

Zebra SmartLens™ Gen II for Retail Sensors

A sensor for every area in your store

Zebra SmartLens for Retail is a multi-faceted solution that provides retailers with the ability to sense, analyze and take the right real-time actions to increase sales, enable successful omni-channel operations and reduce shrink and operational costs. The foundation of this ground-breaking solution is the family of sensors that automatically sense and record the location and movement of merchandise and assets throughout the retail store. These overhead RFID sensors are designed for different areas of your store, including the backroom, exit/entry points, the sales floor and Point of Sale (POS).



Transition Point SmartLens Sensor

Track inventory as it moves through entry/exit points

When inventory moves through receiving and entry/exit points, you need to know which direction it is traveling to understand where it is headed. The Transition Point SmartLens sensor does just that. Industry-leading RFID technology collects the data needed to easily identify whether items are entering or leaving an area. And with flexible options that enable you to install this sensor on a wall or suspend it from the ceiling, it's easy to deploy the Transition Point SmartLens sensor in virtually any retail environment.

Backroom SmartLens Sensor

Track inventory in the backroom from the moment it arrives

This RFID sensor starts the tracking cycle by detecting and recording the movement of RFID-tagged inventory from the moment it enters your backroom to the moment it leaves.

This high-performance advanced fixed RFID reader is designed to handle high tag volumes with increased accuracy and read rates. Installation is simple, and Power-over-Ethernet (PoE) eliminates the need to install power outlets — ideal for typical complex backroom environments. And deployment is simple — just turn on the device and you're up and running.

Sensing Network Appliance (SNAP) SmartLens Sensor

Track inventory on the sales floor

The SNAP SmartLens Sensor is loaded with the technology you need to obtain unprecedented real-time visibility into what is happening on your sales floor. Track the movement of items with the integrated high-performance RFID reader. These overhead sensors are designed to accommodate different store ceiling types and heights. And sensor housings can be customized to complement your store's architecture and aesthetics.

Point of Sale (POS) SmartLens Sensor

Track inventory at your POS

This sensor logs items passing through your POS. With a highly localized antenna technology, a POS SmartLens Sensor can be installed at every POS, without risking interference. Inventory accuracy and visibility into shrink improve. And your POS and Transition Point SmartLens Sensors work hand-in-hand to identify items exiting your store that have not traveled through a POS, alerting you to potential theft — before it happens.

SmartLens Gen II for Retail Sensors Specifications

Sensing Network Appliance (SNAP) SmartLens Sensor		
Physical Characteristics	Dimensions: 21.3 in. x 21.3 in. x 7.8 in. 541 mm x 541 mm x 197 mm Weight (SN5604): 10.5 lbs/4.8 kg	
Environmental Characteristics	Operating temp: 32° F to 122° F/0° C to 50° C Storage temp: 40° F to 158° F/-40° C to 70° C Humidity: 85% RH, non-condensing at 70° C ESD: ± 8 kV air discharge; ± 6 kV contact discharge	
RFID Reader	Air protocols: EPCglobal UHF Class 1 Gen2, ISO 18000-6C	
	Frequency: Global Reader: 902 MHz – 928 MHz (North America); 865 MHz – 868 MHz (EU) US (only) Reader: 902 MHz-928 MHz	
	Radiated power: Up to 4W EIRP	
	Memory: Flash 512 MB; DRAM 256 MB	
	Management protocols: RM 1.0.1 (with XML over HTTP/HTTPS and SNMP binding); RDMP	
	Network services: DHCP, HTTPS, FTPS, SFPT, SSH, HTTP, FTP, SNMP and NTP	
	Network stack: IPv4 and IPv6	
	Security: Transport Layer Security Ver 1.2, FIPS-140	
Ethernet Ports	Input: Ethernet auto sensing/negotiation 802.3af/ at compliant port for SNAP communication and power supply	
Transition Point S	martLens Sensor	
Physical Characteristics	Dimensions (ST5500): 47.0 in. x 22.0 in. x 9.0 in. 1194 mm x 559 mm x 229 mm Weight (ST5500): 23 lbs/10.4 kg	
Environmental Characteristics	Operating temp: -4° F to 131° F/-20° C to 55° C Storage temp: -40° F to 158° F/-40° C to 70° C Humidity: 95% RH non-condensing ESD: ± 15 kV air discharge; ± 8 kV direct discharge; ± 8 kV indirect discharge	
Power Requirements	Input power: 18W max (37-55 VDC POE)	

Backroom SmartLens Sensor	
Physical Characteristics	Dimensions (SR5502): 17.0 in. x 10.2 in. x 7.0 in. 432 mm x 260 mm x 178 mm Weight (SR5502): 5.5 lbs/2.5 kg
Environmental Characteristics	Operating temp: -4° F to 131° F/-20° C to 55° C Storage temp: -40° F to 158° F/-40° C to 70° C Humidity: 95% RH non-condensing ESD: ±15 kV air discharge; ±8 kV direct discharge; ±8 kV indirect discharge
Power Requirements	Input power: 18W max (37-55 VDC POE)
Point of Sale (POS) SmartLens Sensor	
Physical Characteristics	Dimensions (SP5502): 12 in. x 12 in. x 4 in. 305 mm x 305 mm x 102 mm Weight (SP5502): 4.0 lbs/1.8 kg
Environmental Characteristics	Operating temp: -4° to 131° F/-20° to 55° C Storage temp: -40° to 158° F/-40° to 70° C Humidity: 95% RH non-condensing ESD: ± 15 kV air discharge; ± 8 kV direct discharge; ± 8 kV indirect discharge
Power Requirements	Input power: 13W max (37-55 VDC POE)

Retail Use Cases

Automated inventory/ tracking

- Real-time inventory
- Product location
- Dynamic replenishment
- POD/delivery validation
- Vendor compliance
- Planogram compliance
- Markdown management

In-store fulfillment

- Click & Collect/ BOPIS/Reserve
- Ship from store
- Optimize picking process

Asset protection

- Point of sale bypass detection
- Administrative shrink
- Identify return fraud
- · Asset tracking