

### RFID Reader UHF

# LR READER 4/8/16C



### PRODUCT DESCRIPTION

Powered by the innovative Impinj E710 reader chip, the UHF RFID readers LR16C, LR8C, and LR4C are capable of reading up to 900 RFID tags per second, offering exceptional performance and reliability for various industrial applications.

The compact design, multiple communication interfaces, and PoE power supply mode ensure easy installation and rapid deployment. These readers deliver high performance and long reading distances, making them ideal for demanding environments. Their durable, all-aluminum alloy housing provides excellent heat dissipation and is built to withstand rough industrial conditions.

These readers support Ethernet, RS232, WiFi and other communication modes, enabling seamless integration into a wide range of systems. Additionally, these communication channels allow users to configure functional parameters and upgrade the firmware as needed.

To further simplify implementation, we provide a comprehensive software development kit specifically designed for our UHF RFID reader series, supporting flexible and efficient customization for diverse industrial use cases.

#### **APPLICATIONS**

- Machine Authentification
- Automotive Production
- Logistics Applications
- Data Collection (IoT)
- · Robotics

#### **FEATURES**

- · New Generation IMPINJ Reader IC
- 33dBm RF Power Output
- · 4 / 8 / 16 External Antennas
- · GPIO (4x Input / 4x Output)
- · Reserved WIA Antenna Interfaces
- · Ethernet, RS232, RJ45
- PoE (Power over Ethernet)

#### **RFID OPTIONS**

 UHF (EPC C1 GEN2 / ISO 18000-63)



## TECHNICAL DATA

| ELECTRICAL SPECIFICATIONS |   |  |
|---------------------------|---|--|
| Power Supply              | DC 12V / 3A,<br>PoE   |  |
| Power Rating              | Standby 2.5W Work<br>13.5 (MAX) @ +30 dBm   |  |
| PoE Power Supply          | 802.3af or 802.3at (optional)   |  |
| Operating Frequency       | 840 - 960 MHz,<br>software programmable   |  |
| Output Power              | 5 dBm - 33dBm (± 1dB) adjustable  |  |
| Operating Distance        | up to 12 meters*  |  |
| Antennas                  | TNC - Male: 4 external (50 $\Omega$ )  SMA - Male: 8 external (50 $\Omega$ ) 16 external (50 $\Omega$ ) |  |
| Chipset                   | Impinj E710   |  |
| Max. Reading Rate         | ≥ 900 tags/s  |  |
| Status                    | Power Indicatior,<br>Status Indicator   |  |
| I / O Ports               | GPIO (4 IN and 4 OUT)   |  |
| Communication Interface   | UART serial port (RS232 / RS485)<br>USB 2.0,<br>RJ45,<br>Ethernet (10 - 100m)<br>WiFi,                  |  |

| MECHANICAL COND  | ITIONS   |
|------------------|--|
| Material         | Aluminium / Plastic                                  |
| Dimensions       | 209 × 156 × 27.5 mm                                  |
| Protection Class | IP40 (Additional Housing option available with IP67) |

| ENVIRONMENTAL CONDITIONS |                           |  |
|--------------------------|---------------------------|--|
| Operating Temperature    | -20°C up to 60°C          |  |
| Storage Temperature      | -40°C up to +8°C          |  |
| Humidity                 | up tp 90%, non condensing |  |

#### **SDK INFORMATION**

Standard ISO 18000-6C, EPC Class 1 Generation 2

| APPLICABLE STANDARDS |                  | ARDS                           |
|----------------------|------------------|--------------------------------|
|                      | EMC              | EN 301 489-3                   |
|                      | Radio Regulation | EN 302 208-2                   |
|                      | Safety           | CEI EN 60950-1<br>CEI EN 50364 |

| SUPPORTED STANDA    | JPPORTED STANDARDS / TAGS |  |
|---------------------|---------------------------|--|
| Supported OS        | Windows 7 or higher       |  |
| Supported Languages | C, C#/.NET, Java          |  |

| CERTIFICATIONS |    |
|----------------|----|
| Certifications | CE |

\*Reading distance depends on tag, antenna and environmental conditions

## 4 ANTENNAS:

# 8 ANTENNAS:

## **16 ANTENNAS:**







## **BACKSIDE:**



## **ORDER CODES**

| ORDER CODES                               | RDER CODES     |  |
|---|----------------|--|
| UHF Long Range Reader 4CH - LR4C - ETSI   | R-IN-UHF-LR4C  |  |
| UHF Long Range Reader 8CH - LR8C - ETSI   | R-IN-UHF-LR8C  |  |
| UHF Long Range Reader 16CH - LR16C - ETSI | R-IN-UHF-LR16C |  |

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