

EM4305 Cards

EM4305 cards carry a genuine EM Microelectronic 512-bit read/write 125 kHz chip: Manchester or Bi-phase output, a 32-bit password that cannot be read out, read and write login, per-word write protection and Reader Talk First. Choose it when your encoder or lock system names the EM4305, and specify the data format so the cards can be tested with your installed readers.

EM4305 card specifications

Selection point	What to specify
Chip and frequency	EM4305 (EM Microelectronic), rated 100 to 150 kHz; this card is intended for 125 kHz LF projects.
Memory	512-bit EEPROM in 16 words of 32 bits; the total includes identification, password, configuration and protection words.
Identification	Factory-set 32-bit chip UID; distinguish it from any programmed application number.
Data format	Manchester or Bi-phase at RF/8 to RF/64, with the data rate and application format agreed for the reader.
Protection	32-bit password with read and write login, and per-word write protection.
Chip endurance	1,000 write cycles and 10 years' data retention at 55 °C (datasheet minimums).
Card finish	Specify dimensions, material, blank or printed finish, and visible numbering.

Inside the EM4305: 512-bit EEPROM

Word	Contents
Word 0	Chip type, resonant-capacitor version and customer code, set at manufacture; the user can overwrite it with other data, read only by command.
Word 1	32-bit unique identifier (UID), fixed at manufacture; read by command.
Word 2	32-bit password; write-only, and changed only after a successful Login.
Word 3	User data, read only by command.
Word 4	Configuration word: data rate, encoder, Delayed On, last default-read word, read and write login, Disable, Reader Talk First and pigeon mode.
Words 5–13	User data (288 bits); the default read runs from Word 5 to the last word set in Word 4.
Words 14–15	Protection words: one bit per word write-protects Words 0 to 13; changed only by the Protect command.

Ordering

- Free standard samples; customised samples carry a setup fee.
- Standard lead time is 2–3 weeks.
- Quote-only pricing—send your quantity for a quotation.
- Printing, numbering and encoding options are available for the selected product and material.

Contact

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