

# UHF Four Port Reader

## (Impinj E710 RFID module)



**Model Number: ST-8504**

### General Descriptions

ST-8504 is high performance UHF Long range RFID Reader integrated with Impinj E710 module with excellent reading performance. The reading distance up to 10 meters. It supports fast tag read/write with high identification rate. The reader is widely used in RFID system such as logistics, vehicle access control, and anti-counterfeit and industrial production process control system.

### Product Features



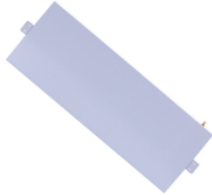

<b>RF chip module</b>	Impinj E710 chip
<b>RF Power</b>	33dbm(adjustable)
<b>Fast card reading</b>	Tag query speed up to 800 tags
<b>Polling Inventory</b>	Mufl-antenna port polling fast inventory
<b>Communication Interface</b>	Standard interface: USB、RS232、RS485、TCP/IP Optional interface: POE WIFI
<b>GPIO communication</b>	2 optocoupler input, 2 relay output
<b>Support multi-language development</b>	Support C#, Delphi, java, Python, VB
<b>Support firmware remote online upgrade</b>	Special functional requirements can be completed through remote upgrades
<b>With LED indicator</b>	Check Reader working Status

## Technical Specifications

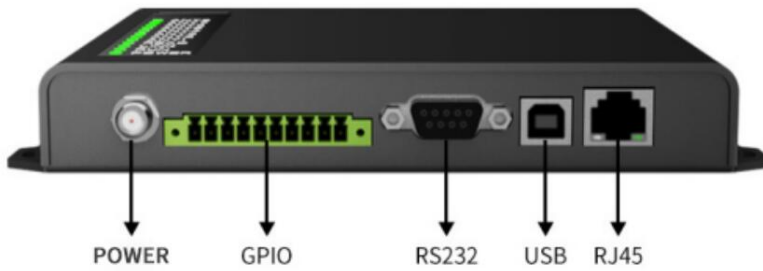
<b>Frequency standard</b>	902~928MHz (US) 865~868MHz (EU)
<b>Protocol standard</b>	ISO18000-6C (EPC GEN2)
<b>RF power</b>	33dbm (adjustable)
<b>Maximum query speed</b>	800 tags/sec
<b>Reading distance</b>	0~25M (Depends on external antenna and tag)
<b>Data cache size</b>	600pcs @ max 128bits EPC or 180pcs @ max 496bits EPC
<b>Mixed query</b>	Support simultaneous query of EPC+TID area data
<b>Operating mode</b>	answer mode real-time query mode trigger mode (optional)
<b>Judgment distance</b>	Support output RSSI value
<b>Voltage</b>	12V 2A
<b>Current consumption</b>	0.5~1.2A
<b>Communication Interface</b>	standard interface: USB、RS232、RS485、TCP/IP Optional interface: POE, WIFI
<b>GPIO interface</b>	2 sets of trigger signal input 2 sets of relay signal output
<b>Antenna port</b>	4 RP TNC female connectors (TNC reverse female connectors)
<b>Equipment size</b>	170*112*24mm
<b>equipment weight</b>	0.6kg
<b>Individual package size</b>	200*255*100mm
<b>Individual package weight</b>	1.3kg
<b>Operating temperature</b>	-10~+60℃
<b>Storage temperature</b>	-20~+75℃

### Interface definition




➤ Antenna interface: 4 RP TNC female connectors (4 different types of antennas can be connected externally at the same time)

	
<b>ceramic antenna</b>	<b>near field antenna</b>
	
<b>cabinet antenna</b>	<b>Panel antenna</b>

➤ **Standard interface: USB、RS232、RS485、TCP/IP**



➤ **Optional interface: POE、WIFI**

		
<b>TCP/IP</b> Stable network communication, wireless length limit	<b>POE</b> Network cable power supply, no wiring required, plug and play	<b>WiFi</b> Wireless communication, no wiring required

## Wiring definition

DC power supply		
serial number	Signal	content
1	PWR	+12V DC
2	CND	grounding

RS232 D89 female head		
serial number	Signal	content
1	NC	reserve
2	RXD	RS232 data input
3	TXD	RS232 data output
4	NC	reserve
5	GND	grounding
6	NC	reserve
7	NC	reserve
8	NC	reserve
9	NC	reserve

GPIO		
serial number	Signal	content
1	COM1	Relay 1-Common
2	NO1	Relay 1 - normally open
3	COM2	Relay 2-Common
4	NO2	Relay 2 - normally open
5	CND	grounding
6	GPI-1	trigger 1
7	GPI-2	trigger 2
8	CND	grounding
9	A+	RS485 data 1 (D+)
10	B+	RS485 data 0 (D-)

**Product accessories: power adapter + plug \* 1 set, serial line \* 1 USB line \* 1**



**Fixed series of products**

	
<p><b>ST-8504 Four-channel</b>                  Reading distance 0-25 meters                  E710 chip solution                  Antenna port RP TNC female</p>	<p><b>ST-8508 Eight channels</b>                  Reading distance 0-25 meters                  E710 chip solution                  Antenna port SMA female</p>

**Application**

