

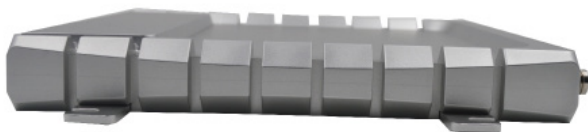
S-8800 UHF Industrial Reader



The S-8800 is a high performance 8 channel reader which can be well adapted to the installation requirements for indoor or outdoor environments. It is developed based on M-2900 UHF RFID reader module with INDY R2000 core chip. It is easy to install and use with high performance.

Key features

- 700 tags/s
- 8 antennas
- RS232, TCP/IP, 8 pins



V1.2
Non-contractual datasheet

S-8800 UHF Industrial Reader



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Physical specifications

Dimensions	230 x 160 x 28mm
Weight	1,8kg
Body material	Die-cast aluminum

General specifications

Air Interface protocol	EPC Global UHF Class 1 Gen 2 / ISO18000-6C ISO 18000-6B
RF transceiver	Impinj Indy R2000
Input Voltage	DC 12V - 18V
Standby Mode Current	< 80mA
Sleep mode Current	< 100uA
Max operating current	700mA +/-5% at DC 12V Input
Spectrum range	EU : 865MHz-868MHz or US : 902-928MHz
Output Power	0 - 33dBm
Output Power precision	+/- 1dBm
Output power flatness	+/- 0.2 dBm
Receive Sensitivity	><-85dBm
Peak Inventory Speed	>700 tags/sec
Tag buffer capacity	1000 tags at 96 bit EPC
Host communication	RS232 or TCP/IP
GPIO	2 inputs optical coupling 2 output optical coupling
Antennas connectors	8 x RP-TNC Female
Working mode	Single/DRM
Max Baud rate	115200 bps
Heat Dissipation	Air cooling
Tag RSSI	Supported
Antenna detector	Supported
Ambient Temp monitor	Supported

User environment

Operating Temp.	-20°C~+55°C
Storage Temp.	-20°C~+85°C
Humidity	<95% (+25°C)

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Anti-collision Algorithm Comparison



PIN ID	Fonction	Descriptions
	Standard fixed Q algorithm	<ul style="list-style-type: none"> Standard 18000-6C algorithm. The performance is reduced significantly when tag quantity gets larger. The efficiency is not high when tag quantity is small.
	Impinj dynamic Q algorithm	<ul style="list-style-type: none"> The algorithm of Impinj. It has a good efficiency for various tag quantities. It sacrifices some performance for the sake of compatibility.
	I-Search dynamic Q algorithm V1.0	<ul style="list-style-type: none"> Based on Impinj dynamic Q algorithm. The performance is optimized. It's the algorithm for firmware version 6.6 or below.
	I-Search dynamic Q algorithm V2.0	<ul style="list-style-type: none"> Based on Impinj dynamic Q algorithm. It's a brand new data structure, the performance of which is significantly improved for firmware version 6.7 or above. The improvement of performance can be easily sensed after the first round of inventory especially when the tag volume increases. When tag quantity increases, it outworks other algorithms more.

Notes:

- 1.) The test is on same hardware platform in real applications (Taking Impinj dynamic Q algorithm as the reference which is marked with 100%).
- 2.) The chart shows the comparison for the first round inventory performance.
- 3.) It is tested on the same hardware platform.

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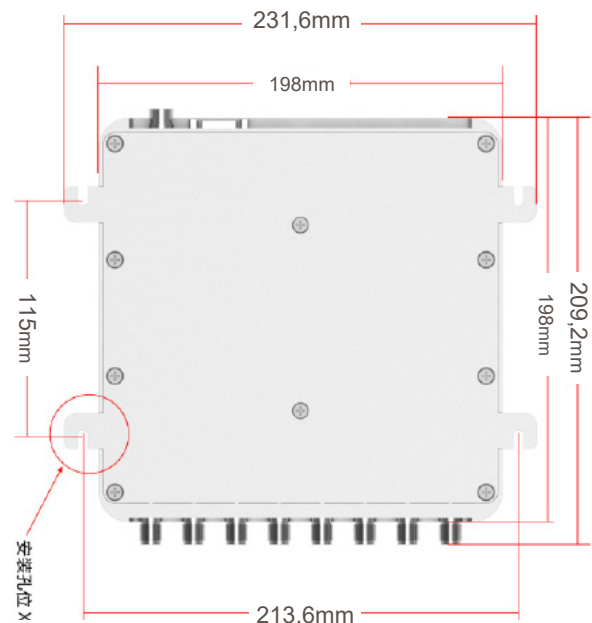
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Interface Definition List

PIN ID	Fonction		Descriptions
1	GPIO 1 Input +		Voltage between PIN 1,2 (PIN 3,4) \leq 12V
2	GPIO 1 Input -		Heteropolarity
3	GPIO 2 Input +		LED equivalent resistance 470 Ω
4	GPIO 2 Input -		Response time \leq 150uS
5	GPIO 4 Input Output		Voltage between PIN 5,4 (PIN 7,8) \leq 12V
6	GPIO 4 Input Output		Nonpolarity
7	GPIO 3 Output		On resistance 110 Ω
8	GPIO 3 Output		Response time \leq 6mS

S-8800 Structure Dimensions



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