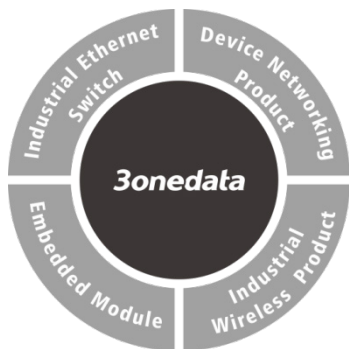


IAP3500-2E-1GT1GS-LV Safety Dual-Frequency Industrial Wireless AP for Mine Quick Installation Guide



3onedata Co., Ltd.

Address: 3/B, Zone 1, Baiwangxin High Technology Industrial Park, Xili, Nanshan District, Shenzhen

Website: www.3onedata.com

Tel: +86 0755-26702688

Fax: +86 0755-26703485

【Package Checklist】

Please check whether the package and accessories are intact while using the device for the first time.

1. Wireless AP
2. Certification
3. Warranty card

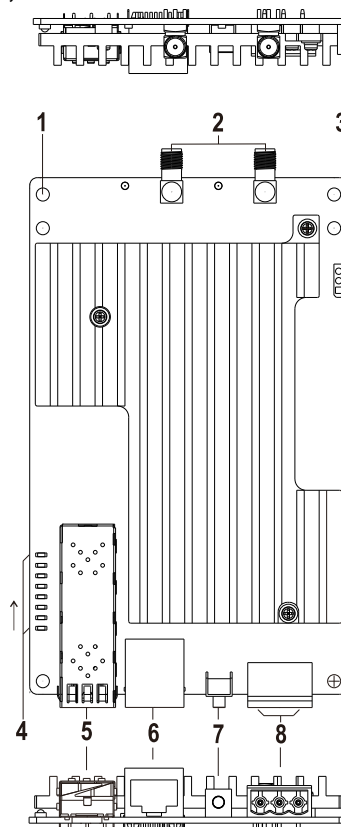
If any of these items are damaged or lost, please contact our company or dealers, we will solve it ASAP.

【Product Overview】

This product is a Gigabit safety dual-frequency industrial wireless AP bare board for mine. The model is IAP3500-2E-1GT1GS-LV (2 2.4G/5G dual-frequency combined antenna interfaces + 1 Gigabit SFP slot + 1 Gigabit copper port, 1 9~24VDC power input).

【Panel Design】

➤ Top view, main view and bottom view

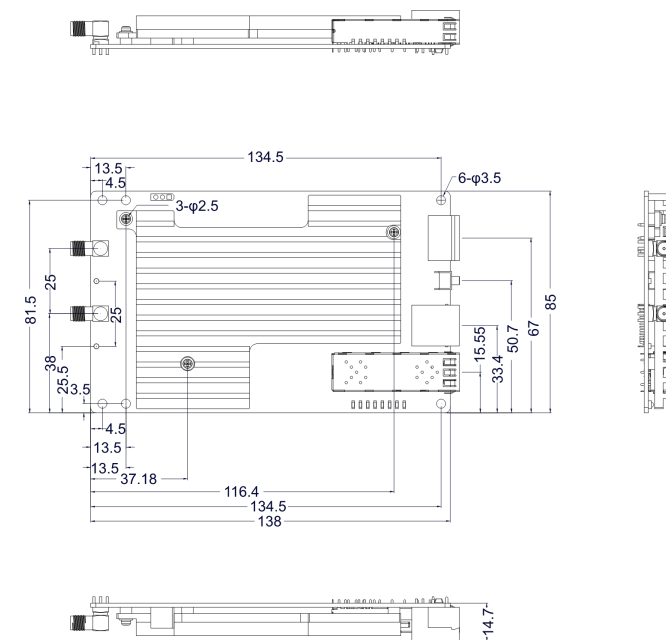


1. Location hole
2. 2.4G/5G antenna combined interface
3. CONSOLE port
4. From bottom to top, the indicators are:
 - Power supply indicator PWR
 - Running indicator (RUN)
 - Alarm indicator (ALM)
 - 2.4G wireless signal indicator (2.4G)
 - 5G wireless signal indicator (5G)
 - Bridge signal strength indicator (Bridge)
 - WAN port indicator (Port1)
 - LAN port indicator (Port2)
5. Gigabit SFP slot (Port1, WAN/LAN port)
6. Gigabit copper port (Port2, LAN port)

7. RESET button
8. Terminal blocks for power supply input

【Mounting Dimension】

Unit: mm



Note Before Mounting:

- Don't place or install the device in area near water or moist, keep the relative humidity of the device surrounding between 5%~95% without condensation.
- Before power on, first confirm the supported power supply specification to avoid over-voltage damaging the device.
- If the device is used in high temperature environment, it is recommended to add thermal pad at the bottom of the mainboard to transfer heat to the chassis for heat dissipation.

【Power Supply Connection】



V- FG V+

The device provides 3-pin 5.08mm pitch terminal blocks for power input and supports 1 DC power

supply input. This power supply supports anti-reverse connection and slow start. The definitions of power pin are shown in the left figure, and the device power input range is 9~24VDC.

【Console Port Connection】

The product provides 1 program debugging port based on RS-232 serial port which can conduct device CLI command management by connecting to PC. The interface adopts 3-pin 2.54mm pitch terminal blocks, pin definitions are shown in the left picture.

【Reset Button Setting】

The device provides 1 RESET button that can be used to reboot the device and restore factory defaults. Press the RESET button for 1~2s and release it, and the device will restart automatically; Press and hold the RESET button for 5s and release it, and the device will automatically restore the factory defaults.

【Checking LED Indicator】

The device provides LED indicators to monitor its operating status, which has simplified the overall troubleshooting process. The function of each LED is described in the table below:


LED	Indicate	Description
POWER	ON	Power supply is running normally
	OFF	Power supply is disconnected or running abnormally
RUN	ON	The device is powering on or the device is abnormal.
	Blinking	The device is running normally
	OFF	The device is powered off or the device is abnormal.
ALM	ON	Device restore factory setting alarm
	OFF	Without device alarm
2.4G	ON	2.4G wireless signal is running normally
	Blinking	2.4G wireless signal is

LED	Indicate	Description
5G		transmitting data
	OFF	2.4G wireless signal is running abnormally or turned off
	ON	5G wireless signal is running normally
5G	Blinking	5G wireless signal is transmitting data
	OFF	5G wireless signal is running abnormally or turned off
	ON	The strength of bridging signal is 70~100
Bridge	Blinking	1 time/1s, the strength of bridging signal is 30~70; 1 time/2s, the strength of bridging signal is 1~30
	OFF	No bridging is established
	ON	The Ethernet interface has established an active network connection
Port (1-2)	Blinking	The Ethernet interface is in a network activity state.
	OFF	The Ethernet interface has not established an active network connection.

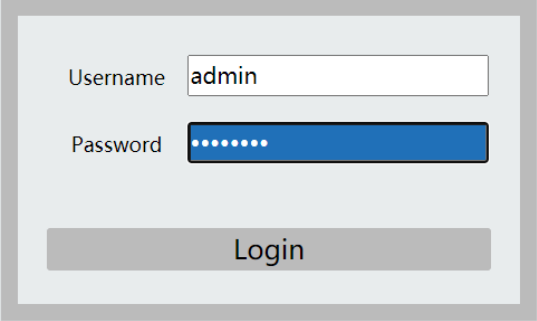
【Logging in to WEB Interface】

This device supports WEB management and configuration. Computer can access the device via device LAN port. The way of logging in to device's configuration interface via IE browser is shown as below:

- Step 1 Configure the IP addresses of computer and the device to the same network segment, and the network between them can be mutually accessed
- Step 2 Enter device's IP address in the address bar of the computer browser.

 <http://192.168.1.254/>

- Step 3 Enter device's username and password in the login window as shown below.



- Step 4 Click "Login" button to login to the WEB interface of the device.



Note:

- The default IP address of the device is "192.168.1.254".
- The default user name and password of the device are "admin".
- If the user name or password is lost, user can restore it to factory settings via RESET button or management software; all modified configurations will be cleared after restoring to factory settings, so please backup configuration file in advance.
- Please refer to user manual for specific configuration method of logging in to WEB interface and other configurations about network management function.

【Specification】

Panel	
Gigabit copper port	10/100/1000Base-T(X) self-adaption, RJ45, LAN port, Automatic Flow Control, Full/Half Duplex Mode, MDI/MDI-X Autotunning
Gigabit SFP	1000Base-X SFP slot, LA/ WAN port
2.4G/5G	2 2.4G/5G dual-frequency combined SMA-K antenna interfaces
CONSOLE	CLI command management port(RS-232), using 3-pin 2.54mm pitch terminal blocks

Indicator	Power indicator, running indicator, alarm indicator, 2.4G indicator, 5.8G indicator, bridge signal strength indicator, interface indicator
Radio Frequency	
802.11b/g/n/a x	2.412GHz~2.4835GHz
802.11a/n/ac/ ax	5.18GHz~5.825GHz
RF power output	20dBm
Modulation scheme	DBPSK, DQPSK, CCK, OFDM, 16-QAM, 64-QAM, 256-QAM, 1024QAM
Receiving Sensitivity	
802.11b	-87dBm@1Mbps, -76dBm@11Mbps
802.11g/a	-82dBm@MCS0, -65dBm@MCS7
802.11n	-82dBm@MCS0, -64dBm@MCS7
802.11ac	-82dBm@MCS0, -57dBm@MCS9
802.11ax	-82dBm@MCS0, -52dBm@MCS11
Transmitting Power	
802.11b	23dBm@1Mbps, 20dBm@11Mbps
802.11g/a	23dBm@6Mbps, 20dBm@54Mbps
802.11n	23dBm@MCS0, 18dBm@MCS7
802.11ac	23dBm@MCS0, 18dBm@MCS9
802.11ax	23dBm@MCS0, 18dBm@MCS11
Power Supply	
Input power supply	9~24VDC, supports anti-reverse connection and slow start
Access terminal block	3-pin 5.08mm pitch terminal blocks
Power Consumption and Current	

Normal Temperature (25°C)	Transmission Power (dBm)	Voltage (VDC)	Enable Current (A)	Power Consumption of Full Mean Load (W)	Power Consumption of Full Peak Load (W)					
						20	9	0.549	11.612	15.921
							12	0.407	11.251	14.628
							18	0.278	11.105	15.174
	24	0.200	11.079	15.672						
	27	9	0.560	13.247	18.243					
		12	0.419	12.919	21.156					
		18	0.286	12.834	22.716					
24		0.217	12.956	20.136						
High Temperature (75°C)	Transmission Power (dBm)	Voltage (VDC)	Start-up current (A)	Power Consumption of Full Mean Load (W)	Power Consumption of Full Peak Load (W)					
						20	9	0.601	12.148	15.921
							12	0.448	11.800	15.54
							18	0.302	11.756	14.796
	24	0.232	11.796	15.912						
	27	9	0.694	14.170	18.243					
		12	0.444	13.446	20.952					
		18	0.299	13.370	20.592					
		24	0.228	13.350	24.12					
	Working Environment									
	Working temperature	-40~75°C								
	Storage temperature	-40~85°C								
Working humidity	5%~95% (no condensation)									