

HLC-M-A(TAG)

TAG de proximitate cu cip Mifare S50 (13.56Mhz) 1kb, pentru sistemele de control acces ADEL

Imagine



Descriere

HLC-M-A(TAG) este un TAG de proximitate cu cip Mifare S50 (13.56Mhz) 1kb, codat pentru sistemele de control acces ADEL. Avand 4 sectoare libere, TAG-ul poate fi folosit si in diverse aplicatii de control acces, sisteme publice de taxare, sisteme de fidelizare etc.

Caracteristici

- Cip Mifare S50 (13.56Mhz)
- Memorie EEPROM 1KB (16 sectoare x 4 blocuri x 16 bytes)
- 12 sectoare codate pentru utilizarea in sistemele de control acces hotelier ADEL
- 4 sectoare libere pentru utilizare in alte aplicatii de control acces (sectoarele 1, 2, 4, 6 - blocurile 4-11, 16-19, 24-27)
- Rezistent la apa
- Protectie la descarcari electrostatice (1000V)

Specificatii

- Functie anti-coliziune
- Protectie la descarcari electrostatice (1000V)
- Securitate sporita
- Timp de procesare al tranzactiei de ticketing mai mic de 100ms
- Rata de transfer: 106 kbit/s
- Memorie EEPROM organizata in 16 sectoare si 4 blocuri (un bloc - 16 biti)
- Perioada de retentie a datelor: 10 ani
- Cicluri de scriere: 100.000
- Dimensiuni: 37(L) x 30(l) x 7(A) mm
- Temperatura de operare: -40 ~ +65 °C

| Simbol | Parametri | Conditii | Min | Tip | Max | Unitate |
|------------------------------|------------------|-------------|--------|--------|------|---------|
| C _i | Capacitanta | | 14.4 | 16.1 | 17.4 | pF |
| f _i | Frecventa | | - | 13.56 | - | MHz |
| Caracteristici EEPROM | | | | | | |
| t _{ret} | retentia datelor | amb = 22 °C | 10 | - | - | an |
| N _{endu(W)} | scrierea datelor | amb = 22 °C | 100000 | 200000 | - | ciclu |

T_{amb} = 22 °C, f_i = 13.56 MHz, 2 V RMS.

Timpul de scriere a datelor

| | T _{ACK min} | T _{ACK max} | T _{NAK min} | T _{NAK max} | T _{TimeOut} |
|--------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| Write part 1 | 71 μs | T _{TimeOut} | 71 μs | T _{TimeOut} | 5 ms |
| Write part 2 | 71 μs | T _{TimeOut} | 71 μs | T _{TimeOut} | 10 ms |

| | T _{ACK min} | T _{ACK max} | T _{NAK min} | T _{NAK max} | T _{TimeOut} |
|--|----------------------|----------------------|----------------------|----------------------|----------------------|
| Increment, Decrement, and Restore part 1 | 71 μs | T _{TimeOut} | 71 μs | T _{TimeOut} | 5 ms |
| Increment, Decrement, and Restore part 2 | 71 μs | T _{TimeOut} | 71 μs | T _{TimeOut} | 5 ms |

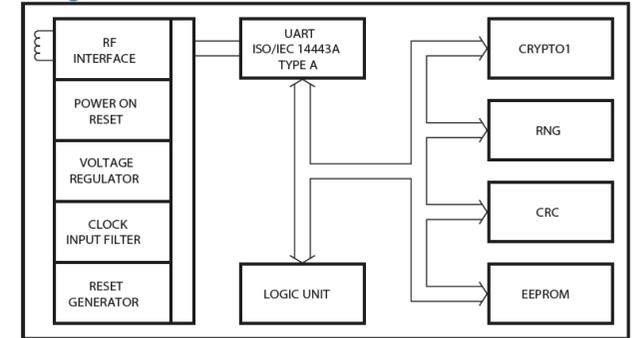
Timpul de transfer al datelor

| | T _{ACK min} | T _{ACK max} | T _{NAK min} | T _{NAK max} | T _{TimeOut} |
|----------|----------------------|----------------------|----------------------|----------------------|----------------------|
| Transfer | 71 μs | T _{TimeOut} | 71 μs | T _{TimeOut} | 10 ms |

Organizarea memoriei

| Sector | Block | Byte Number within a Block | | | | | | | | | | | | | | | | Description |
|--------|-------|----------------------------|---|---|---|-------------|---|---|---|-------|---|----|----|----|----|----|----|--------------------|
| | | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | |
| 15 | 3 | Key A | | | | Access Bits | | | | Key B | | | | | | | | Sector Trailer 15 |
| | 2 | | | | | | | | | | | | | | | | | Data |
| | 1 | | | | | | | | | | | | | | | | | Data |
| | 0 | | | | | | | | | | | | | | | | | Data |
| 14 | 3 | Key A | | | | Access Bits | | | | Key B | | | | | | | | Sector Trailer 14 |
| | 2 | | | | | | | | | | | | | | | | | Data |
| | 1 | | | | | | | | | | | | | | | | | Data |
| | 0 | | | | | | | | | | | | | | | | | Data |
| : | : | | | | | | | | | | | | | | | | | |
| : | : | | | | | | | | | | | | | | | | | |
| : | : | | | | | | | | | | | | | | | | | |
| 1 | 3 | Key A | | | | Access Bits | | | | Key B | | | | | | | | Sector Trailer 1 |
| | 2 | | | | | | | | | | | | | | | | | Data |
| | 1 | | | | | | | | | | | | | | | | | Data |
| | 0 | | | | | | | | | | | | | | | | | Data |
| 0 | 3 | Key A | | | | Access Bits | | | | Key B | | | | | | | | Sector Trailer 0 |
| | 2 | | | | | | | | | | | | | | | | | Data |
| | 1 | | | | | | | | | | | | | | | | | Data |
| | 0 | Manufacturer Data | | | | | | | | | | | | | | | | Manufacturer Block |

Diagrama blocurilor



Observatii