SMP3-Streamer

Electromagnetic Field Measuring System for Automotive Standards

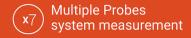- **Compliance with automotive standards**
- **Real Time Simultaneous Measurements**
- **Simplified Setup**
- **Multiple Probes system measurement** (x7)
- **Magnetic field Measurement** (H)
- **Data export**

The **measurement of ElectroMagnetic Fields** for human exposure is becoming **increasingly important**, especially with the introduction of **electric vehicles and increase of electronics devices inside**. These measurements are essential to assure safety against human exposure to ElectroMagnetic Fields (EMF).

SMP3 Streamer is a real-time electromagnetic field measuring system according to **newer automotive test requirements** about human exposure to electromagnetic fields, like **GB/T 37130, MBN 10284-2, TSC 7048G** and many others.

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SMP3-Streamer

Simultaneous measurements for time and frequency domain, independently selectable limits, frequency resolution steps and resolution bandwidth (RBW) to **get real time measurements**. Its flexible configuration allows the use of a single unit or combining several units to build a multi-probe system for faster measurements.

Simplified Setup

The SMP3 Streamer system **does not require any additional hardware** or test equipment, offering **a simplified test setup** for both full vehicle and components testing. Maximum flexibility and usability for the test operators.

Magnetic field Measurement

The SMP3 Streamer is used for **measuring Magnetic field from 1 Hz to 400 kHz** in the time and frequency domain with real-time FFT results. The data can be analyzed and saved to a PC without the need of an external acquisition card.

Real Time Simultaneous Measurements

Time and frequency domain measurements can be done simultaneously with independently selectable limits for both measurements. Results are shown in real time during measurements.

Speed

SMP3 with SMP3-Streamer option is an extremely fast test system due to **simultaneous measurements for time and frequency domains,** real-time results, fast speed communication and no need to communicate with external equipment.

Multiple Probes system measurement

Multiple device measurements can be done simultaneously. **Up to 7 devices can be used to facilitate assessment of multiple points** in a vehicle test at the same time, reducing test time dramatically.

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Multi-Standard System

The SMP3 streamer system is a **multi-standard measuring device**. Operator can choose from pre-defined setups according to specific standards, or **select any standard or limit** from the available list. Customized frequency domain limits are also possible through a limit editor.

Data export

Measured data is exported to an excel type file with a summary of all test points and specific information for both time domain and frequency domain. **All raw data is also available** for post-processing.
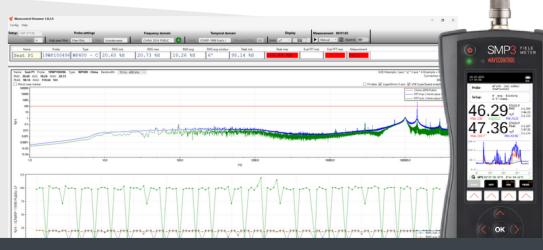
Compliance with automotive standards

The software **is designed to comply with the latest automotive standards**. It allows for measuring all aspects of the automotive vehicle including the car seats, electrical and electronic components in all operational modes. The software indicates **FAIL/PASS during the measurement (real-time).** The current setup perfectly complies with latest automotive standards like IEC 62764-1, GB/T 37130, MBN 10284-2, TSC 7048G, FMC 1278, JASO TP-13002, GS 95002, TL 81000, and many others.

Compliance with automotive standards

IEC 62764-1
GB/T 37130
MBN 10284-2
TSC 7048G
JLR-EMC-CS
FMC 1278
STD 515-0003
JASO TP-13002
GS 95002
TL 81000
etc

Specifications

SMP3-STREAMER OPTION SOFTWARE

Field Measurements	Magnetic field
Domain	Time and frequency domains (simultaneously)
Results	Real time measurements
Frequency Range	1 Hz – 400 kHz
Probe Support	WP400C, WP400, WP400-3, WP10M (Up to 400 kHz), WPH-DC. Magnetic field
Multiple probes	Up to 7 probes simultaneously. Each probe connected with its SMP3 meter
High Pass filter	10, 25, 100 Hz
Temporal domain available limit (Weighted Peak Method)	ICNIRP 2010, ICNIRP 1998, IEEE C95-1 (2019), EMFV, GB-8702, 2013/35/EU Directive and many more.
Frequency domain available limits	Pre-settings for common automotive standards and limit generator included for user customized limits
Frequency bands	Configurable by user.
RBW (Resolution bandwidth)	Configurable per each frequency band from 0.25 Hz to 200 Hz*
Frequency step	Configurable by user based on selected RBW
Standard Compliance	Multi-standard
Data Logging	Definable by the user
Features	Frequency and time graphs, speed + field vs time graph, total field and independent axis graphs, absolute values or relative values (in %) to selected limit, configurable frequency bands with selectable RBW, movable markers, worst case markers, upgradable to multi-probe.
Export	Summary report and raw data. Multiple test points in same export.
Connection to SMP3	PC connection to SMP3 through fast USB-C cable
PC recommended requirements	Windows 10 or above, RAM 16 Gb, SSD 1 Tb, CPU i7 (not included)

Higher RBWs require faster computers, the actual values that can be used depend on the user's computer speed.

REQUIRED ITEMS

	Model	PART NUMBER
EMF meter	SM3-Dual	#WSL0002
Option required	SMP3 Streamer Option	#W-SMP3-STREAMER
Suggested probe	WP400C	#WWP1002
Other compatible probes	WP400 WP400-3 WPH-DC WP10M (up to 400 kHz)	#WWP1001 #WWP1201 #WWP1101 #WWP2401
Optional items		
	Extension cable 2m	
	Extension cable 5m	
	Embedded GPS	
Computer	Windows 10 or above, RAM 16 Gb, SSD 1 Tb, CPU i7 USB-C High Speed hub for simultaneous multiple probes	

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