

### INTRODUCTION

The RFxx is a low cost high performance proximity reader module featuring ultra-low power, small dimensions and long range that has been designed specifically for OEM applications.

The RFxx feature good read range at 5 volts making it ideally suited to a wide variety of applications, particularly access control. The same basic unit can be configured to output most of the common formats, including RS-232, Serial TTL and USB making it easy to upgrade existing installation.

The reader generates a 125KHZ/13.56MHZ inductive field that extends some way beyond the reader module. When a transponder is placed within the vicinity of the reader module, it draws power from this field and providing the field is of sufficient strength the internal microcircuits contained in the transponder begin to function.

Data is transferred from the transponder by means of amplitude modulation in such a manner that the transponder varies the rate at which it draws power from the field in a way that corresponds to the internal identity code programmed in this internal memory.

These changes in field power can be detected by the reader and converted back into a copy of the original data.

### FEATURES

- Low cost, ultra small outline 60x30x7.8 mm
- Plug-in fitting for 125K/13.56Mhz
- Low power, low profile for portable designed
- Card Compatibilities  
13.56MHZ(RF320) Mifare ISO14443A standard  
125KHz(RF310) EM compatible64 bits, ASK Manchester coding.
- Serial (UART) Interface 19200bps,USB, RS232
- Baud Rate: 19200,N,8,1
- Power supply Active 80mA @5VDC

### Standard Configurations:

#### 13.56 MHz

- ✓ RF320L- [Serial \(UART\) Interface](#)
- ✓ RF320R- [RS232 Interface](#)
- ✓ RF320U- [USB HID Keyboard Mode.](#)

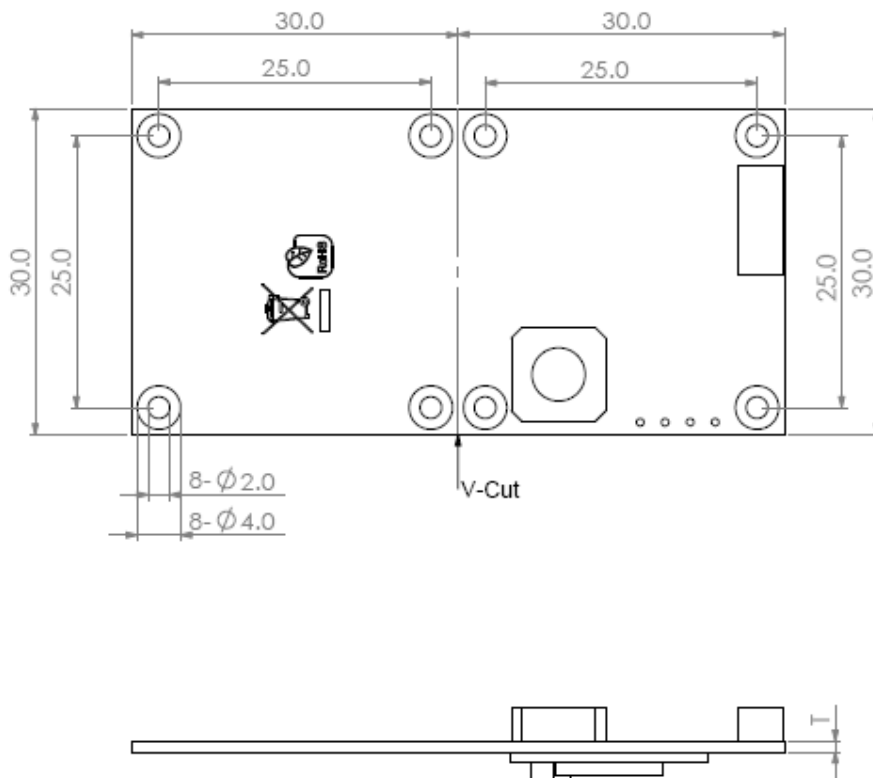
#### 125 KHz

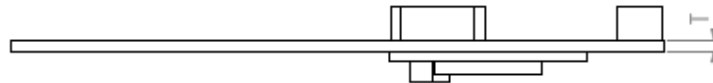
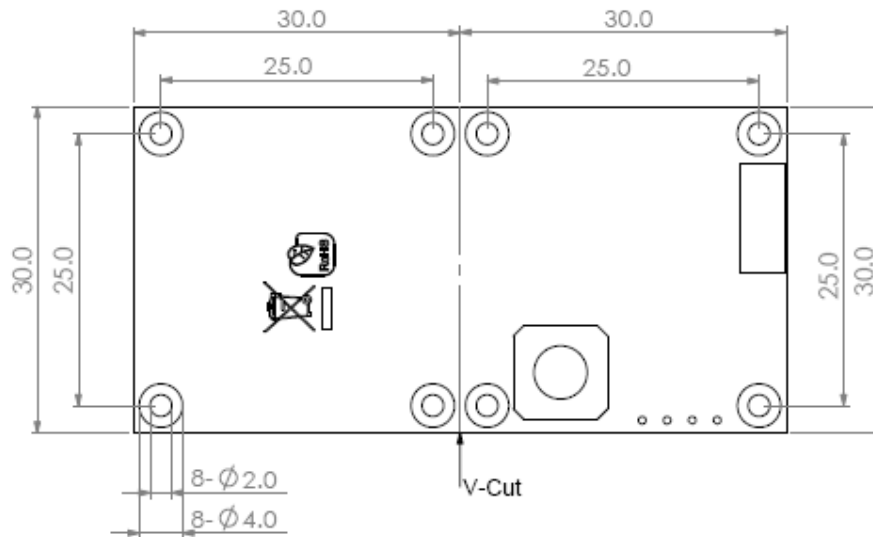
- ✓ RF310L- [Serial \(UART\) Interface](#)
- ✓ RF310R- [RS232 Interface](#)
- ✓ RF310U- [USB HID Keyboard Mode.](#)

### SPECIFICATIONS:

<b>POWER REQUIREMENT</b>	5V regulated for Operate Voltage . A linear regulator is recommended.
<b>CURRENT REQUIREMENTS</b>	Active 30mA @5VDC
<b>INTERFACE</b>	Serial (UART) Interface 19200bps USB HID Keyboard Mode. RS232
<b>Card Type</b>	13.56MHz(RF320): ISO14443A Card Type MIFARE® 1K/4K/8K Cart Type. Ultra-Light 125KHz(RF310): EM compatible64 bits, ASK Manchester coding.
<b>FERQUENCY</b>	125KHz (RF310), 13.56MHz (RF320) standard.
<b>TRANSPONDER</b>	Read Only.
<b>CONFIGURE INTERFACE</b>	UART , 19200 bps 8N1
<b>DIMENSIONS</b>	Appendix A
<b>WEIGHT</b>	< 10 gm
<b>ENVIRONMENT</b>	Operating Temp : -0°C ~ +60°C Humidity : 10 ~ 90 % relative

### PACKAGE DESCRIPTION

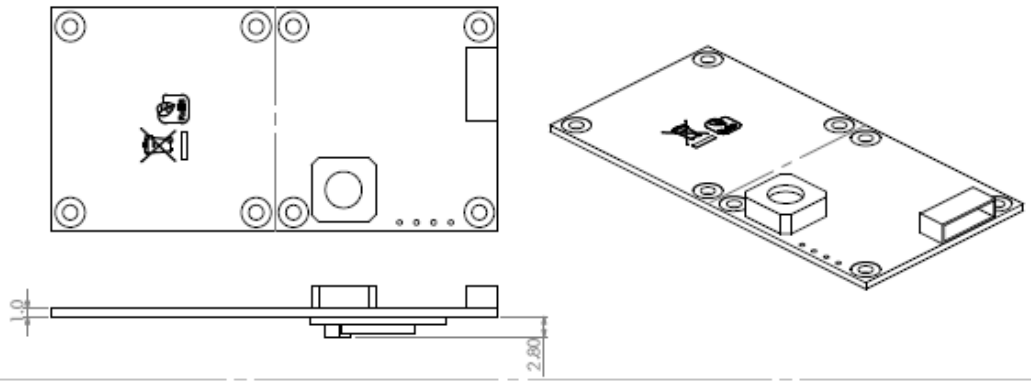




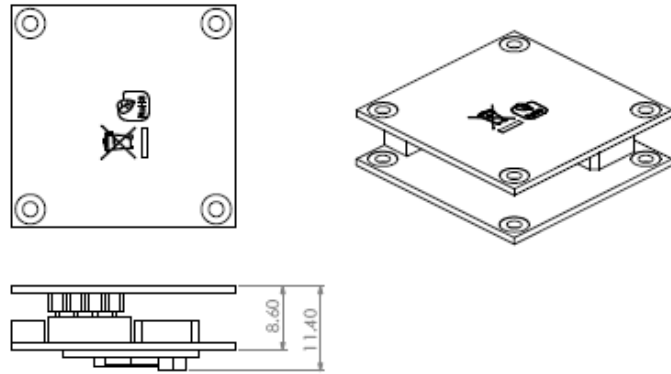
	RF310R-00 RF320R-00	RF310L-00 RF320L-00	RF310U-00 RF320U-00
Description	RS232	Serial TTL	USB (Virtual serial port)
Pin Numbers	8	8	5
Connector	JST SH 1.0mm	JST SH 1.0mm	JST SH 1.0mm
PIN#			
1	+5 VDD	+5 VDD	+5 VDD
2	TXD	TXD	D-
3	RXD	RXD	D+
4	GND	GND	GND
5	SHIELD	SHIELD	SHIELD
6	--	--	--
7	--	--	--
8	--	--	--

### Appendix A

Type : 0



Type : 1



Type : 2

