



COMPREHENSIVE RFID ANTENNA PORTFOLIO FOR DIVERSE APPLICATION NEEDS

MOTOROLA RFID ANTENNA FAMILY

Motorola'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 Motorola's Fixed RFID Readers, communication with Electronic Product Code (EPC™)-compliant RFID tags is accurate, fast and efficient. Vital components in reader-tag communications, our family of efficient, high-performance antennas can meet the needs of any RFID solution.

MOTOROLA RFID ANTENNAS— A VITAL RFID SYSTEM COMPONENT

RFID Antennas complement the portfolio of Motorola enterprise mobility solutions that enable organizations to capture, move and manage critical information to and from every point of business activity. In combination with Motorola's fixed readers, these efficient antennas deliver high-throughput, high capacity communication of EPC-compliant RFID tag data.

SERVICES COMPLETE THE SOLUTION

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

VERSATILITY AND PERFORMANCE TO MEET YOUR DIVERSE APPLICATION NEEDS

ON THE FLOOR ...



IN THE FIELD ...



IN THE WAREHOUSE ...



CHOOSE THE RIGHT ANTENNA FOR YOUR APPLICATION

Motorola’s complete family of RFID antennas meets the needs of virtually any RFID application. Choose the antenna that is designed for your environment — carpeted, industrial or outdoors, delivers the right level of performance, meets mounting requirements and fits in your budget.

| | GENERAL PURPOSE | | | SLIM LINE | | COMPACT | |
|---------------------------------|--|---------------------|----------------|---|------------|---|------------|
| |  | | |  | |  | |
| ANTENNA | AN200 | AN400 | AN480 | AN610 | AN620 | AN710 | AN720 |
| ENVIRONMENT | | | | | | | |
| Business-class | | | • | • | • | • | • |
| Industrial-class – Indoor | • | • | • | • | • | | • |
| Industrial-class – Outdoor | • | • | • | | | | • |
| VALUE SOLUTION | | | • | | | • | |
| COMPACT | | | | SLIM | SLIM | • | • |
| HIGH PERFORMANCE/HIGH GAIN (DB) | • | • | • | | | | |
| POLARIZATION | R & L Circular | R & L Circular/Dual | R & L Circular | L Circular | L Circular | L Circular | L Circular |

NOTES:

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.

The AN400 and AN200 will perform reasonably well in EU frequency in most applications.

GENERAL PURPOSE

AN200: GENERAL PURPOSE ANTENNA
FOR INDOOR OR OUTDOOR APPLICATION

Get the convenience of a versatile antenna that can be utilized throughout your enterprise, from the warehouse floor and production line to outside the dock door. Able to withstand extreme heat and cold as well as moisture and vibration, the AN200 is ideal for nearly any application, including retail, manufacturing, wholesale distribution, healthcare, government and more.

This all-purpose antenna can be used in standard RFID applications with power levels up to one watt, as well as custom high-power applications requiring up to 20 watts. The antenna is traditionally used in pairs, with right and left hand polarization.

| | |
|--------------|---|
| FEATURES | Supports drain holes for use in direct rain, snow or high humidity environments |
| APPLICATIONS | Dock doors, portals, outdoor gates |



AN400: HIGH-PERFORMANCE AREA ANTENNA FOR HIGH-CAPACITY, HIGH THROUGHPUT ENVIRONMENTS

Get the capacity and range you need to enable RFID tag reading in large areas with the AN400 high-performance area antenna. This general-purpose area antenna is optimized to perform in all environments. Easy to mount on ceilings and walls, the AN400 enables the easy creation of superior read zones around shelves, doorways and dock doors — anywhere boxes and pallets are moving into and out of a facility.

These packaged, rectangular antenna arrays offer a wide read field and high-speed RF signal conversion for fast and optimal communication of EPC-compliant passive tag data. High-performance area antennas are typically used in applications requiring the longest read ranges and highest levels of performance. They meet standard technical requirements for any RFID implementation and are deployment-ready with Motorola RFID fixed readers.



| | |
|--------------|--|
| FEATURES | <ul style="list-style-type: none">• Dual-element, ideal for bi-static operation.• Can be used as two separate mono-static antennas in one package. |
| APPLICATIONS | <ul style="list-style-type: none">• Ceilings and walls to create superior read zones around shelves• Doorways and chokepoints where boxes and pallets are moving through• Portals, outdoor gates and conveyors• RF-challenging environments |

AN480: 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 Motorola antennas, the AN480 uses Motorola's standard mounting bracket — mounting the antenna for the first time or upgrading an existing Motorola antenna with the AN480 is fast and easy.



| | |
|---------------------|---|
| FEATURES | <ul style="list-style-type: none"> Excellent wide frequency band antenna response covering 865 Mhz ~ 956 Mhz , ideally suited for global deployments Available in right and left hand polarization. |
| APPLICATIONS | <ul style="list-style-type: none"> Ceilings and walls to create superior read zones around shelves Doorways and chokepoints where boxes and pallets are moving through Portals, outdoor gates and conveyors Indoor and outdoor applications |

SPECIFICATIONS

| | AN200 | AN400 | AN480 |
|-------------------------------------|--|--|---|
| PHYSICAL | | | |
| Dimensions without mounting screws: | 11.1 in. L x 11.1 in. W x 1.9 in. D 281.9 mm L x 281.9 mm W x 48.3 mm D | 28.3 in. L x 12.5 in. W x 1.5 in. D 717 mm L x 317 mm W x 38 mm D | 10.2 in. L x 10.2 in. W x 1.32 in. D 259.1 mm L x 259.1 mm W x 33.5 mm D |
| Dimensions with mounting screws: | 11.1 in. L x 11.1 in. W x 1.9 in. D 281.9 mm L x 281.9 mm W x 48.3 mm D | 28.3 in. L x 12.5 in. W x 2.25 in. D 717 mm L x 317 mm W x 57.15 mm D | 10.2 in. L x 10.2 in. W x 1.98 in. D 259.1 mm L x 259.1 mm W x 50.3 mm D |
| Connector | Type "N" female | Type "N" female (2 qty) | Type 'N' female |
| Connector Position | Rear | | Pig-tail |
| Mounting bracket | Available separately | | |
| Weight | 3 lbs./1.36 kg | 7 lbs./3.2 Kg | 2.5 lbs./1.13 kg |
| Casing | Aluminum with plastic cover | Aluminum with polycarbonate cover | Aluminium with white plastic cover |
| OPERATIONAL | | | |
| Freq. Range | 900-928 MHz | | 865-956 MHz |
| Gain | 6.0 dBiL | | 6.0 dBiL |
| VSWR (Return Loss) | 1.22 : 1(20 dB) | | 1.3 : 1 |
| Front to Back Ratio | > 10dB | | 18 dB |
| Polarization | LHCP or RHCP | Port1- RHCP; Port2- LHCP | LHCP or RHCP |
| 3db Beam Width | 60° | 60° | 65° |
| Max Power | 20 watts | 10 Watts | 2 watts |
| Axial Ratio | < 3 db | 3.5 dB | 1.5 dB |
| ENVIRONMENTAL | | | |
| Oper. Temps | -40° F to +149° F, -40° C to +65° C | | -13° F to +158° F, -25° C to +70° C |
| Environmental Sealing | Weep holes | | IP54 |
| Storage Temperature | -40°F to +158° F, -40°C to +70° C | | |
| Vibration | IEC-68-2-6 (10 to 150 Hz, 0.5 g, one hour in each of two axes) (Random Vibration) | | IEC-68 series |
| Humidity | IEC-68-2-30 (-13° F to 104° F, -25° C to 40° C) 24 hour cycles of 90% relative humidity | | IEC 68-2-30 |
| COMPLIANCE | | | |
| TAA Compliant | YES | | NO |
| Port to Port Isolation | 38dB | | |

SLIM LINE

AN600 SERIES: SLIM LINE, ULTRA-LOW PROFILE ANTENNA

When your application calls for a “picture-frame” aesthetic antenna deployment, look to the newest ultra-low profile members of the Motorola family – the AN610 and AN620 Slimline Antennas. The AN610 and AN620 feature a simple, integrated mounting system 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 FX7400 RFID reader, the AN600 series antennas are ideally suited for use in wall mount, doorways, under counter, above counter as an RFID pad, on shelves, POS or end-cap displays like jewelry counter applications.



| | |
|---------------------|---|
| FEATURES | Flat panel, slim line antennas |
| APPLICATIONS | Suitable for use in indoor environments: wall mount, doorways, under counter, above counter as an RFID pad, on shelves, on end-cap displays, POS etc. |

SPECIFICATIONS

| AN610 | | AN620 | |
|----------------------|--|-------|---|
| PHYSICAL | | | |
| Dimensions: | 10.8 in. L x 8.42 in. W x 0.47 in. D 275 mm L x 214 mm W x 12 mm D | | 15.39 in. L x 10.82 in. W x 0.47 in. D 391 mm L x 275 mm W x 12 mm D |
| Connector | Type “N” female | | |
| Connector Position | Side | | |
| Mounting bracket | Integrated mounting holes | | |
| Weight | 1.3 lbs./ 0.6 kg | | 2.2 lbs./ 1.0 Kg |
| Casing | Superior Kydex | | |
| OPERATIONAL | | | |
| Freq. Range | 864-868 MHz (EU Version) 902-928 MHz (US Version) | | |
| Gain | 1.0 dBiL | | 4.0 dBiL |
| VSWR (Return Loss) | 1.4 : 1 | | |
| Front to Back Ratio | 18 dB | | 22 dB |
| Polarization | LHCP | | |
| 3db Beam Width | 80° in both phases | | 75° horizontal , 48° vertical |
| Max Power | 6 watts | | |
| Axial Ratio | < 2 dB | | |
| ENVIRONMENTAL | | | |
| Oper. Temps | -22° F to +149° F, -30° C to +65° C | | |
| Storage Temperature | -40° F to +158° F, -40°C to +70° C | | |
| 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 | | |

COMPACT

AN700 SERIES: COMPACT ANTENNAS FOR CUSTOMER FACING ENVIRONMENTS

The AN700 Series antennas offer all the features required for carpeted and customer-facing environments. A perfect complement to Motorola's FX7400 RFID Reader, the AN700 Series antennas are extremely compact, offering the aesthetics required for the most discreet installation in the most space constrained areas — for example, under the point of sale (POS) counter. The integrated mounting bracket enables easy installation in minutes. The AN710 is designed for inside the four walls. The rugged AN720 is designed to withstand exposure to rain, snow and extreme temperatures — ideal for the receiving dock doors or outdoor shopping areas.



| | | | |
|---------------------|--|---------------------|--|
| FEATURES | <ul style="list-style-type: none"> Thin profile Low gain (~3dB) antenna for short range applications to create targeted zone | FEATURES | <ul style="list-style-type: none"> Industrial class, IP 67 rated Wide beam-width of 100 degree for wider coverage Ideal for short range applications to create targeted zones |
| APPLICATIONS | Suitable for use in Indoor environments: in doorways, on shelves, on end-cap displays, on conveyors, or POS etc. | APPLICATIONS | <ul style="list-style-type: none"> Suitable for use in Indoor and outdoor environments Indoors: In doorways, shelves, end-cap displays Outdoors: Doorways, small conveyors |

SPECIFICATIONS

| AN710 | | AN720 | |
|-------------------------------------|--|--|--|
| PHYSICAL | | | |
| Dimensions without mounting screws: | 5.75 in. L x 5.75 in. W x 0.69 in. D 146.05 mm L x 146.05 mm W x 17.53 mm D | 5.2 in. L x 5.2 in. W x 0.7 in. D 132.8 mm L x 132.8 mm W x 18.1 mm D | |
| Dimensions with mounting screws: | N/A | | |
| Connector | Type 'N' female | | |
| Connector Position | Pig-tail | Rear | |
| Mounting bracket | includes articulating mount | | |
| Weight | 1.1 lbs/0.5 kg | 0.8 lbs/0.37 kg | |
| Casing | White ABS plastic | Aluminium with white plastic cover | |
| OPERATIONAL | | | |
| Freq. Range | 900-928 MHz (US) & 867-870 MHz (EU) | 900-928 MHz (US) & 865-868 MHz (EU) | |
| Gain | 3.0 dBiL | US/Canada: 3.0 dBiL; Europe: 3.5 dBiL | |
| VSWR (Return Loss) | 2 : 1 | 1.5 : 1 | |
| Front to Back Ratio | > 10dB | 8db | |
| Polarization | LHCP | | |
| 3db Beam Width | 80° | 100° | |
| Max Power | 10 watts | | |
| Axial Ratio | < 3 db | 2 dB | |
| ENVIRONMENTAL | | | |
| Oper. Temps | -22° F to +158° F, -30° C to 70° C | -13° F to +158° F, -25° C to +70° C | |
| Environmental Sealing | IP 65 Vented | IP67 | |
| Storage Temperature | -40° F to +158° F, -40° C to +70° C | -40° F to +158° F, -40°C to +70° C | |
| Vibration | EN 61373, IEEE 1478, Mil-810G | MIL-STD-810 | |
| Humidity | Not Spec'd | IEC-68-2-30 | |
| COMPLIANCE | | | |
| TAA Compliant | YES | | |

For more information about Motorola 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.motorolasolutions.com/antennas or access our global directory at www.motorolasolutions.com/contactus.

Repairs of Motorola RFID antennas for fixed readers may require the use of Motorola proprietary parts (and/or Motorola proprietary information). Motorola will sell these parts (and provide this proprietary information) only to end-user customers for self-service. Applicable in the U.S. For all other countries, please contact your Motorola account manager or the local Motorola Customer Service representative in your area for further details.

Part number SS-RFIDANTENNA Printed in USA 03/12. MOTOROLA, MOTO, MOTOROLA SOLUTIONS and the Stylized M Logo are trademarks or registered trademarks of Motorola Trademark Holdings, LLC and are used under license. All other trademarks are the property of their respective owners. © Motorola Solutions, Inc. 2012. All rights reserved. Specifications are subject to change without notice.



Legacy Technology Services

We Rent & Sell All Types Of Barcode Equipment

Call now to talk to an expert

866-271-9891

www.LegacyGlobal.com

Some brands we carry



MOTOROLA

Intermec

DATALOGIC™

Honeywell

EQUINOX
PAYMENTS



About us

- Legacy Technology Services is a leading nationwide provider of mobile computing, barcode, printers and point of sale equipment and services.
- For over a decade, thousands of clients across North America have trusted us to provide equipment from leading manufacturers backed by the services to support them.

Latest Hardware from top manufacturers

- Legacy handles virtually every major manufacturer of mobile computing, barcoding and point of sale equipment.

Expert Repair and Maintenance services

- Legacy is one of the best repair facilities in North America

Discontinued product sourcing

- They don't make it anymore? Our inventory also includes manufacturer close-outs and discontinued equipment to support our clients legacy infrastructure.

Trade-in and Disposal services

- That old equipment laying around your facility may still have some value. Legacy routinely purchases equipment from our clients around the globe.
 - Data destruction
 - Hardware disposal
 - Auditing services

Dedicated client account team

- Dedicated, highly trained account managers are here to answer all your questions and provide top notch service.

Equipment rental services

- Sometimes renting is a better solution, Legacy's huge rental inventory provides the equipment you need for temporary needs and projects.



Legacy, Inc.

160 West Road,
Ellington, CT 06029

Toll Free: 866-271-9891

Fax: 888-522-4684