

MOTOROLA RFID ANTENNA FAMILY



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	AN440	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 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

AN440: LARGE AREA COVERAGE FOR HIGH-CAPACITY, HIGH THROUGHPUT ENVIRONMENTS

Need to keep track of thousands of assets? High product density and heavy traffic across a large area? Get the capacity and range you demand for reliable RFID tag reading with the AN440 high-performance RFID area antenna. A good-looking, rugged general-purpose area antenna, the AN440 is designed to perform exceptionally in all environments, customer-facing or industrial, indoors and out.

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 white housing is at home in both customer-facing and industrial settings. So you can achieve superior read zones around stockroom shelves, warehouse doorways and dock platforms – anywhere boxes and pallets are moving into and out of your facility. Your workflow keeps flowing, your inventory count stays accurate and your productivity can reach new heights.



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• Rugged design suitable for industrial applications, IP-67 rated
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	AN440	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	22.6 in. L x 10.2 in. W x 1.32 in. D 575.1 mm L x 259.1 mm W x 33.52 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	22.6 in. L x 10.2 in. W x 1.32 in. D 575.1 mm L x 259.1 mm W x 33.52 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	Integrated mounting holes		
Weight	3 lbs./1.36 kg	7 lbs./3.2 Kg	2.5 lbs./1.13 kg
Casing	Aluminum with plastic cover	UV Stable ASA, White	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	20dB	18dB
Polarization	LHCP or RHCP	1 x LHCP / 1 x RHCP	LHCP or RHCP
3db Beam Width	60°	70° in both phases	65°
Max Power	20 watts	10 Watts	2 watts
Axial Ratio	< 3 db	1dB typical	1.5 dB
ENVIRONMENTAL			
Oper. Temps	-40° F to +149° F, -40° C to +65° C	-22°F to +158°F , -30°C to +70°C	-13° F to +158° F, -25° C to +70° C
Environmental Sealing	Weep holes	IP-67	IP-54
Storage Temperature	-40°F to +158° F, -40°C to +70° C	-40°F to +185°F, -40°C to +85°C	-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	MIL-Std 810G, METHOD 507.5, Procedure II - Aggravated	IEC 68-2-30
COMPLIANCE			
TAA Compliant	YES		NO
Port to Port Isolation	38dB		