

Integrated UHF RFID Reader



Key Features

Operating Frequency
UHF 860-960 MHz
Engine
Based on Impinj E710
International Standard
EPC global UHF Class 1 Gen 2, ISO 18000-6C
Communication Interface
RS-232, RJ45, GPIO
IP Rating
IP67 per IEC sealing specifications
Fastest Read Rate
950+ tags/sec

1. Product Overview

The integrated UHF RFID reader is a single-channel fixed UHF RFID reader, which is equipped with an integrated high-performance antenna based on the self-developed module based on the Impinj E710 chip. It supports multiple communication interfaces such as RS-232, RJ45, GPIO, etc., enabling it to be widely used in multiple scenarios such as warehousing, file management, book management, banking, and production line management.

2. Product Parameters

2.1 Physical Characteristics

SKU	AZ-UR1A
Dimensions	270×270×77mm / 10.63×10.63×3.03in
Weight	2230g / 78.66oz
Material	Plastic + Aluminum Alloy
Input Voltage	DC 9V – 12V
Standby Current	< 30mA
Work Current	800mA +/-5% @ DC 12V Input
Comm Interface	RS-232, RJ45, GPIO
Baud Rate	115200bps
Cooling Mode	Air cooling
Communication Method	10/100 Base-T Ethernet (RJ45)
IP Rating	IP67 per IEC sealing specifications



2.2 User Environment

Operating Temp.	-25°C to 65°C / -13°F to 149°F
Storage Temp.	-40°C to 85°C / -40°F to 185°F
Humidity	10%RH - 95%RH non condensing

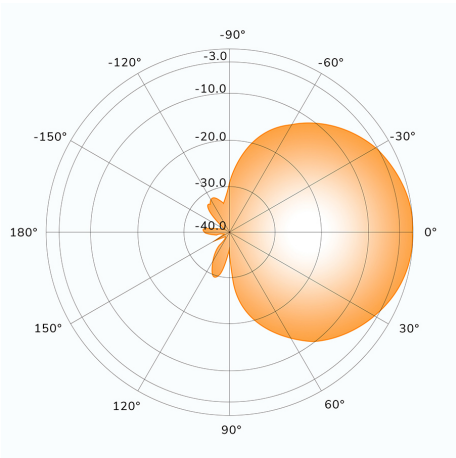
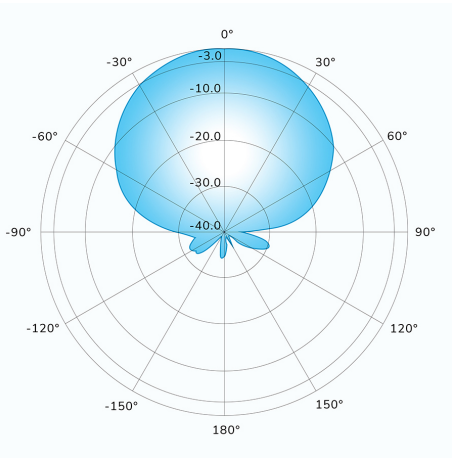
2.3 RFID UHF

Engine	Based on Impinj E710
Protocol	EPC global UHF Class 1 Gen 2, ISO 18000-6C
Frequency	865-868 MHz / 920-925 MHz / 902-928 MHz
Output Power	1W (30dBm, support +5~+30dBm adjustable) 2W Optional (33dBm, support +10~+33dBm adjustable, for Latin America, etc.)
Output Power Precision	+/- 1dB
Output Power Flatness	+/- 0.2 dB
Receive Sensitivity	< -84dBm
Fastest Read Rate	950+ tags/sec
RSSI	Supported
Ambient Temp Monitor	Supported

2.4 Antenna

Frequency	865-868MHz / 920-925MHz / 902-928MHz
Polarization Mode	RHCP (Right-handed Circular Polarization)
Gain	9dBi
Horizontal Angle	60°
Vertical Angle	55°
VSWR	≤ 1.3
FBR	17dB
Characteristic Impedance	50Ω
Maximum Input Power	20w
Lightning Protection	DC Ground
Antenna Port	SMA Male

3. Reading Range of Antenna



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