

## FEATURES

- **CoreHW CHW1010-ANT3** antenna module for AoA and AoD direction finding systems
- Operating frequency range: 2400-2483 MHz
- CoreHW CHW1010 SP16T AoA and AoD antenna switch
- Connectors for radio frequency signals and CoreHW CHW1010 SP16T GPIO control signals
- Four patch antenna elements
- Low cost 4-layer PCB stack-up structure
- Optimized phase balance between antenna chains
- Firmware support and antenna models available
- PCB dimensions: 75mm x 75mm

## APPLICATIONS

- *Asset tracking in factories, offices, logistics etc.*
- *Access control*
- *People tracking*
- *Wayfinding*
- *Point-of-interest services*
- *Proximity marketing*
- *Shopping guidance and assistance*
- *Equipment and facilities utilization*
- *Consumer behavior analysis*
- *Security services*
- *Item finding*

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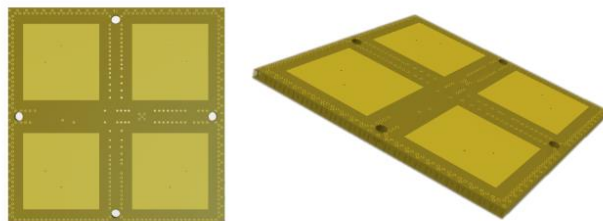
## GENERAL DESCRIPTION

**CHW1010-ANT3** is an antenna module consisting of four patch antenna elements. The antenna array PCB is intended for direction and positioning system solution providers.

CHW1010-ANT3-1.0 antenna module contains CoreHW CHW1010 SP16T antenna switch, which can be used to control and sample RF signal for Bluetooth® AoA and AoD technology. The device comprises of very low phase mismatch antenna switch array which enables real high accuracy positioning.

CHW1010-ANT3 antenna module enables system solutions which are insensitive to multipath signal and has outstanding position accuracy down to 50cm level.

CoreHW offers an AoA evaluation kit with CoreHW firmware and Windows PC positioning engine software with user interface (GUI). The kit contains four patch antenna array-based locators. The evaluation kit can be used for laboratory tests and PoC testing in real use case scenarios.



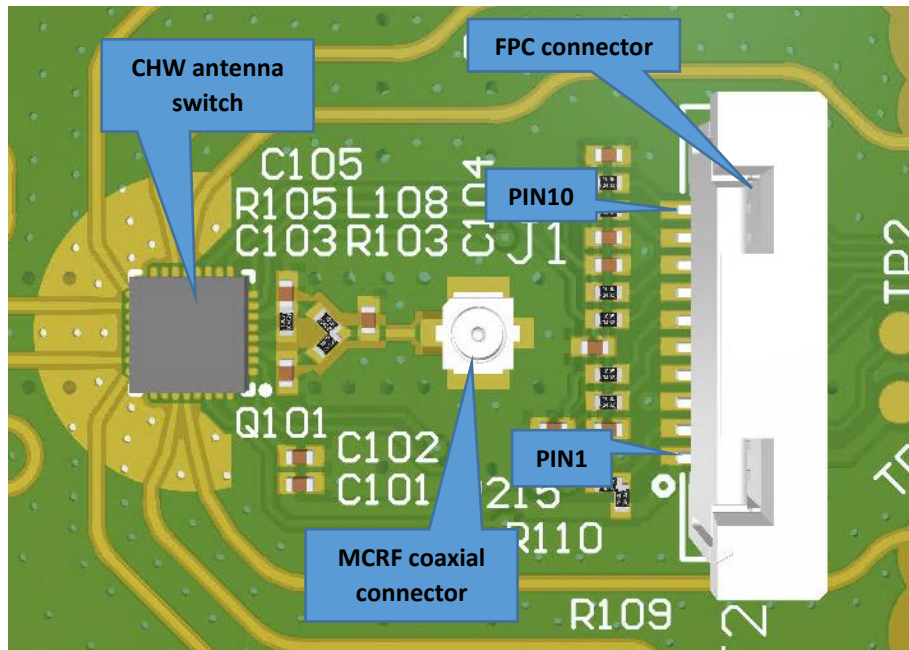
#### PCB CONNECTORS AND SIGNAL PINS

Table 1. Connector types

RF connector	GPIO connector
MCRF coaxial 50 Ohms	FPC vert 10pos, pitch 1mm

Table 2. GPIO pin contacts

Pin	Purpose	Description
1	VBAT	Supply voltage (3V nominal)
2	Unused	Unused
3	GND	GND
4	GND	GND
5	D1	ANT_SELO
6	D3	ANT_SEL2
7	D2	ANT_SEL1
8	D4	ANT_SEL3
9	D0	Digital control input
10	EN	Chip enable

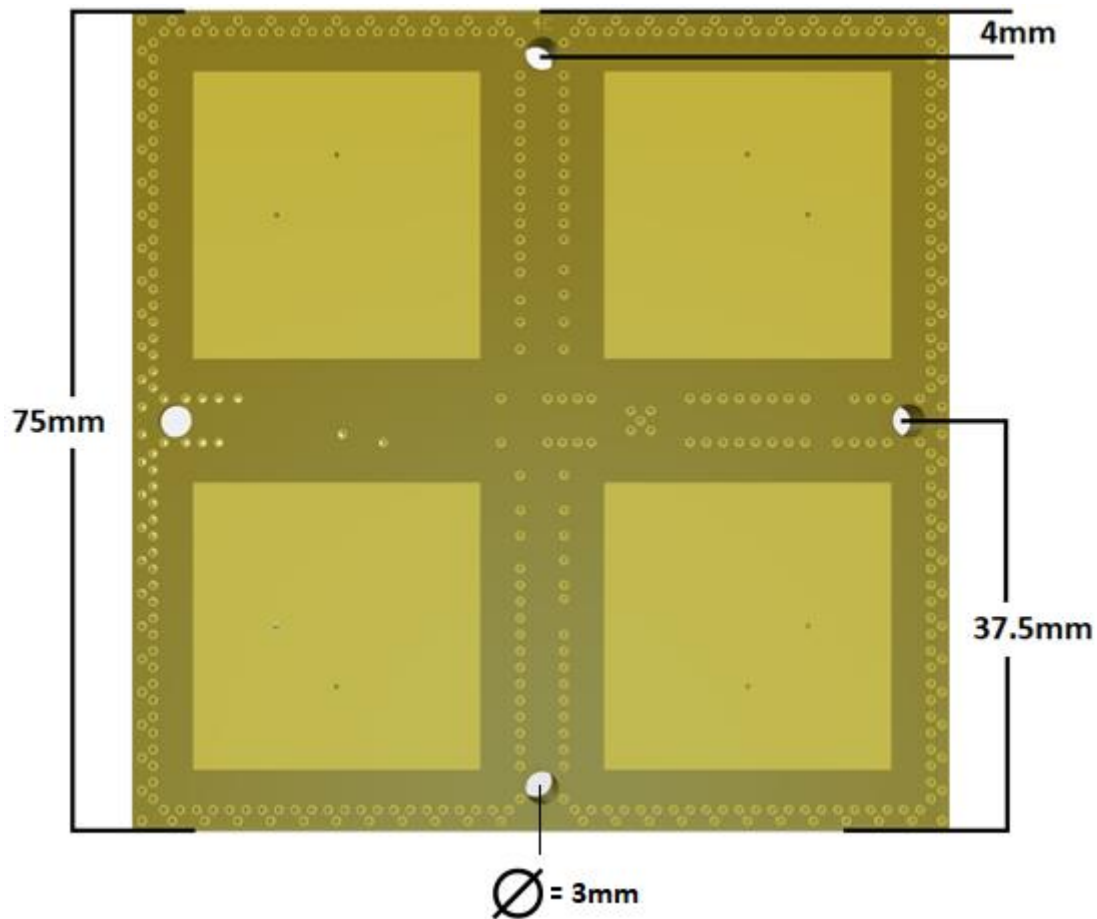


### Technical Data

### CHW1010-ANT3-1.0

#### DIMENSIONS

PCB thickness: 3.6 mm



#### CONTACT DETAILS

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