# Table of content

About HF Gate – Dual Aisle ................................................................. 3
Features ............................................................................................. 3
Product Components ......................................................................... 3
Product Characteristic ....................................................................... 3
Wiring Information ........................................................................... 4
  Main Antenna Base Box: ................................................................. 4
Port Description ............................................................................... 5
RS485 SYNC Connector .................................................................... 5
RF Connector ................................................................................... 5
Installation of HF Gate – Dual Aisle ................................................ 6
Base Plate Drawing .......................................................................... 8
About HF Gate – Dual Aisle
Intelletto 3D HF Gate is a high performance ISO/IEC15693 protocol HF tag channel device. The product supports fast tag anti-collision operation with high identification rate, 2 line infrared motion sensor with intelligent personnel movement direction determination and counting, EAS/AFI security surveillance, multiple channel synchronization, RS232/485 and TCPIP interface, remote configuration and management. It is an ideal choice for various HF RFID application systems such as library, open access control, conference attendance and logistics etc.

Features
- Support mainstream ISO15693 protocol tag (TI, PHILIPS, ST, INFINEON, FUJITSU, EM…) omni-directional operation;
- Channel width up to 90cm*;
- 2 line infrared motion sensor with intelligent movement direction determination and personnel counting;
- Support EAS/AFI security surveillance;
- Support single channel standalone or multiple channel synchronized work mode;
- Support RS232/RS485 and TCP/IP interface;
- Support remote configuration and management;
- Support further development and customization.
*Effective channel width depends on tag and working environment.

Product Components
The Gate is designed upon advanced panel-based concept. Each panel is an integrated system and comprises omni-directional antenna array, high RF power reader, controller, infrared motion sensor unit, power splitter, multiplexer, power supply and communication interface etc. Each panel can operate in standalone mode and a pair of panels constructs a channel device. Multiple panels (up to 8 panels) can work in synchronized mode to realize a multiple channel device.

Other accessories include AC power cable, data synchronization cable, RF synchronization cable and RS232 serial communication cable.

Product Characteristic
Technical
- Frequency 13.56 MHZ +/- 7K HZ
- Input Voltage 110 ~ 240 V (50/60) HZ
- Power Dissipation < 20 W
- RF Power Output >= 4 W
- Infra Red Sensor 2 Pairs
- Channel Width 90 cm , 35 inches

Environment
- Operating Temperature -25 ~ 60 Centigrade , -13 ~ 140 Fahrenheit
- Storage Temperature -40 ~ 85 Centigrade , -40 ~ 185 Fahrenheit
- Relative Humidity 25% ~ 85%

Dimensions and Weight
- Size (HxWXT) 170 X 66 X 11 (CM) , 67 X 26 X 5 (IN).
- Weight (Each Panel) 30 kg , 67 lb
- Color Light Grey
- Material ABS.
Wiring Information

Main Antenna Base Box:
Each panel is an integrated system and comprises omni-directional antenna array, high RF power reader, controller, infrared motion sensor unit, power splitter, multiplexer, power supply and communication interface etc.

Following is the actual picture of the main antenna board:

Following schematic explains the components of the above picture:

1. People Counter
2. Power Splitter 1
3. Power Splitter 2
4. Power Supply
5. Main Controller and RF board
6. Buzzer
7. Ports
8. Relay Board
9. Damper
Port Description
Following please find the Port description:

RS485 SYNC Connector
Following picture shows the RS485 SYNC connector.

RF Connector
Following picture shows the RF connector.
Installation of HF Gate – Dual Aisle

- Open the boxes and set the 3 antennas all facing in the same direction at a face to face distance of maximum 35 inches or 90 Centimeters apart.

- Once the gates are out of the box, arrange the gates in the above order. The gates are numbered and the numbers are written on the sticker tape on top of each gate:
  - Gate number 1 is the host gate and must be on the outside,
  - Gate number 2 is a client gate and should be in the middle,
  - Gate number 3 is a client gate and should be the last gate.

- Open the gate doors. The keys are in the cable pack. At the bottom of the port connection panel, you will see a bundle of cables. The bundle contains the RS485 SYNC out and the RF Out cable of this gate. A picture of the bundle is shown below.
• Unbundle the cables. You will see that each bundled set of cables coming out from the bottom of the gate panels has two cables. One cable is the RS485 SYNC Out and the other one is the RF Out. The connector at the tip of each cable, is shown in the pictures on the previous page and this is how you can distinguish the two cables from each other.

• Establish the following connections:
  o Connect Panel 1 >> RF OUT to Panel 2 >> RF IN (1-7g >> 2-7e)
  o Connect Panel 2 >> RF OUT to Panel 3 >> RF IN (2-7g >> 3-7e)
  o Connect Panel 3 >> RF OUT to Damper of Panel 3 (3-7g >> 3-9)
  o Connect Panel 1 >> RS485 SYNC out to Panel 2 >> RS485 SYNC IN (1-7f >> 2-7d)
  o Connect Panel 2 >> RS485 SYNC out to Panel 3 >> RS485 SYNC IN (2-7f >> 3-7d)
  o Leave Panel 3 >> RS485 SYNC out bundled and un-connected.

• The following picture shows the connection of the end panel:

• Find the DC Power Cable pack inside the box. In the cable pack, there is the following cables:
  o 1 X AC cable for connecting to the wall electric plug,
  o 2 X AC cable for connecting power from gate to gate,
  o 1 X RS 232 cable

• Establish the following Electrical Connections using the cables provided:
  o Connect Panel 1 >> AC Output (1-7a) to Panel 2 >> AC Input (2-7b),
  o Connect Panel 2 >> AC Output (2-7a) to Panel 3 >> AC Input (3-7b),
  o Connect Panel 1 >> AC Input (1-7b) to an Electric Outlet nearby.

The gate now starts and is operational in EAS mode. Show it a tag with EAS status enabled and it will beep. Show it a tag with EAS disabled and it will NOT beep. Your installation is done.
Base Plate Drawing
Following pictures show a drawing of the base plate as well as the relative position of the bottom openings of the base plate with respect to the structure of the dual aisle gate.