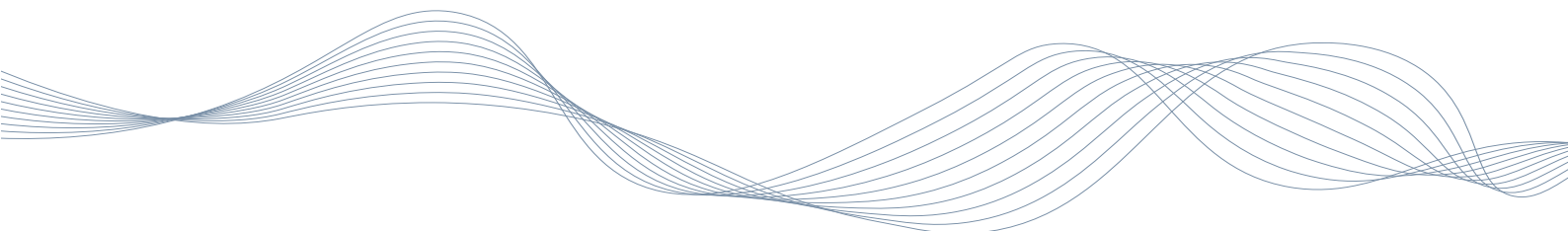# Sorama CAM1K

PRODUCT SPECIFICATION SHEET

The Sorama CAM1K is the top-of-the-line product in the Sorama assortment of sound cameras. An ideal tool for each company with a focus on optimized noise-performance of their products. The visual insights make it easy to interpret and explain the causes of noise and vibration. We enable fast and efficient ways to improve sound design.

The benefits of the Sorama CAM1K are in its size. Far-field beam-forming already starts at 50 Hz and the larger microphone array gives a better resolution of sound sources. Near-field acoustic holography is up to 30 times faster than other cameras, including our own Sorama CAM64. Sorama CAM1K is the ultimate tool for NVH-engineers working on OEM-products.
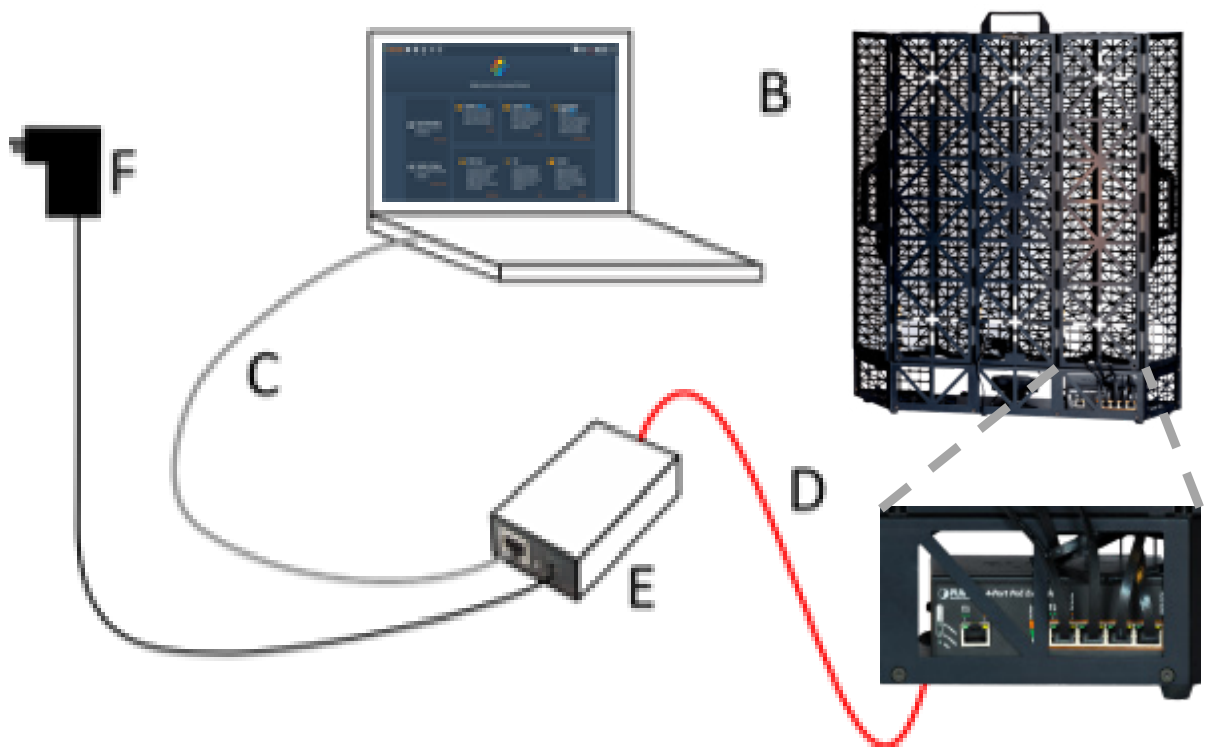
▶ Far Field beamforming: optimal conditions at 300Hz - 15kHz

▶ Near Field Acoustic Holography: frequency range 25 Hz - 23.400 Hz

▶ 1024 microphones, 64 x 64 cm array size

▶ Integrated HD video camera

Sorama CAM1K

INVENTORY

Quick start guide	1
Sorama CAM1K (B)	1
Short ethernet cable (C)	1
Long ethernet cable (D)	1
PoE Injector (E)	1
Adapter (F)	1

Sorama CAM1K

PHYSICAL PROPERTIES

Size	640 x 785 x 130 mm 25.2 x 30.9 x 5.1 inch	L x W x D
Weight	5.5 kg 12.1 Lb	
Connectivity	Ethernet and Power over Eth.	IEEE 1588V2 sync IEEE 802.3af-2003 PoE

ACOUSTIC PROPERTIES

# of microphone channels	1024	Parallel sampling
Frequency range	1 Hz — 20 kHz	$\Delta f = 1\ Hz$
Spatial resolution	20 mm 0.79 inch	Inter sensor distance
Measurement area	640 x 640 mm 25.2 x 25.2 inch	

MICROPHONES

Type	MEMS	Embedded ADC with PDM
SNR (A-weighted, at 1 kHz)	63 dB per channel	Max. 93 dB for device
Sensitivity	-26 dBFS +/- 1.5dB	At 1 kHz, 94 dB SPL
Acoustic overload point	116 dB SPL	At 1 kHz, <10% THD

Sorama CAM1K

MEASUREMENT FEATURES

Spectrum Analysis	SPL 1 Hz — 20 kHz	dB/dB(A) SPL, $\Delta f = 1$ Hz
Spectrogram Analysis	0-10s+, 0-20 kHz	Streaming + recording
Beamforming (far-field)	300 Hz — 20 kHz*	Streaming + recording
NAH (near-field)	1 Hz — 20 kHz	Stationary + transient

*Dependent on external factors

MINIMUM SYSTEM REQUIREMENTS

	Near-Field Acoustic Holography	Beamforming (streaming)
Operating system	Intel i5 (2014 gen) or comparable	Intel i5 (2014 gen) or comparable
Processor	Intel i3 or AMD A8	Intel i5 or AMD A10
Memory	4 GB RAM	4 GB RAM
Graphics card	Integrated GPU	Integrated GPU
Screen resolution	1280 x 720 pixels	1280 x 720 pixels
Connections	1 x free ethernet port (or USB 2 or 3 dongles) Working internet connection	1 x free ethernet port (or USB 3 dongle) Updates require an internet connection
Disc space	A typical measurement requires 500 MB	

Sorama CAM1K

640mm

785mm

130mm