



## EM Microelectronic® EM4205/4305 RFID Card

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|---------------|--------------------------------------------------------------|
| SKU:          | RS-LFEM-CR80                                                 |
| Chip Type:    | EM Microelectronic® EM4205/4305                              |
| Frequency:    | LF 125 KHz                                                   |
| Protocol:     | ISO/IEC 11784, ISO/IEC 11785                                 |
| EEPROM:       | 512 bits                                                     |
| UID Memory:   | 32 bits                                                      |
| Industry:     | Access Control, Events, Transportation                       |
| Applications: | Ticketing, Access Control, Identification, Attendance System |

Sized to CR80 standards, The EM Microelectronic® EM4205/4305 CR80 RFID Card supports blank or custom printing and is powered by the EM4205/4305 CMOS IC, featuring 512 bits of EEPROM and a 32-bit factory-programmed UID. The EM4305 variant adds enlarged bump pads for direct antenna connection and a 330-pF resonant capacitor for improved performance.

The card draws power from a magnetic field and uses amplitude modulation to read, write, and transmit data efficiently, supporting bi-phase and Manchester encoding. With configurable memory protection and durable construction, the EM4205/4305 CR80 card delivers reliable, secure performance for membership programs, access control, and tracking systems.

|                      |                                             |                                                                                                                              |
|----------------------|---------------------------------------------|------------------------------------------------------------------------------------------------------------------------------|
| Physical Information | Material                                    | Black Core PVC, White Core PVC, White Core PET (WEEE Directive✓), White Core ABS (WEEE Directive✓), Wooden (WEEE Directive✓) |
|                      | Card Size                                   | 86×54×0.88 mm (3.4"×2.2")                                                                                                    |
|                      | Operating Environment                       | -20°C~+50°C, 20%~80% RH                                                                                                      |
|                      | Storage Environment                         | +18°C~+28°C, 20%~90% RH                                                                                                      |
|                      | Surface Treatment                           | Glossy, Matte or Frosted                                                                                                     |
|                      | Personalized Printing (NA For Wooden Cards) | Thermal Transfer/Dye Sublimation                                                                                             |
|                      | Customization Options (NA For Wooden Cards) | Pre-Printing, Barcode Printing, Embossing, Holograms, Signature Panels, UV Printing, Hot Stamping, Punch Holes               |
|                      | Care Tips                                   | 1. Avoid excessive bending<br>2. Keep away from water<br>3. Store in cool and dry place                                      |
| Cleaning Tips        |                                             | 1. Use a soft, dry cloth<br>2. Avoid harsh chemicals or abrasive cleaners<br>3. Remove stains immediately                    |

|                       |                        |                                 |
|-----------------------|------------------------|---------------------------------|
| Technical Information | Operating Frequency    | LF 125 KHz                      |
|                       | Communication Protocol | ISO/IEC 11784, ISO/IEC 11785    |
|                       | Chip Type              | EM Microelectronic® EM4205/4305 |
|                       | EEPROM                 | 512 bits                        |
|                       | UID Memory             | 32 bits                         |
|                       | Data Retention         | 10 years                        |
|                       | Write Endurance        | 1,000 times                     |
|                       | R/W Availability       | Read/Write                      |
| Security Feature      |                        | 32 bit Password                 |

|                       |                  |                                                                             |
|-----------------------|------------------|-----------------------------------------------------------------------------|
| Packaging Information | Packing Format   | Single pieces, piece by piece                                               |
|                       | Packing Quantity | 200 pcs/case, G.W. : 1.3 kg                                                 |
|                       | Packing Method   | 1000 pcs or 2000 pcs/carton                                                 |
|                       | Carton Dimension | 1000 pcs: 23×20×17 cm (G.W.: 7 KG);<br>2000 pcs: 48×23×14 cm (G.W.: 13 KG). |

● **Performance and Illustrations:** Graphs and visuals are for reference only; actual product performance may vary depending on usage and environment.
 ● **Storage and Handling Guidelines:** Follow standard ESD-safe storage and handling procedures to maintain product integrity and avoid damage.
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