

UA-220 Datasheet

Nanjing WOXU Wireless Co., LTD

V1.0

1 Description

UA-220 is indoor anchor R&D by Nanjing Woxu Wireless, supports ToF/TDoA, applied in Court, hospital, school, factory and other fields.

UA-220 supports standard IEEE802.3af PoE power supply, can be managed by PoE switch, also can powered by DC power supply. The power supply voltage is DC 12~57V.

2 Main features and product pictures

- IEEE802.15.4a UWB
- IEEE802.11AN 1x1 Wi-Fi
- IEEE802.3af PoE
- 10/100M ethernet



3 Products Specification

Item	Description
Outline	
Product name	UA-220
Standard	IEEE802.15.4a IEEE802.11 AN IEEE802.3af
Interface	DC power interface (Ø 2.0 mm) RJ45 10/100Mbps
Input voltage	DC 12~57V
Average power waste	< 10W
Installation mode	Ceiling, wall hanging
LED	PWR green, Bright after power on

	LAN	green, Flicker in wired data transmission
	UWB	Green, Work flicker during positioning interaction
	Wi-Fi	Green, Flicker Wi-Fi data transmission
RF (UWB)		
Working frequency	3.25GHz ~6.75GHz (Channel 1/2/3/5)	
Physical rate	110 Kbps	
	850 Kbps	
	6.8 Mbps	
Output power (25°C)	-41.3dBm/MHz ~ -24dBm/MHz (adjustable)	
Chanel frequency width	500MHz	
Antenna specification	Built-in PCB antenna	
	Gain: 1dbi	
RF (5G Wi-Fi)		
Working frequency	5.725GHz ~ 5.845GHz	
Modulation technique	OFDM: BPSK@6/9Mbps, QPSK@12/18Mbps, 16-QAM@24Mbps, 64-QAM@48/54Mbps MIMO-OFDM: 16-QAM, 64-QAM, 256-QAM	
Output power (25°C) (±1.5dBm)	21dBm@MCS7 23dBm@54Mbps	
Receiving sensitivity 25°C) (±1.5dBm)	-71dBm@MCS7 -75dBm@54MHz -95dBm@1MHz	
Channel frequency width	20MHz/40MHz	
Antenna specification	Built-in PCB antenna	
	Gain: 5.7dbi	
Software (UWB)		
UWB working mode	TDoA	
	ToF	
Time SYNC	Wireless SYNC	
Software (Wi-Fi)		
Networking mode	Bridge	
WLAN mode	AP Station	
Network protocol	DHCP client	
Wi-Fi Encryption	64/128 WEP	

authentication	WPA-PSK WPA2-PSK
Software (System)	
Configuration management	Web HTTP
Back up IP	IP: 192.168.58.58
Engine discovery	Statistics discovery Dynamical discovery
Upper interface	B interface (WOXU copyright: private)
Physical Specification	
Size (mm)	190*190*60 (not include the bracket)
Weight (g)	520 (net. weight. Not include the packet.)
Circumstance Specification	
Temperature	Working: -20℃~65℃ Storage: -40℃~85℃
Humidity	Working : 0% ~ 90% without condensation Storage: 0% ~ 90% without condensation
RoHs	Comply with