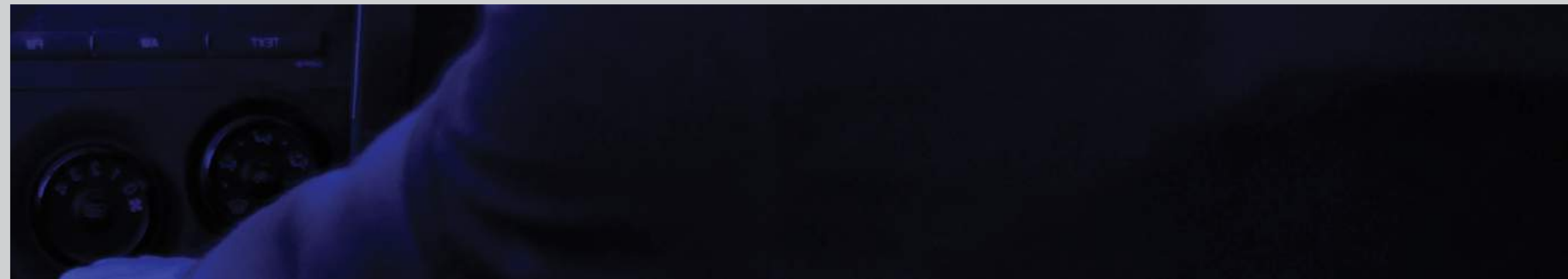




INNOVATIVE



TECHNOLOGY



RFID LONG RANGE READER

Vehicle Auto-gate Security System

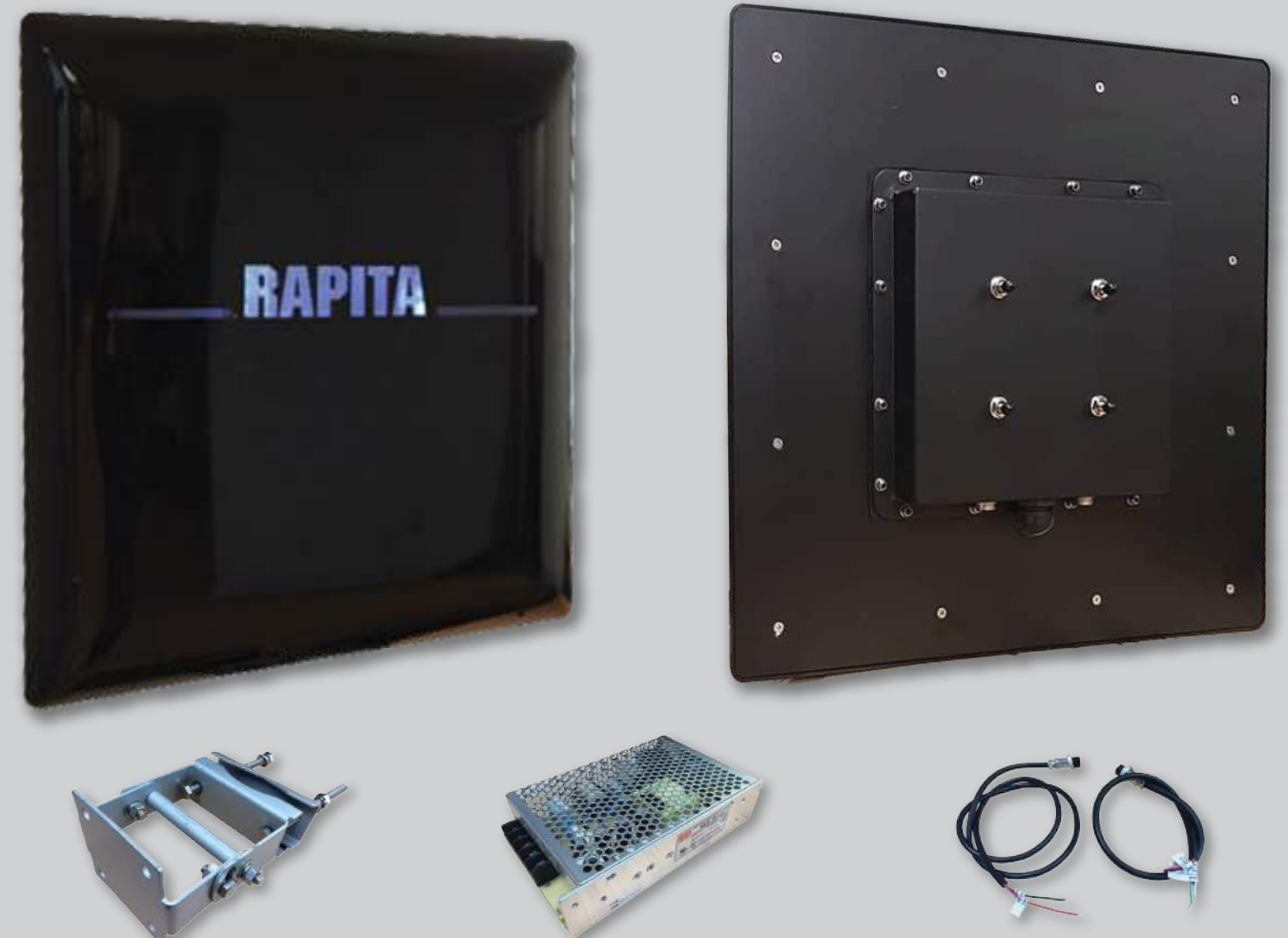
MI-1806E

RFID LONG RANGE READER



MI-1808C

RFID LONG RANGE READER



Mi-1806E is a smart passive reader designed with full intellectual property rights. Based on an efficient digital signal processing algorithm, it supports fast read/write operations with a high identification rate. Widely applied in RFID systems, it can be used in areas such as Logistics, Access Control, Anti-counterfeit and Control Systems in Industrial Production Processes.

Specifications

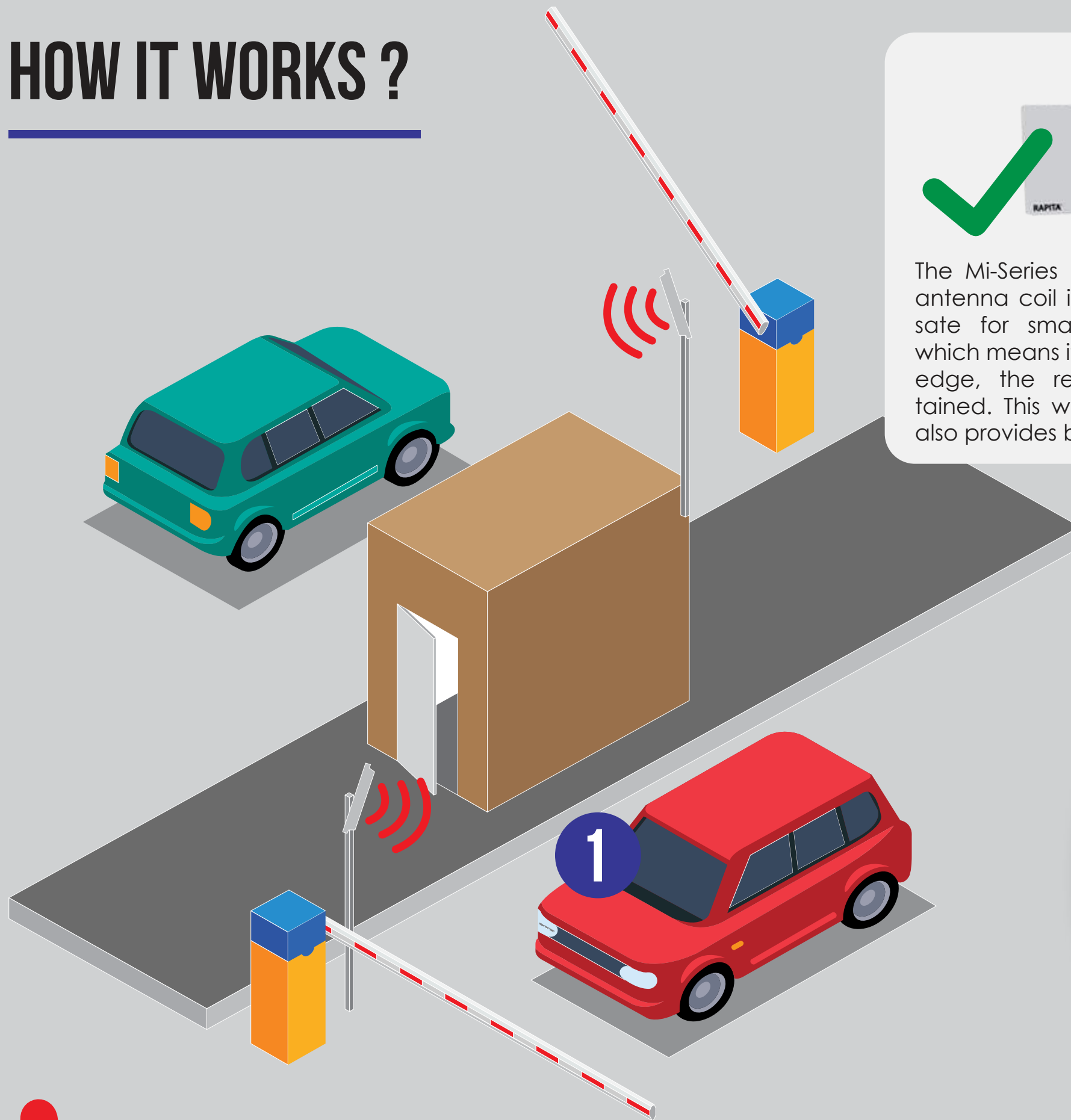
| | |
|-----------------------|---|
| Product Code | Mi-1806E. |
| RF Characteristics | 902MHz~928MHz or 865MHz~868MHz or customize others frequency according to your needs. |
| RF Power Output | 0-30 dBm. |
| Power Supply | Input: 100 - 240V, 1.6A Output: 12V, 5A. |
| Operating Temperature | -20°C ~ +80°C. |
| Indicator | Buzzer & LED light. |
| Casing | IP65 (White color) |
| Dimension | 280mm x 280mm x 60mm. |
| Tag Read Rate | |
| Weight | 1.4kg. |
| Reading Range | Up to 10 meters off air. 3 to 6 meters depending on type of solar film. |
| Interface | RS-232C Serial Interface/ RS 485, Wiegand 26/ 34. |

Mi-1808C is a passive reader designed with full intellectual property rights. Based on an efficient digital signal processing algorithm, it supports quick read/write operations with a high identification rate and is widely applied in RFID systems in areas such as Logistics, Access Control, Anti-counterfeit and Control Systems in Industrial Production Processes.

Specifications

| | |
|-----------------------|---|
| Product Code | Mi-1808C. |
| RF Characteristics | 902MHz ~ 928MHz (FCC) or 919 ~ 923 MHz (MAS). |
| RF Power Output | 0-30 dBm. |
| Power Supply | Input: 100 - 240V, 0.5A Output: 12V, 6.2A. |
| Operating Temperature | -20°C ~ +80°C. |
| Indicator | LED ON: Card reading. LED OFF: No card detected. |
| Casing | IP65 (Black color) |
| Dimension | 440mm x 440mm x 50mm. |
| Tag Read Rate | Software programmable, average reading per 64Bits: <10ms. |
| Weight | 2kg. |
| Reading Range | Up to 10 meters off air. 3 to 6 meters depending on type of solar film. |
| Interface | RS-232C Serial Interface/ RS 485, Wiegand 26/ 34. |

HOW IT WORKS ?



The Mi-Series RFID Long Range Card antenna coil is designed to compensate for small inductance change which means if you hold the card at its edge, the reading range is maintained. This way of holding the card also provides better performance.



Most standard UHF cards require you to hold it at the edge as the fingers covering a small portion of the card's surface will cause the reading range to drop drastically.

1

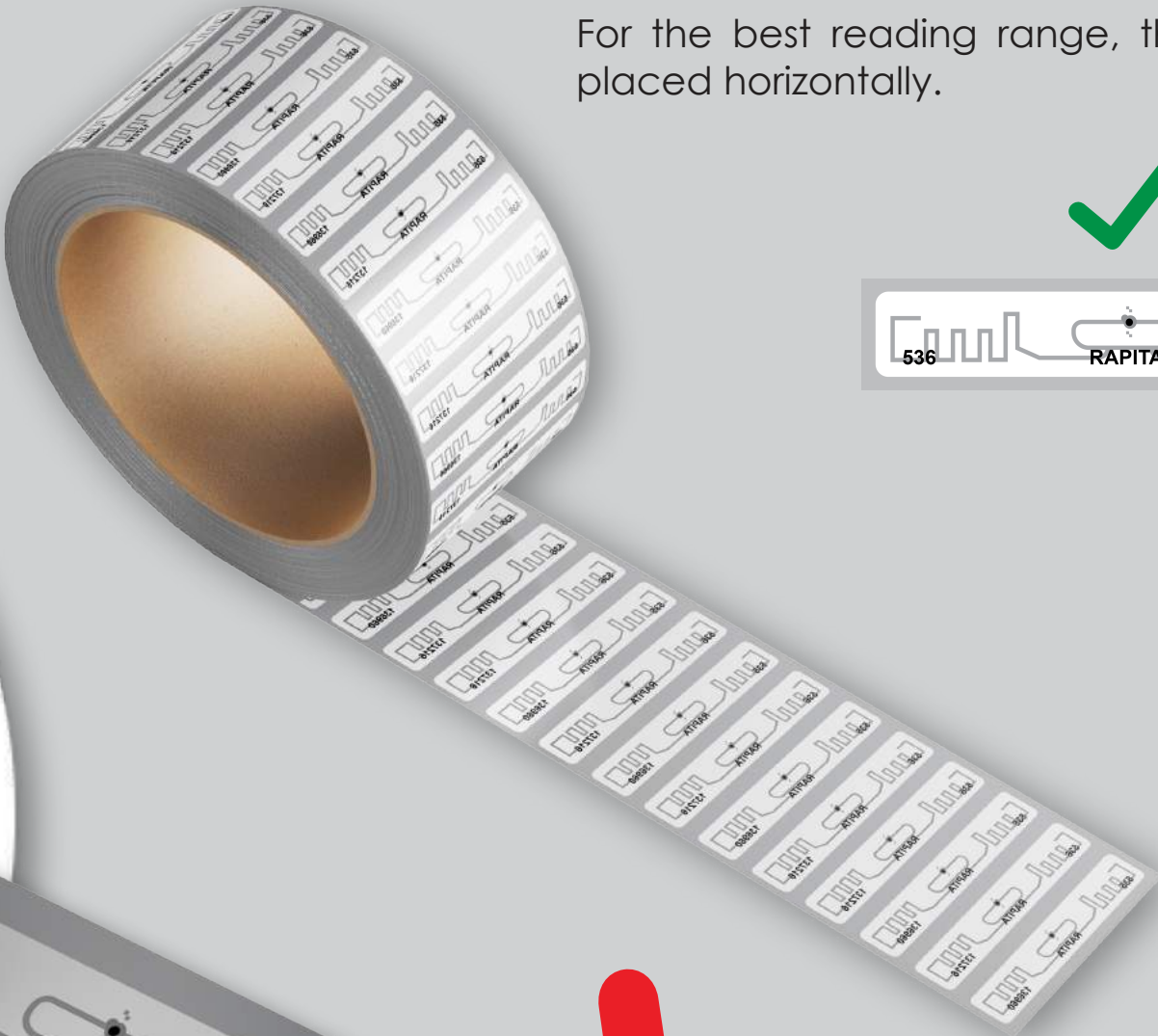
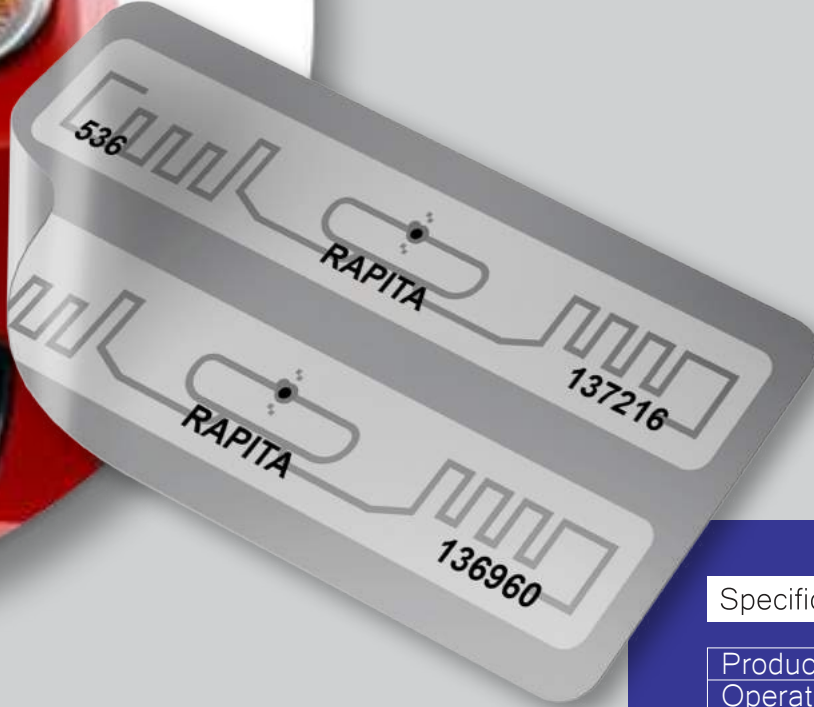


PERFORMANCE

CONSTRAINTS :

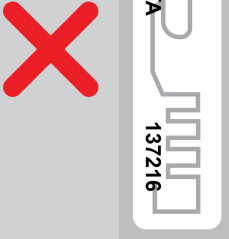
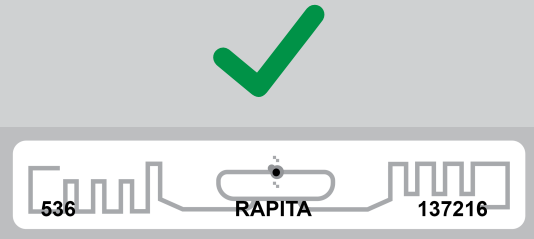
Reading range will decrease if heavy metal oxide **TOTALLY BLOCKS** UHF signal, the user might be required to wind down windows for about 20cm to allow the UHF signal to penetrate and read the car. **For best results, it is recommended for users to cut a rectangular slot on the film to allow UHF signal to pass through.**

MI-ESC RFID LONG RANGE STICKER

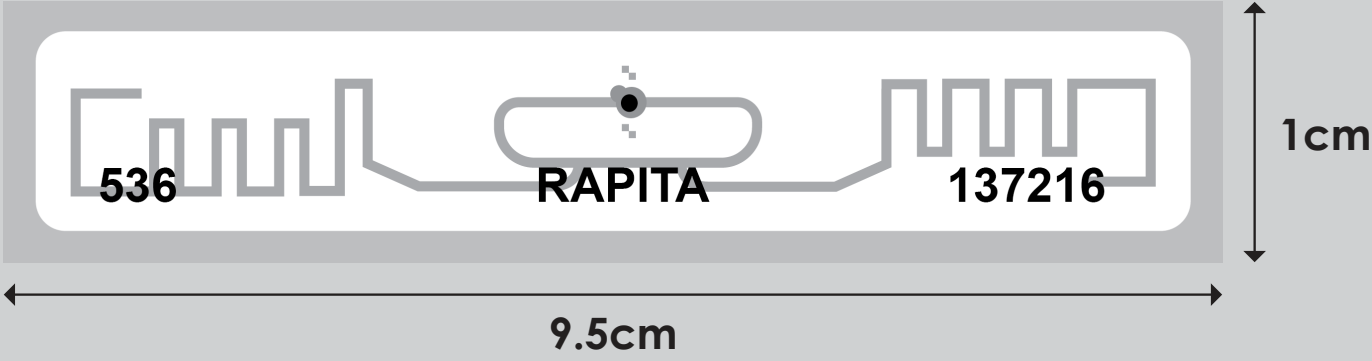


CORRECT WAY TO PLACE STICKER

For the best reading range, the sticker must be placed horizontally.



**** Please DO NOT place the sticker on a metal surface/ windscreen or nearby any metallic objects as metal severely inhibits the reading range.**



Specifications

| | |
|--------------------------|---|
| Product Code | Mi-ESC Long Range Sticker |
| Operating Distance | Typically ~ 10m on air. (Antenna dependent) |
| Frequency | 902 - 928MHz. |
| Memory | Long Range Series :- Mi-ESC : (UHF 2040 bits EPC memory) + (Anti-Spoofing Encryption) |
| Write Endurance Cycle | 100,000 cycles. |
| Data Retention | Typically 10 years. |
| Write Protection | Blockwise. |
| Physical Characteristics | Wet inlay, label Multi-read capability : Yes Water Resistance : Yes |
| Operating Temperature | -20°C to 80°C |
| Static Pressure | 10 N/mm |
| RF Air Protocol | ISO/ IEC 18000 |

MIA-610SP SMART ACTIVE READER

MIA-210SP SMART ACTIVE TAG



Specifications

| | |
|----------------------------------|---|
| Product Code | MiA-610SP |
| Communication Interface | RS485, VG26, VG34 |
| Reading Frequency | 433MHz |
| Reading Area | 60' conically |
| Barrier Control | Relay has direct control of barrier |
| Reading Distance | 5.0 inches / 1280'720/ IPS/ 180' |
| Reader Dimension | 250 mm x 198mm x 60mm |
| Working Temperature/ Humidity | -30° to 80°/ 10% to 90% |
| Pole Specification | 60mm x 1500mm (Telescopic pole optional) |
| Appearance Process | The reader's casing uses engineering plastic which is resistant to water and high temperature |

Specifications

| | |
|--------------------|---|
| Product Code | MiA-210SP |
| Operating Distance | Up to 30m |
| Reading Frequency | 433MHz |
| Sending Frequency | 38kHz |
| Size | 60.0 ± 1.0 (Width, mm), 42.0 ± 1.0 (Length, mm), 7.0 ± 1.0 (Thickness, mm) |
| Standby Current | Less than 8µA |
| Battery Standard | 2 x CR2032/ 3V button cell batteries |

INTERFACE WIRE COLOR

(Can be found at the back of the reader)

| Interface | Power | | RS232 (DB 9) | | | RS485 | | Trigger | | Wiegand | | |
|------------|-------|-----|--------------|-------|-------|-------|--------|---------|-------|---------|--------|-------|
| Wire Color | 1 | 2 | Pin 3 | Pin 2 | Pin 5 | Brown | Yellow | Red | Black | Blue | White | Green |
| Definition | +12V | GND | TX | RX | GND | A+ | B+ | Trigger | GND | DATA 0 | DATA 1 | GND |

Note:

1. The Red and Black wires are 'Trigger' wires, so please be cautious and do not connect them to DC or AC Power as it will cause a short circuit.
2. DO NOT connect the interface signal wire to the Power Supply wire!

Technical Guidelines:

1. The reading distance between reader and tag in ideal conditions is 4-5 meters.
2. Reading distance depends on surroundings. E.g: frequency interference, humidity, etc.
3. Reading distance will be reduced or undetected for vehicles with tinted windscreens which contain heavy metal elements due to the nature of RF Signal as metal elements will affect the permeability of the radio signal.

Recommendation of tint film specification as below:

- Visible Light Transmission : >70%
- Ultra Violet Radiation Rejection : 99%
- Shading Coefficient : >0.60
- Coolness Factor : >1.2

REMARK: The information above is solely for reference as the actual results are subject to other technical factors and environment interference.

JPJ Compliant: Rule 5 (1) and Rule 5 (3) of the Amendment of the Motor Vehicle Rules (Prohibition on Specific Types of Glass) sets the translucence level of the windshield at no less than 70% and the rear and side windows at no less than 50%.

4. Distance between 2 readers should be at least 2 meters away from each other to avoid interference.
5. For Wiegand wiring, Alarm cables or other higher grade cables are recommended for use.
6. Wiegand wiring recommends a distance of less than 10 meters between the reader and controller. Long wires will cause data signal loss.
7. Industrial power supply will be provided with each reader. Sharing the power supply with other equipment is highly discouraged. This is because at least 3 Ampere of power supply is required for the reader to operate manually.
8. Power supply wiring between the power supply and reader is recommended to be less than 10 meters as DC Voltage will decrease if the power cable is too long and the reader will keep beeping if voltage supply is less than 9V.
9. RFID card should be at least 10cm away from metal or liquid objects.
10. When scanning is in progress, please ensure no objects are in between the reader and card.



THE LEADING IOT ENABLER IN
MALAYSIA & ASIA PACIFIC

19-04A, The Pinnacle,
Persiaran Lagoon, Bandar Sunway,
46150 Petaling Jaya, Malaysia

www.mmdt.cc
contact@mmdt.cc
Tel: +60(3) 7610 2988 Fax: +60(3) 7610 2999