

B. DATA FILE STRUCTURES

B.1. STRUCTURE OF THE SVAN 948 FILE

Each file containing data from the SVAN 94x instrument consists of several groups of words. In the case of the **SVAN 948** there are some different types of files that contain:

- the measurement results from the **Level Meter** mode (cf. App. B.2);
- the results from **1/1 OCTAVE** analysis (cf. App. B.3);
- the results from **1/3 OCTAVE** analysis (cf. App. B.4);
- the results from the **FFT** analysis (cf. App. B.5);
- the results from the **Level Meter** mode stored in the file in the instrument's buffer (cf. App. B.6 and App. B.10);
- the results from **1/1 OCTAVE** or **1/3 OCTAVE** analysis stored in the file in the instrument's buffer (cf. App. B.7 and App. B.10);
- the results from the **FFT** analysis stored in the file in the instrument's buffer (cf. App. B.8 and App. B.10);
- the setup data of the instrument (cf. App. B.9);
- the results coming from **RT60** measurement (cf. App. B.10);
- the averaged results of **RT60** measurements (cf. App. B.11);
- time domain signal saved in the buffer file of the instrument (cf. App. B.12 and App. B.14).

Each file has the following elements:

- a file header (cf. Tab. B.1.1);
- the unit and internal software specification (cf. Tab. B.1.2);
- the marker for the end of the file (cf. Tab. B.1.25).

The other elements of the file structure are not obligatory for each file type stated above. They depend on the file type (**LM**, **1/1 OCTAVE**, **1/3 OCTAVE**, **RT60** or **FFT** analysis, file from the buffer, setup file). These elements are as follows:

- the parameters and global settings, common for all channels (cf. Tab. B.1.3);
- the hardware settings for channels (cf. Tab. B.1.4);
- the software settings for channels (cf. Tab. B.1.5);
- the **VECTOR** measurement settings (cf. Tab. B.1.6);
- the **1/1 OCTAVE** or **1/3 OCTAVE** analysis header (cf. Tab. B.1.7);
- the hand-arm and whole-body vibration dose measurement settings (cf. Tab. B.1.9);
- the main results (cf. Tab. B.1.10);
- the selected statistical levels in channels (cf. Tab. B.1.11);
- the results coming from **1/1 OCTAVE** analysis (cf. Tab. B.1.12);
- the results coming from **1/3 OCTAVE** analysis (cf. Tab. B.1.13);
- the totals description in 1/1 octave or 1/3 octave analysis (cf. Tab. B.1.16);
- the user defined filter description (cf. Tab. B.1.17);
- the header of the **FFT** analysis (cf. Tab. B.1.8);
- the results of the **FFT** analysis (cf. Tab. B.1.14);
- the header of the statistical analysis (cf. Tab. B.1.18);
- the results of the statistical analysis (cf. Tab. B.1.19);
- the statistical analysis results the made in **1/1 OCTAVE** or **1/3 OCTAVE** mode (cf. Tab. B.1.20);
- the buffer header (cf. Tab. B.1.22);
- the **1/1 OCTAVE** or **1/3 OCTAVE** buffer header (cf. Tab. B.1.23);
- the data stored during the measurements in the buffer (cf. Tab. B.1.24);
- the setup data of the instrument (cf. Tab. B.1.26);
- the user defined filters (cf. Tab. B.1.27);
- the **1/3 OCTAVE** analysis header in **RT60** mode (cf. Tab. B.1.28);
- the **RT60** measurement parameters (cf. Tab. B.1.29);
- the results coming from **RT60** measurement in a channel (cf. Tab. B.1.30);
- the averaged results from **RT60** measurement in a channel (cf. Tab. B.1.31);
- the results coming from **RT60** measurements averaged between the channels (cf. Tab. B.1.32);
- the averaged results coming from **RT60** measurements averaged between channels (cf. Tab. B.1.33);

- the results coming from rotation measurements (cf. Tab. B.1.34);
- the time domain buffer header (cf. Tab. B.1.35);
- the **SEAT** measurements settings (cf. Tab. B.1.36);
- the Max results coming from **1/1 OCTAVE** analysis (cf. Tab. B.1.37);
- the Min results coming from **1/1 OCTAVE** analysis (cf. Tab. B.1.38);
- the Max results coming from **1/3 OCTAVE** analysis (cf. Tab. B.1.39);
- the Min results coming from **1/3 OCTAVE** analysis (cf. Tab. B.1.40).

Below, all file structure groups are described separately in Tab. B.1.1 ÷ Tab. B.1.40. The format used in the columns, named **Comment** with the square parenthesis (**[xx, yy]**), means the contents of the word with **xx** is the most significant byte (MSB) and **yy** the least significant byte (LSB) of the word. The format **0xn** means that the **n** is four-digit number in hexadecimal form.

Table B.1.1. FILE HEADER

Word number	Name / Value	Comment
0	0xnn01	[01, nn=header_length]
1..4	FileName	file or buffer name (8 characters)
5	FileType	0x0000 - file containing results from buffer's file 0x01nn - file containing measurements results 0x0200 - file containing instrument's setup data 0x4000 - file containing time domain signal
6	CurrentDate	file creation date
7	CurrentTime	file creation time
8..11	AssBufFileName	name of the associated buffer or file (8 bytes)

Table B.1.2. UNIT AND SOFTWARE SPECIFICATION

Word number	Name / Value	Comment
0	0xnn02	[02, nn=specification_length]
1	UnitNumber	unit number
2	UnitType	unit type: 948
3	SoftwareVersion	software version * 100
4	SoftwareIssueDate	software issue date
5	UnitSubtype	unit subtype: 1
6	FilesystemVersion	filesystem version * 100
7	LevelMeterVersion	meter software version * 100

Table B.1.3. PARAMETERS AND GLOBAL SETTINGS

Word number	Name / Value	Comment
0	0xnn04	[04, nn=block_length]
1	MeasureStartDate	measure start date
2	MeasureStartTime	measure start time
3	DeviceFunction	1 - LEVEL METER , 2 - 1/1 OCTAVE analyser, 3 - 1/3 OCTAVE analyser, 4 - sound DOSEMETER , 6 - FFT analyser, 8 - RT60 meter
4	UnitFlags	flags word (16 bits): b15 ... b3 b2 b1 b0 b0 - if set to 1: calibration coefficient is used b1 - if set to 1: overload occurred b2 - if set to 1: "Human vibrations" excluded (0 - means "Human vibrations" included and then VDV result is present) b5,b4,b3: type of the result Result[p][7] (p = 1,2,3,4) 000 - Lden result is not available 001 - Ld result 010 - Le result 011 - Lde result 100 - Ln result 101 - Lnd result 110 - Len result 111 - Lden result b6 - if set to 1: overload occurred in the 4 th channel b7 - if set to 1: overload occurred in the 3 rd channel b8 - if set to 1: overload occurred in the 2 nd channel b9 - if set to 1: overload occurred in the 1 st channel b10, ..., b15 - reserved
5	RepCycle	0 - infinity nnnn - number of repetitions $\in (1 \div 1000)$
6	StartDelay	start delay time specified in milliseconds $\in (1 \div 60000)$

7..8	IntTimeSec	0 - infinity integration time specified in seconds
9	TriggerChannel	source channel of the triggering signal: 0 (the 1 st channel) .. 3 (the 4 th channel)
10	TriggerMode	trigger mode: 0 - OFF , 1 - SLOPE + , 2 - SLOPE - , 3 - LEVEL + , 4 - LEVEL - , 5 - BUFFER , 6 - GRADIENT +
11	TriggerSource	source of the triggering signal: 0 - the VEC result 1 - the VEC result and RMS(1) result from selected channel 2 - the RMS(1) result from the selected channel 3 - the External trigger in the case of 1/1 OCTAVE analyser: nn - number of 1/1 OCTAVE filter $\in (8 \div \text{NOct})$ in the case of 1/3 OCTAVE analyser nn - number of 1/3 OCTAVE filter $\in (23 \div \text{Nter})$ nn - number of TOTAL LIN result (48) in the case of RT60 analyser: nn - number of TOTAL LIN result (48)
12	TriggerLev	level of triggering: 24..136 dB in the case of source channel set in Sound Meter mode, 60..200 dB in the case of source channel in Vibration Meter mode negative value [dB] in RT60 - DECAY mode
13	VecTriggerLev	level of triggering for VEC result: 60..200 dB
14	TriggerPre	number of the records taken into account before the fulfilment of the triggering condition $\in (1 \div 20)$
15	TriggerPost	number of the records taken into account after the fulfilment of the triggering condition $\in (1 \div 200)$
16	LeqInt	detector's type in the LEQ function: 0 - LINEAR , 1 - EXPONENT.
17	Reserved	reserved
18	RefLev_a	reference level for acceleration given in $\mu\text{ms}^{-2} \in (1 \div 100)$
19	RefLev_v	reference level for velocity given in $\text{nms}^{-1} \in (1 \div 100)$
20	RefLev_d	reference level for displacement given in $\text{pm} \in (1 \div 100)$
21	NofChannels	number of channels (4)
22	NofProfiles	number of profiles (12)
23	NotSpect	number of spectrum (4)
24	LowesTerFreq	the lowest possible 1/3 octave frequency (*100Hz)
25	CalibrType	calibration type: 0 - calibration not performed 1 - calibration by measurement 2 - calibration by sensitivity
26	CalibrDate	date of the last calibration
27	CalibrTime	time of the last calibration
28	TriggerGrad	the gradient level for gradiend trigger mode
29	DoseExposureTime	exposure time for dosimeter function (min.)
30	DoseCriterionLev	Criterion level (*100dB)
31	DoseTresholdLev	Threshold level (*100dB)
32	DoseExchangeRate	Exchange Rate (dB)
33	RPM_On	RPM measurement: 0 - switched off; 1 - switched on
34	RPM_Pulse	Pulses per rotation $\in (1 \div 360)$
35	RPM_Buffer	RPM results buffering: 0 - switched off; 1 - switched on

Table B.1.4. HARDWARE SETTINGS FOR CHANNELS

Word number	Name / Value	Comment
0	0xnn05	[05, nn=block_length]
1	0x0706	[06, 07=subblock_length]
2	ChannelMode[1]	mode of the 1 st channel 0 - Vibration Level Meter / Analyser 1 - Sound Level Meter / Analyser

3	CalibrFactor[1]	calibration factor (*10 dB) in the 1 st channel
4	Range[1]	range in the 1 st channel 1 - 105 dB , 2 - 130 dB in the case of SLM 1 - 17.8 ms⁻² , 2 - 316 ms⁻² in the case of VLM
5	Reserved	reserved
6	MicFieldCorr[1]	field correction: 0 - FREE , 1 - DIFFUSE in the case of SLM
7	MicOutdoor[1]	outdoor microphone kit correction: 1 - enabled in the case of SLM
8	0x0706	[06, 07=subblock_length]
9	ChannelMode[2]	mode of the 2 nd channel: 0 - Vibration Level Meter / Analyser 1 - Sound Level Meter / Analyser
10	CalibrFactor[2]	calibration factor (*10 dB) in the 2 nd channel
11	Range[2]	range in the 2 nd channel: 1 - 105 dB , 2 - 130 dB in the case of SLM 1 - 17.8 ms⁻² , 2 - 316 ms⁻² in the case of VLM
12	Reserved	reserved
13	MicFieldCorr[2]	field correction: 0 - FREE , 1 - DIFFUSE in the case of SLM
14	MicOutdoor[2]	outdoor microphone kit correction: 1 - enabled in the case of SLM
15	0x0706	[06, 07=subblock_length]
16	ChannelMode[3]	mode of the 3 rd channel: 0 - Vibration Level Meter / Analyser 1 - Sound Level Meter / Analyser
17	CalibrFactor[3]	calibration factor (*10 dB) in the 3 rd channel
18	Range[3]	range in the 3 rd channel: 1 - 105 dB , 2 - 130 dB in the case of SLM 1 - 17.8 ms⁻² , 2 - 316 ms⁻² in the case of VLM
19	Reserved	reserved
20	MicFieldCorr[3]	field correction: 0 - FREE , 1 - DIFFUSE in the case of SLM
21	MicOutdoor[3]	outdoor microphone kit correction: 1 - enabled in the case of SLM
22	0x0706	[06, 07=subblock_length]
23	ChannelMode[4]	mode of the 4 th channel: 0 - Vibration Level Meter / Analyser 1 - Sound Level Meter / Analyser
24	CalibrFactor[4]	calibration factor (*10 dB) in the 4 th channel
25	Range[4]	range in the 4 th channel: 1 - 105 dB , 2 - 130 dB in the case of SLM 1 - 17.8 ms⁻² , 2 - 316 ms⁻² in the case of VLM
26	Reserved	reserved
27	MicFieldCorr[4]	field correction: 0 - FREE , 1 - DIFFUSE in the case of SLM
28	MicOutdoor[4]	outdoor microphone kit correction: 1 - enabled in the case of SLM

Table B.1.5. SOFTWARE SETTINGS FOR CHANNELS

Word number	Name / Value	Comment
0	0xnn07	[07, nn=block_length]
1	0x040C	[used_channel, used profile]
2..7	ProfileSett[1]	first profile settings for the 1 st channel, defined in Table B.1.5_SLM in the case of SLM mode or in Table B.1.5_VLM in the case of VLM mode (see below)
8..13	ProfileSett[2]	first profile settings for the 2 nd channel, defined in Table B.1.5_SLM in the case of SLM mode or in Table B.1.5_VLM in the case of VLM mode

14..19	ProfileSett[3]	first profile settings for the 3 rd channel, defined in Table B.1.5_SLM in the case of SLM mode or in Table B.1.5_VLM in the case of VLM mode
20..25	ProfileSett[4]	first profile settings for the 4 th channel, defined in Table B.1.5_SLM in the case of SLM mode or in Table B.1.5_VLM in the case of VLM mode
26..31	ProfileSett[5]	second profile settings for the 1 st channel, defined in Table B.1.5_SLM in the case of SLM mode or in Table B.1.5_VLM in the case of VLM mode (see below)
32..37	ProfileSett[6]	second profile settings for the 2 nd channel, defined in Table B.1.5_SLM in the case of SLM mode or in Table B.1.5_VLM in the case of VLM mode
38..43	ProfileSett[7]	second profile settings for the 3 rd channel, defined in Table B.1.5_SLM in the case of SLM mode or in Table B.1.5_VLM in the case of VLM mode
44..49	ProfileSett[8]	second profile settings for the 4 th channel, defined in Table B.1.5_SLM in the case of SLM mode or in Table B.1.5_VLM in the case of VLM mode
50..55	ProfileSett[9]	third profile settings for the 1 st channel, defined in Table B.1.5_SLM in the case of SLM mode or in Table B.1.5_VLM in the case of VLM mode (see below)
56..61	ProfileSett[10]	third profile settings for the 2 nd channel, defined in Table B.1.5_SLM in the case of SLM mode or in Table B.1.5_VLM in the case of VLM mode
62..67	ProfileSett[11]	third profile settings for the 3 rd channel, defined in Table B.1.5_SLM in the case of SLM mode or in Table B.1.5_VLM in the case of VLM mode
68..73	ProfileSett[12]	third profile settings for the 4 th channel, defined in Table B.1.5_SLM in the case of SLM mode or in Table B.1.5_VLM in the case of VLM mode



Note: In RT60 measurements mode whole block is reserved (values have no interpretation).

Table B.1.5_SLM. SOFTWARE SETTINGS FOR A CHANNEL IN THE CASE OF SLM MODE

Word number	Name / Value	Comment
0	0xnn08	[08, nn=block_length]
1	ChannelNo	number of channel: 0 - first channel
2	FilterP	filter type in the channel: 1 - LIN , 2 - A , 3 - C , 4 - G
3	DetectorP	detector type in the channel: 0 - IMP. , 1 - FAST , 2 - SLOW
4	BufferP	buffer contents in the channel defined as a sum of : 1 - for PEAK results, 2 - for MAX results, 4 - for MIN results, 8 - for RMS results,
5	ProfileFlags	flags word (16 bits): b15 ... b3 b2 b1 b0 b0 - if set to 1: profile results have been calculated b1 ... b15 – reserved

Table B.1.5_VLM. SOFTWARE SETTINGS FOR A CHANNEL IN THE CASE OF VLM MODE

Word number	Name / Value	Comment
0	0xnn08	[08, nn=subblock_length]
1	ChannelNo	channel number: 0 - the 1 st channel
2	FilterP	filter type in the channel: 1 - HP1 , 2 - HP3 , 3 - HP10 , 4 - Vel1 , 5 - Vel3 , 6 - Vel10 , 7 - VelMF , 8 - Dil1 , 9 - Dil3 , 10 - Dil10 , 15 - KB , 16 - Wk , 17 - Wd , 18 - Wc , 19 - Wj , 20 - Wm , 21 - Wh , 22 - Wg , 23 - Wb
3	DetectorP	detector type in the channel: 0 - 100 ms , 1 - 125 ms , 2 - 200 ms , 3 - 500 ms , 4 - 1 s , 5 - 2 s , 6 - 5 s , 7 - 10 s
4	BufferP	buffer contents in the channel defined as a sum of: 1 - for PEAK results, 2 - for P-P results, 4 - for MAX results, 8 - for RMS results, 16 - for VDV results
5	ProfileFlags	flags word (16 bits): b15 ... b3 b2 b1 b0 b0 - if set to 1: profile results have been calculated b1 ... b15 – reserved

Table B.1.6. VECTOR MEASUREMENT SETTINGS

Word number	Name / Value	Comment
0	0xnn1E	[1E, nn=subblock_length]
1	VectorBufferP	vector result buffering: 0 - OFF , 1 - ON
2	VectorCoeff[1]	vector coefficient for the RMS value from the 1 st channel (*100)
3	VectorCoeff[2]	vector coefficient for the RMS value from the 2 nd channel (*100)
4	VectorCoeff[3]	vector coefficient for the RMS value from the 3 rd channel (*100)
5	VectorCoeff[4]	vector coefficient for the RMS value from the 4 th channel (*100)
6	VectorOn[1]	RMS value from the 1 st channel used for calculation: 0 - no, 1 - yes
7	VectorOn[2]	RMS value from the 2 nd channel used for calculation: 0 - no, 1 - yes
8	VectorOn[3]	RMS value from the 3 rd channel used for calculation: 0 - no, 1 - yes
9	VectorOn[4]	RMS value from the 4 th channel used for calculation: 0 - no, 1 - yes
10	VectorResult	VECTOR result value (*100 dB)

Table B.1.7. OCTAVES ANALYSIS HEADER

Word number	Name / Value	Comment
0	0xnn09	[09, nn=block_length]
1	0xkknn	[nn=spectrum_mask, kk=used_spectrum]
2..5	OctaveHead[1]	header of the first enabled octave analysis, defined in Table B.1.7_SLM in the case of SLM mode or in Table B.1.7_VLM in the case of VLM mode (see below)
...
2+4*used_spectrum.. 5+4*used_spectrum	OctaveHead[used_spectrum]	header of the last enabled octave analysis, defined in Table B.1.7_SLM in the case of SLM mode or in Table B.1.7_VLM in the case of VLM mode

Table B.1.7_SLM. OCTAVE ANALYSIS HEADER IN THE CASE OF SLM MODE

Word number	Name / Value	Comment
0	0xnn0A	[0A, nn=subblock length]
1	SpectrumChannel	spectrum channel
2	SpectrumFilter	1/1 or 1/3 OCTAVE analysis filter: 0 - HP , 1 - LIN , 2 - A , 3 - C
3	SpectrumBuff	1/1 or 1/3 OCTAVE buffering: 1 - ON , 0 - OFF

Table B.1.7_VLM. OCTAVE ANALYSIS HEADER IN THE CASE OF VLM MODE

Word number	Name / Value	Comment
0	0xnn0A	[0A, nn=subblock length]
1	SpectrumChannel	spectrum channel
2	SpectrumFilter	1/1 or 1/3 OCTAVE analysis filter: 0 - HP
3	SpectrumBuff	1/1 or 1/3 OCTAVE buffering: 1 - ON , 0 - OFF

Table B.1.8. HEADER OF THE FFT ANALYSIS

Word number	Name / Value	Comment
0	0xnn0B	[0B, nn=block_length] nn=2+NumberOfEnabledFFTs*12
1	0xkkmm	[mm=spectrum_mask, kk=spectrum_count]
2..13	FFTHeader[1]	header of the first enabled FFT analysis, defined in Table B.1.8_SLM in the case of SLM mode or in Table B.1.8_VLM in the case of VLM mode (see below)
...	...	
2+spectrum_count*1 2..13+spectrum_count*12	FFTHeader[spectrum_count]	header of the last enabled FFT analysis, defined in Table B.1.8_SLM in the case of SLM mode or in Table B.1.8_VLM in the case of VLM mode

Table B.1.8_SLM. HEADER OF THE FFT ANALYSIS IN ONE CHANNEL SLM MODE

Word number	Name / Value	Comment
0	0xnn0C	[0C, nn=block_length]
1	FFTChannel	channel of FFT analysis
2	FFTFilter	FFT analysis filter: 0 - HP , 1 - LIN , 2 - A , 3 - C
3	FFTBuff	FFT buffering: 1 - ON , 0 - OFF
4	LowestFreqNo	number of the first line in the FFT spectrum = 0
5	NFft	number of lines in the spectrum = 1600
6	NFftTot	number of TOTAL lines in the spectrum = 1
7	FftBand	band of the FFT analysis: 1 - 20 kHz , 2 - 10 kHz , 3 - 5 kHz , 4 - 2.5 kHz , 5 - 1.25 kHz , 6 - 625 Hz , 7 - 312 Hz , 8 - 156 Hz , 9 - 78 Hz
8	FftWindow	window in the FFT analysis: 0 - HANNING
9	FftAverag	type of averaging in the FFT analysis: 0 - LINEAR
10..11	FftSampFreq	sampling frequency

Table B.1.8_VLM. HEADER OF THE FFT ANALYSIS IN ONE CHANNEL VLM MODE

Word number	Name / Value	Comment
0	0xnn0C	[0C, nn=block_length]
1	FFTChannel	channel of FFT analysis
2	FFTFilter	FFT analysis filter: 0 - HP
3	FFTBuff	FFT buffering: 1 - ON , 0 - OFF
4	LowestFreqNo	number of the first line in the FFT spectrum = 0
5	NFft	number of lines in the spectrum = 1600
6	NFftTot	number of TOTAL lines in the spectrum = 1
7	FftBand	band of the FFT analysis: 1 - 20 kHz , 2 - 10 kHz , 3 - 5 kHz , 4 - 2.5 kHz , 5 - 1.25 kHz , 6 - 625 Hz , 7 - 312 Hz , 8 - 156 Hz , 9 - 78 Hz

8	FftWindow	window in the FFT analysis: 0 - HANNING
9	FftAverag	type of averaging in the FFT analysis: 0 - LINEAR
10..11	FftSampFreq	sampling frequency

Table B.1.9. SETTINGS FOR VIBRATION DOSE MEASUREMENT

Word number	Name / Value	Comment
0	0xnn1F	[1F, nn=block_length]
1	xyyy	[yy=channel of Y axis-1 ,xx=channel of X axis-1]
2	nnzz	[zz=channel of Z axis-1, nn] nn=1 for Hand-Arm measurement, nn=2 for Whole-Body measurement
3	ExposureTime	exposure time in minutes
4	Standard	standard: 0 - UK , 1 - Italy , 2 - Poland , 3 - User

Table B.1.10. MAIN RESULTS

Word number	Name / Value	Comment
0	0xnn0D	[0D, nn=subblock_length]
1	0x040C	[used_channel, user profile]
2..15	MainResults[1]	main results from first profile of the 1 st channel, defined in Table B.1.10_SLM in the case of SLM mode or in Table B.1.10_VLM in the case of VLM mode (see below)
16..29	MainResults[2]	main results from first profile of the 2 nd channel, defined in Table B.1.10_SLM in the case of SLM mode or in Table B.1.10_VLM in the case of VLM mode
30..43	MainResults[3]	main results from first profile of the 3 rd channel, defined in Table B.1.10_SLM in the case of SLM mode or in Table B.1.10_VLM in the case of VLM mode
44..57	MainResults[4]	main results from first profile of the 4 th channel, defined in Table B.1.10_SLM in the case of SLM mode or in Table B.1.10_VLM in the case of VLM mode
58..71	MainResults[5]	main results from second profile of the 1 st channel, defined in Table B.1.10_SLM in the case of SLM mode or in Table B.1.10_VLM in the case of VLM mode (see below)
72..85	MainResults[6]	main results from second profile of the 2 nd channel, defined in Table B.1.10_SLM in the case of SLM mode or in Table B.1.10_VLM in the case of VLM mode
86..99	MainResults[7]	main results from second profile of the 3 rd channel, defined in Table B.1.10_SLM in the case of SLM mode or in Table B.1.10_VLM in the case of VLM mode
100..113	MainResults[8]	main results from second profile of the 4 th channel, defined in Table B.1.10_SLM in the case of SLM mode or in Table B.1.10_VLM in the case of VLM mode
114..127	MainResults[9]	main results from third profile of the 1 st channel, defined in Table B.1.10_SLM in the case of SLM mode or in Table B.1.10_VLM in the case of VLM mode (see below)
128..141	MainResults[10]	main results from third profile of the 2 nd channel, defined in Table B.1.10_SLM in the case of SLM mode or in Table B.1.10_VLM in the case of VLM mode
142..155	MainResults[11]	main results from third profile of the 3 rd channel, defined in Table B.1.10_SLM in the case of SLM mode or in Table B.1.10_VLM in the case of VLM mode
156..169	MainResults[12]	main results from third profile of the 4 th channel, defined in Table B.1.10_SLM in the case of SLM mode or in Table B.1.10_VLM in the case of VLM mode

Table B.1.10_SLM. ONE PROFILE MAIN RESULTS IN THE CASE OF SLM MODE

Word number	Name / Value	Comment
0	0xnn0E	[0E, nn=subblock_length]
1..2	MeasureTime	time of the measurement in the channel (if the 1 st profile in channel) overload time in the channel (if second profile in channel)
3	Result[1]	PEAK value in the profile (*100 dB)
4	Result[2]	reserved
5	Result[3]	minimal value (MIN) in the profile (*100 dB)
6	Result[4]	SPL value in the profile (*100 dB)
7	Result[5]	maximal value (MAX) in the profile (*100 dB)
8	Result[6]	Lden value in the profile (*100 dB) (depends on UnitFlags bits: b3, b4, b5)
9	Result[7]	LEQ value in the profile (*100 dB)
10	Result[8]	Ltm3 value in the profile (*100 dB)
11	Result[9]	Ltm5 value in the profile (*100 dB)
12	Result[10]	Lav value in the profile (*100dB), (the result enable only dosimeter function)
13	Result[11]	TLav value in the profile (*100dB), (the result enable only dosimeter function)

Table B.1.10_VLM. ONE PROFILE MAIN RESULTS IN THE CASE OF VLM MODE

Word number	Name / Value	Comment
0	0xnn0E	[0E, nn=subblock_length]
1..2	MeasureTime	time of the measurement in the channel(if the 1 st profile in channel) overload time in the channel (if second profile in channel)
3	Result[1]	PEAK value in the profile (*100 dB)
	Result[2]	P-P value in the profile (*100 dB)
5	Result[3]	reserved
6	Result[4]	reserved
7	Result[5]	MTVV (or MAX) value in the profile (*100 dB)
8	Result[6]	VDV value in the profile (if UnitFlags bit b2 is set to 0) (*100 dB)
9	Result[7]	RMS value in the profile (*100 dB)
10	Result[8]	reserved
11	Result[9]	reserved
12	Result[10]	reserved
13	Result[11]	reserved

Table B.1.11. SELECTED STATISTICAL LEVELS IN CHANNELS

Word number	Name / Value	Comment
0	0xnn19	[19, nn=block_length]
1	0xccmm	[mm=channel_mask,cc= used_channels]
2	NStatLevs	number of statistical levels per channel = 10
3	N1	N1 value for the LN1 statistics $\in (1 \div 99)$
4	N2	N2 value for the LN2 statistics $\in (1 \div 99)$
5	N3	N3 value for the LN3 statistics $\in (1 \div 99)$
6	N4	N4 value for the LN4 statistics $\in (1 \div 99)$
7	N5	N5 value for the LN5 statistics $\in (1 \div 99)$
8	N6	N6 value for the LN6 statistics $\in (1 \div 99)$
9	N7	N7 value for the LN7 statistics $\in (1 \div 99)$
10	N8	N8 value for the LN8 statistics $\in (1 \div 99)$

11	N9	N9 value for the LN9 statistics $\in (1 \div 99)$
12	N10	N10 value for the LN10 statistics $\in (1 \div 99)$
13	LN1[1]	value of the LN1 statistics (*10 dB) for the 1 st channel in SLM mode
14	LN2[1]	value of the LN2 statistics (*10 dB) for the 1 st channel in SLM mode
...
22	LN10[1]	value of the LN10 statistics (*10 dB) for the 1 st channel in SLM mode
23	LN1[2]	value of the LN1 statistics (*10 dB) for the 2 nd channel in SLM mode
...
block_lengt h-1	LN10[used_chan nels]	value of the LN10 statistics (*10 dB) for the last channel in SLM mode

Table B.1.12. ONE CHANNEL 1/1 OCTAVE ANALYSIS RESULTS

Word number	Name / Value	Comment
0	0xnn0F	[0F, nn=block_length]
1	LowestFreq	the lowest 1/1 OCTAVE frequency (*100 Hz)
2	Noct	number of 1/1 OCTAVE values
3	NoctTot	number of TOTAL values = 3
4... block_lengt th	Octave[i]	1/1 octave[i] value (*100 dB); i=1..NOct+NOctTot



Note: The **TOTAL** values, calculated in the case of sound measurements, correspond to the **A**, **C** and **LIN** filters – respectively. The **TOTAL** values, calculated in the case of vibration measurements, correspond to the **HP**, **CH** and **CH** filters – respectively, where **CH** denotes the filter used in the channel for Level Meter measurement.

Table B.1.13. ONE CHANNEL 1/3 OCTAVE ANALYSIS RESULTS

Word number	Name / Value	Comment
0	0xnn10	[10, nn=block_length]
1	LowestFreq	the lowest 1/3 OCTAVE frequency (*100 Hz)
2	Nter	number of 1/3 OCTAVE values
3	NterTot	number of TOTAL values = 3
4... block_lengt th	Tercje[i]	1/3 octave[i] value (*100 dB); i=1..Nter+NterTot



Note: The **TOTAL** values, calculated in the case of sound measurements, correspond to the **A**, **C** and **LIN** filters – respectively. The **TOTAL** values, calculated in the case of vibration measurements, correspond to the **HP**, **CH** and **CH** filters – respectively, where **CH** denotes the filter used in the channel for Level Meter measurement.

Table B.1.14. ONE CHANNEL FFT ANALYSIS RESULTS

Word number	Name / Value	Comment
0	0x0011	[11, 0 (block is longer than 256 words, the length is given in the second word)]

1	FftBlockLength	$2 + N_{Fft} + N_{FftTot} = 2 + 1600 + 1 = 1603$
2..1602	FFT[i]	value of the FFT line (*100 dB); $i = 1..1601$

Table B.1.15. ONE CHANNEL TOTALS DESCRIPTION

Word number	Name / Value	Comment
0	0xnn1B	[1B, nn=block_length = 1 + Ntotal*4 (words)]
1	SpectChannel	spectrum channel
2	FilterNo[1]	logical filter no. for the first total value 0, 1, 2 - standard filters 3,... - user defined filters
3	FilterType[1]	for sound: 0 for vibration: 0 - ACC. , 1 - VEL. , 2 - DIL.
4	calFactor[1]	calibration factor used to modify the computed TOTAL value
5	TotValue[1]	TOTAL value computed for the filter with logical no. FilterNo or zero value for standard filter
...
nn-4	FilterNo[Ntotal]	logical filter no. for the last total value 0, 1, 2 - standard filters 3,... - user defined filters
nn-3	FilterType[Ntotal]	for sound: 0 for vibration: 0 - ACC. , 1 - VEL. , 2 - DIL.
nn-2	calFactor[Ntotal]	calibration factor used to modify the computed TOTAL value
nn-1	TotValue[Ntotal]	TOTAL value computed for the filter with logical no. FilterNo or zero value for standard filter

Table B.1.16. TOTALS DESCRIPTION

Word number	Name / Value	Comment
0	0xnn1A	[1A, nn=block_length = 1+(1 + Ntotal*4)*k (words)]
1... 1+4*Ntotal	OneChnlTotDesc[1]	One channel totals description block for the first channel with USER FILTER TOTALS (Table B.1.15.)
...
	OneChnlTotDesc[k]	One channel totals description block for the last channel with USER FILTER TOTALS (Table B.1.15.)



Note: This data block is created only in the case when the file was saved for **1/1 OCTAVE** or **1/3 OCTAVE** analysis and the **TOTAL** values were calculated for the filters selected by the user (**USER FILTERS**). The **TOTAL** values corresponding to those filters are given in the TotValue positions and the definitions of the proper filters are presented in the Table B.1.17.

Table B.1.17. USER DEFINED FILTER DESCRIPTION

Word number	Name / Value	Comment
0	0xnn1D	[1D, nn=block_length = 5 + NTer (words)]
1	FilterNo	FilterNo as saved in ONE CHANNEL TOTALS DESCRIPTION Table (B.1.15)
2..4	FilterName	filter name (up to 5 letters, zero-ending string)
5..49	FilterVal[i]	filter value (*10 dB) corresponding to the 1/3 octave[i] position; $i=1..NTer$ (1..45)



Note: Such data block is created for each filter with the logical number *FilterNo* greater or equal to 3, expressed in the *TOTALS DESCRIPTION* block (cf. Tab. B.1.15 and Tab B.1.16). The description of the filter with the logical number *FilterNo* is given only once, disregarding the number of *FilterNo* repetition in Tab. B.1.15.

Table B.1.18. STATISTICS IN CHANNELS HEADER

Word number	Name / Value	Comment
0	0xnn12	[12, nn=block_length=2+4*used_channels]
1	0xccmm	[mm=channels_mask, cc=used_channels]
2	0x0413	[13, 04=subblock_length]
3	NofClasses[1]	number of classes in the 1 st channel in SLM mode (100)
4	BottomClass[1]	bottom class boundary (*10 dB) in the 1 st channel in SLM mode
5	ClassWidth[1]	class width (*10 dB) in the 1 st channel in SLM mode
...
block_length-4	0x0413	[13, 04=subblock_length]
block_length-3	NofClasses[used_channels]	number of classes in the last channel in SLM mode (100)
block_length-2	BottomClass[used_channels]	bottom class boundary (*10 dB) in the last channel in SLM mode
block_length-1	ClassWidth[used_channels]	class width (*10 dB) in the last channel in SLM mode

Table B.1.19. RESULTS OF THE STATISTICAL ANALYSIS IN ONE CHANNEL

Word number	Name / Value	Comment
0	0xnn14	[14, 00=block length]
1	SubblockLength	2 * number of classes in the channel + 3
2	ChannelNo	channel number minus 1
3..4	Histogram[1]	the 1 st counter in the channel
5..6	Histogram[2]	the 2 nd counter in the channel
.....

Table B.1.20. RESULTS OF THE STATISTICAL ANALYSIS PERFORMED IN 1/1 OCTAVE OR 1/3 OCTAVE MODE

Word number	Name / Value	Comment
0	0x0015	[15, 00=block length in the next word]
1	BlockLength	Block length
2	0xccmm	[mm=spectrum_mask, cc=used_spectrum]
3..	OctStatRes[1]	results of the statistical analysis performed in the 1 st channel in SLM mode (defined in Table B.1.21.)
....
	OctStatRes[used_spectrum]	results of the statistical analysis performed in the last channel in SLM mode (defined in Table B.1.21.)

Table B.1.21. RESULTS OF THE STATISTICAL ANALYSIS PERFORMED IN 1/1 OCTAVE OR 1/3 OCTAVE MODE IN ONE CHANNEL

Word number	Name / Value	Comment
0	0x0016	[16, 00=block length in next word]
1	BlockLength	BlockLength=2*NofHist*NofClass+6
2	NofHist	number of histogramms (number of 1/1 OCTAVE or 1/3 OCTAVE filters and TOTAL values (3))
3	NofClasses	number of classes in the histogramm (100)
4	BottomClass	bottom class boundary (*10 dB)
5	ClassWidth	class width (*10 dB)
6..7	Histogram[1][1]	the 1 st counter for the first 1/1 OCTAVE or 1/3 OCTAVE filter
8..9	Histogram[1][2]	the 2 nd counter for the first 1/1 OCTAVE or 1/3 OCTAVE filter
.....
6+2 * Nof Classes... 7+2 * Nof Classes	Histogram[2][1]	the 1 st counter for the second 1/1 OCTAVE or 1/3 OCTAVE filter
...	Histogram[2][2]	the 2 nd counter for the second 1/1 OCTAVE or 1/3 OCTAVE filter
.....
.....
...	Histogram[NofHist][1]	the 1 st counter for the last 1/1 OCTAVE or 1/3 OCTAVE filter
...	Histogram[NofHist][2]	the 2 nd counter for the last 1/1 OCTAVE or 1/3 OCTAVE filter
.....

Table B.1.22. HEADER OF THE FILE FROM THE BUFFER

Word number	Name / Value	Comment
0	0xnn18	[18, nn=header_length]
1	BufResOffs	position of the first saved result
2	BuffTSec	buffer time step - full seconds part
3	BuffTMiliseC	buffer time step - milliseconds part
4..5	BuffLength	buffer length (bytes)
6..7	RecsInBuff	number of records in the buffer
8..9	RecsInObserv	number of records in the observation period equal to: number of records in the buffer + number of records not saved



Note: The current buffer time step in seconds can be obtained from the formulae:
 $T = \text{BuffTSec} + \text{BuffTMiliseC} / 1000.$

Table B.1.23. SPECTRUM HEADER OF THE FILE FROM THE BUFFER

Word number	Name / Value	Comment
0	0xnn21	[21, nn=block_length=1+4*NumberOfBufferedSpectrums]
1	ChannelNo	channel number of the first buffered spectrum minus 1
2	LowestFreq	the lowest 1/1 OCTAVE or 1/3 OCTAVE frequency (*100 Hz) of the first buffered spectrum or 0 in the case of FFT

3	NoctTer	number of 1/1 OCTAVE or 1/3 OCTAVE results of the first buffered spectrum or 0 in the case of FFT
4	NOctTerTot	number of TOTAL values (3) of the first buffered spectrum or 0 in the case of FFT
...
block_ length-4	ChannelNo	channel number of the last buffered spectrum minus 1
block_ length-3	LowestFreq	the lowest 1/1 OCTAVE or 1/3 OCTAVE frequency (*100 Hz) of the last buffered spectrum or 0 in the case of FFT
block_ length-2	NOctTer	number of 1/1 OCTAVE or 1/3 OCTAVE results of the last buffered spectrum or 0 in the case of FFT
block_ length-1	NOctTerTot	number of TOTAL values (3) of the last buffered spectrum or 0 in the case of FFT

Table B.1.24. CONTENTS OF THE FILE FROM THE BUFFER

Word number	Name / Value	Comment
0..(BuffLength/2-1)		result#1, result#2, ... result#(BuffLength/2-1)

Table B.1.25. FILE END MARKER

Word number	Name / Value	Comment
0	0xFFFF	file end marker

Table B.1.26. INSTRUMENT'S SETUP DATA BLOCK

Word number	Name / Value	Comment
0	0x0020	[20, 00=block length in the next word]
1	BlockLength	Block length
2..BlockLength-1	SetupData	saved setup values

Table B.1.27. USER FILTERS BLOCK IN INSTRUMENT'S SETUP DATA FILE

Word number	Name / Value	Comment
0	0x0027	[27, 00=block length in the next word]
1	BlockLength	block length
2..BlockLength-1	FilterData	saved user filters values

Table B.1.28. THE HEADER OF THE 1/3 OCTAVE ANALYSIS IN RT60 MODE

Word number	Name / Value	Comment
0	0xnn22	[22, nn=block length]
1	0xkknn	kk = channels number, nn = channels mask
2	RT60Method	measurement method: 1 - decay, 2 - impulse

3	0x0423	[23, 04 = subblock length]
4	Spectrum channel	channel of the first spectrum
5	Spectrum Filter	1/1 or 1/3 OCTAVE analysis filter: 0 - HP , 1 - LIN , 2 - A , 3 - C
6	Spectrum Buff	buffering results of analysis: 0 - OFF
nn-4	0x0423	[23, 24 = subblock length]
nn-3	SpectrumChannel	channel of the last spectrum
nn-2	SpectrumFilter	1/1 or 1/3 OCTAVE analysis filter: 0 - HP , 1 - LIN , 2 - A , 3 - C
nn-1	SpectrumBuff	buffering results of analysis: 0 - OFF

Table B.1.29. SETTINGS FOR RT60 MEASUREMENT

Word number	Name / Value	Comment
0	0xnn24	[24, nn=block length]
1	RT60SaveMode	1 - saved measurement results 2 - saved averaged results
2	RT60Method	measurement method: 1 - decay, 2 - impulse
3	RT60Spectrum	2 - 1/3 OCTAVE analysis
4	Buffer step	time resolution of the buffer results [ms]
5	RT60ResponseTime	response time [s]
6	TriggerLevMin	minimal level of saturation for decay method (*10dB)
7	RT60DispSmooth	smoothing level
8	RT60NoiseMargin	noise level margin(*10dB)
9	RT60Averaging	averaging of consecutive measurements: 0 - OFF, 1 - ON
10	RT60MeasureNo	number of averaged measurements

Table B.1.30. RESULTS OF THE RT60 MEASUREMENT IN ONE CHANNEL

Word number	Name / Value	Comment
0	0x0025	[25, 00=block length in the next word]
1	BlockLen	block length
2	Channel	channel number - 1
3	LowestFreq	lowest 1/3 octave frequency *100Hz)
4	NTer	1/3 octave analysis results number
5	NTot	TOTAL results number
6	FirstRT60Freq	number of first calculated 1/3 octave band - 1
7	LastRT60Freq	number of last calculated 1/3 octave band - 1
8	Calc(FirstRT60Freq)	flag indicates results calculation for FirstRT60Freq octave band
9	Edt(FirstRT60Freq)	EDT result in ms
10	rt20(FirstRT60Freq)	RT 20 result in ms
11	rt30(FirstRT60Freq)	RT 30 result in ms
12	rt_user(FirstRT60Freq)	RT USER result in ms
13	cor_edit(FirstRT60Freq)	EDT correlation ratio
14	cor_rt20(FirstRT60Freq)	RT 20 correlation ratio
15	cor_rt30(FirstRT60Freq)	RT 30 correlation ratio
16	cor_rt_user(FirstRT60Freq)	RT USER correlation ratio

BlockLen-9	Calc[LastRT60Freq+NTot]	Flag indicates results calculation for LastRT60Freq+NTot octave band
BlockLen-8	edt[LastRT60Freq+NTot]	EDT result in ms
BlockLen-7	rt20[LastRT60Freq+NTot]	RT 20 result in ms
BlockLen-6	rt30[LastRT60Freq+NTot]	RT 30 result in ms
BlockLen-5	rt_user[LastRT60Freq+NTot]	RT USER result in ms
BlockLen-4	cor_edt[LastRT60Freq+NTot]	EDT correlation ratio
BlockLen-3	cor_rt20[LastRT60Freq+NTot]	RT 20 correlation ratio
BlockLen-2	cor_rt30[LastRT60Freq+NTot]	RT 30 correlation ratio
BlockLen-1	cor_rt_user[LastRT60Freq+NTot]	RT USER correlation ratio

Table B.1.31. THE AVERAGED RT60 MEASUREMENTS RESULTS IN ONE CHANNEL

Word number	Name / Value	Comment
0	0x0026	[26, 00=block length in the next word]
1	BlockLen	block length
2	Channel	channel number - 1
3	LowestFreq	the lowest 1/3 octave frequency *100Hz)
4	NTer	1/3 octave analysis results number
5	NTot	TOTAL results number
6	FirstRT60Freq	number of first calculated 1/3 octave band - 1
7	LastRT60Freq	number of last calculated 1/3 octave band - 1
8	Calc[FirstRT60Freq]	flag indicates results calculation for FirstRT60Freq octave band
9	edt[FirstRT60Freq]	EDT result in ms
10	rt20[FirstRT60Freq]	RT 20 result in ms
11	rt30[FirstRT60Freq]	RT 30 result in ms
12	rt_user[FirstRT60Freq]	RT USER result in ms
13	n_edt[FirstRT60Freq]	the number of averaged EDT results
14	n_rt20[FirstRT60Freq]	the number of averaged RT 20 results
15	n_rt30[FirstRT60Freq]	the number of averaged RT 30 results
16	n_rt_user[FirstRT60Freq]	the number of averaged RT USER results
BlockLen-9	Calc[LastRT60Freq+NTot]	flag indicates results calculation for LastRT60Freq+NTot octave band
BlockLen-8	edt[LastRT60Freq+NTot]	EDT result in ms
BlockLen-7	rt20[LastRT60Freq+NTot]	RT 20 result in ms
BlockLen-6	rt30[LastRT60Freq+NTot]	RT 30 result in ms
BlockLen-5	rt_user[LastRT60Freq+NTot]	RT USER result in ms
BlockLen-4	n_edt[LastRT60Freq+NTot]	the number of averaged EDT results
BlockLen-3	n_rt20[LastRT60Freq+NTot]	the number of averaged RT 20 results

BlockLen-2	n_rt30[LastRT60Freq+NTot]	the number of averaged RT 30 results
BlockLen-1	n_rt_user[LastRT60Freq+NTot]	the number of averaged RT USER results

Tabela B.1.32. RESULTS OF THE ONE RT60 MEASUREMENT AVERAGED BETWEEN CHANNELS

Word number	Name / Value	Comment
0	0x0028	[28, 00=block length in the next word]
1	BlockLen	block length
2	LowestFreq	The lowest 1/3 octave frequency *100Hz)
3	NTer	1/3 octave analysis results number
4	NTot	TOTAL results number
5	FirstRT60Freq	number of first calculated 1/3 octave band - 1
6	LastRT60Freq	number of last calculated 1/3 octave band - 1
7	Calc[FirstRT60Freq]	flag indicates results calculation for FirstRT60Freq octave band
8	edt[FirstRT60Freq]	EDT result in ms
9	rt20[FirstRT60Freq]	RT 20 result in ms
10	rt30[FirstRT60Freq]	RT 30 result in ms
11	rt_user[FirstRT60Freq]	RT USER result in ms
12	n_edt[FirstRT60Freq]	the number of averaged EDT results
13	n_rt20[FirstRT60Freq]	the number of averaged RT 20 results
14	n_rt30[FirstRT60Freq]	the number of averaged RT 30 results
15	n_rt_user[FirstRT60Freq]	the number of averaged RT USER results
...	...	
BlockLen-9	Calc[LastRT60Freq+NTot]	flag indicates results calculation for LastRT60Freq+NTot octave band
BlockLen-8	edt[LastRT60Freq+NTot]	EDT result in ms
BlockLen-7	rt20[LastRT60Freq+NTot]	RT 20 result in ms
BlockLen-6	rt30[LastRT60Freq+NTot]	RT 30 result in ms
BlockLen-5	rt_user[LastRT60Freq+NTot]	RT USER result in ms
BlockLen-4	n_edt[LastRT60Freq+NTot]	the number of averaged EDT results
BlockLen-3	n_rt20[LastRT60Freq+NTot]	the number of averaged RT 20 results
BlockLen-2	n_rt30[LastRT60Freq+NTot]	the number of averaged RT 30 results
BlockLen-1	n_rt_user[LastRT60Freq+NTot]	the number of averaged RT USER results
...	...	

Table B.1.33. AVERAGED RT60 MEASUREMENTS RESULTS AVERAGED BETWEEN CHANNELS

Word number	Name / Value	Comment
0	0x0029	[29, 00=block length in the next word]
1	BlockLen	block length
2	LowestFreq	the lowest 1/3 octave frequency *100Hz)
3	NTer	1/3 octave analysis results number
4	NTot	TOTAL results number
5	FirstRT60Freq	number of first calculated 1/3 octave band - 1
6	LastRT60Freq	number of last calculated 1/3 octave band - 1
7	Calc(FirstRT60Freq)	flag indicates results calculation for FirstRT60Freq octave band

8	Edt(FirstRT60Freq)	EDT result in ms
9	rt20(FirstRT60Freq)	RT 20 result in ms
10	rt30(FirstRT60Freq)	RT 30 result in ms
11	rt_user[FirstRT60Freq]	RT USER result in ms
12	n_edt[FirstRT60Freq]	the number of averaged EDT results
13	n_rt20[FirstRT60Freq]	the number of averaged RT 20 results
14	n_rt30[FirstRT60Freq]	the number of averaged RT 30 results
15	n_rt_user[FirstRT60Freq]	the number of averaged RT USER results
BlockLen-9	Calc[LastRT60Freq +NTot]	flag indicates results calculation for LastRT60Freq+NTot octave band
BlockLen-8	edt[LastRT60Freq +NTot]	EDT result in ms
BlockLen-7	rt20[LastRT60Freq +NTot]	RT 20 result in ms
BlockLen-6	rt30[LastRT60Freq +NTot]	RT 30 result in ms
BlockLen-5	rt_user[LastRT60Freq +NTot]	RT USER result in ms
BlockLen-4	cor_edt[LastRT60Freq +NTot]	the number of averaged EDT results
BlockLen-3	cor_rt20[LastRT60Freq +NTot]	the number of averaged RT 20 results
BlockLen-2	cor_rt30[LastRT60Freq +NTot]	the number of averaged RT 30 results
BlockLen-1	cor_rt_user[LastRT60Freq +NTot]	the number of averaged RT USER results

Table B.1.34. THE RESULTS OF ROTATION SPEED MEASUREMENT

Word number	Name / Value	Comment
0	0xnn2A	[2A, nn=block length]
1	rpm[0]	RPM[0]
2	rpm[1]	RPM[1]
3	rpm_max[0]	RPM MAX[0]
4	rpm_max[1]	RPM MAX[1]
5	rpm_min[0]	RPM MIN[0]
6	rpm_min[1]	RPM MIN[1]

Table B.1.35. TIME DOMAIN HEADER OF THE FILE FROM THE BUFFER

Word number	Name / Value	Comment
0	0xnn2B	[2B, nn=block length]
1	TimeSignalBuffer	<p>flags (16 bit): b15...b3 b2 b1 b0</p> <p>b0 - if set to 1: samples from channel 1 are saved</p> <p>b1 - if set to 1: samples from channel 2 are saved</p> <p>b2 - if set to 1: samples from channel 3 are saved</p> <p>b3 - if set to 1: samples from channel 4 are saved</p> <p>b4,..., b15 - reserved</p>

2	SampleRate	sampling rate: 0 - 3200 Hz 1 - 2560 Hz 2 - 1600 Hz 3 - 1280 Hz 4 - 800 Hz 5 - 640 Hz 6 - 400 Hz 7 - 320 Hz 8 - 200 Hz 9 - 160 Hz
3..4	BuffLength	buffer length in bytes
5..6	RecsInBuff	records number in buffer
7..8	RecsInObserv	records number in observation time equal: records number in buffer + records number not remember

Table B.1.36. SEAT MEASUREMENT

Word number	Name / Value	Comment
0	0xnn2C	[2C, nn=block length]
1	SEATBaseChannel	base channel
2	SEATSeatChannel	seating channel

Table B.1.37. MAXIMUM RESULTS OF THE 1/1 OCTAVE ANALYSIS IN ONE CHANNEL

Word number	Name / Value	Comment
0	0xnn2D	[2D, nn=block length]
1	LowestFreq	the lowest 1/1 OCTAVE frequency (*100 Hz)
2	Noct	number of 1/1 OCTAVE values
3	NoctTot	number of TOTAL values = 3
4 - length block	MaxOctave[i]	maximum result of the 1/1 octave analysis (*100 dB); i = 1...NOct + NOctTot
	...	

Table B.1.38. MINIMUM RESULTS OF THE 1/1 OCTAVE ANALYSIS IN ONE CHANNEL

Word number	Name / Value	Comment
0	0xnn2E	[2E, nn=block length]
1	LowestFreq	the lowest 1/1 OCTAVE frequency (*100 Hz)
2	Noct	number of 1/1 OCTAVE values
3	NoctTot	number of TOTAL values = 3
4 - length block	MinOctave[i]	minimum result of the 1/1 octave analysis (*100 dB); i = 1...NOct + NOctTot



Note: The **TOTAL** values, calculated in the case of sound measurements, correspond to the **A**, **C** and **LIN** filters – respectively. The **TOTAL** values, calculated in the case of vibration measurements, correspond to the **HP**, **CH** and **CH** filters – respectively, where **CH** denotes the filter used in the channel for Level Meter measurement.

Table B.1.39. MAXIMUM RESULTS OF THE 1/3 OCTAVE ANALYSIS IN ONE CHANNEL

Word number	Name / Value	Comment
0	0xnn2F	[2F, nn=block length]
1	LowestFreq	the lowest 1/3 OCTAVE frequency (*100 Hz)
2	Nter	number of 1/3 OCTAVE values
3	NterTot	number of TOTAL values = 3
4 – length block	MaxTercje[i]	maximum result of the 1/3 octave analysis (*100 dB); i = 1...Nter + NterTot

Table B.1.40. MINIMUM RESULTS OF THE 1/3 OCTAVE ANALYSIS IN ONE CHANNEL

Word number	Name / Value	Comment
0	0xnn30	[30, nn=block length]
1	LowestFreq	the lowest 1/3 OCTAVE frequency (*100 Hz)
2	Nter	number of 1/3 OCTAVE values
3	NterTot	number of TOTAL values = 3
4 - length block	MinTercje[i]	minimum result of the 1/3 octave analysis (*100 dB); i = 1...Nter + NterTot



Note: The **TOTAL** values, calculated in the case of sound measurements, correspond to the **A**, **C** and **LIN** filters – respectively. The **TOTAL** values, calculated in the case of vibration measurements, correspond to the **HP**, **CH** and **CH** filters – respectively, where **CH** denotes the filter used in the channel for Level Meter measurement.

B.2. STRUCTURE OF THE FILE WITH THE RESULTS FROM THE LM MODE

FILE HEADER - cf. Tab. B.1.1.

UNIT AND SOFTWARE SPECIFICATION - cf. Tab. B.1.2.

PARAMETERS AND GLOBAL SETTINGS - cf. Tab. B.1.3.

HARDWARE SETTINGS FOR CHANNELS - cf. Tab. B.1.4.

SOFTWARE SETTINGS FOR CHANNELS - cf. Tab. B.1.5.

VECTOR MEASUREMENT SETTINGS - cf. Tab. B.1.6.

SETTINGS FOR VIBRATION DOSE MEASUREMENT (the presence depends on the **MEASURE DOSE** position and channel filter settings) - cf. Tab. B.1.9.

MAIN RESULTS - cf. Tab. B.1.10.

RPM RESULTS (present if RPM measurement was enabled) – cf. Tab. B.1.34.

SELECTED STATISTICAL LEVELS IN CHANNELS (the presence depends on the **MODE** position in the channel settings) - cf. Tab. B.1.11.

HEADER OF THE STATISTICAL ANALYSIS IN CHANNELS (the presence depends on the **SAVE STAT.** position) - cf. Tab. B.1.18.

RESULTS OF THE STATISTICAL ANALYSIS IN ONE CHANNEL (the presence depends on the **SAVE STAT.** position and **MODE** position in the channel settings) - cf. Tab. B.1.19.

FILE END MARKER - cf. Tab. B.1.25.

B.3. STRUCTURE OF THE FILE WITH 1/1 OCTAVE ANALYSIS RESULTS

FILE HEADER - cf. Tab. B.1.1.

UNIT AND SOFTWARE SPECIFICATION - cf. Tab. B.1.2.

PARAMETERS AND GLOBAL SETTINGS - cf. Tab. B.1.3.

HARDWARE SETTINGS FOR CHANNELS - cf. Tab. B.1.4.

SOFTWARE SETTINGS FOR CHANNELS - cf. Tab. B.1.5.

VECTOR MEASUREMENT SETTINGS - cf. Tab. B.1.6.

OCTAVES ANALYSIS HEADER - cf. Tab. B.1.7.

SETTINGS FOR VIBRATION DOSE MEASUREMENT (the presence depends on the **MEASURE DOSE** position and channel filter settings) - cf. Tab. B.1.9.

MAIN RESULTS - cf. Tab. B.1.10.

RPM RESULTS (present if RPM measurement was enabled) – cf. Tab. B.1.34.

SELECTED STATISTICAL LEVELS IN CHANNELS (SLM mode channels only) - cf. Tab. B.1.11.

ONE CHANNEL 1/1 OCTAVES ANALYSIS RESULTS (one for each channel with spectrum analysis enabled) - cf. Tab. B.1.12.

TOTALS DESCRIPTION (if needed) - cf. Tab. B.1.16.

USER DEFINED FILTER DESCRIPTION (if needed) - cf. Tab. B.1.17.

ONE CHANNEL MAXIMUM 1/1 OCTAVES ANALYSIS RESULTS (one for each channel with spectrum analysis enabled, presence depends on the **MAX. SPECT.** position) - cf. Tab. B.1.37.

ONE CHANNEL MINIMUM 1/1 OCTAVES ANALYSIS RESULTS (one for each channel with spectrum analysis enabled, presence depends on the **MIN. SPECT.** position) - cf. Tab. B.1.38.

HEADER OF THE STATISTICAL ANALYSIS IN CHANNELS (the presence depends on the **SAVE STAT.** position) - cf. Tab. B.1.18.

RESULTS OF THE STATISTICAL ANALYSIS IN ONE CHANNEL (the presence depends on the **SAVE STAT.** position and **MODE** position in the channel settings) - cf. Tab. B.1.19.

RESULTS OF THE STATISTICAL ANALYSIS PERFORMED IN 1/1 OCTAVE MODE (SLM channels only - the presence depends on the **SAVE STAT.** position) - cf. Tab. B.1.20.

FILE END MARKER - cf. Tab. B.1.25.

B.4. STRUCTURE OF THE FILE WITH 1/3 OCTAVE ANALYSIS RESULTS

FILE HEADER - cf. Tab. B.1.1.

UNIT AND SOFTWARE SPECIFICATION - cf. Tab. B.1.2.

PARAMETERS AND GLOBAL SETTINGS - cf. Tab. B.1.3.

HARDWARE SETTINGS FOR CHANNELS - cf. Tab. B.1.4.

SOFTWARE SETTINGS FOR CHANNELS - cf. Tab. B.1.5.

VECTOR MEASUREMENT SETTINGS - cf. Tab. B.1.6.

OCTAVES ANALYSIS HEADER - cf. Tab. B.1.7.

SETTINGS FOR VIBRATION DOSE MEASUREMENT (the presence depends on the **MEASURE DOSE** position and channel filter settings) - cf. Tab. B.1.9.

MAIN RESULTS - cf. Tab. B.1.10.

RPM RESULTS (present if RPM measurement was enabled) – cf. Tab. B.1.34.

SELECTED STATISTICAL LEVELS IN CHANNELS (SLM mode channels only) - cf. Tab. B.1.11.

ONE CHANNEL 1/3 OCTAVES ANALYSIS RESULTS (one for each channel with spectrum analysis enabled) - cf. Tab. B.1.13.

ONE CHANNEL MAXIMUM 1/3 OCTAVES ANALYSIS RESULTS (one for each channel with spectrum analysis enabled, presence depends on the **MAX. SPECT.** position) - cf. Tab. B.1.39.

ONE CHANNEL MINIMUM 1/3 OCTAVES ANALYSIS RESULTS (one for each channel with spectrum analysis enabled, presence depends on the **MIN. SPECT.** position) - cf. Tab. B.1.40.

TOTALS DESCRIPTION (if needed) - cf. Tab. B.1.16.

USER DEFINED FILTER DESCRIPTION (if needed) - cf. Tab. B.1.17.

HEADER OF THE STATISTICAL ANALYSIS IN CHANNELS (the presence depends on the **SAVE STAT.** position) - cf. Tab. B.1.18.

RESULTS OF THE STATISTICAL ANALYSIS IN ONE CHANNEL (the presence depends on the **SAVE STAT.** position and **MODE** position in the channel settings) - cf. Tab. B.1.19.

RESULTS OF THE STATISTICAL ANALYSIS PERFORMED IN 1/3 OCTAVE MODE (SLM channels only - the presence depends on the **SAVE STAT.** position) - cf. Tab. B.1.20.

FILE END MARKER - cf. Tab. B.1.25.

B.5. STRUCTURE OF THE FILE WITH THE FFT ANALYSIS RESULTS

FILE HEADER - cf. Tab. B.1.1.

UNIT AND SOFTWARE SPECIFICATION - cf. Tab. B.1.2.

PARAMETERS AND GLOBAL SETTINGS - cf. Tab. B.1.3.

HARDWARE SETTINGS FOR CHANNELS - cf. Tab. B.1.4.

SOFTWARE SETTINGS FOR CHANNELS - cf. Tab. B.1.5.

VECTOR MEASUREMENT SETTINGS - cf. Tab. B.1.6.

FFT ANALYSIS HEADER - cf. Tab. B.1.8.

SETTINGS FOR VIBRATION DOSE MEASUREMENT (the presence depends on the **MEASURE DOSE** position and channel filter settings) - cf. Tab. B.1.9.

MAIN RESULTS - cf. Tab. B.1.10.

RPM RESULTS (present if RPM measurement was enabled) – cf. Tab. B.1.34.

SELECTED STATISTICAL LEVELS IN CHANNELS (SLM mode channels only) - cf. Tab. B.1.11.

ONE CHANNEL FFT ANALYSIS RESULTS (one for each channel with spectrum analysis enabled) - cf. Tab. B.1.13.

HEADER OF THE STATISTICAL ANALYSIS IN CHANNELS (the presence depends on the **SAVE STAT.** position) - cf. Tab. B.1.18.

RESULTS OF THE STATISTICAL ANALYSIS IN ONE CHANNEL (the presence depends on the **SAVE STAT.** position and **MODE** position in the channel settings) - cf. Tab. B.1.19.

FILE END MARKER - cf. Tab. B.1.25.

B.6. STRUCTURE OF THE FILE CONTAINING LM RESULTS FROM BUFFER'S FILE

FILE HEADER - cf. Tab. B.1.1.

UNIT AND SOFTWARE SPECIFICATION - cf. Tab. B.1.2.

PARAMETERS AND GLOBAL SETTINGS - cf. Tab. B.1.3.

HARDWARE SETTINGS FOR CHANNELS - cf. Tab. B.1.4.

SOFTWARE SETTINGS FOR CHANNELS - cf. Tab. B.1.5.

VECTOR MEASUREMENT SETTINGS - cf. Tab. B.1.6.

HEADER OF THE FILE FROM THE BUFFER - cf. Tab. B.1.22.

CONTENTS OF THE FILE FROM THE BUFFER - cf. Tab. B.1.24.

FILE END MARKER - cf. Tab. B.1.25.

B.7. STRUCTURE OF THE FILE CONTAINING 1/1 OR 1/3 OCTAVE ANALYSIS RESULTS FROM BUFFER'S FILE

FILE HEADER - cf. Tab. B.1.1.

UNIT AND SOFTWARE SPECIFICATION - cf. Tab. B.1.2.

PARAMETERS AND GLOBAL SETTINGS - cf. Tab. B.1.3.

HARDWARE SETTINGS FOR CHANNELS - cf. Tab. B.1.4.

SOFTWARE SETTINGS FOR CHANNELS - cf. Tab. B.1.5.

VECTOR MEASUREMENT SETTINGS - cf. Tab. B.1.6.

HEADER OF THE FILE FROM THE BUFFER - cf. Tab.B.1.22.

OCTAVES ANALYSIS HEADER - cf. Tab.B.1.7.

SPECTRUM ANALYSIS HEADER OF THE FILE FROM THE BUFFER - cf. Tab.B.1.23.

CONTENTS OF THE FILE FROM THE BUFFER - cf. Tab.B.1.24.

FILE END MARKER - cf. Tab. B.1.25.

B.8. STRUCTURE OF THE FILE CONTAINING FFT ANALYSIS RESULTS FROM BUFFER'S FILE

FILE HEADER - cf. Tab. B.1.1.

UNIT AND SOFTWARE SPECIFICATION - cf. Tab. B.1.2.

PARAMETERS AND GLOBAL SETTINGS - cf. Tab. B.1.3.

HARDWARE SETTINGS FOR CHANNELS - cf. Tab. B.1.4.

SOFTWARE SETTINGS FOR CHANNELS - cf. Tab. B.1.5.

VECTOR MEASUREMENT SETTINGS - cf. Tab. B.1.6.

HEADER OF THE FILE FROM THE BUFFER - cf. Tab.B.1.22.

FFT ANALYSIS HEADER - cf. Tab.B.1.8.

SPECTRUM ANALYSIS HEADER OF THE FILE FROM THE BUFFER - cf. Tab.B.1.23.

CONTENTS OF THE FILE FROM THE BUFFER - cf. Tab.B.1.24.

FILE END MARKER - cf. Tab. B.1.25.

B.9. STRUCTURE OF THE FILE CONTAINING SAVED INSTRUMENT SETUP

FILE HEADER - cf. Tab. B.1.1.

UNIT AND SOFTWARE SPECIFICATION - cf. Tab. B.1.2.

INSTRUMENT'S SETUP DATA BLOCK - cf. Tab.B.1.26.

USER FILTERS (the presence depends on the **SAVE FILT.** position) - cf. Tab.B.1.28.

FILE END MARKER - cf. Tab. B.1.25.

B.10. STRUCTURE OF THE FILE CONTAINING RT60 FUNCTION RESULTS

FILE HEADER - cf. Tab. B.1.1.

UNIT AND SOFTWARE SPECIFICATION - cf. Tab. B.1.2.

PARAMETERS AND GLOBAL SETTINGS - cf. Tab. B.1.3.

HARDWARE SETTINGS FOR CHANNELS - cf. Tab. B.1.4.

SOFTWARE SETTINGS FOR CHANNELS - cf. Tab. B.1.5.

VECTOR MEASUREMENT SETTINGS - cf. Tab. B.1.6.

RT60 MODE 1/3 OCTAVES ANALYSIS HEADER - cf. Tab. B.1.28.

RT60 MEASUREMENTS PARAMETERS - cf. Tab. B.1.29.

ONE CHANNEL RT60 MEASUREMENTS RESULTS - cf. Tab. B.1.30

RT60 MEASUREMENT RESULTS AVERAGED BETWEEN CHANNELS - cf. Tab. B.1.32

FILE END MARKER - cf. Tab. B.1.25.

B.11. STRUCTURE OF THE FILE CONTAINING AVERAGED RT60 MEASUREMENTS RESULTS

FILE HEADER - cf. Tab. B.1.1.

UNIT AND SOFTWARE SPECIFICATION - cf. Tab. B.1.2.

PARAMETERS AND GLOBAL SETTINGS - cf. Tab. B.1.3.

HARDWARE SETTINGS FOR CHANNELS - cf. Tab. B.1.4.

SOFTWARE SETTINGS FOR CHANNELS - cf. Tab. B.1.5.

VECTOR MEASUREMENT SETTINGS - cf. Tab. B.1.6.

RT60 MODE 1/3 OCTAVES ANALYSIS HEADER - cf. Tab. B.1.28.

RT60 MEASUREMENTS PARAMETERS - cf. Tab. B.1.29.

AVERAGED RT60 MEASUREMENTS RESULTS IN ONE CHANNEL - cf. Tab. B.1.31

AVERAGED RT60 MEASUREMENTS RESULTS AVERAGED BETWEEN CHANNELS - cf. Tab. B.1.33

FILE END MARKER - cf. Tab. B.1.25.

B.12. STRUCTURE OF THE BUFFER FILE CONTAINING TIME DOMAIN SIGNAL

FILE HEADER - cf. Tab. B.1.1.

UNIT AND SOFTWARE SPECIFICATION - cf. Tab. B.1.2.

PARAMETERS AND GLOBAL SETTINGS - cf. Tab. B.1.3.

HARDWARE SETTINGS FOR CHANNELS - cf. Tab. B.1.4.

TIME DOMAIN HEADER OF THE FILE FROM THE BUFFER- cf. Tab. B.1.35.

CONTENTS OF THE FILE FROM THE BUFFER - cf. Tab. B.1.24

FILE END MARKER - cf. Tab. B.1.25.

B.13. HE CONTENTS OF THE FILES IN THE BUFFER

The records with the results and the records with the state of the markers as well as the records with the breaks in the results registration are saved in the files in the buffer.

B.13.1. Record with the results

The contents of the record with the results depends on the measurement function, selected channels modes, values set in the **BUFFERS SETUP** menu and its sub-lists, channels selected for spectrum analysis and values set in the **BUFFER** position (*path: MENU / INPUT / 1/1 OCTAVE or 1/3 OCTAVE or FFT SETUP / CHANNEL x / BUFFER*). All results are written in dB *10. Profile results are written on 15 most significant bits, while least significant bit is used for overload indication flag. The following elements can be present (in the given sequence):

- results of the measurement from the 1st profile of the 1st channel if the **BUFFERS** list was marked and **BUFFERS** position was set to **ON** (*path: MENU / INPUT / BUFFERS SETUP / BUFFERS:ON*) and if any position in **CHAN. 1 PROF. 1** (*path: MENU / INPUT / BUFFERS SETUP / CHANNEL 1 / CHAN. 1 PROF. 1*) sub-list was selected, up to five words are written in the given sequence:

<result1> - **PEAK** result in the case of **VLM** or **PEAK** result in the case of **SLM** if the first position was marked, else no value is written;

<result2> - **P-P** result in the case of **VLM** or **MAX** result in the case of **SLM** if the second position was marked, else no value is written;

<result3> - **MAX** result in the case of **VLM** or **MIN** result in the case of **SLM** if the third position was marked, else no value is written;

<result4> - **RMS** result in the case of **VLM** or **RMS** result in the case of **SLM** if the fourth position was marked, else no value is written;

<result5> - **VDV** result in the case of **VLM** if the fifth position was marked, else no value is written;

- results of the measurement from the 1st profile of the 2nd channel if the **BUFFERS** position was set to **ON** (*path: MENU / INPUT / BUFFERS SETUP / BUFFERS:ON*); and if any position in **CHAN. 2 PROF. 1** (*path: MENU / INPUT / BUFFERS SETUP / CHANNEL 2 / CHAN. 2 PROF. 1*) sub-list was selected, up to five words are written in the given sequence:

<result1> - **PEAK** result in the case of **VLM** or **PEAK** result in the case of **SLM** if the first position was marked, else no value is written;
 <result2> - **P-P** result in the case of **VLM** or **MAX** result in the case of **SLM** if the second position was marked, else no value is written;
 <result3> - **MAX** result in the case of **VLM** or **MIN** result in the case of **SLM** if the third position was marked, else no value is written;
 <result4> - **RMS** result in the case of **VLM** or **RMS** result in the case of **SLM** if the fourth position was marked, else no value is written;
 <result5> - **VDV** result in the case of **VLM** if the fifth position was marked, else no value is written;

- results of the measurement from the 1st profile of the 3rd channel if the **BUFFERS** position was set to **ON** (*path: MENU / INPUT / BUFFERS SETUP / BUFFERS:ON*) and if any position in **CHAN. 3 PROF. 1** (*path: MENU / INPUT / BUFFERS SETUP / CHANNEL 3 / CHAN. 3 PROF. 1*) sub-list was selected, up to five words are written in the given sequence:

<result1> - **PEAK** result in the case of **VLM** or **PEAK** result in the case of **SLM** if the first position was marked, else no value is written;
 <result2> - **P-P** result in the case of **VLM** or **MAX** result in the case of **SLM** if the second position was marked, else no value is written;
 <result3> - **MAX** result in the case of **VLM** or **MIN** result in the case of **SLM** if the third position was marked, else no value is written;
 <result4> - **RMS** result in the case of **VLM** or **RMS** result in the case of **SLM** if the fourth position was marked, else no value is written;
 <result5> - **VDV** result in the case of **VLM** if the fifth position was marked, else no value is written;

- results of the measurement from the 1st profile of the 4th channel if the **BUFFERS** position was set to **ON** (*path: MENU / INPUT / BUFFERS SETUP / BUFFERS:ON*) and if any position in **CHAN. 4 PROF. 1** (*path: MENU / INPUT / BUFFERS SETUP / CHANNEL 4 / CHAN. 4 PROF. 1*) sub-list was selected, up to five words are written in the given sequence:

<result1> - **PEAK** result in the case of **VLM** or **PEAK** result in the case of **SLM** if the first position was marked, else no value is written;
 <result2> - **P-P** result in the case of **VLM** or **MAX** result in the case of **SLM** if the second position was marked, else no value is written;
 <result3> - **MAX** result in the case of **VLM** or **MIN** result in the case of **SLM** if the third position was marked, else no value is written;
 <result4> - **RMS** result in the case of **VLM** or **RMS** result in the case of **SLM** if the fourth position was marked, else no value is written;
 <result5> - **VDV** result in the case of **VLM** if the fifth position was marked, else no value is written;

- results of the measurement from the 2nd profile of the 1st channel if the **BUFFERS** list was marked and **BUFFERS** position was set to **ON** (*path: MENU / INPUT / BUFFERS SETUP / BUFFERS:ON*) and if any position in **CHAN. 1 PROF. 2** (*path: MENU / INPUT / BUFFERS SETUP / CHANNEL 1 / CHAN. 1 PROF. 2*) sub-list was selected, up to four words are written in the given sequence:

<result1> - **PEAK** result in the case of **SLM** if the first position was marked, else no value is written;
 <result2> - **MAX** result in the case of **SLM** if the second position was marked, else no value is written;
 <result3> - **MIN** result in the case of **SLM** if the third position was marked, else no value is written;
 <result4> - **RMS** result in the case of **SLM** if the fourth position was marked, else no value is written;

- results of the measurement from the 2nd profile of the 2nd channel if the **BUFFERS** position was set to **ON** (*path: MENU / INPUT / BUFFERS SETUP / BUFFERS:ON*); and if any position in **CHAN. 2 PROF. 2** (*path: MENU / INPUT / BUFFERS SETUP / CHANNEL 2 / CHAN. 2 PROF. 2*) sub-list was selected, up to four words are written in the given sequence:

<result1> - **PEAK** result in the case of **SLM** if the first position was marked, else no value is written;
 <result2> - **MAX** result in the case of **SLM** if the second position was marked, else no value is written;

- <result3> - **MIN** result in the case of **SLM** if the third position was marked, else no value is written;
 <result4> - **RMS** result in the case of **SLM** if the fourth position was marked, else no value is written;
- results of the measurement from the 2nd profile of the 3rd channel if the **BUFFERS** position was set to **ON** (*path: MENU / INPUT / BUFFERS SETUP / BUFFERS:ON*) and if any position in **CHAN. 3 PROF. 2** (*path: MENU / INPUT / BUFFERS SETUP / CHANNEL 3 / CHAN. 3 PROF. 2*) sub-list was selected, up to four words are written in the given sequence:

<result1> - **PEAK** result in the case of **SLM** if the first position was marked, else no value is written;
 <result2> - **MAX** result in the case of **SLM** if the second position was marked, else no value is written;
 <result3> - **MIN** result in the case of **SLM** if the third position was marked, else no value is written;
 <result4> - **RMS** result in the case of **SLM** if the fourth position was marked, else no value is written;
 - results of the measurement from the 2nd profile of the 4th channel if the **BUFFERS** position was set to **ON** (*path: MENU / INPUT / BUFFERS SETUP / BUFFERS:ON*) and if any position in **CHAN. 4 PROF. 2** (*path: MENU / INPUT / BUFFERS SETUP / CHANNEL 4 / CHAN. 4 PROF. 2*) sub-list was selected, up to four words are written in the given sequence:

<result1> - **PEAK** result in the case of **SLM** if the first position was marked, else no value is written;
 <result2> - **MAX** result in the case of **SLM** if the second position was marked, else no value is written;
 <result3> - **MIN** result in the case of **SLM** if the third position was marked, else no value is written;
 <result4> - **RMS** result in the case of **SLM** if the fourth position was marked, else no value is written;
 - results of the measurement from the 3rd profile of the 1st channel if the **BUFFERS** list was marked and **BUFFERS** position was set to **ON** (*path: MENU / INPUT / BUFFERS SETUP / BUFFERS:ON*) and if any position in **CHAN. 1 PROF. 3** (*path: MENU / INPUT / BUFFERS SETUP / CHANNEL 1 / CHAN. 1 PROF. 3*) sub-list was selected, up to four words are written in the given sequence:

<result1> - **PEAK** result in the case of **SLM** if the first position was marked, else no value is written;
 <result2> - **MAX** result in the case of **SLM** if the second position was marked, else no value is written;
 <result3> - **MIN** result in the case of **SLM** if the third position was marked, else no value is written;
 <result4> - **RMS** result in the case of **SLM** if the fourth position was marked, else no value is written;
 - results of the measurement from the 3rd profile of the 2nd channel if the **BUFFERS** position was set to **ON** (*path: MENU / INPUT / BUFFERS SETUP / BUFFERS:ON*); and if any position in **CHAN. 2 PROF. 3** (*path: MENU / INPUT / BUFFERS SETUP / CHANNEL 2 / CHAN. 2 PROF. 3*) sub-list was selected, up to four words are written in the given sequence:

<result1> - **PEAK** result in the case of **SLM** if the first position was marked, else no value is written;
 <result2> - **MAX** result in the case of **SLM** if the second position was marked, else no value is written;
 <result3> - **MIN** result in the case of **SLM** if the third position was marked, else no value is written;
 <result4> - **RMS** result in the case of **SLM** if the fourth position was marked, else no value is written;
 - results of the measurement from the 3rd profile of the 3rd channel if the **BUFFERS** position was set to **ON** (*path: MENU / INPUT / BUFFERS SETUP / BUFFERS:ON*) and if any position in **CHAN. 3 PROF. 3** (*path: MENU / INPUT / BUFFERS SETUP / CHANNEL 3 / CHAN. 3 PROF. 3*) sub-list was selected, up to four words are written in the given sequence:

<result1> - **PEAK** result in the case of **SLM** if the first position was marked, else no value is written;
 <result2> - **MAX** result in the case of **SLM** if the second position was marked, else no value is written;
 <result3> - **MIN** result in the case of **SLM** if the third position was marked, else no value is written;
 <result4> - **RMS** result in the case of **SLM** if the fourth position was marked, else no value is written;
 - results of the measurement from the 3rd profile of the 4th channel if the **BUFFERS** position was set to **ON** (*path: MENU / INPUT / BUFFERS SETUP / BUFFERS:ON*) and if any position in **CHAN. 4 PROF. 3** (*path: MENU / INPUT / BUFFERS SETUP / CHANNEL 4 / CHAN. 4 PROF. 3*) sub-list was selected, up to four words are written in the given sequence:

<result1> - **PEAK** result in the case of **SLM** if the first position was marked, else no value is written;
 <result2> - **MAX** result in the case of **SLM** if the second position was marked, else no value is written;
 <result3> - **MIN** result in the case of **SLM** if the third position was marked, else no value is written;
 <result4> - **RMS** result in the case of **SLM** if the fourth position was marked, else no value is written;

- **VECTOR** measurement result if in the **BUFFERS** (*path: MENU / INPUT / BUFFERS SETUP / BUFFERS:ON*) and **VECTOR** (*path: MENU / INPUT / BUFFERS SETUP / VECTOR:ON*) positions are set to **ON** and **VECTOR** measurement was enabled; one word is written.
- **RPM** measurement result if the **BUFFERS** (*path: MENU / INPUT / BUFFERS SETUP / BUFFERS:ON*) and **RPM** (*path: MENU / INPUT / BUFFERS SETUP / RPM:ON*) positions are set to **ON** and **RPM** measurement was enabled; two word are written.
- results of **1/1 OCTAVE** analysis from the 1st channel if **1/1 OCTAVE** analysis was selected as the measurement function and in the **BUFFER** (*path: MENU / INPUT / 1/1 OCTAVE SETUP / CHANNEL 1: ON / BUFFER*) position other then **None** value was selected; the sequence of words is written:

<flags> <Octave[1]> <Octave[2]> ... <Octave[NOct+NOctTot]>

where:

flags = 1 - the overload detected, 0 - the overload not detected

Octave[i] - the result of **1/1 OCTAVE** analysis (*100 dB); i = 1..NOct+NOctTot (1..18)

- results of **1/1 OCTAVE** analysis from the 2nd second channel if **1/1 OCTAVE** analysis was selected as the measurement function and in the **BUFFER** (*path: MENU / INPUT / 1/1 OCTAVE SETUP / CHANNEL 2: ON / BUFFER*) position other then **None** value was selected; the sequence of words is written:

<flags> <Octave[1]> <Octave[2]> ... <Octave[NOct+NOctTot]>

where:

flags = 1 - the overload detected, 0 - the overload not detected

Octave[i] - the result of **1/1 OCTAVE** analysis (*100 dB); i = 1..NOct+NOctTot (1..18)

- results of **1/1 OCTAVE** analysis from the 3rd channel if **1/1 OCTAVE** analysis was selected as the measurement function and in the **BUFFER** (*path: MENU / INPUT / 1/1 OCTAVE SETUP / CHANNEL 3: ON / BUFFER*) position other then **None** value was selected; the sequence of words is written:

<flags> <Octave[1]> <Octave[2]> ... <Octave[NOct+NOctTot]>

where:

flags = 1 - the overload detected, 0 - the overload not detected

Octave[i] - the result of **1/1 OCTAVE** analysis (*100 dB); i = 1..NOct+NOctTot (1..18)

- results of **1/1 OCTAVE** analysis from the 4th channel if **1/1 OCTAVE** analysis was selected as the measurement function and in the **BUFFER** (*path: MENU / INPUT / 1/1 OCTAVE SETUP / CHANNEL 4: ON / BUFFER*) position other then **None** value was selected; the sequence of words is written:

<flags> <Octave[1]> <Octave[2]> ... <Octave[NOct+NOctTot]>

where:

flags = 1 - the overload detected, 0 - the overload not detected

Octave[i] - the result of **1/1 OCTAVE** analysis (*100 dB); i = 1..NOct+NOctTot (1..18)

- results of **1/3 OCTAVE** analysis from the 1st channel if **1/3 OCTAVE** analysis was selected as the measurement function and in the **BUFFER** (*path MENU / INPUT / 1/3 OCTAVE SETUP / CHANNEL 1: ON / BUFFER*) position other then **None** value was selected; the sequence of words is written:

<flags> <Terave[1]> <Terave [2]> ... <Terave[NT]>

where:

flags = 1 - the overload detected, 0 - the overload not detected

Terave[i] - the result of **1/3 OCTAVE** analysis (*100 dB); i = 1..NT (1..48 or 1..33)

- results of **1/3 OCTAVE** analysis from the 2nd channel if **1/3 OCTAVE** analysis was selected as the measurement function and in the **BUFFER** (*path: MENU / INPUT / 1/3 OCTAVE SETUP / CHANNEL 2: ON / BUFFER*) position other then **None** value was selected; the sequence of words is written:

<flags> <Terave[1]> <Terave [2]> ... <Terave[NT]>

where:

flags = 1 - the overload detected, 0 - the overload not detected

Terave[i] - the result of **1/3 OCTAVE** analysis (*100 dB); i = 1..NT (1..48 or 1..33)

- results of **1/3 OCTAVE** analysis from the 3rd channel if **1/3 OCTAVE** analysis was selected as the measurement function and in the **BUFFER** (*path: MENU / INPUT / 1/3 OCTAVE SETUP / CHANNEL 3: ON / BUFFER*) position other then **None** value was selected; the sequence of words is written:

<flags> <Terave[1]> <Terave [2]> ... <Terave[NT]>

where:

flags = 1 - the overload detected, 0 - the overload not detected

Terave[i] - the result of **1/3 OCTAVE** analysis (*100 dB); i = 1..NT (1..48 or 1..33)

- results of **1/3 OCTAVE** analysis from the 4th channel if **1/3 OCTAVE** analysis was selected as the measurement function and in the **BUFFER** (*path: MENU / INPUT / 1/3 OCTAVE SETUP / CHANNEL 4: ON / BUFFER*) position other then **None** value was; the sequence of words is written:

<flags> <Terave[1]> <Terave [2]> ... <Terave[NT]>

where:

flags = 1 - the overload detected, 0 - the overload not detected

Terave[i] - the result of **1/3 OCTAVE** analysis (*100 dB); i = 1..NT (1..48 or 1..33)

The value of NT parameter depends on the **BUF.STEP** selection (*path: MENU / INPUT / MEASURE SETUP*). For the buffer steps greater then 10 ms the value of NT is equal to NTer+NTerTot: the outputs from all **1/3 OCTAVE** filters from 0.8 Hz up to 20 kHz and the TOTAL values are written (45 + 3 = 48). For the buffer step equal to 10 ms the value of NT is equal to 33: the outputs from **1/3 OCTAVE** filters from 25 Hz up to 20 kHz and the TOTAL value are written (30 + 3 = 33).

B.13.2. Record with the state of the markers

The record with the state of the markers consists of one word:

<0x8nnn>

in which 12 bits nnn denote the state of the markers:

b11 = state of #12 marker

b10 = state of #11 marker

...

b1 = state of #2 marker

b0 = state of #1 marker

B.13.3. Record with the breaks in the results registration

The record with the breaks in the results registration consists of four words:

<0xB0ii> <0xB1jj> <0xB2kk> <0xB3nn>

in which ii, jj, kk, nn bytes denote 4-bytes counter of left or skipped records: nnkkjjii (ii is the least significant byte, nn - the most significant byte).

B.13.4. Record with the breaks account PAUSE in the results registration

The record with the breaks in the results registration consists of four words:

<0xA0ii> <0xA1jj> <0xA2kk> <0xA3nn>

in which ii, jj, kk, nn bytes denote 4-bytes counter duration of PAUSE in milliseconds: nnkkjjii (ii is the least significant byte, nn - the most significant byte).

Pause duration means time passed between pressing <PAUSE> and <PROCEED> keys. Delay after pressing <PROCEED> key isn't included.

B.14. THE CONTENTS OF THE FILES IN THE BUFFER CONTAINING TIME DOMAIN SIGNAL

Records with samples and RPM value are kept in buffer file. The records with the state of the markers, breaks in the results and pause are not saved in the file. Time domain is saved when the option BUFFERS in menu INPUT/BUFFERS SETUP was set to the TIME value.

B.13.5. Samples record

Record form depends on the selection of channels, from which samples are saved, (*path: MENU / INPUT / BUFFERS SETUP / CHANNEL x*), state of the RPM measurement (*path: MENU / INPUT / AUXILLARY SETUP RPM / RPM*) and RPM buffering option (*path: MENU / INPUT / AUXILLARY SETUP RPM BUFFER* or *MENU / INPUT / BUFFERS / SETUP RPM*). The following elements can be present (in the given sequence):

- Sample from channel 1 if **CHANNEL 1** position was set to **ON** (*path: MENU / INPUT / BUFFERS SETUP / CHANNEL 1*). The sample is written on three consecutive bytes from least to most significant byte.
- Sample from channel 2 if **CHANNEL 2** position was set to **ON** (*path: MENU / INPUT / BUFFERS SETUP / CHANNEL 2*). The sample is written on three consecutive bytes from least to most significant byte.
- Sample from channel 3 if **CHANNEL 3** position was set to **ON** (*path: MENU / INPUT / BUFFERS SETUP / CHANNEL 3*). The sample is written on three consecutive bytes from least to most significant byte.
- Sample from channel 4 if **CHANNEL 4** position was set to **ON** (*path: MENU / INPUT / BUFFERS SETUP / CHANNEL 4*). The sample is written on three consecutive bytes from least to most significant byte.
- Zero byte if the samples are saved from one or three channels.
- **RPM** measurement result if **RPM** measurement (*path: MENU / INPUT / AUXILLARY SETUP / RPM / RPM*) and **RPM** buffering (*path: MENU / INPUT / AUXILLARY SETUP / RPM / BUFFER*) or (*path: MENU / INPUT / BUFFERS SETUP / RPM*) positions are set to **ON**; two words are written.