Specification sheet

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	
Others communication	RS232 serial port	
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:

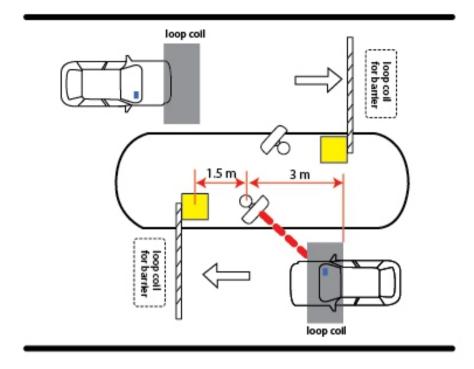


PERFORMANCE CONSTRAINTS:



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	UHF band	
Characteristics	Passive; RF Backscatter	
Read Distance	Up to 1000cm in free air (Depend on	
	operating environment and windshield	
	solar film)	
Momony	64 bits Read only (38 bits Unique ID,	
Memory	16bits CRC)	
Multiple Read	50 tags per second (ID Read)	
Capability	30 tags per second (10 Read)	
Multiple-Read	Yes, Binary-tree	
Physical	Length : 85 mm	
Characteristics	Width: 53 mm	
Characteristics	Thickness: 1 mm	
Operating	Typically -20°C to 65°C	
Temperature	Typically -20 O to 00 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/mm²
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:

ANH PHUONG TECHNOLOGY DEVELOPMENT CO., LTD

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