

## RFID Device Manual



**Model: XDUR-840**

**Size: 295mmx245mmx110.3mm**

### General description

Xiamen Xindeco IOT Technology Ltd.'s XDUR-840 is a high-performance UHF RFID reader based on the Impinj R2000 chip. It is compliant with EPC C1 Gen2 / ISO 18000-6C and FCC modular approval requirements.

XDUR-840 has four (N type) antenna connectors that can be configured as four

mono-static antennas. It also supports dense reader mode (DRM), anti-collision, and Listen-Before-Talk (LBT) features. XDUR-840 has a long operating distance of up to 9 meters when its adjustable TX power is set to 20 dBm with a 12 dBi antenna. XDUR-840 is ideal for adding UHF RFID read/write capabilities to a wide range of solutions, such as logistics, access control, anti-counterfeit and industrial production process control systems.

XDUR-840 uses Ethernet interfaces to connect to an external processor board or PC host. Xiamen Xindeco IOT Technology Ltd. offers a starter kit to enable you to design XDUR-840 into your application quickly and easily.

This kit includes SDK, demo code, and documentation. With its excellent operating range, and high quality UHF RFID technology, XDUR-840 is the perfect solution for RFID applications.

## Features

- Complaint with EPC C1 Gen2 / ISO 18000-6C and FCC modular approval requirements
- Supporting Dense Reader Mode (DRM) and Listen-Before-Talk (LBT) features
- Meeting worldwide regulatory: FCC (US), SRRC (China), TELEC (Japan), NCC (Taiwan)
- Four (N type) antenna connectors that can be configured as four mono-static antennas
- Adjustable transmit output level control from 10 dBm to 33 dBm in 0.5 dB step

- Maximum tag read rate of over 100 tags per second
- Maximum tag read distance of 27 feet (9 m) with 12 dBi antenna
- Easy to use Starter Kit to shorten product development time

## Specifications

<b>Protocol</b>	
RFID	EPCglobalGen 2 (ISO 18000-6C), DRM
<b>Architecture</b>	
RFIDASIC	IMPINJ R2000
<b>Power</b>	
Voltage	100~240V~50/60Hz
Current Consumption	Scan Mode : 0.3A (Max), Idle Modes : 84mA (Typical)
<b>Interface</b>	
Ethernet	100/100Mbps with speed and duplex auto negotiation
<b>RF</b>	
AntennaConnector	4 N type antenna ports support antenna auto-tuning and antenna failure checking, with VSWR less than 2:1
Frequency	FCC (US) 902 – 928 MHz SRRC (China) 920.5 – 924.5 MHz TELEC (Japan) 916.8 – 923.4 MHz NCC (Taiwan) 922 – 928 MHz

TX power	Adjustable from 10 dBm to 20 dBm
FrequencyStability	$\pm 20$ ppm
ModulationDepth	90% nominal
DataEncoding	FM0 or Miller code
BitRate	Supports uplink data rates of up to 640 Kbps
<b>Performance</b>	
Tag Read Rate	Over 100 tags/second
Inventory Reliability	Through anti-collision
Tag Read Distance	27 feet (9m) with a 12 dBi antenna (36 dBm EIRP)
<b>Compliance</b>	
Regulatory	FCC 47 CFR Ch.1 Part15,SRRC,TELEC,NCC
<b>Environmental Compliance</b>	
Temperature Range	Operating:-30 to +65 degree C, Storage: -40 to + 80 degree C
Humidity	10% ~ 85% Non-condensing
Electrostatic Discharge	10 KV to antenna conductor with the antenna attached
<b>Physical</b>	
Dimensions	295mm L x245mm W x110.3mm H
<b>Software</b>	
Platformsupport	PC Windows OS SDK
Development Tools	Visual studio with C#/C++.NET

## Package Content

Check the package before connecting and operating the XDUR-840. If one or more items in this package are lost, contact your local dealer.



## Quick Start

### Connecting the XDUR-840 to a PC

Before operating the DEMO software for development of the RFID device, follow the steps

made below to connect the RM300 to a PC.

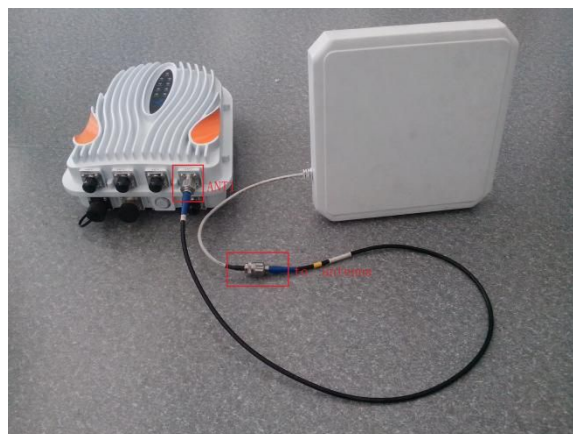
- 1.Copy the demoto your PC.
- 2.Connect the interface to a PC by using anethernet cable.



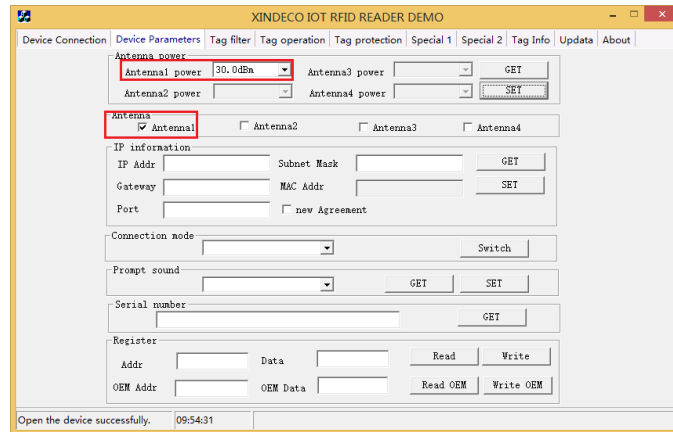
3. Insert the power connector into the powerinlet on the interface, and then plug the power adapter into an electrical socket.



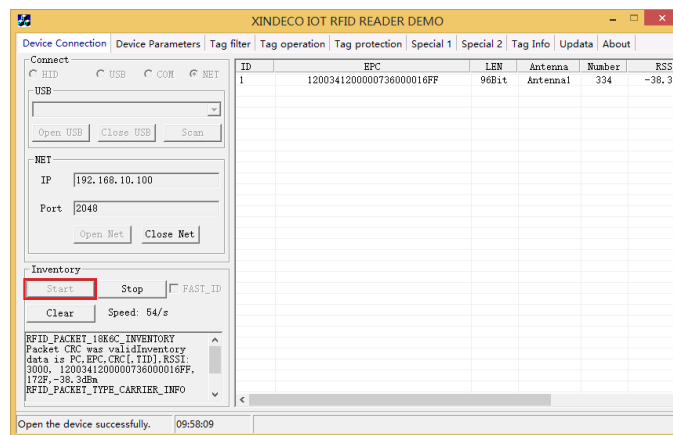
4. Insert the connector of antenna into one of the four antenna ports of the XDUR-840 UHF RFID Reader. You can connect at most four antennae at the same time.



5. Operate the configuration of antenna port by demo.



6. Open the demo. Click Start to scan RFID tags by using the XDUR-840UHF RFID Reader.



The FCC federal communications commission interference statement

## Note:

- 1, don't put it on the microwave.
- 2, cannot and oil organic liquid contact.
- 3, device has to be loaded (antenna) when working.

## **FCC STATEMENT :**

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference, and
- (2) This device must accept any interference received, including interference that may cause undesired operation.

**Warning:** Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.

- Increase the separation between the equipment and receiver.

- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

- Consult the dealer or an experienced radio/TV technician for help.

### **FCC Radiation Exposure Statement**

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body