Explore the next sense

Acconeer XM132 Entry Module - Product Brief

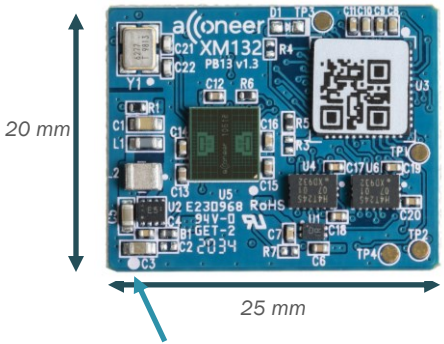
September 2020

Product brief – XM132 Entry Module

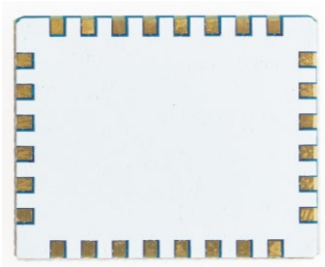
Entry module ready for integration in commercial products.

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

XM132 Top side



XM132 Bottom side



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

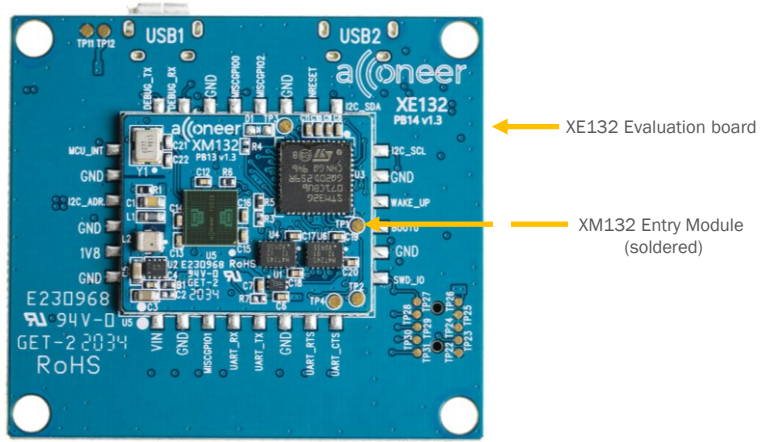
- Smart presence & Motion detection
- Parking space occupancy detection
- Level measurement e.g. Waste level measurement, Tank level measurement

XE132 Evaluation board

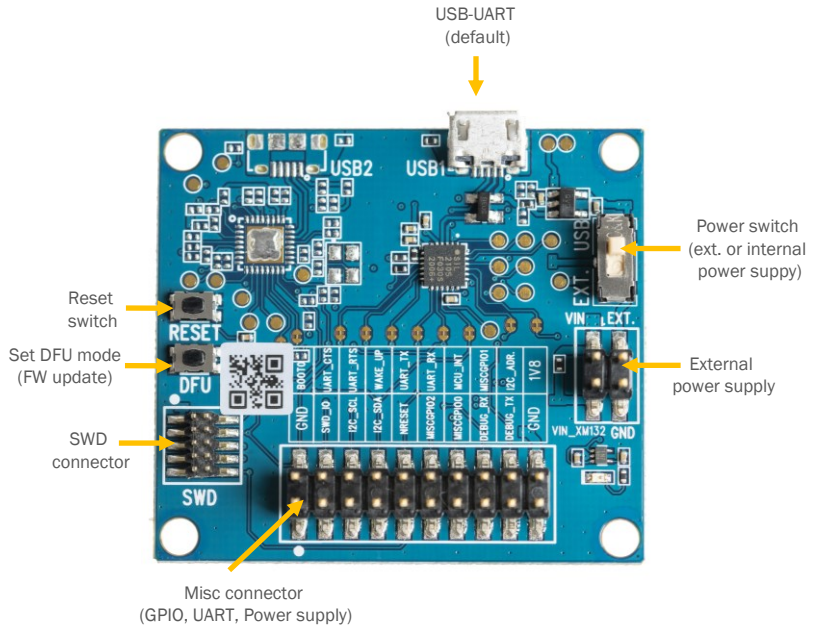
Overview

- 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



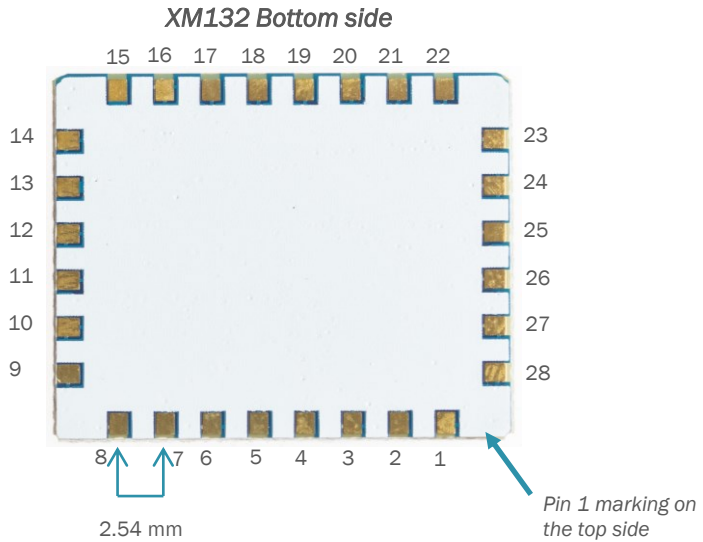
XE132 Evaluation board - bottom view



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