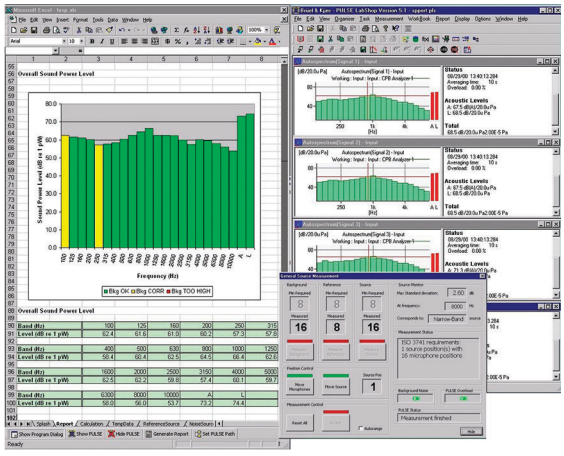
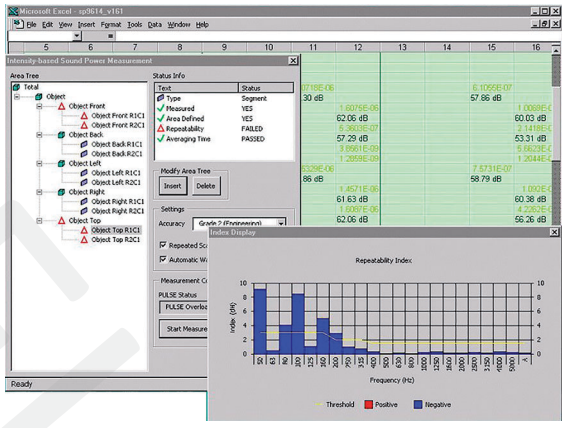
PULSE Value Pack for Sound Power Determination BZ-5305

PULSE™ Value Pack for Sound Power Determination BZ-5305 is a software package that offers new solutions for measuring sound power using the PULSE system. Different measurement methods are supported in accordance with international standards. PULSE Value Pack automatically sets up and operates PULSE by providing intuitive windows that guide the user through the measurement procedure. It performs calculations and automatically exports the relevant measurement data and sound power results to Microsoft® Excel® files.





Uses and Features

Uses

- Supports pressure-based Sound Power Determination in Reverberation Rooms using Comparison Method ISO 3741:1999 and ISO 3743:1994 Parts 1 and 2
- Supports Sound Power Determination using Sound Intensity Scanning Method ISO 9614-2:1996 and ECMA-160:1992
- Supports pressure-based Sound Power Determination under Free-field Conditions according to ISO 3744:1994, ISO 3745:1997 and ISO 3746:1995

Features

- Value Pack supports both Portable PULSE Type 3560-C and Stationary PULSE Type 3560 A with specific configurations
- Intuitive windows show the current stage of the measurement procedure and indicate the actions necessary to complete measurement
- Value Pack software runs alongside PULSE LabShop, controlling it through an OLE software interface, with direct access to PULSE unnecessary except for calibration and configuration changes
- Value Pack consists of custom Microsoft Excel templates – one for each measurement method – and predefined PULSE projects
- Excel macros operate in the background to run the application; clicking on a template automatically activates PULSE, runs the corresponding application, and generates a new Excel workbook where measurement data and results are clearly organised and stored
- Individual sound power reports are automatically generated as single Excel worksheets
- Excel macro code is written in the Visual Basic for Applications (VBA) language. It is open and modifiable – the application can be adapted for specific configuration requirements, or the content of the automatically generated reports customised

Sound Power Determination in Reverberation Rooms

The PULSE Value Pack supports both microphone array and traversing microphone methods.

Differences between noise source levels and background levels are determined, with required corrections or error indications for excessive background noise.

The program evaluates the presence of narrow bands/discrete tones and guides the user in the determination of additional microphone and/or source positions required to meet the selected standard.

The procedure includes moving the microphones between measurements when the number of microphone positions required by the selected standard is greater than the available number of microphones. This also includes moving the test object between measurements.

Reports are generated in formats that meet the requirements of the standard, including indications when sound pressure levels have been corrected for background noise or when excessive background noise has been present.

Sound Power Determination using Sound Intensity

Measurements are performed using 1/1-, 1/3-, 1/12- or 1/24-octave bandwidths.

A tree structure allows you to edit the measurement-surface geometry by adding new, user-defined, planar surfaces, and by segmenting previously defined surfaces. Surfaces can be sub-segmented up to seven times to obtain the desired accuracy. This is also possible between individual measurements during the measurement procedure.

The pressure-residual intensity index can be calculated, and the dynamic capability index stored. The surface pressure-intensity indicator, FpI, and the negative partial-power indicator, F+/-, for the measurement surface are calculated and compared with the standard requirements. When the repeated scan method is selected, a partial-power repeatability check is performed for each segment.

The measurements are recorded automatically, following the structure of the tree, or manually. The display window always indicates the status of each measurement position.

Detailed reports are generated including, when required, tables of field indicators in each frequency band for the measurement surface as specified by the standard.

Sound Power Determination in Free-field Conditions

The PULSE Value Pack supports microphone arrays.

The procedure includes moving the microphones between measurements when the number of microphones required by the selected standard is greater than the available number of microphones.

The program evaluates the source directivity and guides the user in the determination of additional microphone positions required to meet the selected standard.

Differences between noise source levels and background noise levels are determined, with required corrections or error indications for excessive background noise. Environmental corrections are also accounted for.

Reports are generated in formats that meet the requirements of the standard, including indications when sound pressure levels have been corrected for background noise or when the background noise has been excessive.

System Requirements

PC HARDWARE
Please refer to the System Data for IDA^{e} Hardware for Types 3560-C and 3560-D

Ordering Information

BZ-5305-X[1]	PULSE Value Pack for Sound Power Determination

Recommended Portable PULSE System

Type 7700-N4	PULSE FFT & CPB Analysis
MI-7700-N4	PULSE Annual Software Maintenance and Support Agreement
Type 2827	Portable Data Acquisition Unit
Type 7533	LAN interface module
Type 3109	Generator, 4/2-ch. Input/Output Module
UL-0175-A-xx	Dell Latitude CPx High-end Notebook PC
BZ-5197	Microsoft Windows NT
BZ-5308-xx	MS Office 2000 Small Business Edition
BZ-5309-xx	MS Office 2000 Small Business Edition with Manuals
BZ-5321-xx	MS Office 2000 Professional Edition

xx specifies country: GB, DE, FR, ES, IT, SE, US

Recommended Accessories

SOUND POWER DETERMINATION IN REVERBERATION ROOMS

Type 4192 L-001	Pressure-Field ½″ Microphone with Type 2669-L, TEDS
UA-0587	Microphone Tripod
UA-1317	Microphone Holder
Type 3923	Rotating Microphone Boom
AO-0415	7-pin LEMO Microphone Ext. Cable (10 m)
AO-0416	7-pin LEMO Microphone Ext. Cable (30 m)
Type 4231	Sound Level Calibrator
Type 4204	Reference Sound Source

SOUND POWER DETERMINATION USING SOUND INTENSITY

Type 3599	Sound Intensity Probe Set[2]
WL-1308	Splitter Cable (needed only for the Type 3028 (WH-3229)/Type 3017 Stationary PULSE solution)
Type 3541	Sound Intensity Probe Calibrator

SOUND POWER DETERMINATION IN A FREE FIELD

Type 4190-L-001	Free-Field ½″ Microphone with Type 2669-L, TEDS
UA-0587	Microphone Tripod
UA-1317	Microphone Holder
AO-0415	7-pin LEMO Microphone Ext. Cable (10 m)
AO-0416	7-pin LEMO Microphone Ext. Cable (30 m)
Type 4231	Sound Level Calibrator

1 X Specifies license: N for node locked, F for floating

2 Sound Intensity Probe Set for Type 2260, Type 3595, can be upgraded to Type 3599 with the following accessories: ZH-0632 Remote Control Unit; AO-0578 5 m cable with 18-18 pole LEMO; AO-0579 5 m cable with 2 × 7 pole LEMO and sub-D

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