A212 PRESENCE TRACKING

Coverage map

A single wall-mounted A212 radar sensor accurately tracks a person in the room, even when standing still.

PRESENCE DETECTION

Detection rate

98.4%

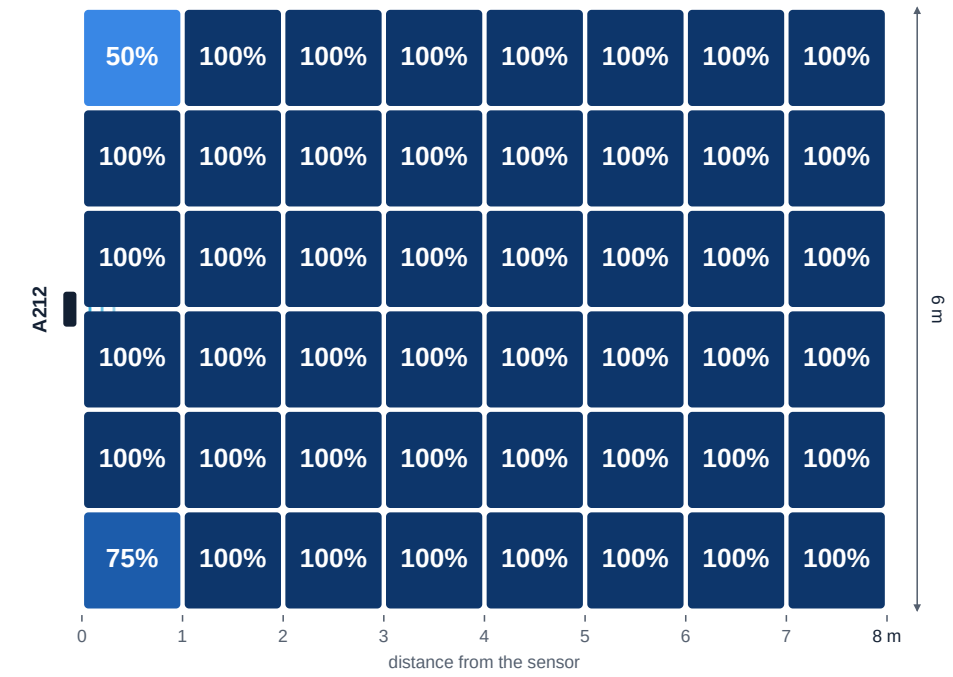
of all visits to a cell

Fully covered cells

46 / 48

cells detected on every visit

BY GRID CELL



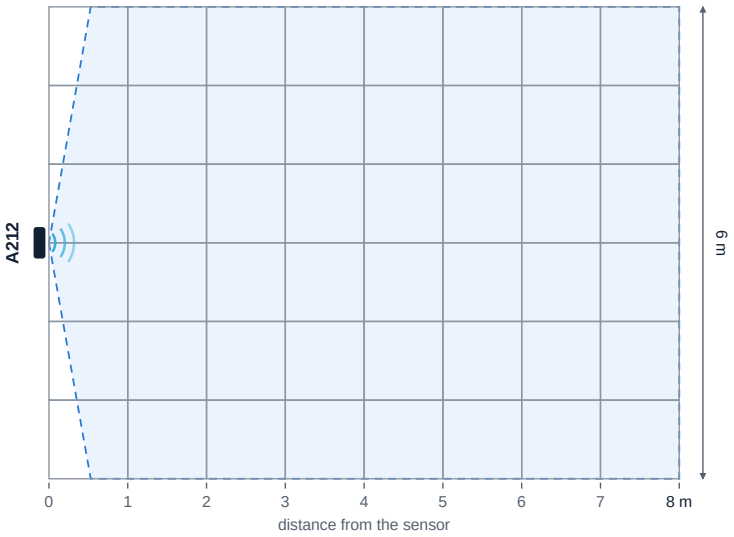
Each cell: the share of the person's visits to it in which they were detected. The sensor is on the left, looking right; see the top view under How we tested.

Metrics and definitions

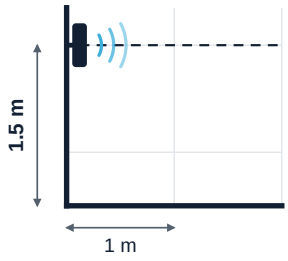
METRIC	DEFINITION	BASIS	RESULT
PRESENCE DETECTION	A person in the area is detected and classified as a human.		
Detection rate	Share of all visits to a grid cell in which the person was detected. A visit to a cell counts as detected if, in at least 50% of its radar frames, the person was detected inside that cell.	192 visits	**98.4%**
Fully covered cells	Grid cells in which every visit was detected. A visit to a cell counts as detected if, in at least 50% of its radar frames, the person was detected inside that cell.	48 cells	**46 / 48**

How we tested

TOP VIEW



SIDE VIEW



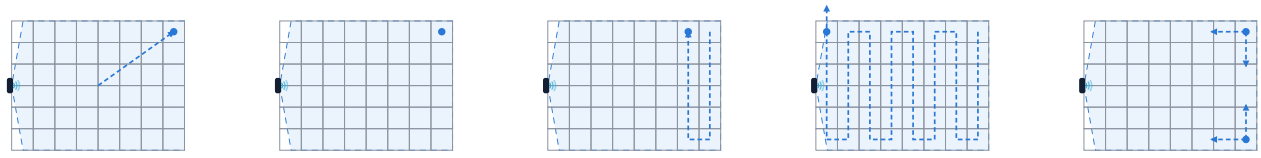
LEGEND

- A212 sensor
- Detection area

Setup

Test grid	8 × 6 cells of 1 × 1 m (8 m from the sensor, 6 m wide), marked on the floor; the sensor centred on its near edge.
Hardware	XE212 (A2 evaluation kit)
Ground truth	The cell the person stands in, logged by the operator as they reach it.
Software	*Wall Mount Presence Tracking* reference application in Exploration Tool v8.0.0. Default configuration (Exploration Tool preset) with the below modifications:
Sensor installation	1.5 m above the floor, angled horizontally.
Detection area	−3 to 3 m in x, 0 to 8 m in y; −80° to 80° azimuth, −30° to 30° elevation.

Test procedure



1. **Walk to start**
   The person walks from the center of the grid to its first cell, in one of the far corners.
2. **Stand still**
   20 s standing still at the centre of the cell, facing the sensor's wall (negative y direction).
3. **Next cell**
   On to a neighbouring cell, and so on through the grid, until all 48 cells are visited.
4. **Leave**
   From the last cell, the person walks out of the grid.
5. **Repeat**
   Four runs in all: from each far corner, setting off along each of its two edges.

Run the same test XE212 (A2 evaluation kit) · *Wall Mount Presence Tracking* reference application in Exploration Tool