

UA-210-O Outdoor Base Station

Introduction

CyraSecurity UA-210-O is an outdoor positioning base station designed based on ultra-wideband (UWB) technology. By deploying this base station, UWB signal coverage in the target area is achieved. It supports ToF/TDoA positioning mode and has the advantages of long coverage distance and high positioning accuracy. The product's high protection level, wide temperature design and reliable lightning protection design can be widely used in factories, electric power, construction sites, Data Center and other fields.

The device supports the IEEE 802.3 af/at standard and can be networked and powered through a PoE switch. The device supports two installation methods: wall hanging and pole mounting.

Main Features

- **Based on IEEE 802.15.4a UWB**
 - Nanosecond-level pulse signals achieve centimeter-level positioning accuracy
- **TDMA Technology**

- Achieve high concurrent tag access, the number of tag access in TOF positioning mode > 150@1Hz, TDoA mode > 950@1Hz
- **UWB Air Interface Encryption (AIE)**
 - Support air interface encryption to prevent illegal device access
- **Wired Access Authentication and Encryption**
 - Through base station access control, the legitimacy of access to the base station is ensured; through encryption, the security of data transmission between the base station and the engine is secured
- **Seamless Roaming**
 - Tags can be smoothly switched between different base stations

Product Base Station



UA-210-O Outdoor positioning base station

Product Specifications

Item	Description
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Overview

Product Model	UA-210-O	
Related Specifications	IEEE 802.15.4a	
	IEEE 802.3 af/at	
Interface	RJ45 × 1	
	N type × 1(UWB)	
Input Voltage	IEEE 802.3 af/at	
Maximum Power Consumption	< 5W	
Maximum Power Consumption	Wall hanging or pole	
Light Display Status	PWR	Green, always on when working
	UWB	Green, flashing when UWB is working

RF Specifications (UWB)

	3.77GHz~4.24GHz (channel2)	
Speed Rate	110 kbps	
	850 kbps	

	6.8 Mbps
Output Power (25°C)	-41.3dBm/MHz (Typical Value)
	-13dBm/MHz (Maximal Value)
Channel Bandwidth	500MHz
Antenna Gain	4.5 dBi

Software Specifications

UWB Mode	TDoA
	ToF
Time Synchronization	Wireless Time Synchronization
Configuration Method	Server Configuration
	Web UI configuration
Configuration Management	Web-based User Management Interface
Uplink Interface	B interface (Private)

Physical Specifications

Dimensions (mm)	190×190×60
Weight (grams)	650 (without packaging)

Environmental Specifications

Temperature	Working Temperature	-40°C~75°C
	Storage Temperature	-40°C~85°C
Temperature	Humidity	5%~95% With no condensation
Waterproof and Dustproof	IP67	
Flame Retardant Grade	UL94 V-0	
RoHs	Compatible	

Delivery Content

Name	Description	Quantity	Part number
UA-210-O	Outdoor Base Station	1	AA01UA210O00
Wireless	Fiberglass antenna	1	Nil
Mounting Bracket	L-shaped bracket and U-shaped hoop combined mounting bracket	1	Nil