

UHF PASSIVE RFID TAG SOLUTIONS

Rugged, industrial grade, optimized for metal, up to 9 meters range, no line-of-sight required, multi-read capable

ART Series RFID

ARTXXX-IC Series are passive UHF RFID tags are designed for use on multiple surface materials including metal. These tags are passive, have read ranges up to 9.0 meters and incorporate Alien H3 IC's with 96 bits of EPC and 512 bits of user memory. The tags operate at 915MHz and comply with the ISO 18000-6C/ EPC Class1 Gen2 protocol. Key attributes of ceramic tags are long read range, robustness, ability to operate over wide temperature ranges and their ability to be attached to metal objects unlike film tags. The ARTXXX-IC series tags are ideal for asset tracking applications in industrial, heavy machinery, cloud computing, and transportation segments. Abracon also offers antennas for customers that prefer to use their own RFID IC.

Part Number	Size L x W x H / Dia x H	Range UHF RFID For On Metal	Comments
ART915X252503MA-IC	25 x 25 x 3.0mm	9M	Longest range of series
ART915X250903AM-IC	23 x 9.0 x 3.0mm	6.5M	Excellent range
ART915X3030YZ30-IC	30 x 30 x 3.0mm	4.0M	Very good range
ART915X100503JA-IC	10 x 5.0 x 3.0mm	3.6M	Compact, good range
ART915X25275YZ25-IC	25 x 25 x 2.75mm	2.5M	Good value
ART915X050503OP-IC	5.0 x 5.0 x 3.0mm	2M	Very small, Excellent range for size
ART915X2509EP60-IC	25 x 9 x 3.0mm	1.8M	Good value
ART915X100202TO-IC	10 x 2.5 x 2.5mm	1.6M	Compact, low profile
ART915X2117225TX21-IC	20.4 x 17 x 2.25mm	1.2M	Good value
ART915X1620TX16-IC	Ø16.0 x 2.0mm	1.2M	Good value, Compact and low profile
ART915X130930TX13-IC	13 x 9 x 3.0mm	0.8M	Good value, Compact
ART923X1015YZ10-IC	Ø10.0 x 1.5mm	0.45M	Short range, lowest profile

* Alien H3 IC's with memory (96 bits of EPC & 512 bits of user memory).
** Tags sorted for Read Range

Applications for Ultra High Frequency RFID

Additional Applications: Transportation, trains, airplanes, Access control—parking garages, tolls, Harsh environments, and more.



Asset tracking of metal objects: containers, tools equipment, machinery



Livestock and agriculture tracking



IoT and data center management



Industrial Machinery



Transportation Tracking



Access control: entrance and exit

RFID Ready.

What is RFID.

Radio-Frequency Identification (RFID) use radio waves to read and capture information stored electronically on a tag attached to an object. Tags vary in read range, data rates and form factors.

Passive vs. Active Tags.

Passive tags get all of their power from the reading device while active tags require a battery or power source.

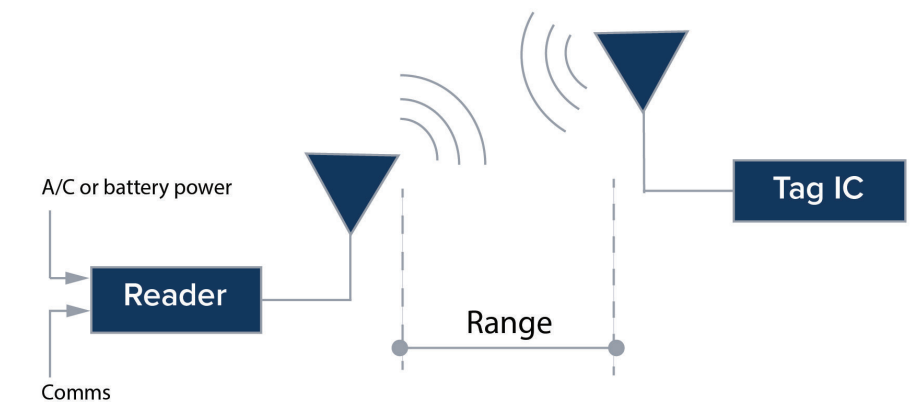
Ultra High Frequency RFID.

UHF RFID tags have faster data rates and longer read ranges making them ideal for robust, high volume tracking. Although sensitive to detuning from things like metals or water, Abracon offers UHF RFID tags **optimized for metal and liquids**.

RFID Ready.

Applications for UHF Passive RFID tags continue to expand across all major industries including: healthcare, airports, education, facilities management, manufacturing and distribution, law enforcement and defense. Supply chain management strategies immediately benefit from RFID technologies with advanced performance in applications like: industrial asset management, transportation, heavy machinery, oil and gas, automotive manufacturing, IoT, servers/cloud, real time location services (RTLS) —tracking anything big, expensive and made of metal. Embedding RFID technology into your design adds value. RFID enables you and your customers to track your product throughout the manufacturing, distribution, and installation chain. Is your product RFID ready?

RFID Technology



Parameter	Technology			
	LF Passive <135 kHz	HF Passive 13.56 MHz	UHF Passive 868 – 950 MHz	UHF Active 433 – 5.8 Ghz
Read distance high	low - medium	high	highest	highest
Data rate	4 kbps to 8 kbps	6.7 kbps to 848 kbps depending on protocol	Freq/1, LF/2, LF/4, LF/8*	Freq/1, LF/2, LF/4, LF/8*
Multi tag reading	10s	100s	1000s	1000s
Form factor flexibility	high	high	medium	low
Applications	Livestock and Pets Access Control Vehicle Immobilizers Waste Management	Public Transport Smart Tickets Books Medical Assets/Tools Passports NFC Applications	Retail Logistics Asset and Inventory Management Medical and Healthcare Waste Management	Asset and Inventory Management Toll Collection Logistics, Container Tracking Fleet management