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Zebra Integrated RFID Portals

As inventory volumes and velocities grow, companies must maintain an accurate view over where assets are located as they move through the operation. The most efficient and effective means of automating inventory and asset tracking is to read RFID tags as they pass through portals or operational chokepoints.

Zebra Integrated RFID Portals empower companies to manage and monitor inventory, control costs, and optimize workflows with fast, reliable, highly automated updates when tagged assets pass through a portal.

Key Features

- **Fully integrated and ready to sell.** Unlike competing solutions that must be assembled on site with components sourced from and supported by different manufacturers, Zebra Integrated RFID Portals are a fully assembled product, convenient and easy to deploy using Power over Ethernet (PoE).

- **Complementary solution.** Zebra Integrated RFID Portals are fully compatible with our broad portfolio of RFID and location systems, supported and backed by Zebra for a smooth customer experience throughout the life of the product.

- **Proven technologies.** Zebra Integrated RFID Portals feature Zebra fixed RFID readers for maximum efficiency and visibility. Specialized antennas tune out cross-talk, reducing erroneous reads and sustaining highly accurate read rates through the portal.

- **Purpose-built engineering.** Zebra Integrated RFID Portals are specifically designed for the applications they support, built to withstand transportation and logistics, manufacturing, and healthcare environments.

Zebra Integrated RFID Portal Specifications

Zebra Transition RFID Portal (D800/D500)

Used primarily at dock doors, these integrated portals can reduce the need for human intervention and manual scanning at common chokepoints.

Dimensions	D800 (V4): 96"H x 15"L x 4"W (244 x 38 x 10 cm) D800 (V5): 96"H x 17"L x 7"W (244 x 43 x 18 cm) D500: 62"H x 15"L x 4"W (158 x 38 x 10 cm)
Weight	D800 (V4): 45 lbs (21 kg) D800 (V5): 71 lbs (33 kg) D500: 30 lbs (14 kg)
Operating temperature	-4°F to +131°F (-20°C to +55°C)
Storage temperature	-40°F to +158°F (-40°C to +70°C)
RFID reader	Zebra FX9600 RFID Reader
RFID antenna	Multi-Linear Wave® Antenna

Zebra Wall-Mount RFID Portal (D100)

These fully enclosed, plug-and-play units mount easily beside doorways and hallways near storage rooms, offices and warehouses to provide versatile RFID tracking.

Dimensions	A and B panels: 61"H x 9"L x 2"W (155 x 23 x 5 cm)
Weight	A panel: 10 lbs (5 kg) B panel: 8.5 lbs (4 kg)
Operating temperature	-4°F to +131°F (-20°C to +55°C)
Storage temperature	-40°F to +158°F (-40°C to +70°C)
RFID reader	Zebra FX7500 RFID Reader
RFID antenna	Multi-Linear Wave Antenna

Note: The A Panel is powered via PoE and contains the reader and/or accessories provided as defined in the portal SKU. The B Panel is a non-powered companion portal that contains only the appropriate number of antennas as defined in the portal SKU.

Zebra Fixed RFID Tunnel (T400)

Built especially for inline conveyor operations, these units automatically read tagged assets as they move along the line and through the tunnel, improving conveyor throughput and workflow accuracy.

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Dimensions	Custom built to fit existing operation Standard outer: 42"L x 35"W x 64"H (107 x 89 x 163 cm) Standard inner: 42"L x 29"W x 30"H (107 x 74 x 76 cm)
Weight	200 lbs (91 kg)
Operating temperature	-4°F to +131°F (-20°C to +55°C)
Storage temperature	-40°F to +158°F (-40°C to +70°C)
RFID reader	Zebra FX9600 RFID Reader
RFID antenna	Multi-Linear Wave Antenna

Zebra Integrated RFID Table (M600)

RFID antennas mounted underneath the table are specially configured to read items placed on the surface in any orientation.

Dimensions	48.5"L x 31.5"W x 38"H (123 x 80 x 97 cm)
Weight	100 lbs (46 kg)
Operating temperature	-4°F to +131°F (-20°C to +55°C)
Storage temperature	-40°F to +158°F (-40°C to +70°C)
RFID reader	Zebra FX9600 RFID Reader
RFID antenna	Multi-Linear Wave Antenna

Note: Some models have multiple SKUs based on configuration. Additional accessories and options include mechanical hardware, stack lights and battery chargers. Please contact Zebra for additional details.

Multi-Linear Wave Antenna Specifications

Polarization Beam Diversity

Horizontal polarization

Beams are complementary

Vertical polarization

Gain patterns in vertical plane
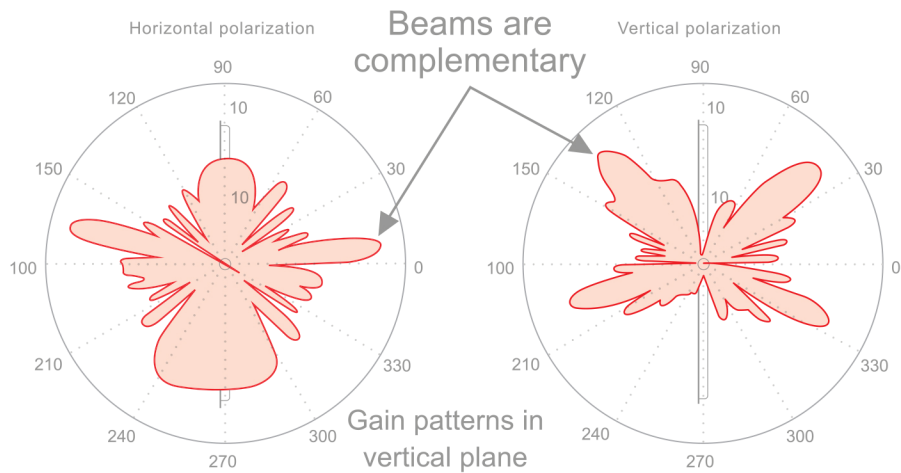
Polarization	Multi-linear
Impedance	50 ohms
Gain	3.0 dBi
Maximum input power	10 watts

H-plane beam width	180 degrees
E-plane beam width	180 degrees
F-type coaxial cables	Included
Cable spec	RPTNC male to RPTNC male

Zebra FX9600 RFID Reader Specifications

RFID CHARACTERISTICS

Max receive sensitivity	-86 dBm monostatic
Air protocols	ISO 18000-63 (EPC Class 1 Gen 2 V2)
Frequency (UHF band)	**Global reader:** 902–928 MHz (also supports countries that use a part of this band), 865–868 MHz **U.S. (only) reader:** 902–928 MHz
Transmit power output	**0 dBm to +33.0 dBm:** PoE+, 24V External DC, Universal 24 VDC Power Supply **0 dBm to +31.5 dBm:** PoE, 12V External DC (4-port-models only), 24V External DC, Universal 24 VDC Power Supply

CONNECTIVITY

Communications	10/100Base-T Ethernet (RJ45); USB Host & Client (Type A & B); Serial (DB9)
General purpose I/O	4 inputs, 4 outputs, optically isolated (Terminal Block)
Power supply	PoE (802.3af) PoE+ (802.3at) +24V DC (UL Approved)
Antenna ports	**FX9600-4:** 4 monostatic ports (Reverse Polarity TNC) **FX9600-8:** 8 monostatic ports (Reverse Polarity TNC)

ENVIRONMENTAL

Operating temperature	-4° to +131°F (-20° to +55°C)
Storage temperature	-40° to +158°F (-40° to +70°C)
Humidity	5–95% non-condensing
Sealing	IP53

HARDWARE, OS AND FIRMWARE MANAGEMENT

Processor	Texas Instruments AM3505 (600 MHz)
Memory	Flash 512 MB; DRAM 256 MB
Operating system	Linux
Firmware upgrade	Web-based and remote firmware upgrade capabilities
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
API support	**Host applications:** .NET, C and Java EMDK **Embedded applications:** C and Java SDK

REGULATORY COMPLIANCE

Safety	UL 60950-01, UL 2043, IEC 60950-1, EN 60950-1
RF/EMI/EMC	FCC Part 15, RSS 210, EN 302 208, ICES-003 Class B, EN 301 489-1/3 for Malaysia: 919–923 MHz
SAR/MPE	FCC 47CFR2:OET Bulletin 65; EN 50364
Other	ROHS, WEEE

ENVIRONMENTAL COMPLIANCE

Environment	• RoHS Directive 2011/65/EU; Amendment 2015/863 • REACH SVHC 1907/2006 For a complete list of product and materials compliance, please visit **www.zebra.com/environment**

Zebra FX7500 RFID Reader Specifications

RFID CHARACTERISTICS

Air protocols	EPCglobal UHF Class 1 Gen2, ISO 18000-6C
Frequency (UHF band)	Global reader: 902–928 MHz (maximum, supports countries that use a part of this band), 865–868 MHz U.S. (only) reader: 902–928 MHz
Transmit power output	10 dBm to +31.5 dBm (PoE+, 12V ~ 48V External DC, Universal 24V DC Power Supply); +10 dBm to +30.0 dBm (PoE)
Max. receive sensitivity	-82 dBm

ENVIRONMENTAL

Operating temperature	-4° to +131°F (-20° to +55°C)
Storage temperature	-40° to +158°F (-40° to +70°C)
Humidity	5–95% non-condensing
Shock/vibration	MIL-STD-810G

REGULATORY COMPLIANCE

Safety	UL 60950-01, UL 2043, IEC 60950-1, EN 60950-1
RF/EMI/EMC	FCC Part 15, RSS 210, EN 302 208, ICES-003 Class B, EN 301 489-1/3
SAR/MPE	FCC 47CFR2: OET Bulletin 65; EN 50364
Other	ROHS, WEEE

RECOMMENDED SERVICES

Support services	Service from the Start Advance Exchange On-Site System Support
Advanced services	RFID Design and Deployment Services

CONNECTIVITY

Communications	10/100Base-T Ethernet (RJ45) w/ PoE support; USB Client (USB Type B), USB Host Port (Type A)
General purpose I/O	2 inputs, 3 outputs, optically isolated (Terminal Block)
Power supply	PoE, PoE+ or +24V DC (UL Approved) 12V–48VDC operation can be supported
Antenna ports	FX 7500-2: 2 mono-static ports (Reverse Polarity TNC) FX 7500-4: 4 mono-static ports (Reverse Polarity TNC)

HARDWARE, OS AND FIRMWARE MANAGEMENT

Processor	Texas Instruments AM3505 (600 MHz)
Memory	Flash 512 MB; DRAM 256 MB
Operating system	Linux
Firmware upgrade	Web-based and remote firmware upgrade capabilities
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
API support	**Host applications:** .NET, C and Java EMDK **Embedded applications:** C and Java SDK

For warranty, services and support offerings, please contact Zebra Technologies.

Specifications are subject to change without notice.