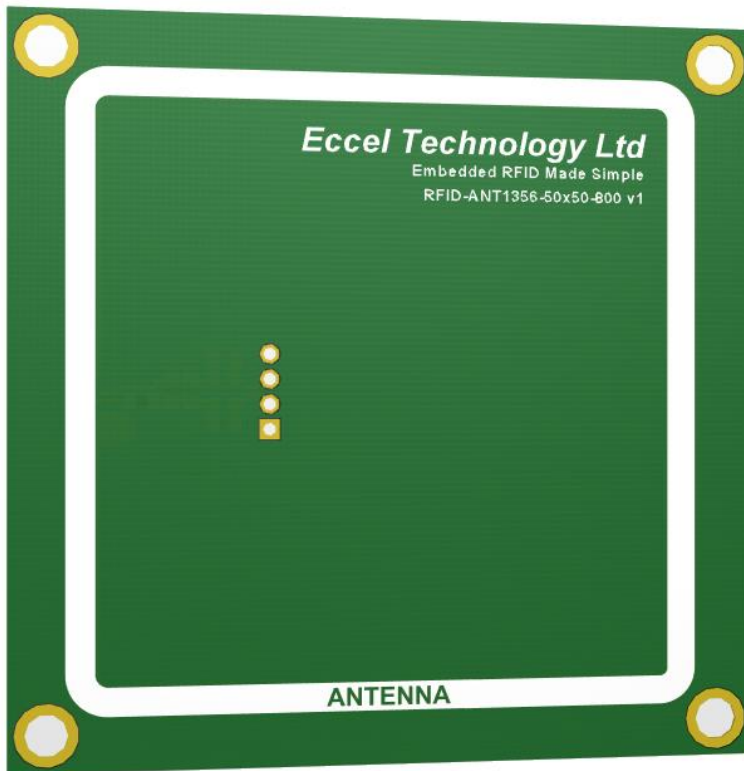


External RFID antenna

13.56 MHz

V1.2

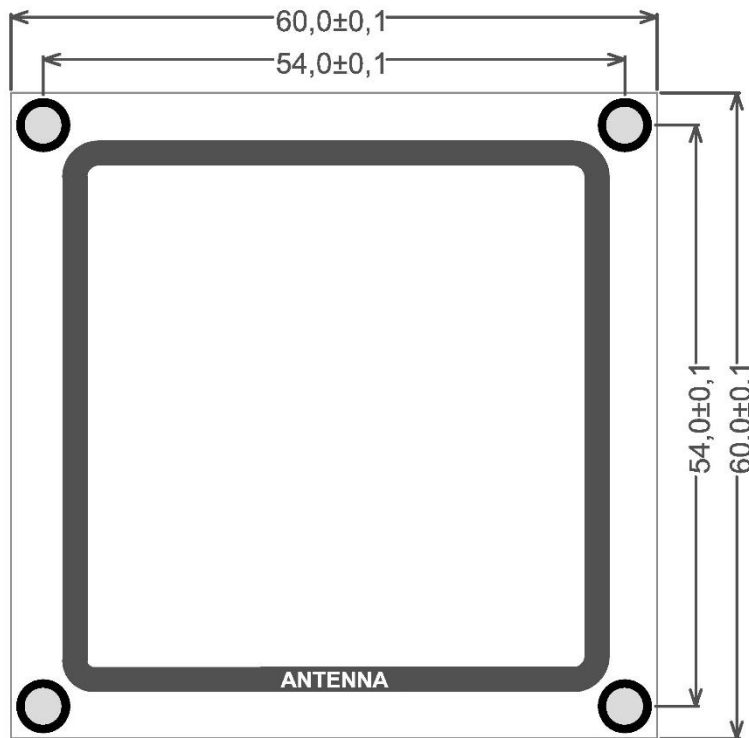
2020-03-05



1. RFID-ANT1356-50x50-XXX v1

Standard specifications:

Operating Temperature Range	-40°C to + 85°C
Storage Temperature Range	-40°C to + 85°C
Operating frequency [MHz]	13.56
Dimensions W x D x H [mm]	60 x 60 x 1.8
Cable length XXX [mm]	300; 800

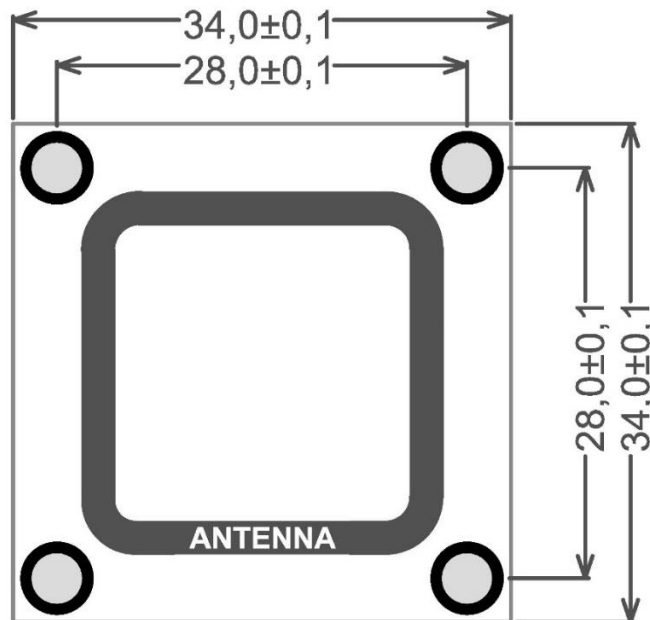


Hole size x4
 \varnothing 3,4 mm
 Outer diameter
 \varnothing 5,0 mm

2. RFID-ANT1356-25x25-XXX v1

Standard specifications:

Operating Temperature Range	-40°C to + 85°C
Storage Temperature Range	-40°C to + 85°C
Operating frequency [MHz]	13.56
Dimensions W x D x H [mm]	34 x 34 x 1.8
Cable length XXX [mm]	300; 800



Hole size x4
 Ø 3,4 mm
 Outer diameter
 Ø 5,0 mm

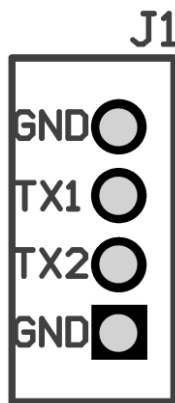
3. Performance

Test conditions: Tested with ECCEL Technology RFID A1-1 module, $V_{cc} = 3.3\text{ V}$, $T_{amb} = 25^{\circ}\text{C}$

	Maximum range [mm]			
	Antenna #1 25 mm, cable 800 mm	Antenna #2 25 mm, cable 300 mm	Antenna #3. 50 mm, cable 800 mm	Antenna #4. 50 mm, cable 300 mm
Mifare Classic 1k (MF1S50) ISO card	40	40	65	65
Mifare Classic 4k (MF1S70) sticker 3x1,5 cm	20	20	25	25
Mifare Classic mini (MF1S20) ISO card	50	50	75	75
Mifare Ultralight ISO card	45	45	70	70
Mifare Ultralight C ISO card	10	10	20	20
Ntag 203F Sticker ϕ 20 mm	15	15	15	15
Ntag 212 Sticker ϕ 19 mm	20	20	30	30
Ntag 213 ISO card	30	30	40	40
Ntag 215 ISO card	30	30	40	40
Ntag 216 Iso card	35	35	50	50
Ntag 216 Sticker ϕ 21mm	25	30	30	30
Ntag 210 Sticker ϕ 38 mm	30	40	55	60

Table 1. Antenna maximum ranges with different tags.

4. Pinout



TX1 – Antenna TX1
TX2 – Antenna TX2
GND – Ground

PCB antenna products can be customized as per application requirements. Parameters such as the dimensions or shape of the coil or its inductance can be altered. Antennas are provided with 2-conductor shielded cable, in lengths of 300 mm or 800mm, and terminated with a 4-pin connector JST PHR-4 (RS Stock No. 820-1478). We also ship a suitable 4-way socket JST B4B-PH-K-S(LF)(SN) (RS Stock No. 820-1434) with each of our antennas to give users an “out of the box” complete bill of materials.