



# R&S®FPL1-K54 EMI MEASUREMENT APPLICATION

## Detecting and eliminating electromagnetic interference

The perfect choice for



Max. peak detector-based signal sweep (top) and quasi-peak detector-based disturbance maxima analysis (bottom)

Detection and analysis of unwanted emissions (radiated or conducted)

EMI precompliance testing in line with commercial, automotive, avionic and military standards (CISPR, EN, FCC, DO-160, MIL-STD-461)

### Detecting and eliminating electromagnetic interference

The R&S®FPL1-K54 EMI measurement application adds EMI diagnostic functionality to the R&S®FPL signal and spectrum analyzer. It is the ideal tool for debugging and precompliance applications.

- ▶ Emission measurements in line with EMI standards
- ▶ Extensive limit line library for quick pass/fail decisions
- ▶ Transducer factor library with correction value tables for EMI accessories (LISNs, antennas, clamps, preamplifiers, cables and attenuators)

- ▶ Remote control of line impedance stabilization networks (LISN) from Rohde & Schwarz with the R&S®FPL1-B5 option
- ▶ Acoustic analysis using FM and AM signal demodulation with the R&S®FPL1-B5 option
- ▶ Logarithmic spectrum display
- ▶ Measurement automation: signal sweep with max. peak detector and subsequent disturbance maxima analysis with CISPR detectors

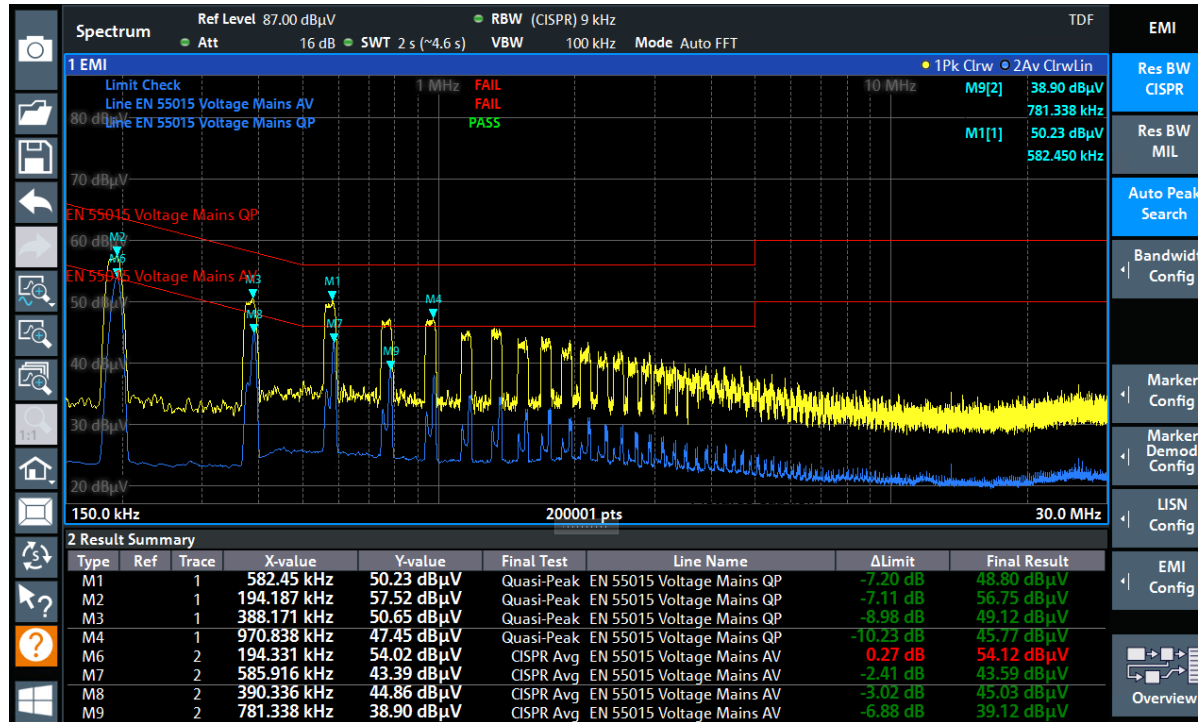
Key specifications	
EMI filters (6 dB)	CISPR 16-1-1: 200 Hz, 9 kHz, 120 kHz, 1 MHz MIL-STD-461: 10 Hz, 100 Hz, 1 kHz, 10 kHz, 100 kHz, 1 MHz
EMI detectors (CISPR 16-1-1)	quasi-peak, CISPR-average, RMS-average
Number of meas. markers	1 to 16

Your benefit	Features
Fast and reliable disturbance detection	automatic disturbance maxima detection and analysis with CISPR detectors
Smooth EMI certification process	RBWs and detectors in line with CISPR 16-1-1 and MIL-STD-461



For more information, visit [www.rohde-schwarz.com/product/FPL1000](http://www.rohde-schwarz.com/product/FPL1000)

## Example of emission analysis: voltage mains measurement of a lamp



Two detectors are used for the sweep: positive peak (yellow curve) and average (blue curve). Pass/fail information is given according to the defined limits (red lines). The identified maxima ("Auto Peak Search") are automatically measured using the related CISPR detectors (quasi-peak and average) and listed in the results table. The final pass/fail status is clearly shown. The R&S®FPL applies the correction values (transducer factor) of the used LISN to the measurement results.

Model configuration information	
Description	Item
Signal and spectrum analyzer, 5 kHz to 3 GHz	R&S®FPL1003
Signal and spectrum analyzer, 5 kHz to 7.5 GHz	R&S®FPL1007
Signal and spectrum analyzer, 5 kHz to 14 GHz	R&S®FPL1014
Signal and spectrum analyzer, 5 kHz to 26.5 GHz	R&S®FPL1026
Required options	
EMI measurement application	R&S®FPL1-K54
Additional interfaces (required for audio demodulation and LISN remote control)	R&S®FPL1-B5
Recommended option	
RF preamplifier	R&S®FPL1-B22

Rohde & Schwarz Representative