

RFID Based Employee Attendance And Trace Tracking Solution

Solution Summary



The RFID Employee Attendance and Positioning System is a cutting-edge technology that allows employers to efficiently manage their workforce. The system uses Radio Frequency Identification (RFID) technology to track the attendance and location of employees in real-time. This system ensures accurate employee attendance records and helps employers to identify any instances of absenteeism or lateness.

Effective management of employee attendance and location is crucial for any organization to ensure smooth operation and timely completion of tasks. Manual tracking of employee attendance and location can be complicated and time-consuming, but with the use of RFID technology, this process can be automated, efficient and highly accurate.



The employee attendance and location management solution rely on RFID technology to automate the tracking of employees' attendance and movement within the organization's premises. Each employee is assigned an RFID tag containing unique identification information, allowing them to be precisely located and tracked as they move around the workplace. RFID readers are placed at strategic locations within the premises, making it easy to track employees' entry and exit from specific areas.

The solution also enhances the security of the workplace by enabling real-time monitoring of all employees' movements and detecting unauthorized entry or access to restricted areas. In case of an emergency such as fire outbreak or other hazards, the RFID technology in the employee tags can also serve as an evacuation system, allowing for quick and accurate headcounts.



System Architecture

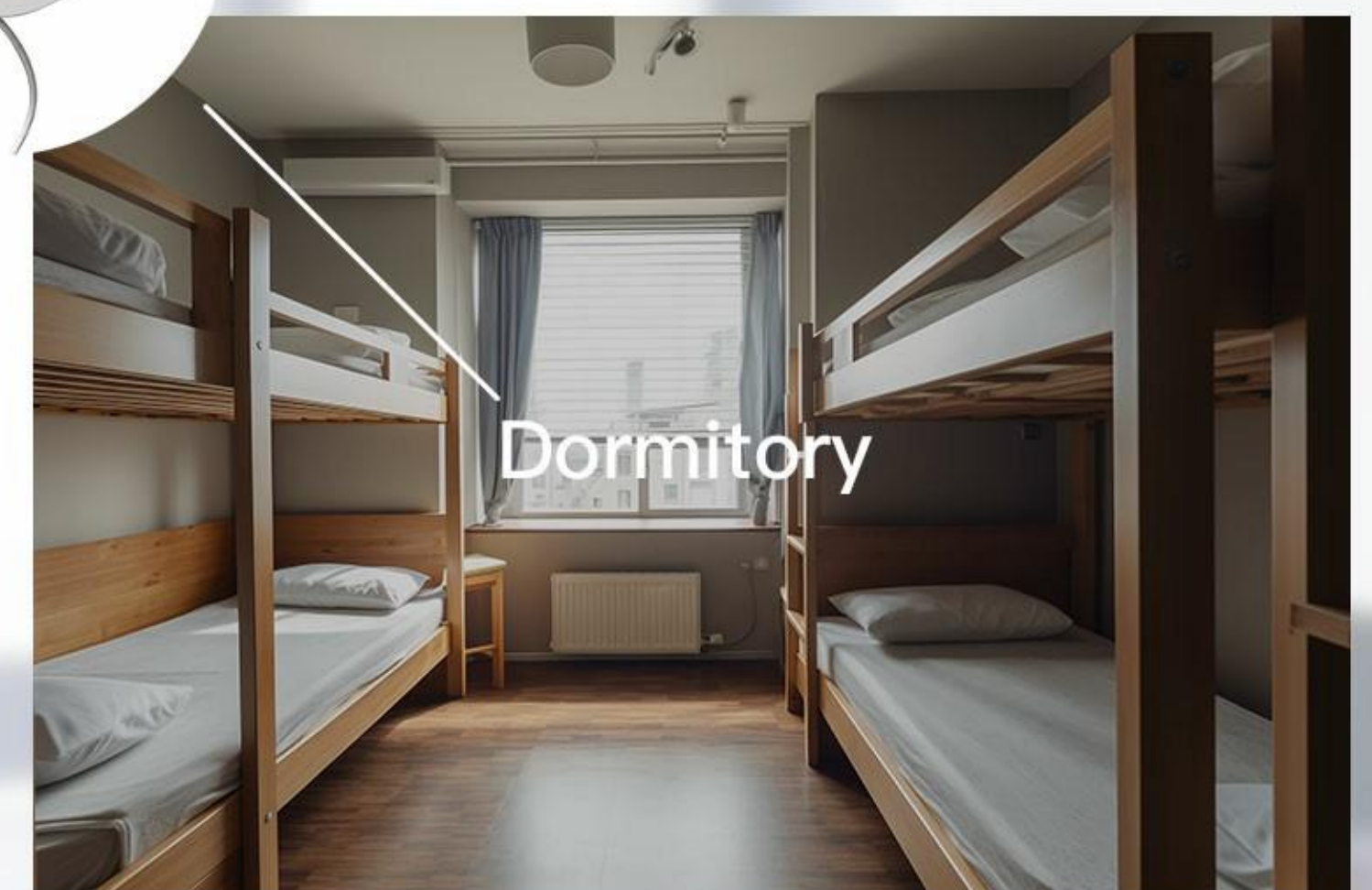
Install 2.4G Reader MR7901p at the gate entrance, plaza or other outdoor areas, and install 2.4G reader MR7902 in each indoor area or room for tag identification. Such as offices, conference rooms, production workshops, staff dormitories, etc. Every employee must wear a 2.4G active tag HX607.



MR7901P 2.4G RFID Reader



MR7902 2.4G RFID Reader



System Benefits



01 Accurate tracking of employee attendance and location



02 Reduced manual labor and increased productivity



03 Improved payroll accuracy



04 Enhanced workplace security and safety



05 Real-time data analysis for optimized workforce management

Main Device

MR7901P 2.4G RFID Reader



Model	MR7901P
Identify type	4 antenna inside, can use as omnidirectional and directional both
Signal modulation mode	GFSK
Traffic rate	1Mbit/s
Working frequency	2440MHz
Lateral tension (wind-proof)	20N (Typhoon level 12)
Lightning protection level	$\geq 4000V$
Antenna gain	12dBi Dual polarization directional antenna
MAX receive sensitivity	-90dbm
Reading range	MAX 400m (based on tag type)
IP	IP65
Material	ABS, high temperature resistant, white color
Dimension	230*106*106mm
Input voltage	9-12V
Net weight	2kg
Power consumption	300mA
Power adaptor	12V 2A
Operating temperature	-20°C~+60°C
Storage temperature	-45°C~85°C
Protocol	MarktraceRFID protocol
Transfer method	4G and TCP/IP
Certifications	FCC and CE

MR7902

2.4G RFID Reader



Model	MR7902
Material	ABS, high temperature resistant
Dimension	φ168*51.5mm
Way to install	wall-mounted, ceiling fixed
Net weight	0.3kg
Gain	3.5dBi
Reading range	200m MAX (based on tag type)
Signal modulation mode	GFSK
Traffic rate	1Mbit/s
Working frequency	2440MHz
MAX receive sensitivity	-90dbm
Input voltage	9-12V
Power consumption	300mA
Power adaptor	12V 2A
Color	White
Protocol	MarktraceRFID protocol
Transfer method	4G and TCP/IP
4G capabilities	Based on country
Operating temperature	-20°C~60°C
Storage temperature	-40°C~85°C
Certifications	FCC and CE

HX607

2.4G Active Card



Model No	HX607
Type	2.4G Card type (Beacon type)
Inductive mode	Initiative transmit, transmit every second
Material	ABS, heat resistant ,White color
Dimension	86*55*5.5mm
Battery	battery life up to 3 years
IP Grade	IP67
Installation	Carry on
Signal modulation	GFSK
Communication speed	1Mbit/s
Operation frequency	2.44GHz
Output power	0dbm
Average current	<7uA
Battery model	CR2032
Battery capacity	220mA
Operating temperature	-20°C~+60°C
Storage temperature	-30°C~+65°C
Operating humidity	<85%
13.56MHz Features:	
Memory	8Kbit
Protocol	ISO14443A
Communication Speed	106kbit/s
Certifications	FCC and CE