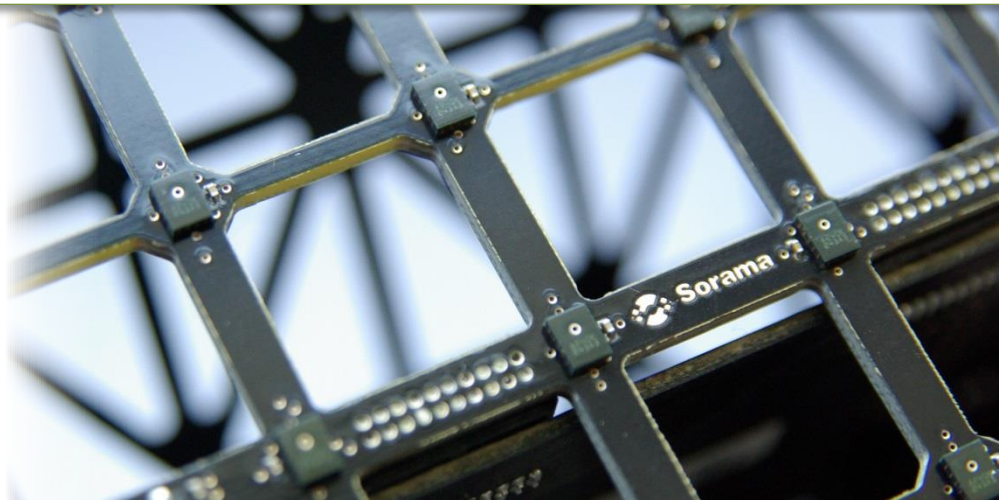
Sorama

visualising sound and vibrations

Sorama CAM1K specifications

So·ra·ma CAM1K [**so-rah-mah cam one-k**] noun

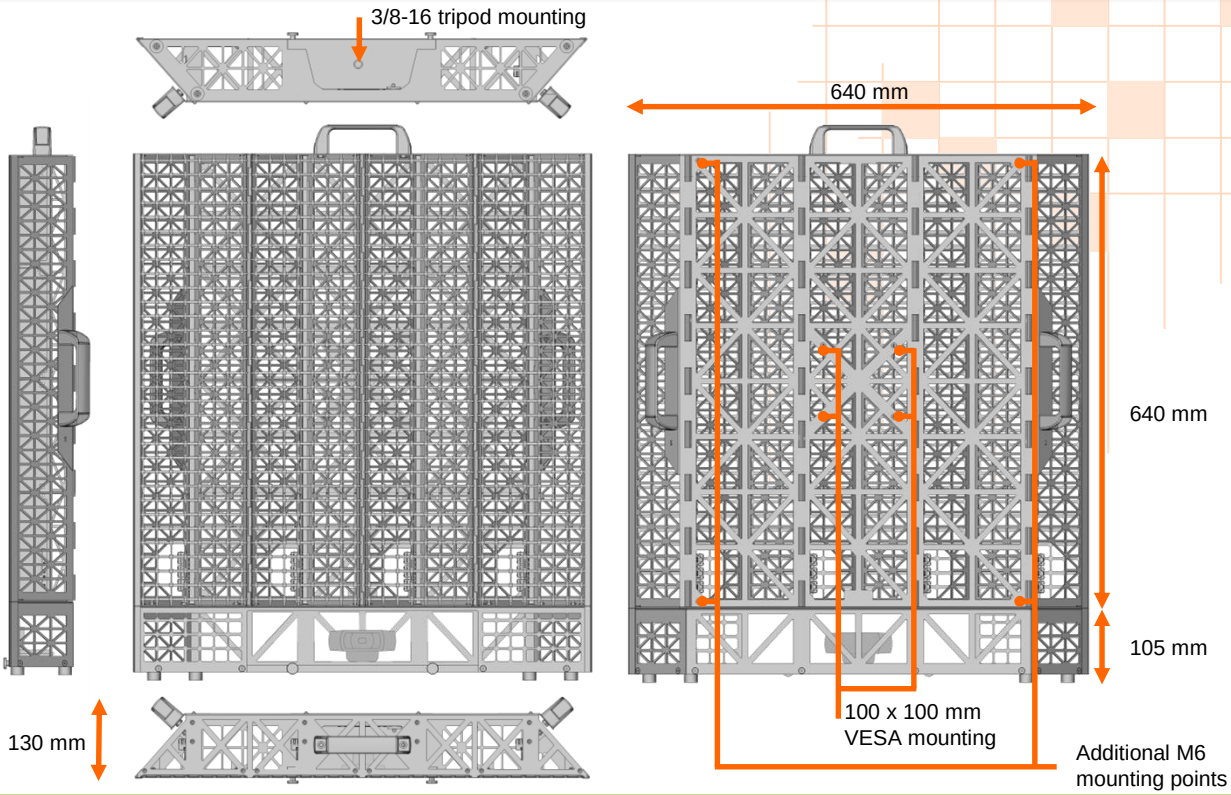
1. lit.trans. Greek; concat. Sonos & orama; create wide view of sound
2. low-threshold, plug-and-play sound camera
3. non-specialist acoustic engineering tool for near- and far-field
4. spin-off of Eindhoven University of Technology
5. Unique technology to visualise sound and vibrations



Sorama CAM1K specifications

version 20160229

Physical Dimensions		
Size	640 x 785 x 130 mm	Incl. tripod/camera mounting module
Weight	4.9 kg	3.5 kg for microphone part alone
Acoustic Properties		
Number of microphone channels	1024	Parallel sampling
Frequency range	1 Hz – 20 kHz	Δf = 1 Hz by default
Spatial resolution	20 mm	Inter sensor distance
Measurement area	64 x 64 cm	Expandable by multiples of 64 x 64 cm
Microphones		
Type	Akustica AKU242	Embedded ADC with PDM
SNR (A-weighted, at 1 kHz)	63 dB per channel	Max. 93 dB for full device (1024 mics)
Sensitivity	-26 dBFS +/- 1.5	At 1 kHz, 94 dB SPL
Acoustic Overload Point	116 dB SPL	At 1 kHz, <10% THD
Measurement Features		
Spectrum Analysis	SPL 1 Hz – 20 kHz	dB/dB(A) SPL, Δf = 1 Hz
Spectogram Analysis	0-10s+, 1 Hz – 20kHz	Streaming + recording
Far-field (beamforming)	50 Hz – 20 kHz	Streaming + recording
Near-field (NAH)	1 Hz – 20 kHz	Transient + stationary Acoustic Holography



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Data acquisition	
Device	4x data acquisition integrated in array with ethernet IO
Connections	1 x gigabit ethernet to computer IEEE 1588V2 sync IEEE 802.3at PoE
Dimensions (LxWxH)	215 x 182 x 40 mm
Power supply	50.0 V – 1.5 A (60W)
Package	
Contents	Sorama CAM1K 2x UTP Cat 5^E cable, 1 & 15 m Power supply with PoE injector
Optional add-ons	Tripod Flight-case
Portal Software	
Browser	Standard internet browser, Internet Explorer or Firefox
Third party requirement	Microsoft Silverlight 5

Sorama CAM1K

Sorama Portal

Minimum system requirements	Near-Field Acoustic Holography (stationary)	Beamforming (streaming)
Operating system	Windows 7	Windows 7
Processor	Intel i3 or AMD A8	Intel i5 or AMD A10
Memory	4 GB RAM	4 GB RAM
Graphics card	Integrated GPU	AMD HD6550, Nvidia GTX 560
Screen resolution	1280 x 720 pixels	1280 x 720 pixels
Connections	1 x free 1 gbit ethernet port Working internet connection	1 x free 1 gbit ethernet port Working internet connection
Disc space	A typical measurement requires 500 MB	

Typical applications:

Applications of the Sorama CAM1K include -but are not limited to- HVAC (e.g. boiler system), environmental noise (scanning a 6 m wide wall), consumer products (fans, coffee machines) and more.

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