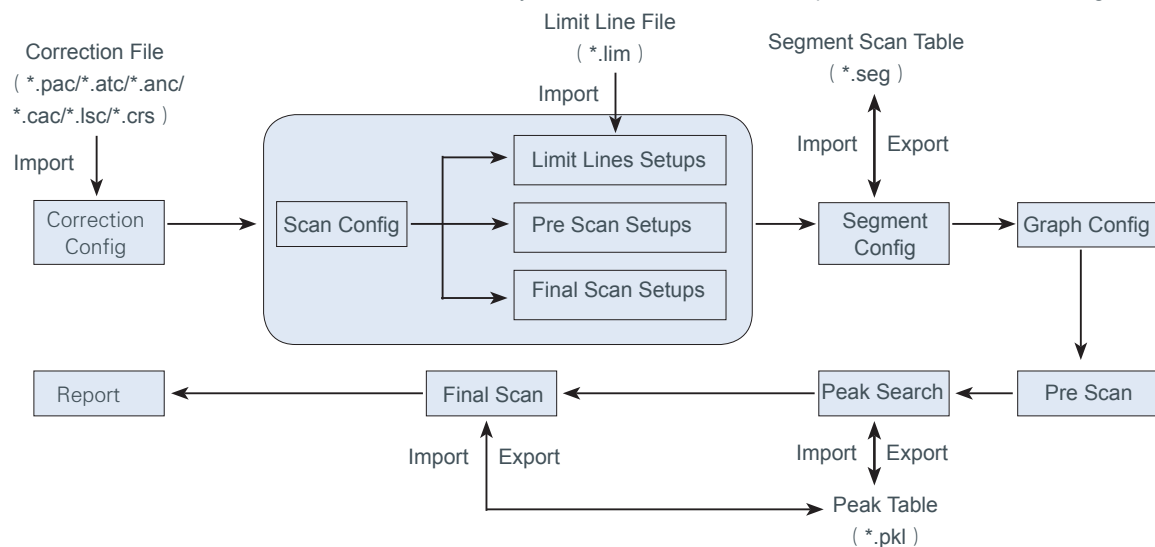
Correction Config Load and select the correction file; compensate the gain or loss of the external devices (such as the antenna and cable). You can view the correction data in the Correction Preview.

Scan Config Load and select the limit line file, set the limit lines, configure parameters for pre scan and final scan.

Segment Config Set the parameters for the segment scan separately, and view the segment scan data sheet in the segment table. Besides, you can export the segment scan table currently edited, or import the edited segment scan table.

Graph Config Set the graph axis and the graph title.

Pre Scan Perform segment pre scan based on the segment scan setting to improve the measurement speed of the software. After the scan is completed, you can preview the measurement results in the spectrum graph, and compare the results with the set limit line value.

Peak Search Perform the peak search operation. The software filters and marks the peak table according to the user-defined conditions. You can edit the peak table; add or delete frequency points; export/import the peak table.

Final Scan The final scan provides a more accurate scan on the critical interference signals to ensure the measurement accuracy of the software.

Report Fill in the actual parameter values based on the current measurement environment, and add remarks if necessary. You can also print the activated measurement report for further progressing of the measurement values.

▶ Specifications

S1210 EMI Pre-compliance Software		
Frequency range	DSA705	100 kHz to 500 MHz
	DSA710	100 kHz to 1 GHz
	DSA815/DSA815-TG	9 kHz to 1.5 GHz
	DSA832/DSA832-TG	9 kHz to 3.2 GHz
	DSA875/DSA875-TG	9 kHz to 7.5 GHz
	DSA832E/DSA832E-TG	9 kHz to 3.2 GHz
	DSA1030/DSA1030-TG	9 kHz to 3 GHz
	DSA1030A/DSA1030A-TG	9 kHz to 3 GHz
	RSA3030/RSA3030-TG	9 kHz to 3 GHz
	RSA3045/RSA3045-TG	9 kHz to 4.5 GHz
	RSA5032/RSA5032-TG	9 kHz to 3.2 GHz
	RSA5065/RSA5065-TG	9 kHz to 6.5 GHz
Attenuation	DSA705	0 dB to 30 dB
	DSA710	
	DSA815/DSA815-TG	
	DSA832/DSA832-TG	
	DSA875/DSA875-TG	
	DSA832E/DSA832E-TG	
	DSA1030/ DSA1030-TG	0 dB to 50 dB
	DSA1030A/ DSA1030A-TG	
	RSA3030/RSA3030-TG	
	RSA3045/RSA3045-TG	
	RSA5032/RSA5032-TG	
	RSA5065/RSA5065-TG	
Pre scan resolution bandwidth/final scan resolution bandwidth (-3 dB)	DSA705	100 Hz, 300 Hz, 1 kHz, 3 kHz, 10 kHz, 30 kHz, 100 kHz, 300 kHz, 1 MHz
	DSA710	
	DSA815/DSA815-TG	
	DSA1030/DSA1030-TG	
	DSA832/ DSA832-TG	10 Hz, 30 Hz, 100 Hz, 300 Hz, 1 kHz, 3 kHz, 10 kHz, 30 kHz, 100 kHz, 300 kHz, 1 MHz
	DSA875/ DSA875-TG	
	DSA832E/DSA832E-TG	
	DSA1030A/ DSA1030A-TG	
	RSA3030/RSA3030-TG	without the RSA3000-BW1 option: 10 Hz, 30 Hz, 100 Hz, 300 Hz, 1 kHz, 3 kHz, 10 kHz, 30 kHz, 100 kHz, 300 kHz, 1 MHz, 3 MHz;
	RSA3045/RSA3045-TG	with the RSA3000-BW1 option: 1 Hz, 3 Hz, 10 Hz, 30 Hz,100 Hz, 300 Hz, 1 kHz, 3 kHz, 10 kHz, 30 kHz, 100 kHz, 300 kHz, 1 MHz, 3 MHz, 10 MHz,
	RSA5032/RSA5032-TG	1 Hz, 3 Hz, 10 Hz, 30 Hz, 100 Hz, 300 Hz, 1 kHz, 3 kHz, 10 kHz, 30 kHz, 100 kHz, 300 kHz, 1 MHz, 3 MHz, 10
	RSA5065/RSA5065-TG	
Pre scan resolution bandwidth/final scan resolution bandwidth (-6 dB)	DSA705	200 Hz, 9 kHz, 120 kHz
	DSA710	
	DSA815/DSA815-TG	
	DSA832/DSA832-TG	
	DSA875/DSA875-TG	
	DSA832E/DSA832E-TG	
	DSA1030/DSA1030-TG	
	DSA1030A/DSA1030A-TG	
	RSA3030/RSA3030-TG	200 Hz, 9 kHz, 120 kHz, 1 MHz
	RSA3045/RSA3045-TG	
	RSA5032/RSA5032-TG	
	RSA5065/RSA5065-TG	

Measurement time	DSA705	0.0167 ms to 2500 ms
	DSA710	
	DSA815/ DSA815-TG	
	DSA832/ DSA832-TG	0.0167 ms to 5333.3 ms
	DSA832E/DSA832E-TG	
	DSA875/ DSA875-TG	0.0167 ms to 12500 ms
	DSA1030/ DSA1030-TG	0.0167 ms to 5000 ms
	DSA1030A/ DSA1030A-TG	
	RSA3030/RSA3030-TG	0.0001 ms to 40000 ms
	RSA3045/RSA3045-TG	
	RSA5032/RSA5032-TG	
	RSA5065/RSA5065-TG	

▶ Ordering Information

	Description	Order Number
	EMI PC software	S1210 EMI Pre-compliance Software
Model	spectrum analyzer, 100 kHz to 500 MHz (with preamplifier)	DSA705
	spectrum analyzer, 100 kHz to 1 GHz (with preamplifier)	DSA710
	spectrum analyzer, 9 kHz to 1.5 GHz (with preamplifier)	DSA815
	spectrum analyzer, 9 kHz to 3.2 GHz	DSA832
	spectrum analyzer, 9 kHz to 7.5 GHz	DSA875
	spectrum analyzer, 9 kHz to 3.2 GHz	DSA832E
	spectrum analyzer, 9 kHz to 1.5 GHz (with preamplifier, with tracking generator, factory installed)	DSA815-TG
	spectrum analyzer, 9 kHz to 3.2 GHz (with tracking generator, factory installed)	DSA832-TG
	spectrum analyzer, 9 kHz to 7.5 GHz (with tracking generator, factory installed)	DSA875-TG
	spectrum analyzer, 9 kHz to 3.2 GHz (with tracking generator, factory installed)	DSA832E-TG
	spectrum analyzer, 9 kHz to 3 GHz (with preamplifier)	DSA1030A
	spectrum analyzer, 9 kHz to 3 GHz	DSA1030
	spectrum analyzer, 9 kHz to 3 GHz (with preamplifier, with tracking generator, factory installed)	DSA1030A-TG
	spectrum analyzer, 9 kHz to 3 GHz (with tracking generator, factory installed)	DSA1030-TG
	Real-time Spectrum Analyzer, 9 kHz to 3.0 GHz	RSA3030
	Real-time Spectrum Analyzer, 9 kHz to 4.5 GHz	RSA3045
	Real-time Spectrum Analyzer, 9 kHz to 3.0 GHz (with TG installed when leaving the factory)	RSA3030-TG
	Real-time Spectrum Analyzer, 9 kHz to 4.5 GHz (with TG installed when leaving the factory)	RSA3045-TG
	Real-time Spectrum Analyzer, 9 kHz to 3.2 GHz	RSA5032
	Real-time Spectrum Analyzer, 9 kHz to 6.5 GHz	RSA5065
	Real-time Spectrum Analyzer, 9 kHz to 3.2 GHz (with TG installed when leaving the factory)	RSA5032-TG
	Real-time Spectrum Analyzer, 9 kHz to 6.5 GHz (with TG installed when leaving the factory)	RSA5065-TG
Option	EMI filter &quasi-peak detector	EMI-DSA800
	EMC Filter and Quasi-Peak Detector Kit	RSA3000-EMC

Feb. 1, 2018