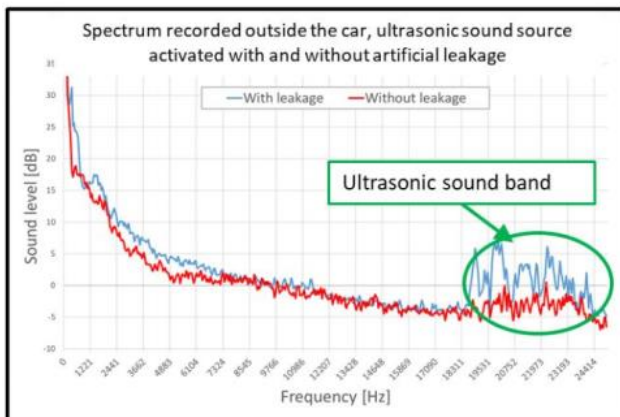


## Portable Acoustic Camera for use in End of Line Leak Detection

### Sinus AC100

- An omni-directional source is located inside the vehicle whilst the acoustic camera maps the sound on the exterior.
- The source is configured to output ultrasonic frequencies (white noise 20k-25kHz). This makes the process more efficient, increasing immunity of the measurement to background noise and reflections.
- The effectiveness of this leak detection method is underpinned by the performance of the AC100's superior beamforming algorithm.

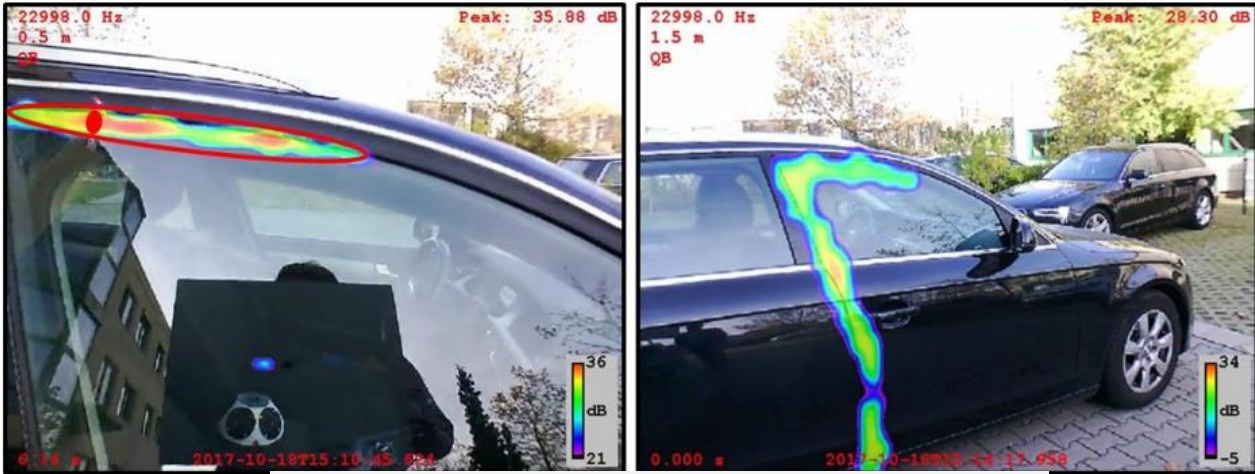


Sound Source located at the centre the of vehicle, white noise 20kHz-25kHz



## End of Line Leak Detection cont.

Here the door is left ajar to illustrate imaging as lines as well as points.



Note the emission at the wing mirror indicates a leakage path through the car. The others are prepared faults.

### THE HANDHELD ACOUSTIC CAMERA SINUS AC100

Due to its state-of-the-art microphones in MEMS technology with integrated AD converters and 51.2 kHz

sampling rate, together with an integrated measurement data processing electronics in the latest DSP

technology, the AC100 is now affordable for wide range of users. The complete integration in the array, with

only one USB interface for data and power supply, allows for convenient mobile use with any Windows PC.

The AC100 is a compact and very easy-to-use acoustic camera for standalone applications.

### General technical specifications of AC100

Dimensions of the array	40 x 40 cm with integrated microphones
Microphones	40 MEMS microphones with 24 Bit ADC
Sampling rate	51.2 kHz, decimation selectable
Anti-aliasing filter	yes, integrated digital filter
Frequency range	200 Hz* to 24 kHz
Maximum sound pressure level	112 dB
Dynamic range	20 dB (5 kHz to 20 kHz)
Working distance	0.5 m to infinity
Front-end	signal processor integrated into array data and power connection via USB 2.0
Optical camera	integrated 5 megapixel camera
VESA holder	10 x 10 cm with tripod thread 3/8"
Handles	2, detachable
Optional expansion	4 digital I / O (2x In, 2x Out)
PC System Requirements	Win7 or higher 64 Bit, 8 GB RAM
Software	API or BeamformX (Optinav)

\*Dependent on acoustic and source conditions