

Explore the next sense



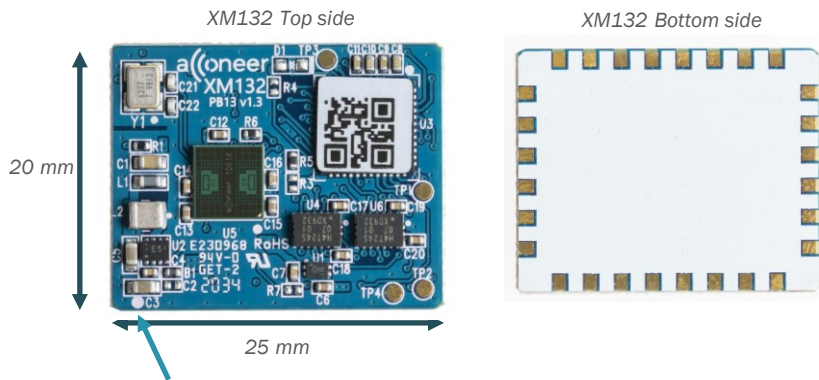
Acconeer XM132 Entry Module - Product Brief

September 2020

Product brief – XM132 Entry Module

Entry module ready for integration in commercial products.

- *Optimized for selected use cases.*
- *Outstanding system cost*



Pin 1 marking

Overview

- A111 60GHz PCR sensor with 32-bit ARM® Cortex™ M0+ MCU (STM32G071CBU6) 64 MHz, 128 kb Flash; 36kb RAM.
- Formfactor 25x20 mm.
 - All components mounted on PCB top side and solder pads (LGA) on PCB underside.
- Single supply operating voltage 1.8-3.6V
- 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)

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

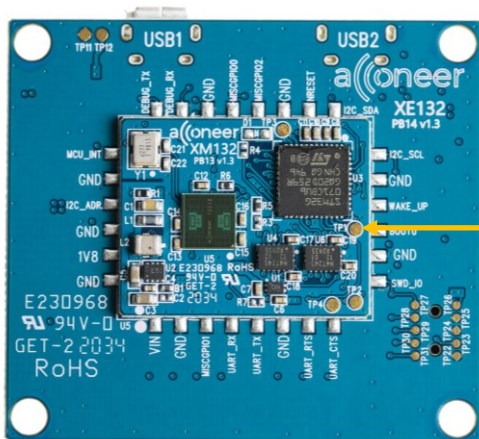
- Smart presence & Motion detection
- Parking space occupancy detection
- Level measurement e.g. Waste level measurement, Tank level measurement

XE132 Evaluation board

Overview

- XE132 includes soldered XM132 on breakout board to enable easy access of flashing, debugging and easy access to all interfaces provided by the XM132 module.
- Support for UART communication over USB.

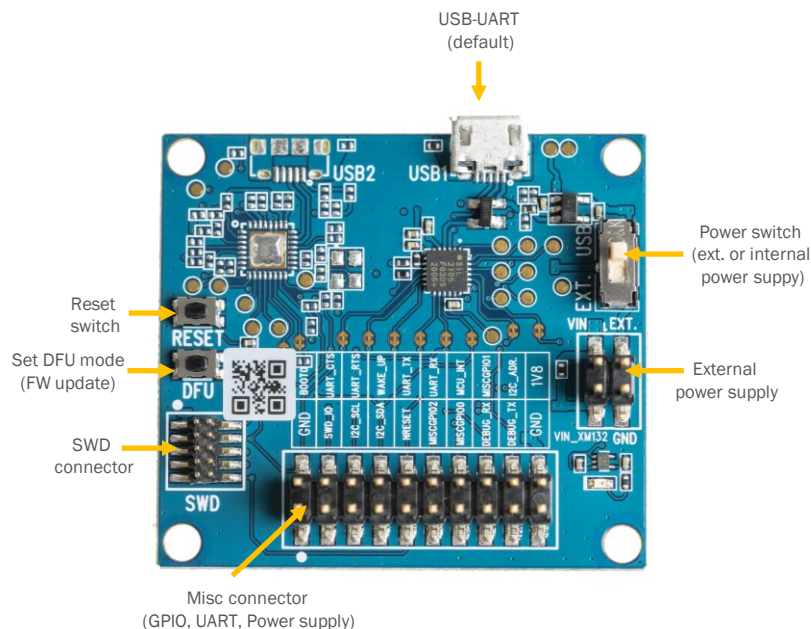
XE132 Evaluation board - top view



← XE132 Evaluation board

← XM132 Entry Module (soldered)

XE132 Evaluation board - bottom view



USB-UART
(default)

Power switch
(ext. or internal
power supply)

External
power supply

Reset
switch

Set DFU mode
(FW update)

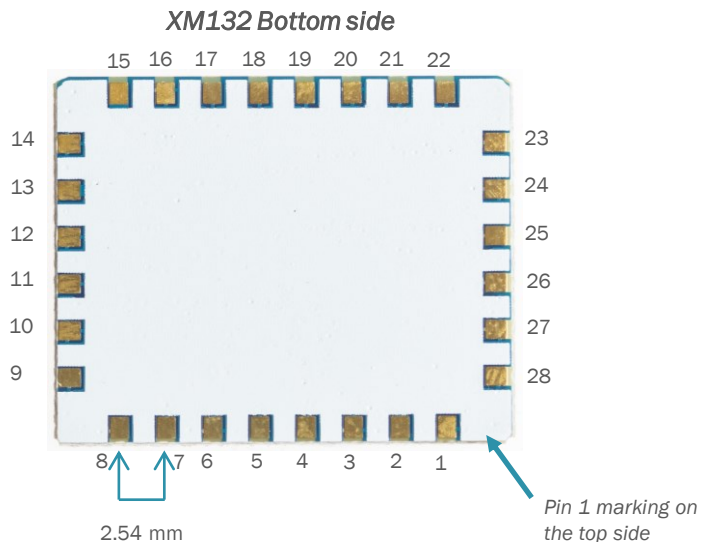
SWD
connector

Misc connector
(GPIO, UART, Power supply)

XM132 LGA pad configuration

Overview

- XM132 LGA pad layout
- LGA pitch 2.54mm



Pin Number	Signal	Comment
1	VIN	1.8-3.6V, typical 3.3V
2	Ground	
3	MISC_GPIO1	
4	UART_TX	Connect to UART_RX on host side.
5	UART_RX	Connect to UART_TX on host side.
6	Ground	
7	UART_CTS	Connect to UART_RTS on host side.
8	UART_RTS	Connect to UART_CTS on host side.
9	SWD_IO	
10	Ground	
11	SWD_CLK_BOOT0	SWD_CLK and BOOT0 pin. Pulling BOOT0 high during boot of module will start the embedded boot loader.
12	WAKE_UP	Could be used by host to wake up XM132 MCU.
13	Ground	
14	I2C_SCL	
15	I2C_SDA	
16	NRESET	Reset of XM132 MCU.
17	Ground	
18	MISC_GPIO2	
19	MISC_GPIO0	
20	Ground	
21	DEBUG_UART_TX	Connect to UART_RX on host side.
22	DEBUG_UART_RX	Connect to UART_TX on host side.
23	MCU_INT	Could be used to send interrupt from XM132 MCU to host.
24	Ground	
25	I2C_ADDRESS	For configuration of I2C address.
26	Ground	
27	1V8	Output from XM132 switched power regulator.
28	Ground	

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