RFID Fixed Reader AI-RF-FX-TOP1

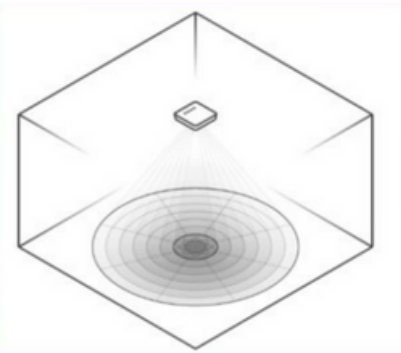
Description

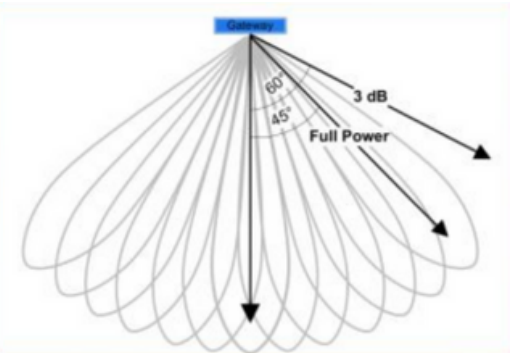
UHF RFID phased array smart access control adopts phased array antenna detection technology to realize intelligent tracking and judgment of RFID tags, which is suitable for anti-theft scenarios of clothing and other commodities. Intelligent algorithms are used to intelligently judge incoming and outgoing retail goods, judge label status in real time, automatically filter surrounding static tags, and achieve accurate identification of RFID tags to ensure the safety of store retail goods and reduce theft.

Features

- Direction detection: Automatically tracks the position of tags, and can determine the entry and exit status and movement trajectories of multiple tags at the same time;
- Trigger mode: built-in space sensor, freely delimit the trigger range;
- People counting: Follow up the status of people coming in and out and automatically conduct people flow statistics;
- Phased array antenna: Professional antenna design, 12dbi high gain, nine beam forming beams, 120° large angle to achieve fast tag scanning;
- Flexible installation height: installation height 2.2-3.5 meters, covering channel width 2.5-3.5 meters;

- Dynamic judgment: Only the direction of moving tags is judged, and stationary tags are automatically eliminated to solve the problem of cross-reading of exhibits in shopping mall stores;
- AI self-learning model: built-in AI algorithm large model, continuous independent iterative learning, accumulation over time, more accurate with more use;
- Sound and light alarm: integrated sound and light alarm, rapid alarm and obvious warning;
- Fully automatic management: Fully automatic record management of items entering and exiting, eliminating the tediousness and possibility of errors in manual scanning and entry work;
- Easy installation: It is light and easy to install, and can support ceiling or suspended ceiling installation, greatly reducing the cost and difficulty of equipment installation.

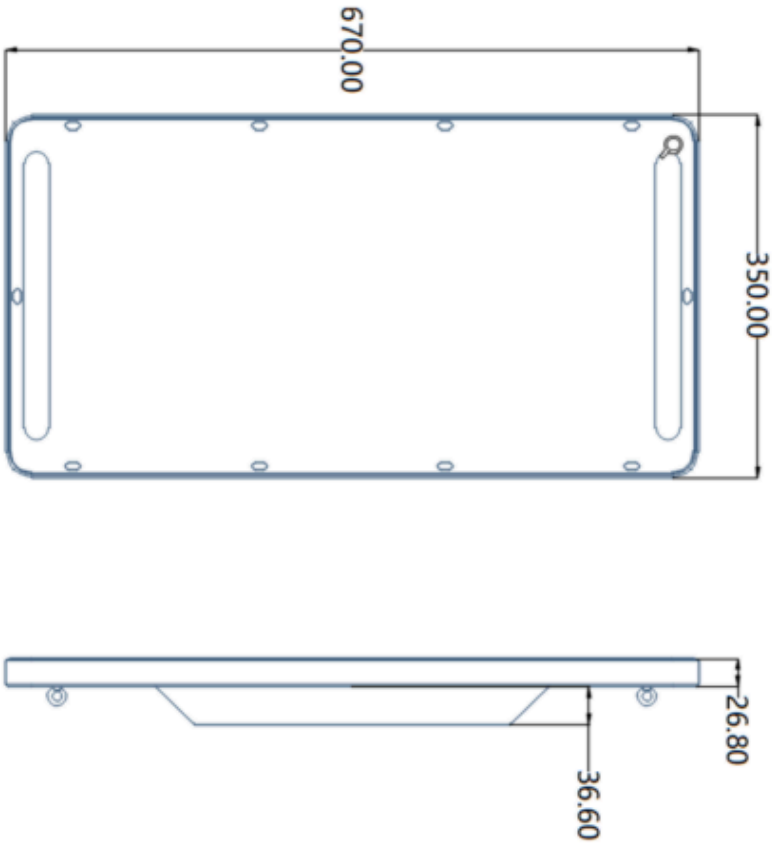




Parameters

Main Specifications	
Product Model	AI-RF-FX-TOP1
Performance Parameters	
Frequency Range	840MHz～960MHz (adjustable)
Air Interface Protocol	EPC C1G2, ISO18000-6C
Communication Protocol	TCP/IP
Reading Distance	0-5 meters, adjustable
Optimum Coverage Width of a Single Machine	2.5m
Working Mode	Fixed frequency/frequency hopping optional
Beam Scanning Interval	5 degrees
Coverage Angle	90°

Beamforming Time	5um
Features	Supports intensive reading and writing, supports antenna standing wave detection function, supports firmware online upgrade, supports tag data filtering, supports RSSI: perceptible signal strength
RF Output Power (Port)	33dBm±1dBm（MAX）
Output Power Adjustment	1 dB step
Channel Occupied Bandwidth	<200KHz
Frequency Stability	≤±20ppm
Reading Distance	0～5m (related to factors such as transmission power, antenna type, tag type and application environment)
Tag Recognition Speed	>500 times/second
Network Interface Communication Rate	10M/100M adaptive
Machine Power Consumption	20W (RF output power 33dBm)
Alarm Mode	Sound and light alarm
Machine Power Consumption	<20W
Physical Parameters	
Appearance Size	27mm*670mm*350mm
Installation Height	2.2-3.5m
Shell Material	Aluminum profile frame, acrylic panel
Weight	≤5kg
Communication Interface	Network port*1
Installation Method	Bracket fixed
Power Supply	
Voltage	DC12V/5A
Operating Environment	
Working Temperature	-20ºC to 60ºC
Working Humidity	5% to 95%, non-condensing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