



# RS816

## 16-Port Fixed UHF Reader

unitech RS816 is the enterprise grade UHF RFID Fixed Reader which supports 16 reading antenna ports for mass data collection that enhances working efficiency for various RFID applications. Featuring a high-speed antenna switch and multiple isolation ports design, users can separately controlled and adjusted from a place which makes it suitable for high density multiport operations such as multi-lanes reading or smart-shelf applications.

The RS816 Power over Ethernet (PoE) offers flexible installations by bypassing the usual need for AC power, allowing user to easily deploy RFID system quickly. Supporting a global frequency range of 860MHz - 960MHz, this device is capable of reading and writing all tags that conform to EPC global Class1 Gen2, ISO/IEC 18000-63:2013 standards. Besides, housed in a black metal chassis, this RFID reader is rugged enough to meet various environments with its IP52 water resistance for industrial and dustproof rating. The RS816 is highly reliability to meet the needs in a wide range of RFID applications.

Integrated RFID Middleware with remote control capability, the RS816 supports communications protocol and useful software tool including LLRP and software development kit (SDK) from different platforms.

The RS816 also comes with an open Application Programming Interface (API) that can be used by the users to integrate RS816 to do accurate data transmission from client to host in a total RFID solution. In addition, it supports multiple interface including Ethernet, USB and RS232.

Built in 16 ports antenna connectors, the RS816 UHF RFID readers deliver the performance, cost effective and quality for enterprise environments to create compact RFID application system easily with affordable deployment cost.

### Features

- 16 antenna ports configurations to enhance working efficiency and RF coverage
- Support UHF tags read/write functions
- Multiple interface for transmitting data with Ethernet, USB and RS232
- Rugged and compact design by IP52 and could be easily installed everywhere
- Complaint with EPC C1 Gen2 / ISO 18000-63:2013
- Real time and easy way of configuration with SDK
- Built-in LLRP standard middleware
- Transmit level control from 10dBm to 30dBm in 0.1dB step
- Great sensitivity to report weaker tag signals



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### System

OS	Windows CE 7.0 Core
CPU	TI Processor 800MHz
Memory	512MB SDRAM, 4GB Embedded EMMC
Power Source	AC Adapter (input: AC 90~264V; output: DC 12V) PoE support IEEE 802.3at
Power Consumption	17.5W (Max)

### Reader Performance

Frequency	860MHz ~ 960MHz (By country defined)
Power output	Adjustable 10~29.5dBm with 1dB steps
RFID Protocol	EPCglobal Class1 Gen2, ISO/IEC 18000-63:2013
High-order Protocol	LLRP V1.1 compliance
Antenna	Support up to 16 reading ports Antenna Requirement : VSWR < 1.5
Data Formatting	Prefix, Suffix, Code ID, Reformatting Date

### Mechanical

Dimension	L200 x W180 x H38mm
Weight	992g
IP Rating	IP 52

### Communication

Ethernet	10/100/1000Base-T RJ45 within LED (support IEEE 802.3at)
USB	RNDIS Client
RS-232	3 wire $\pm$ 12V (Refer to D-Sub Pin Assignment)
GPIO	5 IN, 5 OUT

### Environmental

Operating Temperature	Operating: -20°C ~ 50°C
Storage Temperature	Storage: -40°C ~ 85°C
Relative Humidity	10% ~ 95% Non-condensing

### Regulation Approvals

Regulation Approvals	CE, FCC, BSMI, VCCI, NCC, TELEC
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### Accessories

Accessories (Standard)	AC Power Adapter Input : 90~264 VAC, Output : 12V / 2.08A
Accessories (Optional)	Antenna for US; Frequency: 902 ~928MHz Gain: 8dBi Antenna for EU; Frequency: 865.6 ~867.6MHz Gain: 8dBi RF Cable (SMA, 3m)



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