

VOYAGER

MOBILE DATA ACQUISITION &
VIBRO-ACOUSTIC ANALYSIS



PRODUCT DATA



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The Voyager is a portable NVH testing device that merges multiple functional units like data acquisition, signal conditioning and storage into a powerful tablet device for vibro-acoustic data recording, visualization and analysis. The device is set to transform the NVH testing industry as the frontrunner in on-site measurements. The success of the Scan & Listen device, that allows one to gain understanding about the sound field by listening, led to the development of Voyager. In addition, it offers real-time visualization, recording and audio filtering. The embedded touch controlled software offers the ability to run targeted vibro-acoustic analysis intuitively and on the spot, monitor sound fields and locate sound sources reliably over with quick scans. The compatibility with the Microflown range of sensors ensures utilising the superior advantages in terms of background noise cancellation and signal-to-noise ratio. This allows using it directly at location in presence of multiple sources of noise. Visualize, analyze and record data by means of just a single handheld device, making the Voyager an indispensable NVH testing tool.

THE VOYAGER AT A GLANCE

- Quad-core powered compact tablet for NVH testing
- Portable multi-channel sound analyzer
- Real-time listening & audio filtering along with recording and signal playback
- Integrated data analysis software modules
- Applicable in operating environment e.g. reverberant environment
- Built-in battery and internal storage capacity for autonomous operation
- Compatibility with all Microflown probes and other (IEPE) sensors
- Integrated camera for comprehensive project management



SPECIFICATIONS

GENERAL

Parameter	Value	Unit
Input channels	6 1 x LEMO 7-pin (4 channels), 2 x BNC (IEPE)	-
Output channels	3,5mm Jack,	-
Other Connectors	Micro USB OTG, USB 2.0, Ethernet, DC Power	
CPU	Quad Core 1GHz	-
ADC Resolution	24	bit
Input voltage range	$\pm 0.1, \pm 1$ or ± 10	V
Internal Memory	32	GB
Sampling frequencies	8, 16, 32, 48	kHz
TFT display touchscreen	7" LCD Color TTL Screen resolution: 800 x 480 pixels	-
Operating temperature	0 to 40	°C

PHYSICAL // VOYAGER

Parameter	Value	Unit
Physical dimensions (excluding BNC connectors)	225 x 135 x 40 (WxDxH)	mm
Weight	1300	g

POWER SUPPLY & BATTERY

Parameter	Value	Unit
Nominal Power supply voltage	18	VDC
Battery	Lithium-ion battery	-
Battery capacity	4800 34.6	mAh Wh
Operation time on battery power	6	h



INCLUDED ITEMS

VOYAGER STANDARD Product code: VYR-S and VYR-L

A single, portable NVH testing device including essential accessories fitting in a small peli case.

No.	Description	Quantity
1	Voyager	1
2	Power Supply	1
3	Micro USB cable	1
4	USB memory	1
5	Pin Key Tool	1
6	Peli Case 1400 with inlay	1

VOYAGER STANDARD+ Product code: VYR-S+ and VYR-L+

Additional to the Standard the Standard+ comes with a complete set of accessories, all fitting neatly into one peli case.

No.	Description	Quantity
1	Voyager	1
2	Headphones - Sony WH1000-MX4	1
3	Power Supply	1
4	Micro USB cable	1
5	Lanyard	1
6	Manfrotto Table Tripod	1
7	3/8" to 1/4"Adapter	1
8	USB memory	1
9	Pin Key Tool	1
10	Peli Case 1500 with inlay	1



FIRMWARE



The device interface is intuitive, and the modular applications enable easy usage by NVH experts and technicians alike. Inspired by the workflow operation, as daily users on mobile devices such as smartphones and tablets, a target was set to bring a similar approach and experience to the Voyager. All operations are quickly done and fully configurable in a matter of seconds. The touch-controlled interactive icons provide ready access to different modes & settings: you can listen to the signal in real time and switch to playback or analysis mode with just a single touch. All settings and options are directly accessible and visible, leading to easy and fast operation. Intuitive toggles provide single-touch activation or deactivation of many features. The icon-based menus leave a clear & large space open to display all your analysis data, offering the perfect balance between intuitive usage and visual display. Scalable and modular firmware enables the suitable feature you need for your successful measurement campaigns.

FIRMWARE FEATURES & OPTIONS

Description	Lite	Standard
Compatible with all Microflown probes(channel 1 to 4)	✓	✓
Display power spectrum (narrow band results)	✓	✓
Audio recording& storing		✓
Audio playback		✓
Camera		✓
Data exporting (e.g. corrected .wav files)		✓
Octave analyser (1,1/3 & 1/12 octave bands)		✓
Spectrogram		✓
Loudness		✓
Filtering options		✓
IEPE sensors (channels 5&6)		✓
Sound intensity		✓

Optional Firmware Modules	Lite	Standard
DAQ Driver for Velo compatibility as frontend	✓	✓
Sound Quality Enabling loudness, sharpness & roughness		✓



OPTIONAL ITEMS

HARDWARE PACKAGES

Description	PRODUCTCODE
PU Voyager Probe including PU Voyager, LEMO cable, calibration sheet	PV
Sound Calibrator including adaptor for PU Voyager probe	CAL-MSC-PV

FIRMWARE PACKAGES

Description	PRODUCTCODE
DAQ Driver for Velo compatibility as frontend	FW-VYR-DAQ
Sound Quality	FW-VYR-SQ

