

# Tender Specifications

(Radio Frequency ID) Access Control Equipment for Vehicle Parking System

## Equipment Performance Specifications

The equipment shall consist of long range reader that can be installed into a car parking control system to provide vehicles totally hands free access to a car parking facility. The readers shall use Radio Frequency Identification technology and communicate with transponder that can be fixed to vehicles. Reader shall be able to detect transponder within 50-200 ms depending on speed and distance. Communications between reader and transponder shall be secure. All entry / exit information must be able to be transmitted to a controller unit to record the time of entry and exit.

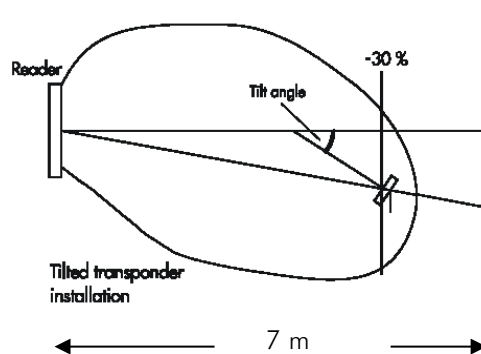
### Long Range RFID Reader

1. The reader shall be of Radio Frequency Identification technology.
2. The dimension of the reader unit shall not exceed 200 x 175 x 60 mm and the housing shall be of ABS/ PC/ Aluminium/ Powder Coated.
3. The protection type shall be of minimum IP65 classification, suitable for operation in subtropical climate conditions and operate within the temperature range of -20 to +60°C.
4. The power supply must be 12V/DC and the power consumption must not exceed 1 A , 0.5W.
5. \*The operation frequency shall be of **868 MHz – 925 MHz** that eliminates interferences from vehicle loops, motors, transformers, monitors etc...
6. \*The reader unit must include a built-in antenna that eliminates additional labour cost to build remote antenna.
7. \*The reading distance shall be up to **7 meters**.
8. \*The reader and transponder must be **IMDA** (formerly known as **TAS**) type approved
9. The reader must be **CE** approved.
10. \*The reader shall support Wiegand, RS485, RS232, Data Clock interface output to the control unit.
11. \*The reader can be fixed in such a way to allow the reading of transponders from overhead or along-side of the moving vehicle.
12. \*The reader must have 3 LED lights to facilitate maintenance and management.

## Transponders (Tags)

### General description and specifications:

13. The dimensions of the transponders shall be passive type and dimension not exceeding 85 x 54 x 0.8 mm and the housing shall be of PVC material or in form of sticker label 85 x 54 x 0.1 mm. or 158 x 22 x 18mm for metal surface mounting.
14. The protection type shall be of IP54 classification, suitable for operation in subtropical climate conditions and operate within the temperature range of +5 to +60°C.
15. \*The optimal reading distance of up to 3.5 meters should be attained assuming the transponder is tilted at an angle of 45° from the reader.



16. \*The transponders shall be equipped with Read Only from any format up to **64 bit One Time Programming** of facility and user ID code in the transponder.
17. \*Optional **Dual Technology transponder** feature shall also be available in order to satisfy "**one-card**" solution not only to read on Long range Active reader but also to read on short range passive reader working on a frequency of 125 KHz or 13.56 MHz such as **mifare ISO 14443A, LEGIC**, (e.g. lobby or lift access).
18. The cardholder shall be made of Acrylic material that comes with a suction cup or self-adhesive to attach to the windshield of the automobile alternative option is for sticker label to be pasted onto the windscreen behind the rear view mirror.

### \* Unique features

**Note: The reading distance will affect Vehicles fitted with sunscreen material.**

**Compliance list**

All vendors are required to provide compliance information on the column provided.

Terms of Reference		Compliance	
		Yes	No
	<b>Long Range RFID Reader</b>		
	1.		
	2.		
	3.		
	4.		
	5. Critical Compliance		
	6.		
	7. Critical Compliance		
	8. Critical Compliance		
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	17. Critical Compliance		
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	19. Critical Compliance		