

These passive ultra thin RFID tags offer robust performance at an attractive price point and provide users with a diverse selection of options.

The passive UHF Gen 2 RFID tag series are specially designed for mount-on-metal and high-temperature environment applications. They offer precise real-time data collection for identification, tracking, and localization of various assets. Their intelligent use of Ultra High Frequency (UHF) technology enables a long communication range from either a handheld or fixed RFID reader. High volume of RFID tags can be recognized simultaneously due to their highly advanced anti-collision multi-tag-handling algorithm. These sturdy ultra thin tags offer robust performance at an attractive price point and provide users with a diverse selection of options depending on intended use. Laser printed 1D and 2D barcodes and other text are optionally available for the tags.



Passive On Metal, Temperature Resistant UHF Gen 2 RFID Tag Series List

Code	Protocol	Coverage	W*H*T (mm)	Read (up to meters)				Operating Temp (°C)
				Fixed Reader		Handheld Reader		
				Metal	Non-metal	Metal	Non-metal	
116431-1 (Magnetic)	UHF Gen 2	US/EU	92*16*5.2	4.5	n/a	2.5	n/a	-40 to 85
116431-2	UHF Gen 2	US/EU	92*16*3.1	4.0	1.5	2.5	0.8	-45 to 85
116431-3	UHF Gen 2	US/EU	148*18*4.1	12.0	12.0	7.0	7.0	-40 to 85
116431-4	UHF Gen 2	US/EU	148*18*3.1	7.0	8.0	4.0	4.5	-40 to 85
116431-5	UHF Gen 2	US/EU	75*16*2.1	2.5	2.0	1.3	1.0	-40 to 85
116431-6 (Magnetic)	UHF Gen 2	US/EU	75*16*6.3	4.5	n/a	2.5	n/a	-40 to 85
116431-7	UHF Gen 2	US/EU	75*16*3.1	3.5	2.5	2.0	1.5	-40 to 85
116431-8 (Magnetic)	UHF Gen 2	US/EU	148*18*7.1	7.0	n/a	4.0	n/a	-40 to 80

Technical Specifications

Basic information

Silicon chip	Alien Higgs3
Chip memory	EPC 96 bits (Extensible to 512 bits) User 512 bits TID 64 bits CRC 32 bits
Material	Glass fiber - PCB FR4
Antenna	Gold plated etched copper
RoHS	100% compliant
Warranty	18 months
Applied fields	IT& electronics, Chemical and medical assets, Tools, Various assets, W.I.P. in various industries, Returnable metal pallets and boxes, Automotive, Aerospace, Shipbuilding etc.
Applied countries	US, Canada, Germany, France, Japan, Korea,, Italy, Turkey, Indonesia, etc.

Resistance

IP Classification	IP68 (tested for 24hrs in 1meter depth)
Humidity	85°C/85%RH (tested for 168hrs)
Pressure	Tested with 50 trials x 1 kilogram iron ball free falling on tag
Vibration	IEC60068-2-6/64
Chemicals	Salt water (salinity 10%, 24hrs) NaOH (10%, pH13, 24hrs) Sulfuric acid (10%, pH2, 24hrs) Motor oil (24hrs) Methanol (24hrs) Ethanol (24hrs) etc.

Attaching method (Please note that magnet cannot attach on aluminum and stainless steel.)

Backing adhesive tape	3M 468MP For >150°C application, other adhesive tape will be suggested.
Glue	Cemedine Super X (Japan) or Loctite’s epoxy glue
Metal fastener	Metal or non metal bolt or screw with size M3
Metal bracket	Stainless steel bracket (for welding) or aluminum

Added service

Chip pre-programming	Code Decimal, Hex, ASCII
Customized labeling	Human readable text& variable code, barcode (1D& 2D), Multi color
Laser marking	Human readable text& variable code, barcode (1D& 2D)
Direct printing	Human readable fixed text& code, Multi color
Sample& order	
Sample	3 pcs sent within 24 hours for free with collectible freight
Ordering information	Please specify which version (US or EUR) and which attaching methods and added services you want.
Order fulfillment	Order will be fulfilled within periods as below, as per quantity. <1,000pcs Usually 3 days >1,000pcs Usually 2 weeks > 10,000pcs Usually 4 weeks
Payment	In principle, NET30days by bank wire transfer, PAYPAL or MONEYBOOKER.

GAO Group

GAORFID.com
GAOTek.com
GAOResearch.com

Toll Free (USA & Canada)

1-877-585-9555

All Other Areas

416-292-0038

Dial Ext.601 for Sales
Ext.602 for Other Inquiries

sales@GAORFID.com