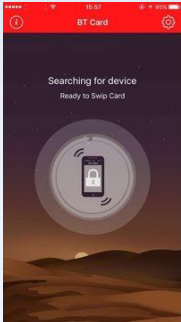


# ENIGMA

## Bluetooth Multi-technologies Reader



Smart Phone App – BT Card



Number pad



Standard Mini

### Design Background

- Phone App has two versions:
  - ❖ iOS® version - Install in Apple phone, which shall require iPhone 5s model or up
  - ❖ Android™ version - Install in any Android™ phone, which shall require version 4.4.4 or above
- ❖ The phone App needs to be initialized before it works with the BT Reader
- ❖ The communication between the reader and Apps is authenticated and encrypted with AES128 to ensure the communication is highly secured!

### Terminologies

- Show-to-Go: Show the Smartphone in front of the reader as showing a card.
- Shake-to-Go: Shake the Smartphone from horizontal to vertical or vice versa (NOT turn the phone!)

### Reader & Phone Apps Functions

- Reader supports both Bluetooth and Mifare technologies.
- Reader supports "Show-to-Go" in any configured reading mode.
- Reader also supports "Shake-to-Go" and "Handsfree" reading mode.
- Reader can set to 3 different reading distance modes:
  - ❖ Standard mode: 0.5 to 1m
  - ❖ Mid-Range mode: 3 to 5m
  - ❖ Long-Range mode: 5 to 10m
- Directional antenna is used to maximize the read range in front of the reader but minimize the read range at the back of the reader.
- Supports Reader Configuration Card to re-configure the read range and/or Mifare reading at site.
- Use Customer Code and End User Code with AES128 to encrypt the card data being stored inside the Apps and decrypt by the reader so that other duplicated card number from other site could not be read.
- The phone Apps requires to initialize before it can be used on the reader, which allows the customer to have full control of the data inside the phone.
- The Apps allow the user to tune the reading distance and the sensitivity of the "Shake" with password protection.
- The Apps support Manual Activation Button when the app is running on screen.
- The Apps show the strength of the Bluetooth signal being detected.
- The Apps support to run at the background mode of the phone.

Functions	Standard & Mini Reader	Keypad Reader
Reader Specifications		
Re-configure Window	5 seconds (Default) or Half an hour after Power up	
Reading Technologies	Bluetooth & Mifare	
Reader Output Format	Programmed Card number inside App or CSN/UID 32bits, 34bits, 56bits (backward/forward) or programmed ID in the Mifare card	
Antenna	Directional	
Keypad Output	N/A	Definable
Buzzer Control	Reader & Controller control (Default) or Controller control only	
Read Range	Bluetooth is configurable to 1m, 5m or more; Mifare is around 5 cm	
Wiring Distance	150m (22 AWG with shielded cable)	
Apps Specifications		
Operating System	Both iOS & Android	
Data Encryption	Customer Code + End User Code + AES128	
Show-to-Go	Read distance is adjustable	
Shake-to-Go	Phone vibrate when motion is success	
Shake Sensitivity	Adjustable	
Operating Specification		
Operating Voltage	10 - 15VDC	
Operating Current	150mA (max)	
Operating Temperature	-30°C-70°C	
Exterior dimension (Mini)	115.5*84.5*20.5mm (84.05*54.05*16.5mm)	
Case material	PC+ABS	
Operating Humidity	10% - 90%	
Weight (Mini)	210g (160g)	



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