



# Zebra UHF RFID Antennas

Versatile, high-performance antennas  
for a wide variety of applications



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Zebra's family of Radio Frequency Identification (RFID) Antennas offers the versatility and performance required to meet diverse environmental and application needs — including customer-facing areas, warehouses and outdoor environments. When used in conjunction with Zebra's Fixed RFID Readers, communication with UHF RFID tags is accurate, fast and efficient. Vital components in reader-tag communications, our portfolio of high-performance antennas can meet the needs of any RFID solution.

Whether your application requires an antenna that blends into the environment, is IP67 sealed for rugged and extreme-weather environments, or slim to fit into small spaces, we have the right antenna to complete your solution.

One pain point when choosing an antenna for your RFID solution is knowing which antenna can be used with a fixed RFID reader so as to get maximum performance while not to exceeding your local regulations. Zebra's UHF RFID antennas have been specifically tested with our fixed reader portfolio to ensure that the highest performance is capable while still maintaining compliance with regulatory standards.

## Service Complete the Solution

To help you seamlessly and successfully integrate your RFID antennas into your environment, Zebra offers a complete suite of services that span the entire solution lifecycle — from initial planning and assessment through ongoing training and support.

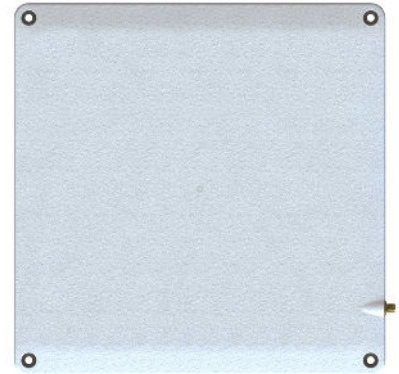
For more information about Zebra RFID antennas for fixed readers and how our enterprise mobility solutions can give your organization a competitive advantage, please visit us on the web at [www.zebra.com/antennas](http://www.zebra.com/antennas) or access our global directory at [www.zebra.com/contact](http://www.zebra.com/contact).



# Zebra AN510 Ultra-Rugged, Low Profile Antenna

IP67 rated for use in outdoor environments  
and dock door applications

The AN510 ultra-rugged, low profile antenna, with an IP67 rating, is suitable for use in a wide range of indoor and outdoor environments including outdoor shopping areas, receiving dock doors, ceilings, out on the tarmac, and on conveyor belts to name a few. The outer housing is designed to be sleek and discreet enough to be at home in any business but rugged enough for outdoor industrial environments. The versatile flush and VESA-studded mounting options make installation and mounting simple.



## AN510 Specifications

PHYSICAL CHARACTERISTICS	
Polarization	Right-hand circular
Dimensions	250 mm x 250 mm x 14 mm / 9.85 in x 9.85 in x 0.55 in
Connector	SMA female
Connector Location	Side mounted
Mounting Options	Flush mount or VESA mount
Weight	1.6 lbs. / 0.75kg
Casing/Materials	UV-Resistant ABS
Frequency Ranges	EU: 865 – 868 MHz US: 902 – 928 MHz
Gain	8.5 dBic

VSWR (Return Loss)	1.3:1
Front to Back Ratio	20 dB
3dB Beam Width	68° in both planes
Maximum Power	
Axial Ratio	1 dB
Operating Temperature	-20° to +55°C / -4° to +131°F
Storage Temperature	-30° to +65°C / -22° to +149°F
IP Sealing	IP67
Vibration	MIL-STD-810G
Humidity	72 Hours @ 85°C relative humidity

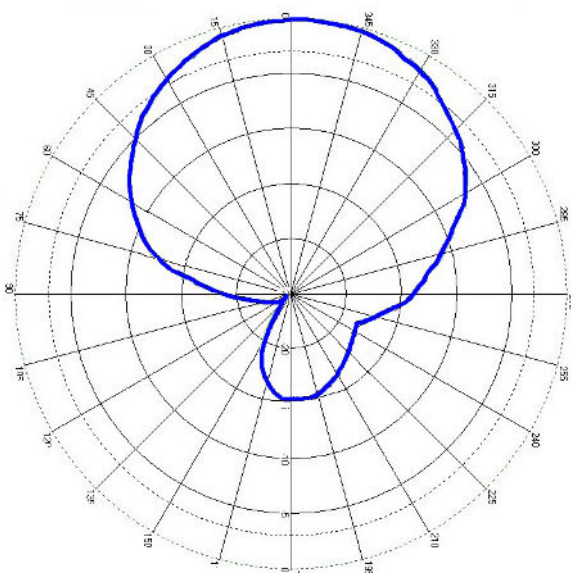
### TAA Compliance: Yes

#### Vertical Markets

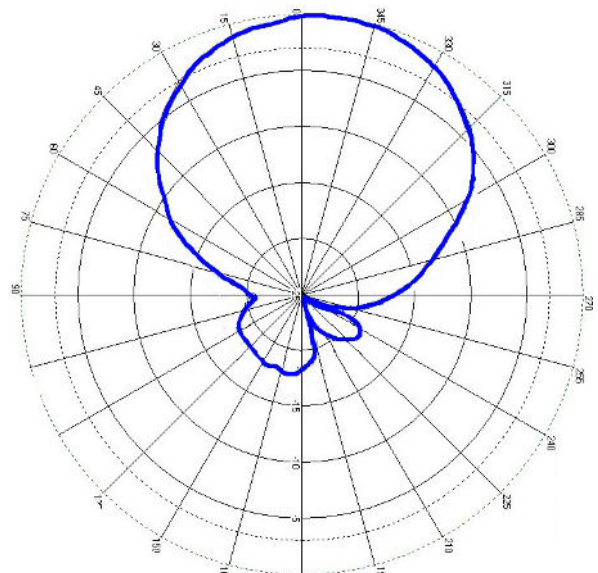
- Retail
- Warehouse Management
- Manufacturing
- Cold-Chain
- Aviation

#### Applications

- Outdoor shopping areas
- Receiving dock doors
- Ceilings and walls to create superior read zones around shelves
- Freezers and freezer trucks
- Baggage tracking solutions
- Access control systems



Horizontal (ETSI & FCC)



Vertical (ETSI & FCC)

# Zebra AN610 Ultra-Low Profile RFID Antenna

Slim with integrated mounting holes for a space-saving, simple solution

Whether your application calls for a “picture-frame” aesthetic or a space-saving antenna deployment, look to the ultra-low profile member of the Zebra family – the AN610.

The AN610 features a simple, integrated mounting system with holes built right into the antenna that lets them stand just under one-half inch (12mm) from horizontal or vertical mounting surfaces. Space-saving and stylish, the outer housing is designed to be sleek and discreet enough to be at home in any business setting but rugged enough for indoor industrial environments. A perfect complement to the Zebra fixed RFID readers, the AN610 is ideal for use in wall mount, doorways, under counter, above counter as an RFID pad, on shelves, at the point-of-sale, or end-cap displays, or locations that have limited space like a jewelry counter.



## AN610 Specifications

PHYSICAL CHARACTERISTICS	
Polarization	Left-hand circular
Dimensions	275 mm x 214 mm x 12 mm / 10.8 in x 8.5 in x 0.3 in
Connector	N-Type Female
Connector Location	Pigtail - Side
Mounting Options	Flush mount
Weight	1.3 lbs. / 0.6 kg
Casing/Materials	Aluminum with Kydex Casing
Frequency Ranges	EU: 865 – 868 MHz US: 902 – 928 MHz
VSWR (Return Loss)	1.4:1

Gain	5.0 dBic
Front to Back Ratio	18 dB
3dB Beam Width	80° in both planes
Maximum Power	6 Watts
Axial Ratio	< 2 dB
Operating Temperature	-20° to +55°C / -4° to +131°F
Storage Temperature	-30° to +65°C / -22° to +149°F
IP Sealing	IP54
Vibration	IEC-68-2-6 (10 to 150 Hz, 0.5 g, one hour in each of two axes) (Random Vibration)
Humidity	IEC-68-2-30 (-13° F to 104° F, -25° C to 40° C) 24 hour cycles of 90% relative humidity

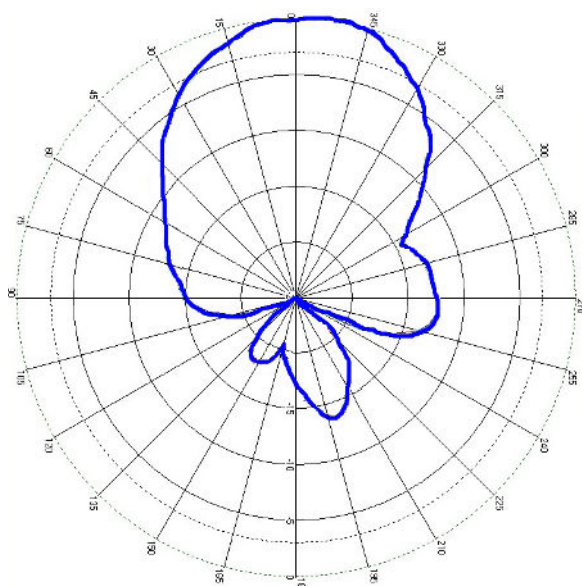
### TAA Compliance: Yes

#### Vertical Markets

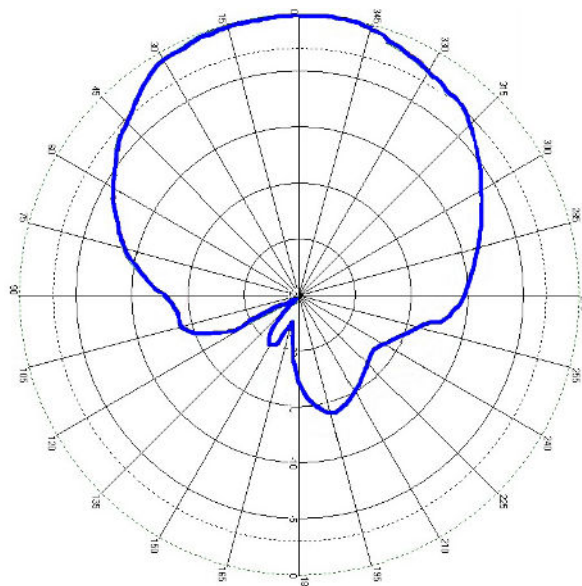
- Retail
- Enterprise/Office
- Data Center
- Hospitality
- Healthcare

#### Applications

- Point-of-sale
- Receiving dock doors
- Under-the-counter / within shelving
- In server racks
- Inside medical cabinets



Horizontal (ETSI & FCC)



Vertical (ETSI & FCC)

# Zebra AN620 Ultra-Low Profile RFID Antenna

Slim with integrated mounting holes for a space-saving, simple solution

Whether your application calls for a “picture-frame” aesthetic or a space-saving antenna deployment, look to the ultra-low profile member of the Zebra family – the AN620. The AN620 features a simple, integrated mounting system with holes built right into the antenna that lets them stand just under one-half inch (12mm) from horizontal or vertical mounting surfaces. Space-saving and stylish, the outer housing is designed to be sleek and discreet enough to be at home in any business setting but rugged enough for indoor industrial environments. A perfect complement to the Zebra fixed RFID readers, the AN620 is ideal for use in wall mount, doorways, under counter, above counter as an RFID pad, on shelves, at the point-of-sale, or end-cap displays, or locations that have limited space like a jewelry counter.



## AN620 Specifications

PHYSICAL CHARACTERISTICS	
Polarization	Left-hand circular
Dimensions	391 mm x 275 mm X 12 mm / 15.39 in x 10.82 in x 0.47 in
Connector	N-Type Female
Connector Location	Pigtail - Side
Mounting Options	Flush mount
Weight	2.2 lbs. / 1.0kg
Casing/Materials	Aluminum with Kydex Casing
Frequency Ranges	EU: 865 – 868 MHz US: 902 – 928 MHz
VSWR (Return Loss)	1.4:1

Gain	7.0 dBi
Front to Back Ratio	22 dB
3dB Beam Width	75° in horizontal plane, 48° in vertical plane
Maximum Power	6 Watts
Axial Ratio	< 2 dB
Operating Temperature	-20° to +55°C / -4° to +131°F
Storage Temperature	-30° to +65°C / -22° to +149°F
IP Sealing	IP54
Vibration	IEC-68-2-6 (10 to 150 Hz, 0.5 g, one hour in each of two axes) (Random Vibration)
Humidity	IEC-68-2-30 (-13° F to 104° F, -25° C to 40° C) 24 hour cycles of 90% relative humidity

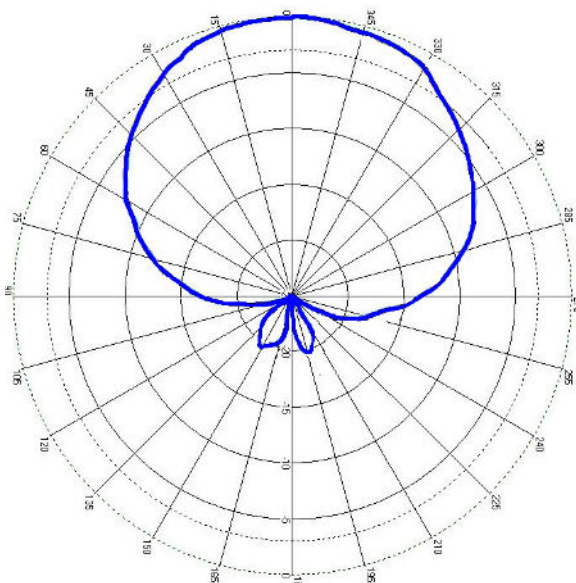
### TAA Compliance: Yes

#### Vertical Markets

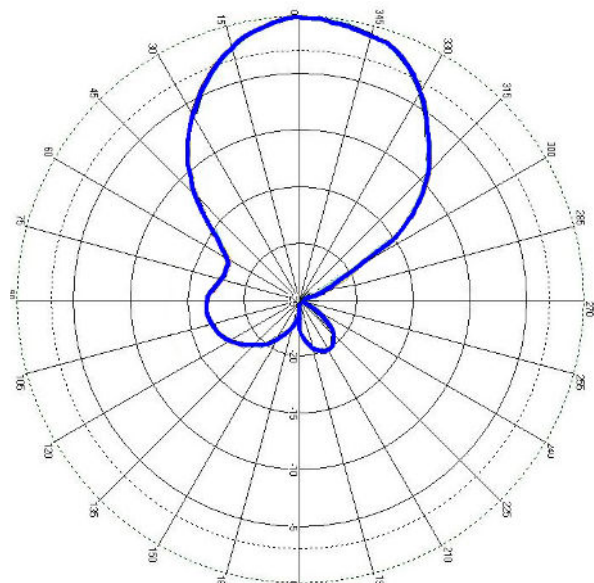
- Retail
- Enterprise/Office
- Data Center
- Hospitality
- Healthcare

#### Applications

- Point-of-sale
- Receiving dock doors
- Under-the-counter / within shelving
- In server racks
- Inside medical cabinets



Horizontal (ETSI & FCC)



Vertical (ETSI & FCC)

# Zebra AN710

## Compact RFID Antenna

Compact antenna for discreet, space-saving installation

The AN710 offer all the features required for carpeted and customer-facing environments. The AN710 is extremely compact, offering the aesthetics required for the most discreet installation in the most space constrained areas. The integrated mounting bracket enables easy installation in minutes. The AN710 is designed for inside the four walls applications.



## AN710 Specifications

PHYSICAL CHARACTERISTICS	
Polarization	Left-hand circular
Dimensions	146.05 mm x 146.05 mm x 17.53 mm / 5.75 in x 5.75 in x 0.69 in
Connector	N-Type Female
Connector Location	Pigtail - Side
Mounting Options	Integrated, articulating mounting bracket
Weight	1.1 lbs. / 0.5kg
Casing/Materials	White ABS plastic
Frequency Ranges	EU: 865 – 868 MHz US: 902 – 928 MHz
VSWR (Return Loss)	2:1

Gain	3.0 dBiL
Front to Back Ratio	> 10 dB
3dB Beam Width	80° in both planes
Maximum Power	10 Watts
Axial Ratio	< 3 dB
Operating Temperature	-30° to +70°C / -22° to +158°F
Storage Temperature	-40° to +70°C / -40° to +158°F
IP Sealing	IP65 Vented
Vibration	EN 61373, IEEE 1478, Mil-810G
Humidity	No specification

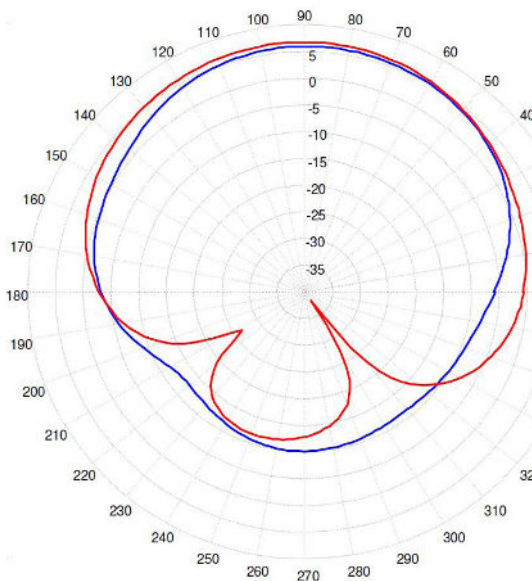
**TAA Compliance: Yes**

**Vertical Markets**

- Retail
- Enterprise/Office
- Hospitality
- Healthcare

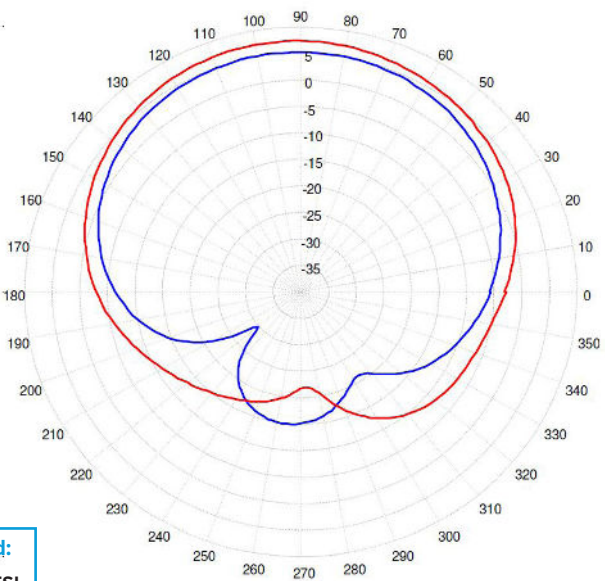
**Applications**

- Point-of-sale
- Choke points
- Hallways



Horizontal (ETSI & FCC)

**Legend:**  
Blue = ETSI  
Red = FCC



Vertical (ETSI & FCC)

# Zebra AN720

## Compact, Rugged RFID Antenna

Compact antenna for rugged and outdoor environments

The AN720, with an IP67 rating, is at home indoors or out. Well-suited for customer facing, rugged and outdoor environments, shopping areas, receiving dock doors, ceilings, out on the tarmac, and on conveyor belts to name a few. The outer housing is designed to be sleek and discreet enough to be at home in any business but rugged enough for outdoor industrial environments.



## AN720 Specifications

PHYSICAL CHARACTERISTICS	
Polarization	Left-hand circular
Dimensions	132.8 mm x 132.8 mm x 18.1 mm / 5.2 in x 5.2 in x 0.7 in
Connector	N-Type Female
Connector Location	Rear
Mounting Options	Articulating mounting bracket included
Weight	0.8 lbs. / 0.37 kg
Casing/Materials	Aluminum with white plastic cover
Frequency Ranges	EU: 865 – 868 MHz US: 902 – 928 MHz
VSWR (Return Loss)	1.5:1

Gain	US/Canada: 3.0 dBiL; EU: 3.5 dBiL
Front to Back Ratio	8 dB
3dB Beam Width	100° in both planes
Maximum Power	10 Watts
Axial Ratio	2 dB
Operating Temperature	-25° to +70°C / -13° to +158°F
Storage Temperature	-40° to +70°C / -40° to +158°F
IP Sealing	IP67
Vibration	MIL-STD-810
Humidity	IEC-68-2-30

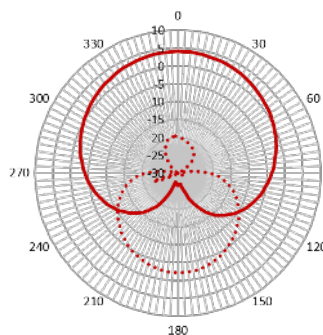
### TAA Compliance: Yes

#### Vertical Markets

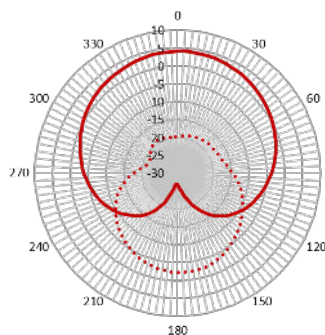
- Retail
- Enterprise/Office
- Hospitality
- Healthcare
- Transportation & Logistics

#### Applications

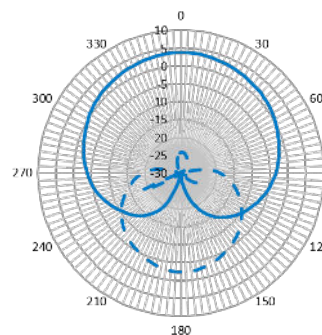
- Point-of-sale
- Conveyor belts
- Choke points
- Hallways



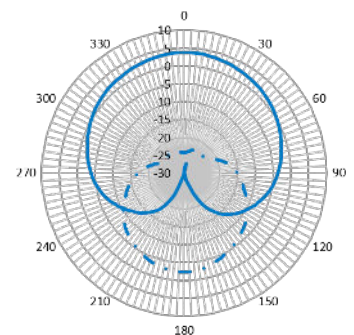
Horizontal (FCC)



Vertical (FCC)



Horizontal (ETSI)



Vertical (ETSI)

# Zebra AN440 Dual-Element RFID Antenna

Large area coverage for high-capacity, high throughput environments

The AN440 RFID antenna gives you a wide read field and high-speed RF signal conversion, so data capture is fast and accurate, even in expansive, high-demand environments. The AN440 is easy to mount on ceilings and walls, and its rugged housing is at home in both customer-facing and industrial settings. You can achieve superior read zones around stockroom shelves, warehouse doorways, and dock platforms – anywhere boxes and pallets are moving in and out of your facility. Your workflow keeps flowing, your inventory count stays accurate, and your productivity can reach new heights.



## AN440 Specifications

PHYSICAL CHARACTERISTICS	
Polarization	1 x Left-hand circular / 1 x Right-hand circular
Dimensions	575.1 mm x 259.1 mm x 33.52 mm / 22.6 in x 10.2 in x 1.32 in
Connector	Dual N-Type Female
Connector Location	Rear
Mounting Options	Mounting studs provided
Weight	7.0 lbs. / 3.2 kg
Casing/Materials	UV Stable ASA
Frequency Ranges	EU: 865 – 868 MHz US: 902 – 928 MHz*
VSWR (Return Loss)	1.22:1
Gain	US/Canada: 6.0 dBiL

Front to Back Ratio	20 dB
3dB Beam Width	70° in both planes
Maximum Power	10 Watts
Axial Ratio	1 dB typical
Operating Temperature	-30° to +70°C / -22° to +158°F
Storage Temperature	-40° to +85°C / -40° to +185°F
IP Sealing	IP67
Vibration	MIL-STD-810G, Method 507.5, Procedure II – Aggravated, IEC-68-2-6 (10 to 150 Hz, 0.5g, one hour in each of two axes – random vibration)
Humidity	IEC-68-2-30 (-25° to +40°C / -13° to +104°F) 24 hour cycles of 90% relative humidity

\*Optimized for US)

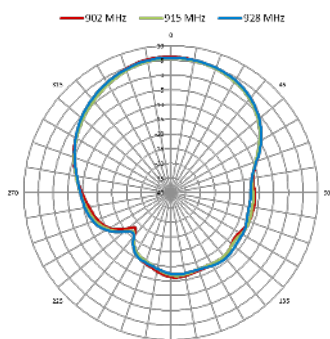
### TAA Compliance: No

#### Vertical Markets

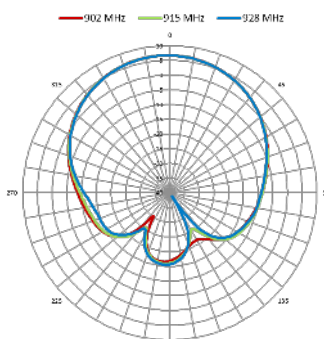
- Retail
- Enterprise/Office
- Hospitality
- Healthcare
- Transportation & Logistics
- Manufacturing

#### Applications

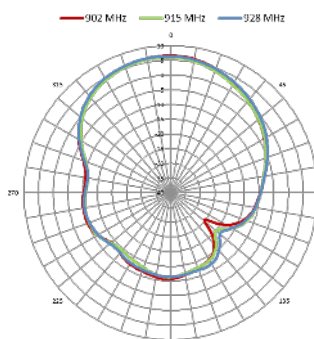
- Point-of-sale
- Conveyor belts
- Choke points
- Hallways



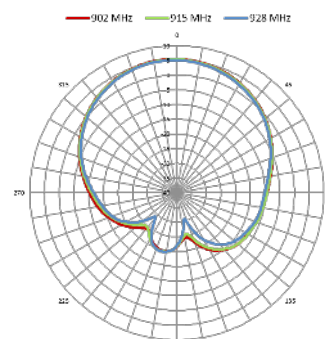
Horizontal (LHCP)



Vertical (LHCP)



Horizontal (RHCP)



Vertical (RHCP)

# Zebra AN480 Wide-Band RFID Antenna

High-performance, wide-band antenna for worldwide use

The AN480 single port antenna offers maximum performance and flexibility. The low axial ratio is nearly 50 percent lower than typical competitive devices, delivering a more uniform gain — and better performance. The wide frequency range enables this antenna to be utilized in worldwide deployments, providing cost-efficiencies and a simplified RFID infrastructure. The AN480 can be installed throughout the enterprise in manufacturing and warehouse floor environments, or any dock door receiving application. As with all Zebra antennas, the AN480 uses Zebra's standard mounting bracket — mounting the antenna for the first time or upgrading an existing Zebra antenna with the AN480 is fast and easy.



## AN480 Specifications

PHYSICAL CHARACTERISTICS	
Polarization	Left-hand circular or Right-hand circular
Dimensions	259.1 mm x 259.1 mm x 33.5 mm / 10.2 in x 10.2 in x 1.32 in
Connector	N-Type Female
Connector Location	Rear
Mounting Options	Mounting studs provided
Weight	2.5 lbs. / 1.13 kg
Casing/Materials	Aluminum with white plastic cover
Frequency Ranges	865 – 956 MHz
VSWR (Return Loss)	1.3:1

Gain	6.0 dBiL
Front to Back Ratio	18 dB
3dB Beam Width	65° in both planes
Maximum Power	2 Watts
Axial Ratio	1.5 dB typical
Operating Temperature	-25° to +70°C / -13° to +158°F
Storage Temperature	-40° to +70°C / -40° to +158°F
IP Sealing	IP54
Vibration	IEC-68 series
Humidity	IEC-68-2-30

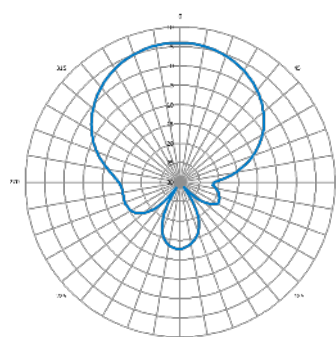
### TAA Compliance: No

#### Vertical Markets

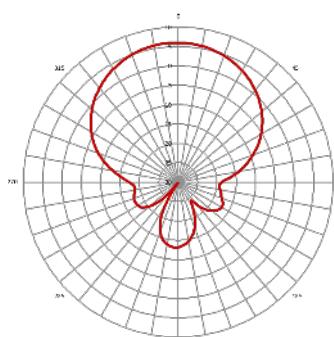
- Retail
- Enterprise/Office
- Hospitality
- Healthcare

#### Applications

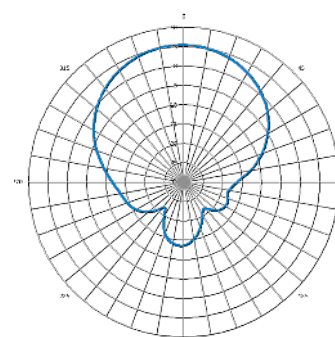
- Point-of-sale
- Choke points
- Hallways



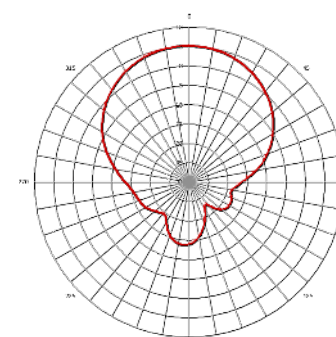
Horizontal (FCC)



Vertical (FCC)



Horizontal (ETSI)



Vertical (ETSI)

For more information on Zebra RFID Antennas,  
please visit [www.zebra.com/rfid](http://www.zebra.com/rfid)



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