

Explore the next sense



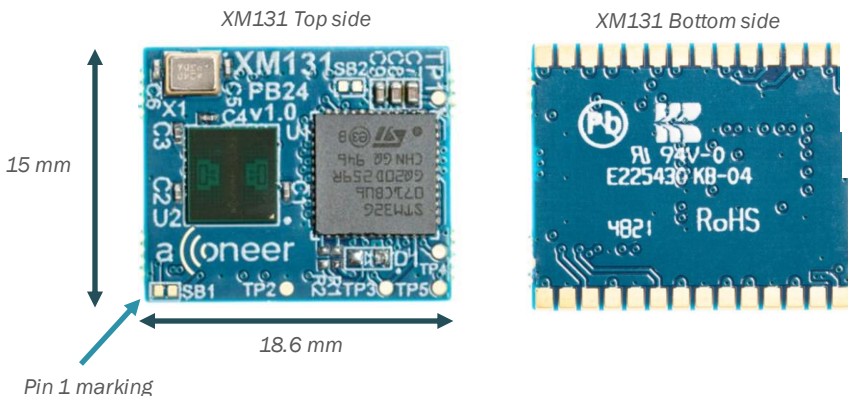
# Acconeer Entry Module XM131 - Product Brief

May 2022

# Product Brief – Entry Module XM131

*Entry module ready for integration in commercial products.*

- *Dedicated for People Presence & Motion detection*
- *Outstanding system cost*



## Overview

- A111 60GHz PCR sensor with 32-bit ARM® Cortex™ M0+ MCU (STM32G071CBU6) 64 MHz, 128 kb Flash; 36kb RAM.
- Formfactor 15x18.6 mm.
  - All components mounted on PCB top side and solder pads (LGA) on PCB underside.
- Single supply operating voltage 1.8V
- Operating temperature -40°C to 85°C
- Included on XE132 evaluation board with LH132 lens kit support for evaluation purposes
- Support for customer embedded application (SDK supported)
  - Note: Only to be used with XM131 software

## Interfaces

- UART, I2C, GPIO and Reset supported
- SW flash and SW debug with XE132 evaluation board
- Support for register command protocol by external host configuration.

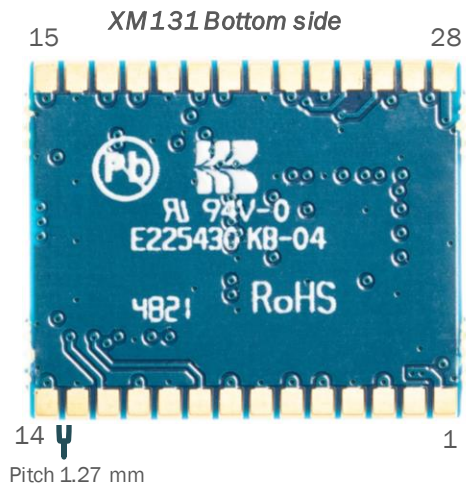
## Example of selected applications

- Smart People Presence & Motion detection

# XM131 LGA Pad Configuration

## Overview

- XM131 LGA pad layout
- LGA pitch 1.27mm



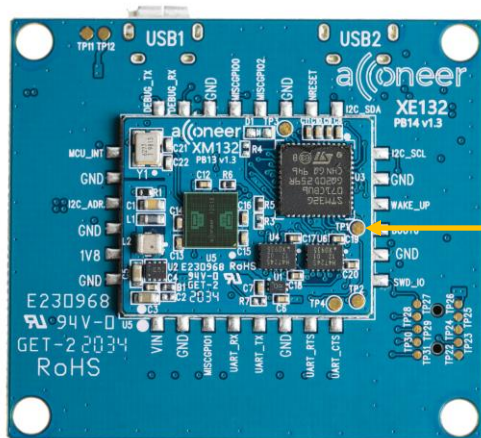
Pin Number	Signal	Comment
1	VIN	1.8V
2	Ground	
3	1V8	
4	Ground	
5	UART_TX	Connect to UART_RX on host side.
6	UART_RX	Connect to UART_TX on host side.
7	Ground	
8	UART_CTS	Connect to UART_RTS on host side.
9	UART_RTS	Connect to UART_CTS on host side.
10	Ground	
11	SWD_IO	
12	SWD_CLK_BOOT0	SWD_CLK and BOOT0 pin. Pulling BOOT0 high during boot of module will start the embedded boot loader.
13	Ground	
14	NRESET	Reset of XM131 MCU.
15	WAKE_UP	Could be used by host to wake up XM131 MCU.
16	Ground	
17	I2C_SCL	
18	I2C_SDA	
19	Ground	
20	I2C_ADDRESS	For configuration of I2C address.
21	DEBUG_UART_RX	Connect to UART_RX on host side.
22	Ground	Connect to UART_TX on host side.
23	DEBUG_UART_TX	
24	MISC_GPIO0	
25	MISC_GPIO1	
26	MISC_GPIO2	
27	Ground	Output from XM131 switched power regulator. Could be used to send interrupt from XM131 MCU to host.
28	MCU_INT	

# XE132 Evaluation Board

## Overview

- The XE132 Evaluation board to be used for XM131 evaluation of Presence & Motion detection
- XE132 includes soldered XM132 on breakout board to enable easy access of flashing, debugging and easy access to all interfaces provided by the XM132/XM131 module.
- Support for UART communication over USB.

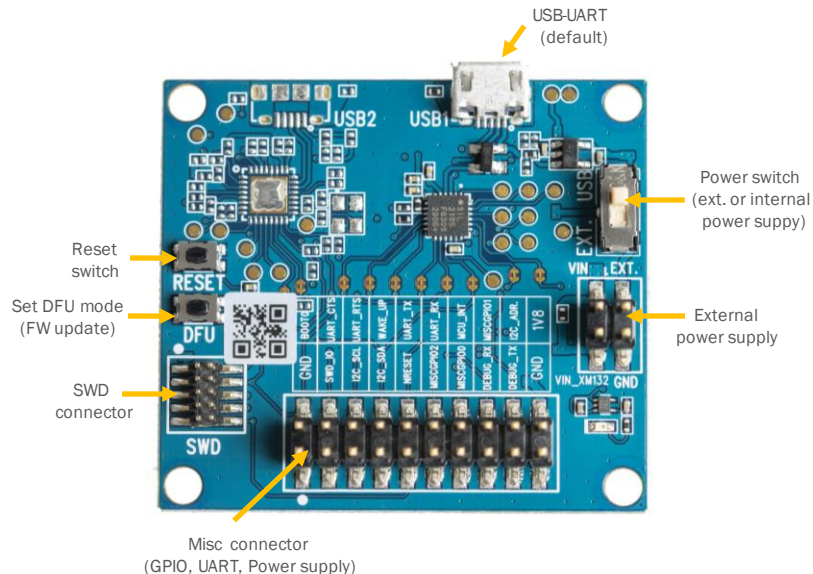
XE132 Evaluation board - top view



← XE132 Evaluation board

← XM132 Entry Module (soldered)

XE132 Evaluation board - bottom view



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