

# **RFID At-a-Glance**



MAXIMIZE THE BENEFITS OF RFID WITH ZEBRA'S COMPLETE RFID PRODUCT PORTFOLIO



# Everything you need to get the most out of your RFID investment all from the leader in RFID

RFID solutions give you the real-time asset visibility you need to streamline operations, maximize asset utilization and error-proof asset-related data. Why choose Zebra for your RFID solution? Only Zebra provides end-to-end solution simplicity, with everything you need to implement RFID in your organization — from well-tested industryleading infrastructure to the expertise you need to maximize the benefits of RFID in your enterprise. We offer:

### Printers for every tag need

Every RFID solution starts with RFID tags. With our RFID printers, you can create whatever you need, from small item-level hang tags to case and pallet labels to photographic quality RFID-enabled identity cards. And with our advanced proprietary technologies, you can be sure that every tag you print is encoded with the right data.

### **RFID** readers for every application

Whether you need handheld, handsfree or fixed RFID readers for industrial spaces or customer facing areas, we've got a reader that is just right for your environment.

### Antennas to maximize RFID performance

With our complete portfolio of antennas, you can boost the performance of our RFID readers from the point-of-sale to the dock door.

### Field proven industry-leading technology

Zebra has more fixed, handheld and portal RFID systems installed than any other RFID provider, so you get the peace of mind that comes from choosing RFID products that are well-tested in practically every industry. And with over 300 RFID technology patents that have allowed us to deliver many industry firsts, you can count on best-in-class advanced technologies that will maximize the performance of your RFID solution.

# The expertise you need to maximize the benefits of RFID in your enterprise

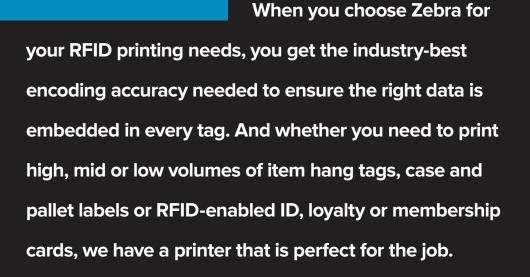
We've spent decades deploying some of the world's largest and most successful RFID implementations across industries in some of the world's largest companies. In fact, Zebra has more fixed, handheld and portal RFID systems installed than any other RFID provider. The result? Our deep understanding of the challenges in your industry enables us to help you create and deploy a solution that will maximize the benefits of RFID in your enterprise — and the value of your investment.



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RFID

PRINTERS

ZEBRA

High Performance Industrial RFID Printers		
	ZE500R	R110Xi4
PRODUCT DESCRIPTION	The ZE500 is designed for ease of use, service and integration, with a highly reliable engine that is ideal for mission critical print applications.	Engineered for years of performance in the toughest environments, the high-performance R110Xi4 is designed for item-, case-, and pallet-level identification. This printer/encoder delivers flexibility and a number of features for a wide range of applications.
GEOGRAPHIC AVAILABILITY*	NA, EMEA	NA, EMEA, APAC, LATAM
RFID CAPABILITIES	<ul> <li>UHF EPC Gen 2 tags</li> <li>Print and encode short-pitch item-level tags, chip-based serialization for unique items and block permalocking of user memory.</li> </ul>	<ul> <li>UHF EPC Gen 2 tags</li> <li>Print and encode short-pitch item-level tags, chip-based serialization for unique items and block permalocking of user memory.</li> </ul>
MAX. PRINT WIDTH	4.09 in./104 mm	4.09 in./104 mm
MAX. PRINT SPEED @ RESOLUTION	12 ips @203 dpi 10 ips @300 dpi	14 ips @203 dpi 12 ips @300 dpi 6 ips @600 dpi
MEDIA HANDLING	Applicator Interface	Cutter, Peel, Full roll media rewind, Applicator Interface
COMMUNICATIONS	Parallel, Serial, USB, Ethernet, 802.11 b/g	Parallel, Serial, USB, Ethernet, 802.11 b/g
DIMENSIONS	Width: 9.6 in./254 mm Depth: 14.6 in./379 mm Height: 11.8 in./300 mm Weight: 34 lbs./15.4 kg	Width: 10.31 in./261.9 mm Depth: 20.38 in./517.5 mm Height: 15.5 in./393.7 mm Weight: 50 lbs./22.7 kg
WARRANTY	1 year	1 year
SERVICE	Zebra OneCare	Zebra OneCare

### Mid-Range Industrial RFID Printers

**ZT400 SERIES** 



**ZT410 SILVERLINE** 

PRODUCT DESCRIPTION	The ZT400 delivers best in class print speed, connectivity options and management and support tools. These printers are optimized to print and encode labels for mid-to high volume applications.		The ideal integrated solution for on-demand RFID asset tagging for all surfaces, including metal and liquid filled containers. Zebra has partnered with Confidex to create the first solution to include an RFID printer specially designed to print and encode Silverline labels.
GEOGRAPHIC AVAILABILITY*	NA, EMEA, APAC, LATAM		NA, EMEA, APAC, LATAM
RFID CAPABILITIES	<ul> <li>UHF EPC Gen 2 tags</li> <li>Print and encode short-pitch item-level tags, chip-based serialization for unique items and block permalocking of user memory.</li> </ul>		<ul> <li>UHF EPC Gen 2 tags Silverline labels.</li> <li>Silverline Standard, Silverline Micro and Silverline Slim all surface RFID labels.</li> </ul>
MAX. PRINT WIDTH	<b>ZT410:</b> 4.09 in./104 mm <b>ZT420:</b> 6.6 in./168 mm		<b>ZT410:</b> 4.09 in./104 mm
MAX. PRINT SPEED @ RESOLUTION	<b>ZT410:</b> 14 ips @ 203 dpi; 10 ips @ 300 dpi; 4 ips @ 600 dpi <b>ZT420:</b> 12 ips @ 203 dpi; 10 ips @ 300 dpi		<b>ZT410:</b> 14 ips @ 203 dpi
MEDIA HANDLING	Cutter, Peel with Liner Take Up, Full roll media rewind		N/A
COMMUNICATIONS	Parallel, Serial, USB, USB Host, Ethernet, 802.11 a/b/g/n, Bluetooth 2.1		Parallel, Serial, USB, USB Host, Ethernet, 802.11 a/b/g/n, Bluetooth 2.1
DIMENSIONS	<b>ZT410:</b> Width: 10.6 in./269 mm Depth: 19.5 in./495 mm Height: 12.75 in./324 mm Weight: 36 lbs./16.33 kg	<b>ZT420:</b> Width: 13.25 in./336.55 mm Depth: 19.5 in./495 mm Height: 12.75 in./324 mm Weight: 40 lbs./18.14 kg	Width: 10.6 in./269 mm Depth: 19.5 in./495 mm Height: 12.75 in./324 mm Weight: 36 lbs./16.33 kg
WARRANTY	1 year		1 year
SERVICE	Zebra OneCare		Zebra OneCare

Compact Desktop RFID Printers		
ZD500R		
PRODUCT DESCRIPTION	The ZD500R is ideal for space constrained areas, delivering advanced features in a compact and easy-to-use device. The ZD500R offers simple, one-touch printing and encoding, straight-forward loading and automatic RFID calibration, making it ideal in areas where technical support staff is not available.	
GEOGRAPHIC AVAILABILITY*	NA, EMEA, APAC, LATAM	
RFID CAPABILITIES	<ul> <li>UHF EPC Gen 2 tags</li> <li>Print and encode short-pitch item-level tags, chip-based serialization for unique items and block permalocking of user memory.</li> </ul>	
MAX. PRINT WIDTH	4.09 in./104 mm	
MAX. PRINT SPEED @ RESOLUTION	6 ips @ 203 dpi 4 ips @ 300 dpi	
MEDIA HANDLING	Cutter, Peeler	
COMMUNICATIONS	Parallel, Serial, USB, Ethernet, 802.11 a/b/g/n, Bluetooth 3.0	
DIMENSIONS	Width: 7.6 in./193 mm Depth: 10.0 in./254 mm Height: 7.5 in./191 mm Weight: 4.9 lbs./2.2 kg	
WARRANTY	1 year	
SERVICE	Zebra OneCare	

High Performance RFID Card Printers			
	ZXP SERIES 7		
PRODUCT DESCRIPTION	ZXP Series 7 provides the capability to read and encode passive UHF cards. Zebra's patented antenna design provides advanced sensitivity and enhanced read rates and range for genuine Zebra UHF cards.		
GEOGRAPHIC AVAILABILITY*	NA, EMEA, APAC, LATAM		
RFID CAPABILITIES	<ul><li>UHF EPC Gen 2 tags</li><li>Direct to card printing and encoding of cards.</li></ul>		
MAX. PRINT WIDTH	CR-80, ISO 7810 format		
MAX. PRINT SPEED @ RESOLUTION	Color - 300 CPH Mono - 1,375 CPH		
MEDIA HANDLING	Laminator		
COMMUNICATIONS	USB, Ethernet, 802.11 b/g		
DIMENSIONS	Width: 27.5 in./699 mm Depth: 10.9 in./277 mm Height: 12.0 in./306 mm Weight: 26.9 lbs./12.2 kg		
WARRANTY	1 year		
SERVICE	Zebra OneCare		











# When it comes to handheld and hands-free RFID readers, Zebra offers it all.

No matter what you need, we've got it. Choose from industrial rugged handheld and gun-style RFID readers for read intensive tasks in the warehouse, handheld readers suitable for your retail point of sale and sleds that can add RFID to just about any mobile device, including smartphones and tablets.

# Handheld/Hands-Free RFID Readers

Hands-Free RFID Readers		
DS9808-R		
PRODUCT DESCRIPTION	The DS9808-R hybrid presentation imager is the first combination 1D/2D barcode scanner and RFID reader for hands-free and handheld data capture. In addition to UHF RFID tags, the DS9808-R delivers record swipe speeds for 1D and 2D barcodes, as well as the ability to capture images and signatures. It can also capture and parse the PDF417 barcodes on U.S. driver's licenses and other AAMVA compliant ID cards for auto-population of forms.	
GEOGRAPHIC AVAILABILITY*	NA, LATAM (select countries)	
OPERATING SYSTEM	N/A	
CPU	N/A	
MEMORY	N/A	
EXPANSION SLOT	N/A	
DISPLAY	N/A	
KEYBOARD	N/A	
SEALING	N/A	
DROP SPEC	4 ft./1.2 m drops to concrete	
TUMBLE TESTED	N/A	
DATA CAPTURE	Gen 2 RFID tags; 1D/2D barcodes; Images and signatures	
WIRELESS	N/A	
WARRANTY	3 years	
SERVICE	Zebra OneCare	

### Handheld/Hands-Free RFID Readers

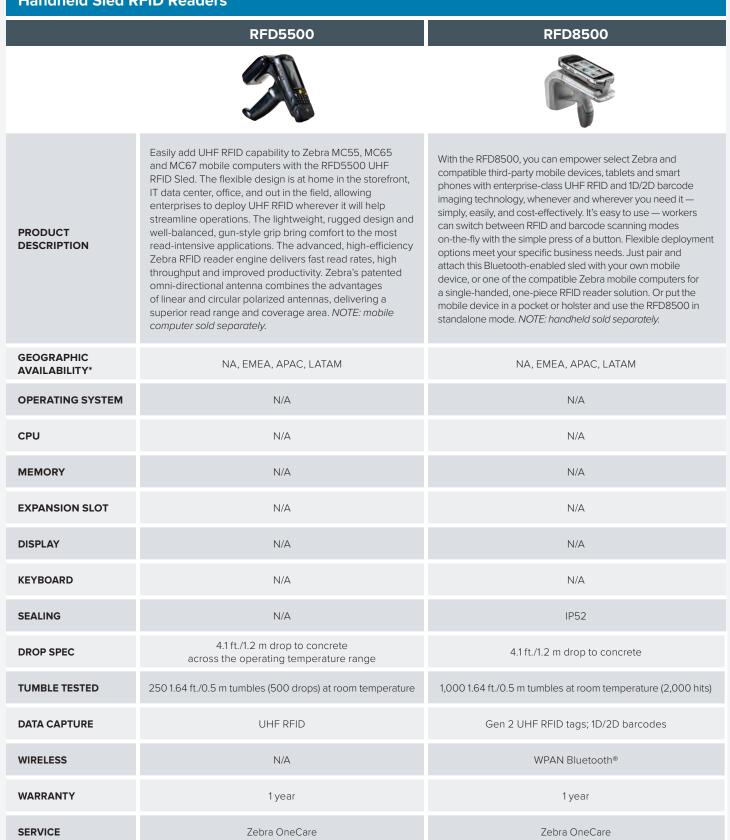
#### Handheld RFID Readers MC3190-Z **WORKABOUT PRO 4** MC9190-Z WorkAbout Pro 4 offers impressive MC3190-Z offers an advanced, high The MC9190-Z sets a new bestefficiency RFID reader engine for modularity that lets you buy the in-class standard for handheld fast read rates and high throughput, features you need now, yet easily PRODUCT RFID readers, offering high RF along with a ground-breaking add practically any feature you can DESCRIPTION sensitivity for greater accuracy, antenna that combines the benefits imagine, right in your own facility. higher throughput and a longer of linear and circular polarization for Just swap end caps to add just about read range. any type of RFID — LF, HF or UHF. superior read range and coverage. GEOGRAPHIC NA, EMEA, APAC, LATAM NA, EMEA, APAC, LATAM NA, EMEA, APAC, LATAM AVAILABILITY\* Windows® Embedded CE6.0; **OPERATING SYSTEM** Windows® Mobile 6.5 Windows® Mobile 6.5 Windows® Embedded Handheld 6.5 CPU Marvell PXA320 @ 624 MHz Marvell PXA320 @ 806 MHz Sitara<sup>™</sup> AM37x @1GHz MEMORY 256 MB RAM; 1 GB Flash 256 MB RAM; 1 GB ROM 514 MB; RAM 4 GB Flash **EXPANSION SLOT** N/A Up to 32 GB SD/MMC card Micro SD slot 3.7 in. VGA color with digitizer 3.7 in. VGA /QVGA DISPLAY 3 in. QVGA color touch-screen and backlight color touch-screen Alphanumeric; QWERTY, Numeric **KEYBOARD** 48-key alphanumeric 28, 43 and 53-key options IP54; meets and exceeds IP64 (electronic enclosure, SEALING IP65 MIL-STD 810F display and keypad) Multiple drops to concrete: 4 ft./1.2 m across the operating DROP SPEC 6 ft./1.8 m across the operating 5 ft./1.5 m to polished concrete temperature range temperature range 500 1.64 ft./0.5 m tumbles 2,000 one-meter tumbles TUMBLE TESTED at room temperature at room temperature N/A (1,000 hits) (4,000 hits) LF. UHF and HF RFID: Gen 2 RFID tags, omni-directional EPC Gen 2 DRM DATA CAPTURE 1D/2D barcodes; reading of 1D and 2D barcodes (DRM compliant up to 0.5w) Photos; Documents 802.11a/b/g WPAN Bluetooth® 802.11a/b/g; WPAN Bluetooth® WIRELESS 802.11a/b/g/n; WPAN Bluetooth® (regional dependent) (regional dependent) WARRANTY 1 year 1 year 1 year SERVICE Zebra OneCare Zebra OneCare Zebra OneCare

\* Check SolutionBuilder for country-specific availability

APAC = Asia Pacific; EMEA = Europe, Middle East, Africa; LATAM = Latin America; NA = North America

### Handheld/Hands-Free RFID Readers

### Handheld Sled RFID Readers



\* Check SolutionBuilder for country-specific availability

APAC = Asia Pacific; EMEA = Europe, Middle East, Africa; LATAM = Latin America; NA = North America









# If you need fixed RFID readers, Zebra has you covered...

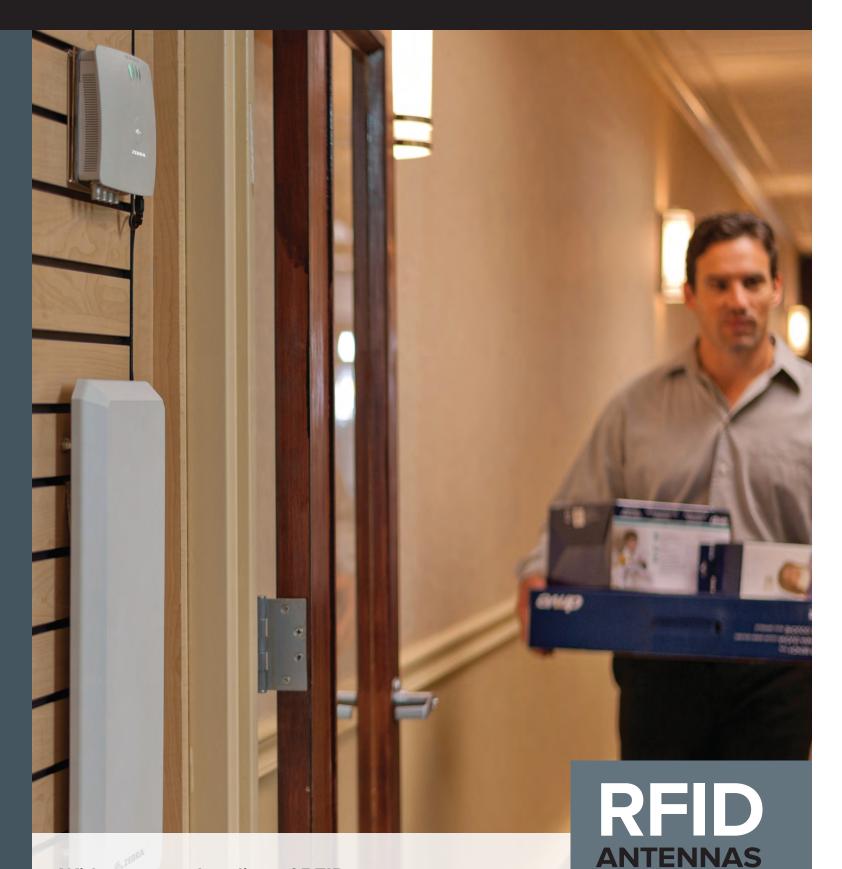
...with stylish readers for customer-facing areas like the front of the retail store to industrial readers designed to thrive in tough environments.

# **Fixed RFID Readers**

Discreet Aesthetics for Customer-Facing Spaces			
FX7500			
	TO TO A STREET		
PRODUCT DESCRIPTION	The sleek and attractive FX7500 offers a low profile, compact footprint that is at home in nearly any business environment. The FX7500 sets a new standard for performance at a lower cost-per-read point. The new RFID radio is designed from the ground up to deliver faster and more accurate read rates, as well as more consistent performance — even in challenging environments. The software-based radio delivers superior future proofing — as RFID continues to evolve, the radio can be easily upgraded to support new features. And installation of this plenum-rated reader couldn't be easier — just hang the supplied bracket and snap the FX7500 in place.		
GEOGRAPHIC AVAILABILITY*	NA, EMEA, APAC, LATAM		
READ POINTS	2 or 4 monostatic ports		
EXTERNAL INTERFACES	2 inputs, 2 outputs,optically isolated (Terminal Block); IUSB Client (USB Type B), USB Host Port (Type A)		
NETWORK	10/100 BaseT Ethernet (RJ45) with PoE support		
FREQUENCY	Global reader: 902–928 MHz,865–868 MHz; US (only) reader: 902–928 MHz		
TAG PROTOCOL	EPC UHF Class 1 Gen 2 (Dense Reader Mode)		
HOST INTERFACE PROTOCOLS	LLRP		
MANAGEMENT PROTOCOLS	RM 1.0.1 (with XML over HTTP/HTTPS and SNMP binding); RDMP		
RUGGED SPECS	Non-sealed; Durable Shock and vibration resistant		
OPERATING TEMP.	-4° to +131° F/-20° to +55° C		
OPERATING SYSTEM	Linux		
MEMORY	512 MB Flash; 256 MB DRAM		
WARRANTY	1 year		
SERVICE	RFID Design and Deployment Services; Zebra OneCare		

# **Fixed RFID Readers**

Rugged Design for Industrial Spaces			
FX9500			
PRODUCT DESCRIPTION	The rugged Zebra FX9500 is built to for high-volume tough industrial environments. High read performance easily tracks the highest volumes of densely tagged cases, pallets and items with greater accuracy, even in RF-challenging environments with RF-challenging materials. Longer read ranges, an IP53 sealing rating, and an extremely durable design make the FX9500 ideal for large distribution center and yard management applications. With 4- and 8-port configurations, the FX9500 can scale easily as your business grows to cover more dock doors and other read points. And with mono-static and bi-static modes allow you to optimize advanced applications.		
GEOGRAPHIC AVAILABILITY*	NA, EMEA, APAC, LATAM		
READ POINTS	<b>FX9500-4:</b> 4 mono-static or 2 bi-static ports <b>FX9500-8:</b> 8 mono-static or 4 bi-static ports		
EXTERNAL INTERFACES	4 inputs, 4 outputs, optically isolated (Terminal Block); USB Host & Client (Type A & B); Serial (DB9)		
NETWORK	10/100 BaseT Ethernet (RJ45)		
FREQUENCY	902–928 MHz, 865–868 MHz Other global frequencies as regionally defined		
TAG PROTOCOL	EPC Gen 2 (Dense Reader Mode)		
HOST INTERFACE PROTOCOLS	LLRP + RM		
MANAGEMENT PROTOCOLS	RM 1.0.1 (with XML over HTTP/HTTPS and SNMP binding)		
RUGGED SPECS	IP53		
OPERATING TEMP.	-4° to +131° F/-20° to +55° C		
OPERATING SYSTEM	Linux		
MEMORY	128 MB Flash; 128 MB DRAM		
WARRANTY	1 year		
SERVICE	RFID Design and Deployment Services; Zebra OneCare		



With our complete line of RFID antennas, you can maximize the performance of our RFID readers in every environment from picture-frame discrete aesthetics for the most discerning retailer to rugged designs built to handle sub-zero temperatures.

# **RFID Antennas**

Rugged Antennas			
	AN440	AN480	
		-	
PRODUCT DESCRIPTION	The rugged, AN440 High Capacity Antenna is ideal for the largest environments with high product density. The dual-element antenna can be used as for bi-static operations or as two mono-static antennas in one package, providing the wide read field and fast read rates required to capture the highest volume of tags. The simple white housing is at home in both customer- facing and industrial settings, and since the AN440 is easy to mount on both ceilings and walls, you can easily achieve superior coverage in challenging areas such as warehouse doorways, dock platforms and multi-level stockroom shelves.	The AN480 single port antenna offers the flexibility and performance required to meet the needs of enterprises around the world. The AN480 can be installed throughout the enterprise in manufacturing and warehouse floor environments, or in the ceilings of a hospital for asset tracking applications. A low axial ratio delivers a more uniform gain for superior performance, and as with all Zebra antennas, the AN480 uses our standard mounting bracket — so mounting the antenna for the first time or upgrading an existing Zebra antenna with the AN480 is fast and easy.	
TYPE/GAIN	High-performance dual RFID antenna, ideal for bi-static operation 6 dBi	High-performance indoor wide band RFID antenna 6 dBi	
FREQUENCY RANGE	900–928 MHz (Will perform reasonably well in EU frequency in most applications)	865–956 MHz	
OPERATING TEMP.	-22° to 158° F/-30° to 70° C	-40° F to 149° F/-40° C to 65° C	
SEALING	IP67	IP54	
ENVIRONMENTAL	Cold, heat, temperature, shock, humidity, rain, salt fog, random vibration	Cold, heat, temperature, shock, humidity, rain, salt fog, random vibration	

### **RFID Antenna Notices**

\* All antennas can be used globally.

The antenna frequency specification and label is a characteristic trait of the antenna's peak frequency response. The RFID reader, when professionally installed and selected for a country of operation, dictates the actual frequency of transmission/reception to ensure regulatory compliance for operation in a designated country. The actual frequency specification of the antenna is not material to regulatory compliance.

# **RFID Antennas**

Slim, Low-Profile Antennas			
	AN610	AN620	
PRODUCT DESCRIPTION	The ultra-low profile AN610 Slimline Antenna offers the "picture frame" discreet aesthetics needed in smaller workspaces such as boutique apparel shops and bookstores. This easy-to-mount, space-saving and stylish antenna is discreet enough for businesses with the most discerning customers, yet rugged enough to handle everyday life wherever you need an RFID reader: in a doorway, on an end-cap display, on shelves, above the counter as an RFID pad, or on the wall.	The ultra-low profile AN620 offers the same "picture frame" discreet aesthetics as the AN610 in a slightly larger form factor with increased read range. The AN620 is designed for larger customer-facing sales spaces — such as do-it-yourself or large department stores where the increase in performance will ensure the accurate reading of many items while helping to minimize the volume of readers required. The AN620 can be installed virtually anywhere in your customer- facing areas — from doorways and walls to shelves, end-cap displays, at the point-of-sale, under the counter or even above the counter as a RFID pad.	
TYPE/GAIN	Flat panel, slim line, ultra-low profile "picture frame" aesthetic antenna 1.0 dBiLi	Flat panel, slim line, ultra-low profile "picture frame" aesthetic antenna 4.0 dBiLi	
FREQUENCY RANGE	<b>US and Canada:</b> 902–928 MHz <b>Europe:</b> 864–868 MHz	US and Canada: 902–928 MHz Europe: 864–868 MHz	
OPERATING TEMP.	-22° F to +149° F/-30° C to +65° C	-22° F to +149° F/-30° C to +65° C	
SEALING	N/A	N/A	
ENVIRONMENTAL	N/A	N/A	

#### **RFID Antenna Notices**

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The antenna frequency specification and label is a characteristic trait of the antenna's peak frequency response. The RFID reader, when professionally installed and selected for a country of operation, dictates the actual frequency of transmission/reception to ensure regulatory compliance for operation in a designated country. The actual frequency specification of the antenna is not material to regulatory compliance.

# **RFID Antennas**

Discreet Antennas with Customer Facing Aesthetics			
	AN710	AN720	
PRODUCT DESCRIPTION	The compact AN710 RFID antenna offers all the features required for carpeted and customer-facing environments. A low gain antenna (3.5 dBi), the AN710 is extremely compact and offers the sleek aesthetics needed for discreet installation in the most space-constrained spaces — for example, under the point of sale (POS) counter or on the wall in a hospital room. And an integrated mounting bracket enables easy installation in minutes.	The AN710, the AN720 RFID antenna features a compact form factor and discreet aesthetics for customer-facing indoor environments but rugged enough for challenging outdoor environments. Its impact and vibration resistant and can withstand exposure to rain, snow and extreme temperatures.	
TYPE/GAIN	Compact general purpose indoor antenna 3.5 dBi	Compact rugged indoor-outdoor antenna 3.5 dBi	
FREQUENCY RANGE	<b>US and Canada:</b> 900–928 MHz <b>Europe:</b> 865–868 MHz	<b>US and Canada:</b> 902–928 MHz <b>Europe:</b> 865–868 MHz	
OPERATING TEMP.	-22° F to 158° F/-30° C to 70° C	-22° F to 158° F/-30° C to 70° C	
SEALING	N/A	IP67	
ENVIRONMENTAL	N/A	Cold, heat, temperature, shock, humidity, rain, salt fog, random vibration	

### **RFID Antenna Notices**

\* All antennas can be used globally.

The antenna frequency specification and label is a characteristic trait of the antenna's peak frequency response. The RFID reader, when professionally installed and selected for a country of operation, dictates the actual frequency of transmission/reception to ensure regulatory compliance for operation in a designated country. The actual frequency specification of the antenna is not material to regulatory compliance.

LET THE DANBY GROUP HELP YOU

GET THE MOST OUT OF RFID IN YOUR BUSINESS. FOR MORE

**INFORMATION, PLEASE CALL** 

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