



IMP23ABSU Analog MEMS microphone for predictive maintenance and more

**Evaluation tools and software** 

## Audio acquisition evaluation tools

### Different solutions for audio data processing

#### X-Nucleo + Coupons









Daughterboard containing 4x IMP23ABSU STEVAL-MIC007V1



Development kit STEVAL-STWINKT1B (available end of Nov 2020)

STM32 NUCLEO with EXPANSION board X-NUCLEO-AMICAM1

**Software package**: X-CUBE-MEMSMIC1

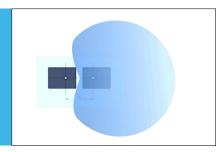


## Beamforming & source localization

## **Exploiting MEMS Microphones Array capability**

X-Nucleo + Coupon board (at least 2 microphones are needed)

**BEAMFORMING:** using a MEMS (omnidirectional) microphone array, it creates a virtual directional microphone







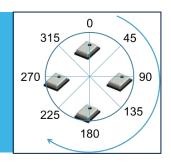


STM32 NUCLEO with EXPANSION board X-NUCLEO-AMICAM1

Daughterboard containing 4x IMP23ABSU STEVAL-MIC007V1

#### **SOUND SOURCE LOCALIZATION:**

using a microphone array, it estimates the angle of arrival of audio signal



Software package: X-CUBE-MEMSMIC1



## Ultrasound FFT evaluation tools

## **Addressing Predictive Maintenance applications**

#### X-Nucleo + Coupons



STM32 NUCLEO with EXPANSION board X-NUCLEO-AMICAM1



Daughterboard containing 4x IMP23ABSU STEVAL-MIC007V1

**Software package**: X-CUBE-MEMSMIC1 (**GUI** included)

#### STWIN



**Development kit** STEVAL-STWINKT1B (available in Nov 2020)

**Software package**: X-CUBE-MEMSMIC1 (**GUI** included)

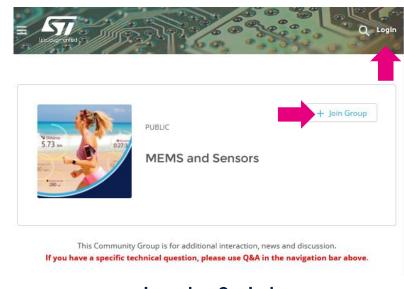


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Our experts are there to help you!



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MEMS and sensors General Q&A section



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