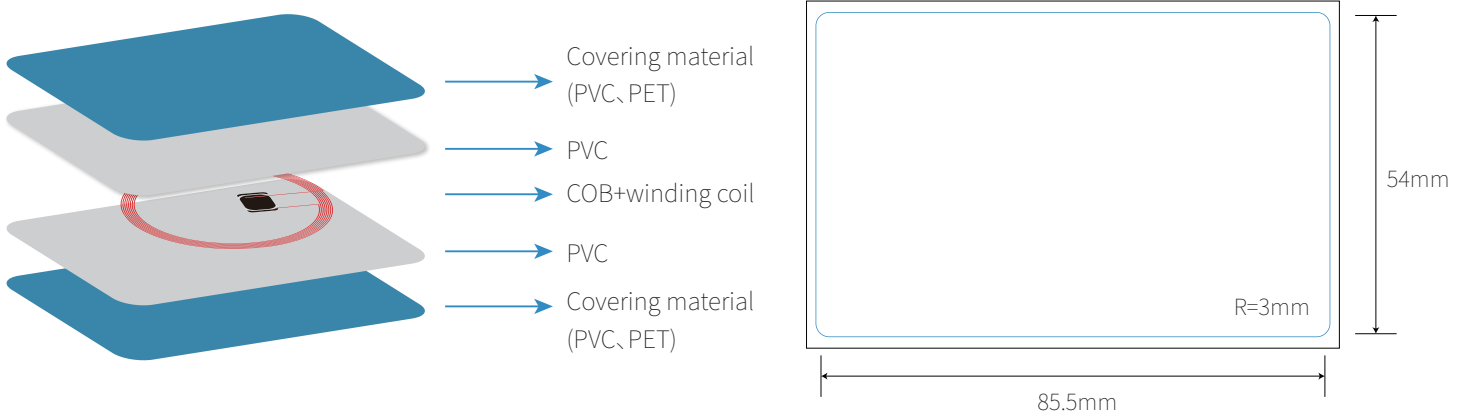# EM4200 & EM4100 125KHZ RFID Card- spec sheet

What is the EM card? EM card is one of RFID cards with an EM chip. Common EM card include EM4100 card, EM4200 card, EM4033 card, EM4023 card, EM4305, etc. EM4200 card that we recommend is a classical LF RFID card, working on 125KHZ. It has the characteristic of low consumption, low cost, higher reading range performances, and good compatibility. EM4200 125KHZ RFID Card is compatible with EM4100/4102 and EM4005/4105 communication protocols.

Parameters

Item	125 kHz RFID Blank Card	Color	Customizable	Working Temperature	-25℃ to 65℃
Material	PVC、PET	Size	CR80 (85.5*54mm) or Custom	Data Retention Time	10 years
Chip	EM4100、EM4200	Crafts Available	Logo or number printing, Bar code, QR code, etc.	Printing Options	Silk-screen printing, Laser Engraving, CMYK full color, Pantone, etc.
Frequency	125 kHz	Reading Distance	0-10m		
Protocol	ISO18000-2	Write Endurance	100000 times		

Dimensional Diagram

Covering material (PVC、PET)
PVC
COB+winding coil
PVC
Covering material (PVC、PET)

54mm
R=3mm
85.5mm

Available chips

LF 125kHz Chips

Chip Name	Protocol	Capacity	Frequency
TK4100	ISO 11784/11785	64 bits	125 kHz
EM4200	ISO 11784/11785	128 bits	125 kHz
EM4305	ISO 11784/11785	512 bits	125 kHz
T5577	ISO 11784/11785	330 bits	125 kHz

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Features

EM4200 card usually is made of PVC or PET, and the EM4200 chip determines the performance of the card. EM4200 chip is a CMOS integrated circuit intended for use in electronic Read Only RF transponders. It can replace EM4100/4102 chip and EM4005/4105 chip directly. Here are the features:

- Full compatible with EM4100/4102 and EM4005/4105 communication protocols.
- 28-bit laser programmed ROM (64 and 96-bit option available)
- Several resonant capacitor integrated on-chip(0pF, 75pF or 250pF mask option)
- 100 to 150 kHz frequency range
- No external supply buffer capacitor needed
- -40°C to +85°C temperature range)
- Very low power consumption and High performances
- On-chip rectifier and voltage limiter

- Several options of data rate and data encoding:
  Manchester 32 and 64 RF clocks per bit
  Biphase 32 and 64 RF clocks per bit
  PSK 16 RF clocks per bit (subcarrier RF/2)
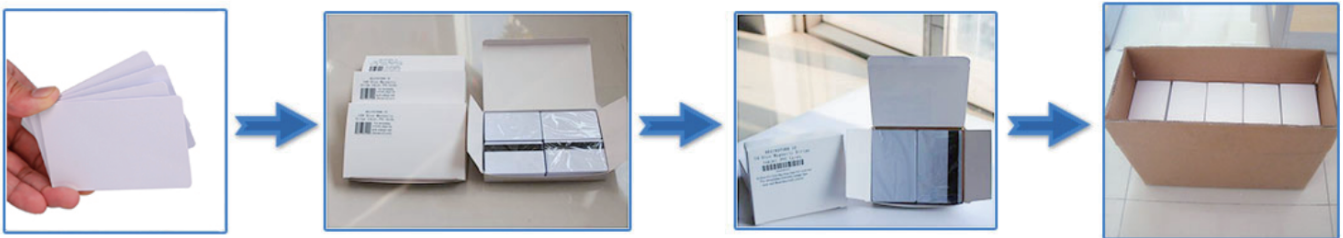 FSK2 50RF clocks per bit

APPLICATIONS

EM4200 chip can be encapsulated into different forms, widely using in the following applications:

- Access Control
- Animal Identification according to ISO11785 (FDX-B)
- Waste management standard (BDE)
- Logistics automation
- Anti-counterfeiting
- Industrial transponder

As a card, EM4200&EM4100 125KHZ RFID Card is mainly used in the access control for community, company, school, library, exhibition, parking lot, etc.

Packaging and shipping

Volume	Chip Card: 200pcs cards with chips in one box, 2000/3000pcs per carton Common Card: 250pcs per box, 2500/3000pcs per carton Inkjet White Card: 230pcs per box, 3450pcs per carton
Weight	Chip Card: 6.5KG for 1000pcs Common Card: 6.0KG for 1000pcs
Carton Size	49*23*16CM (for 2000/2500pcs) 49*23*20CM (for 3000pcs) Special demands for packing available.
Delivery Time	Generally, 3 days for DHL/FedEx/UPS, 10 days for air shipping,18 days for sea shipping.
Shipping	DHL/TNT/FEDEX /UPS ,By Air / Sea or as required