

PRODUCT DATA

PULSE Advanced Intensity Analysis — Type 7759

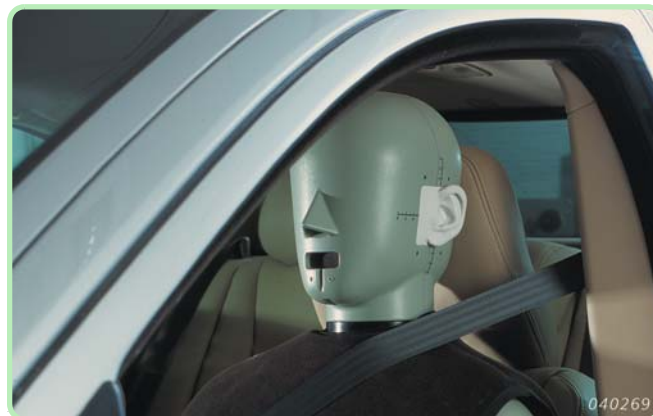
The selective intensity function included in PULSE™ Advanced Intensity Analysis Type 7759 can be used to determine the internal root causes of the noise sources observed at the surface of an object.

Uses

- Determination of root causes for known 'hot-spots'
- Mapping of the noise radiation for a particular root cause
- Determination of the sound power relating to a particular root cause

Features

- Selective Intensity can be used to distinguish between uncorrelated noise sources
- Part of PULSE
- Integrates with Noise Source Identification Type 7752



Intensity measurement and mapping are recognised as effective ways to determine the location, quantify the absolute power and determine the relative contribution of individual sub-sources or 'hot-spots' as observed on the surface of an object. However, when it comes to identifying the internal root causes for the noise radiated, this method only gives indirect indications, like the spectral content of the noise. These need to be combined with extensive knowledge of the internal design to be really conclusive.

Selective intensity provides a direct way to measure whether an external 'hot-spot' is related to a specific internal root cause.

Selective intensity calculates that part of the full measured intensity that is coherent with a specific reference signal. If, for instance, the vibration of a specific part is suspected to be the main cause of the noise radiated, you can simply put an accelerometer on that part and use it as the reference for a selective intensity calculation. If the suspicion is correct, the selective intensity will be close to the full intensity observed.

The reference signal may be of any nature: acoustic, vibration, force, electrical, etc., whichever provides the cleanest and least noisy representation of the suspected root cause.

Fig. 1

Using the multi-analysis capabilities of PULSE, it is possible to calculate both the full intensity and the parts coherent with one or more references simultaneously in real-time. Selective Intensity can be used to rank noise sources, for example in terms of contribution to cabin noise

Pink: Ordinary Intensity
 Black: Selective Intensity
 The pulley belt frequency of 300 Hz is fully audible at the driver's position

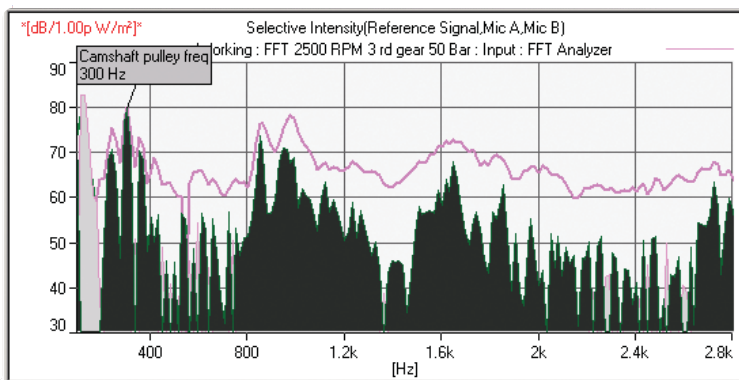
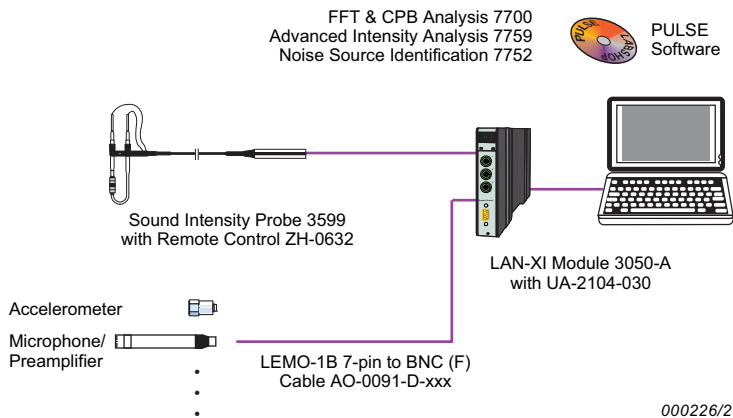


Fig. 2

Portable PULSE configuration for advanced intensity analysis



Ordering Information

Type 7759-X* PULSE Advanced Intensity Supports LAN-XI Module Type 3050-A with serial number > 3050-105000

ACCESSORIES REQUIRED
 Type 7700-X3* PULSE FFT & CPB Analysis, 3-ch. license

AO-0091-D-xxx† LEMO-1B 7-pin to BNC (F) Cable, max.+70°C (158°F)

OPTIONAL ACCESSORIES
 Type 7752-X* PULSE Noise Source Identification

SERVICES
 M1-7759-X* Software Maintenance and Upgrade Agreement

* X specifies license: N for node locked, F for floating

† xxx = length in decimetres

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