



FXR90 Ultra-Rugged Fixed RFID Readers

Rock-solid reliability against
punishing conditions



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FXR90 Ultra-Rugged Fixed RFID Readers

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Now there's an ultra-rugged solution that's built to weather the most challenging environments.

Operate anywhere—even outside the four walls of your facility—withstanding moisture and dirt while enduring a wide range of temperatures.

Deploy easily across the largest facilities with the integrated RFID antenna designed for simple, cable-free operation.

Take versatility to the next level with built-in wireless technologies for unmatched connectivity for today and tomorrow.



Introducing FXR90 Ultra-Rugged Fixed RFID Readers

Optimize your asset management across
the most challenging conditions.

Purpose-built for rock-solid dependability

Keep your supply chain moving and track your assets and inventory—even in extreme weather—with Zebra FXR90 Ultra-Rugged Fixed RFID Readers.



Ultra-Rugged Protection

Track critical items even where dirt and moisture infiltration or extreme temperatures are common with industrial-grade dual IP65/IP67 sealing and sealed M12 connectors.

Industry-Leading Performance

Decrease cycle-counting time with up to 1,300+ tag reads per second and get reliable, accurate performance with higher receiver sensitivity.

Simplified Deployment

Easily configure and manage a fleet of readers with integrated Bluetooth® 5.3 for wireless connections to almost any Android™ or Windows device.

Future-Proof Flexibility

Get unmatched connectivity with 5G, GPS and CBRS built in for versatility both inside and outside the four walls of any facility.

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Vertical Markets and Applications

Vertical Markets and Applications



Transportation/Logistics and Warehousing

- Baggage Tracking
- Parcel Shipment and Loading Verification
- Cold Chain
- Tolling/Vehicle Auto Identification
- Returnable Transport Object (RTO) Tracking
- Electronic Proof of Delivery

Manufacturing

- Work in Process (WIP) Tracking
- Raw Materials Inventory
- Pipeline/Utility Tracking
- RTO Tracking

Government

- Kitting
- Asset Tracking
- Chain of Custody
- Personnel/Vehicle Control

Transportation/Logistics and Warehousing

BAGGAGE TRACKING

Follow the movement of items from induction into the baggage system to loading onto a plane to baggage claim area.

PARCEL SHIPMENT AND LOADING VERIFICATION

Ensure the right package/pallet goes on the right vehicle or notify if there is a misload.

COLD CHAIN

Monitor and preserve temperature-sensitive inventory while in storage and transit to mitigate preventable inventory losses.

TOLLING/VEHICLE AUTO IDENTIFICATION

Automatically identify vehicles for access control or charge-back of tolling, carwash and QSR.

RETURNABLE TRANSPORT OBJECT (RTO) TRACKING

Track pallet movements through a facility to ultimate delivery using the GPS capability to document electronic proof of delivery for shipments and customers' return of RTO.

ELECTRONIC PROOF OF DELIVERY

Document shipment deliveries and customers' return of RTO.



Manufacturing

WORK IN PROCESS (WIP) TRACKING

Understand where inventory is throughout the entire process to get insights into performance and efficiency.

RAW MATERIALS INVENTORY

Keep track of all component parts in stock not yet in production to stay ahead of demand and avoid downtime due to lost inventory.

PIPELINE/UTILITY TRACKING

Take automated inventory of each truck to verify correct loads and track replenishment needs.

RTO TRACKING

Track pallet movements through a facility to ultimate delivery using the GPS capability.



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Key Features

What sets FXR90
above the competition?

Key Features



- Ultra-rugged dual IP65/IP67 sealing and rugged/sealed M12 connectors
- Wider operating temperature range for more robust use cases (-40°F to 149°F/-40°C to 65°C)
- Faster read rates—more than 30% faster than the competition
- Indoor/outdoor managing and configuring with built-in 5G, GPS and CBRS
- Easily connect to networks with Wi-Fi 6
- Wirelessly connect mobile devices to the reader via Bluetooth to control and configure the reader. Can also act as a Bluetooth Low Energy beacon or bridge.
- Integrated RFID antenna and multiple antenna port configurations for flexible deployment
- Versatile power options
- Flexible mounting options for different environments (VESA, flush mount, pole mount, etc.)
- IoT Connector to provide data using modern, secure protocols

Ultra-rugged design and industry-leading performance

Industrial-grade IP65/IP67 sealing for
extreme weather and environments

Extended operating temperature range
for tracking indoors and out

Industry-leading 1,300+ tag reads per
second for rapid inventory counting

Rugged, sealed M12 connectors and
higher receiver sensitivity for reliable,
accurate performance anywhere



Flexible connectivity with versatility built in

Built-in RFID antenna eliminates the need to run antenna cables and create your own read points

Wi-Fi 6 functionality built in for cable-free data backhaul and management

Integrated Bluetooth 5.3 wireless allows easy pairing to most Android or Windows devices

Multiple antenna port configurations enable a maximized read zone

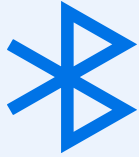
Built-in 5G and CBRS allow remote data backhaul and management from anywhere—even outside the four walls of a facility

FXR90 uses IoT Connector to provide data using modern, secure protocols to enable real-time data driven decisions



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Use Cases



Bluetooth Use Cases

Integrated Bluetooth 5.3 allows easy connections with mobile computers or tablets—even when mounted on a forklift.

Integrated NFC tag enables easy tap-to-pair.

Users can seamlessly interact with and control the FXR90 to change settings and enrich data before sending it to the back end (ex. WMS).

FXR90 can act as a Bluetooth beacon or bridge, sending or receiving beacon packets.



Wi-Fi Use Cases

With Wi-Fi 6 built into the FXR90, deployment can be cable-free, avoiding the cost and complexity of pulling Ethernet cables to make a connection.

Enables standardized remote management of a fleet of readers.

Easily deploy firmware updates and/or configurations over the air (OtA) without having to touch every device.

Expand Wi-Fi networks and decrease dead zones with the ability to use the reader as a hotspot. Connect mobile devices, including mobile computers, tablets, smartphones and even other readers to the hotspot.



Cellular Use Cases

Use FXR90's cellular plan when Wi-Fi or cabled networks are not available for remote data backhaul and management.

Go anywhere and still capture data—whether on the road or on the edge.

Support for CBRS private LTE networks enables cost-effective wireless connectivity in the largest indoor and outdoor facilities.

Switch between preferred methods of communication based on availability of network infrastructure.

5G brings wired speeds to wireless networks, plus better signal quality and strength.



GPS Use Cases

With integrated GPS, you can pinpoint valuable asset locations in the physical world wherever they are—even outside the four walls of your facility.

Keep track of high-value assets like RTOs where misplacement or loss is a concern.

Enable geo-tagged electronic proof of delivery (ePOD).

Powering and Accessories

Powering Options

IP67 sealed AC/DC power supply for dirty and wet environments

Standard AC/DC power supply for indoor use

IP67 sealed DC/DC power supply for connecting to a DC power source

M12-to-flying leads cable for direct connection to a conditioned DC power source

PoE/PoE+ (Power over Ethernet) for power through networking connection



Other Accessories

GPIO (general purpose input/output) cables

GPIO breakout box*

USB client and host cables

Articulating VESA mounting bracket



* 1H24 release