

# AR300U

## UHF Long Range Wiegand Reader



Date: 20 Apr 2017



### Introduction:

AR300U is an ultra high frequency (UHF) long range wiegand reader that can read up to 10 meter depending on solar film installed on vehicle, interference at site and correct card reading angle.

AR300U complete with mounting bracket. Housing made of PET material which is weatherproof against sunshine and rain.

AR300U is an affordable reader designed for mid range parking access control system.

### Features highlight:

- **Less Maintenance** : UHF card is a passive card (without battery)
- **Triggered reading**: Reader will only read card if the trigger signal is enabled. It is recommended to install a loop detector to enable the reader only when there is a vehicle to avoid accidentally reading unwanted cards nearby.
- **Delay Function**: While reader is triggered, there is a preset delay of 5 sec for reading each subsequent card to avoid anti-passback error of next approaching car. Delay count will be cancelled when trigger signal is disabled.  
Eg: After the first car travelled away from loop detector, trigger signal is disabled and the 5 sec delay is cancelled. When the next car traveled into the loop detector, reader is enabled and will read the next card immediately.
- **Comply to Malaysia regulation**: Malaysia Sirim have certified AR300U to comply frequency range requirement by MCMC. Certificate is available upon request.
- **More user friendly**: LED light at bottom of reader. Red light to indicate no card presence. Blue to indicate successfully read card.

### Parameter options programmable from software:

- 1) WG 26 / WG34 selection (default is WG34)
- 2) Delay time (default is 5sec)
- 3) Trigger or Continuous reading mode (default is trigger mode)
- 4) Reading range (default is 100%)

## Specification:

Description	UHF reader
Dimension	215 x 225 x 52mm
Frequency	919 - 923 Mhz to comply Malaysia SIRIM MCMC regulation
Data output	Wiegand 26 / 34
Reading range	Up to 10 meters off air. 2 to 6 meter depending on type of solar film.
Input	DC12V, idle : 100mA, Active reading : 500mA
Power consumption	2W
Output power	30dbi
Protection	IP66, waterproof and weather proof for outdoor installation
Working temperature	-20 +70°C
Storage temperature	-40 +85°C
Humidity	0% 95% ( non-condensing)
Standards	ISO 1800-63
Net weight	0.8kg

## Recommended application:

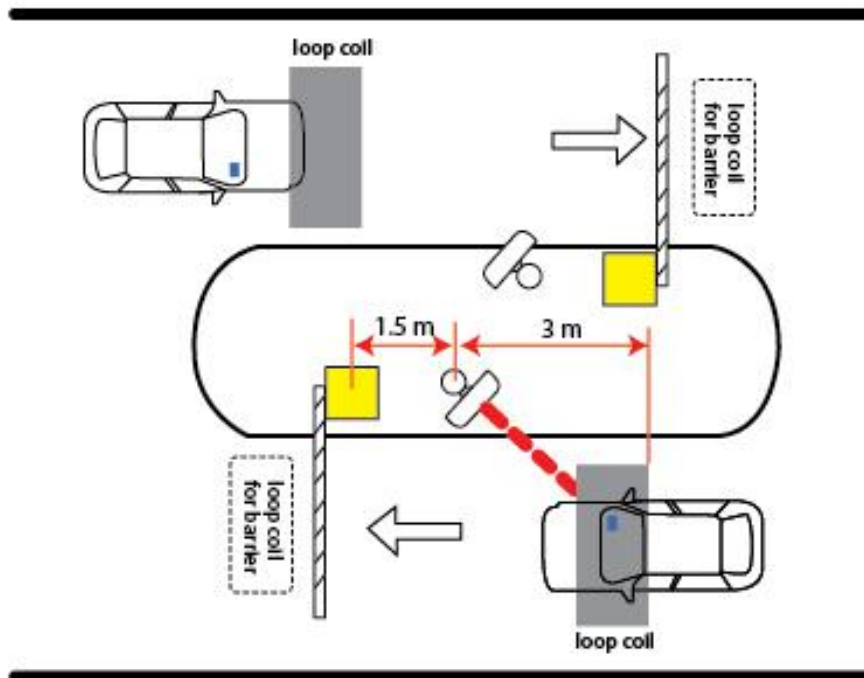


### PERFORMANCE CONSTRAINTS:



Reading range will decrease if there is metal tinted solar film such as Air-cool and etc. UHF can **NOT** pass through solar film with heavy metal oxide such as VKOOL. If heavy metal oxide total block UHF signal, might require user to wind down windows for about 20cm to allow UHF signal penetration into car and read card.

For best reading result, recommended to cut a rectangular slot on the film to allow UHF signal to pass through.



**Distance between windscreen and card:**



Best distance between car windscreen and card minimum 10mm clearance. Card should not attach directly to the windscreen surface.

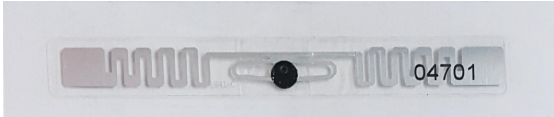
**UHF Card Specification:**



UHF card is made of PEC material that can withstand heat at vehicle windshield.

RF Characteristics	UHF band Passive; RF Backscatter
Read Distance	Up to 1000cm in free air (Depend on operating environment and windshield solar film)
Memory	64 bits Read only (38 bits Unique ID, 16bits CRC)
Multiple Read Capability	50 tags per second ( ID Read)
Multiple-Read	Yes, Binary-tree
Physical Characteristics	Length : 85 mm Width : 53 mm Thickness : 1 mm
Operating Temperature	Typically -20°C to 65°C
Life	10 years

## UHF Sticker Specification:

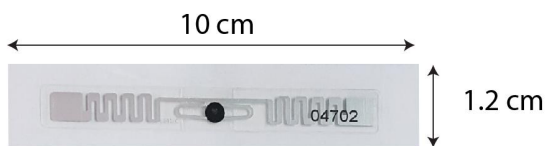


CDUT130L UHF sticker can place at car number plate or side mirror. The frequency range is 902 - 928MHz.

## Technical specification:

Operating Distance	Typically ~ 10m on air (Antenna Dependent)
Frequency	902-928 MHz
Memory	UHF 240 bits EPC memory
Write Endurance Cycle	100,000
Data Retention	Typical 10 years
Write Protection	Blockwise
Characteristics	Wet Inlay, Label Multi read capability: Yes Water resistance: Yes
Operating Temperature	- 20°C to 80°C
Static Pressure	10 N/mm <sup>2</sup>
RF Air Protocol	ISO /IEC 18000

## Sticker Dimension

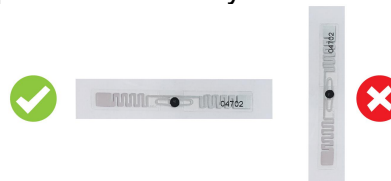


The sticker can be place at side mirror. Please clean the surface before place the sticker.



## Correct way to place sticker

For the best reading range, the sticker must place horizontally.



The sticker can be place in front on the number plate. Please clean the surface before place the sticker.



**\*\* Please DO NOT place the sticker on metal surface / windscreen or near any metallic object. Metal will severely inhibit reading range.**

## Ordering Information:

- AR300U reader complete with mounting bracket
- CDU130L UHF card
- CDUS130L UHF card (anti interference)
- CDUE130L Dual frequency UHF and EM 125 Khz card
- CDUM130L Dual frequency UHF and Mifare 13.56 Mhz card
- CDUT130L Anti Tear UHF Sticker

## Authorized Dealer:



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