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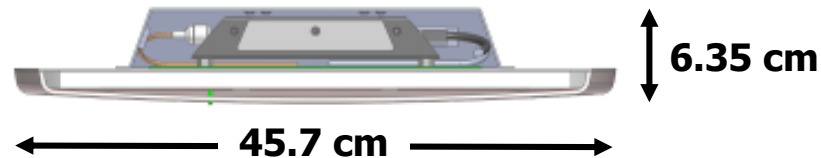**roberto.ferrigno@impinj.com**

xArray

2D steered-beam PoE RFID reader

150 m² floor coverage at 4.5m height

Better than 1.5m spatial resolution
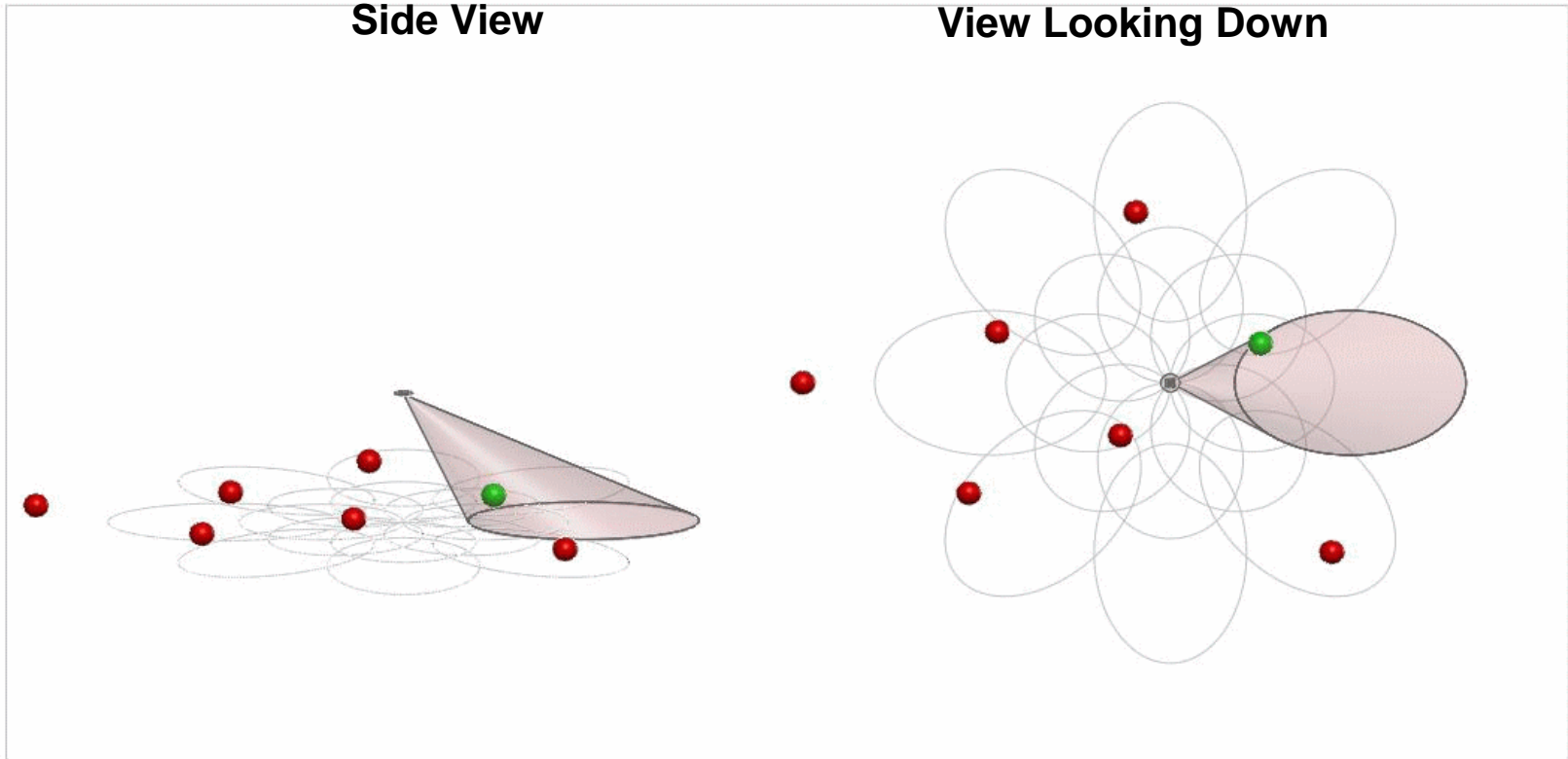
Unaffected by 1000's of stray tags

6.35 cm

45.7 cm

Beacon, tilt sensor
VESA mount

Impinj®

xArray Synthesizes 52 Dual-Linear Beams
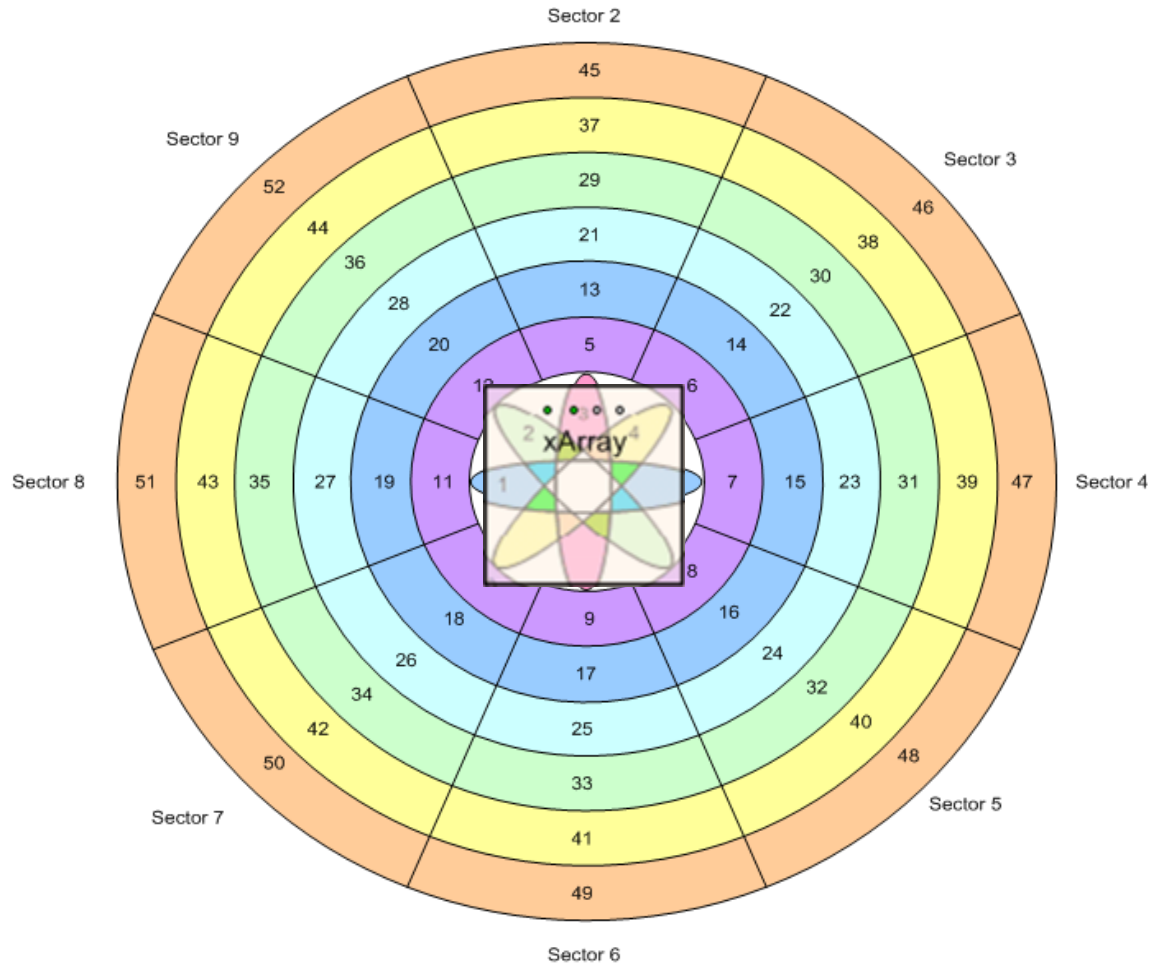
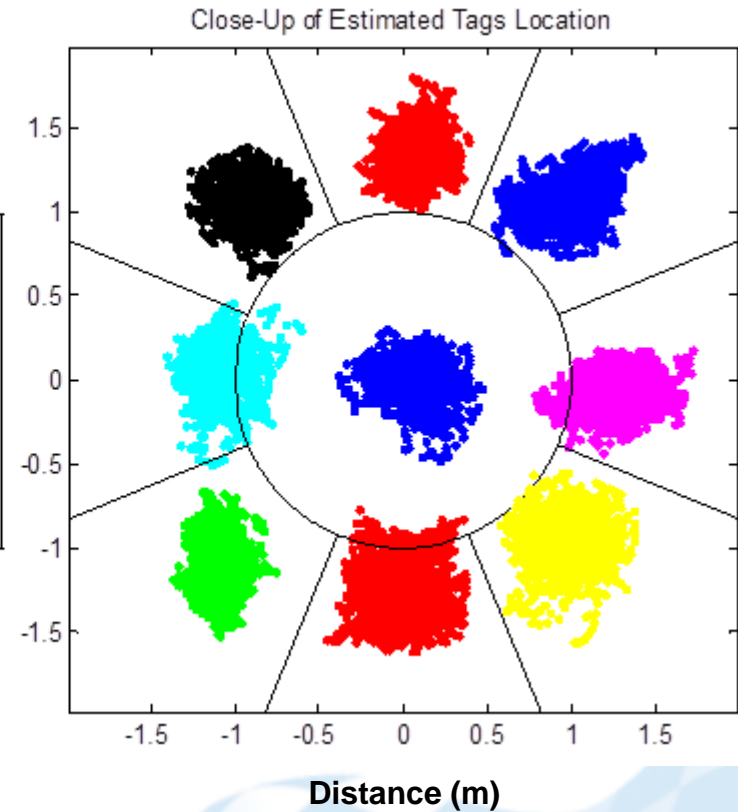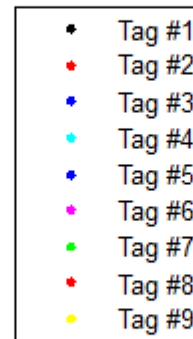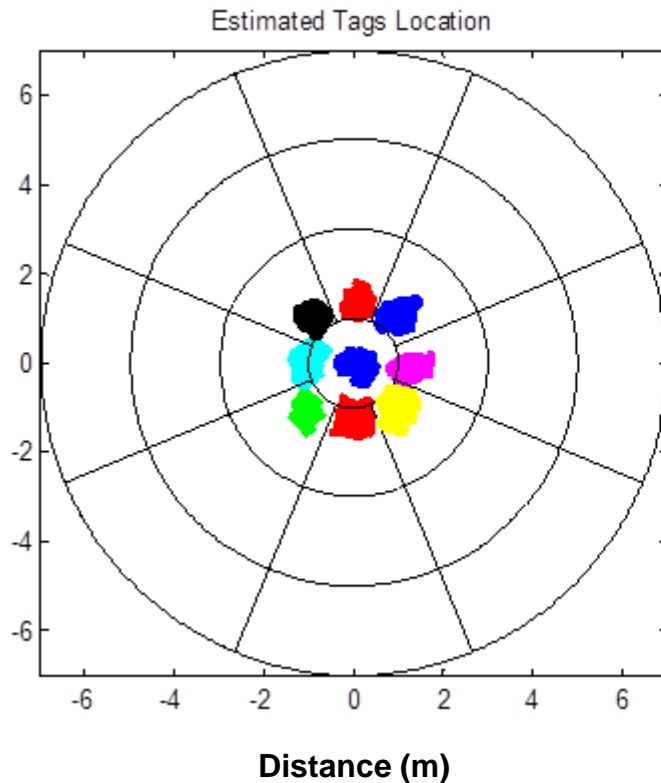**Dual-linear, radiates in horizontal and vertical plane for each beam**

xArray Generates a Unique Read Field

Side View

View Looking Down

Colored circles represent tags/reads

Tag Locationing Using xArray

- **Longer integration time = better accuracy**

Estimated Tags Location — Distance (m)

Close-Up of Estimated Tags Location — Distance (m)

Legend:
- Tag #1
- Tag #2
- Tag #3
- Tag #4
- Tag #5
- Tag #6
- Tag #7
- Tag #8
- Tag #9

xArray at National Retail Federation (NRF)

- **3 xArrays mounted overhead in Intel booth**

- **Intel guides & guests carried Monza 4 ID cards**

- **xArrays generated traffic heat map of the booth**

xArray Performance Demonstration

- xArray mounted at 3.2m height

- Tags occupy 12.2 × 13.5 m floor space

- Each 30.5 × 30.5 cm square has 2 tags

- 3264 tags; square turns green when inventoried

- Video is real-time