	<h2>Engineering Specification</h2>	페이지: 1 / 4
작성일자: 2020.05.21	MDR_Mini_A Specification	작성자 : 라승탁

[MDR_Mini_A] Features

- 24GHz K-band radar
- One board solution
- Include antenna and DSP module
- Small size / Low cost
- Low power consumption
- GPIO, UART or I2C(option) interface
- Customer friendly output
- Easily use
- Replace PIR Sensor



[MDR_Mini_A] Applications

- Lighting Control
- Intrusion Detection
- Indoor Automation
- Movement Detection
- Speed(with direction) Detection : Only Ver2.0

	<h2>Engineering Specification</h2>	페이지: 2 / 4
작성일자: 2020.05.21	MDR_Mini_A Specification	작성자 : 라승탁

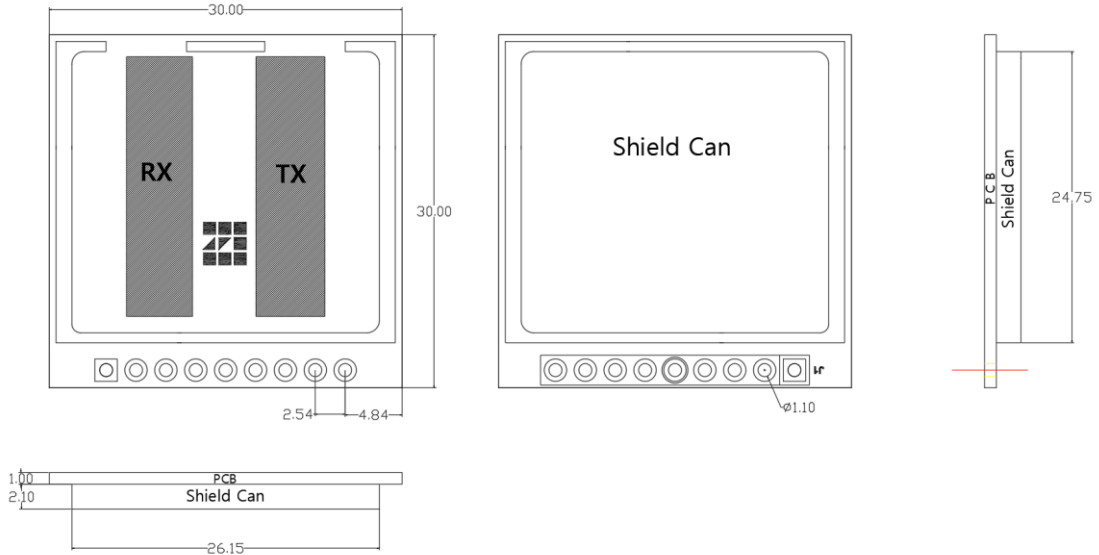
[MDR_Mini_A] Specification

Features	
Project name	MDR_Mini_A
Hardware size	30.0 x 30.0 x 3.1mm
Transmit frequency	24.15GHz
Channel	1 RX channel, 1 TX channel
TX power	15 dBm
Antenna gain	9 dBi
Antenna pattern (-3dB width)	Horizontal : 110° Vertical : 30°
Supply voltage / current	5 Vdc / 75 mA
Interface	GPIO, UART
Operating temperature	-30 °C ~ 85 °C
Storage temperature	-50 °C ~ 125 °C

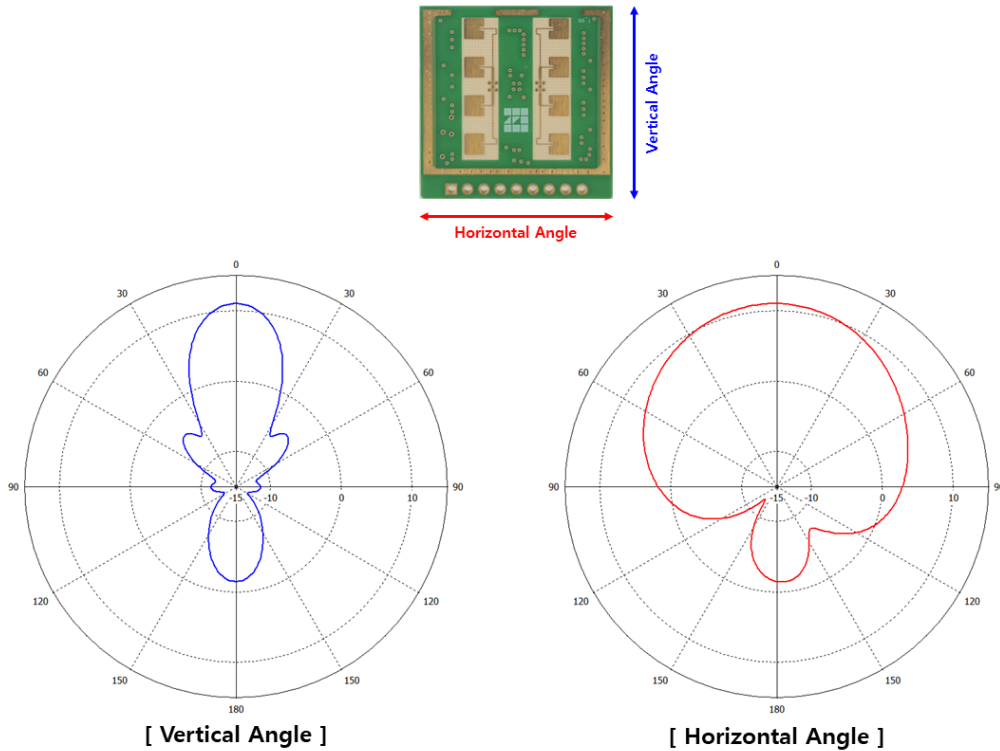
Performance		
Update rate		260 ~ 350ms
Detect distance	Range	Person : 7m
Velocity	Range	0 ~ 50 km/h
	Resolution	0.5 km/h
	Error	±0.5 km/h

	<h1>Engineering Specification</h1>	페이지: 3 / 4
작성일자: 2020.05.21	MDR_Mini_A Specification	작성자 : 라승탁

[MDR_Mini_A] Dimension

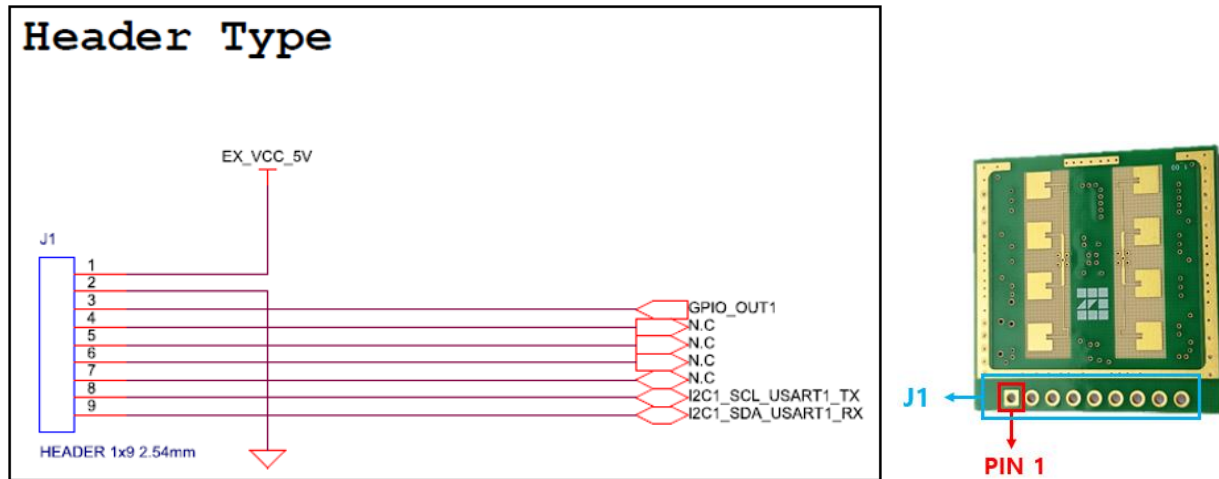


[MDR_Mini_A] Antenna Pattern(-3dB)



	Engineering Specification	페이지: 4 / 4
작성일자: 2020.05.21	MDR_Mini_A Specification	작성자 : 라승탁

[MDR_Mini_A] Pin map



PIN	Name	Remark
1	VCC 5V DC	Power +
2	GND	Power -
3	GPIO_OUT1	Motion detection status output
4	N.C	Not Used
5	N.C	Not Used
6	N.C	Not Used
7	N.C	Not Used
8	I2C1_SCL_USART1_TX	UART data transmit (TTL level : 3.3V)
9	I2C1_SDA_USART1_RX	UART data receive (TTL level : 3.3V)