



# ID-A220 - NXP MIFARE® Ultralight® EV1 NFC Inlay and Label

## IC Speciality

The Identiv ID-A220 - NXP MIFARE® Ultralight® EV1 design incorporates the MIFARE Ultralight EV1 IC, which is well-suited for limited use tickets, loyalty cards, and day passes for events. It effectively replaces conventional ticketing methods like paper tickets, magnetic stripe tickets, or coins, offering enhanced efficiency. Additionally, the chip's advanced features and command set enable more efficient implementations and offer increased flexibility in system designs.

## Key Features

- Solution for **limited-use smart paper tickets and cards**
- Support for multi-operator transit system with **3 independent 24-bit one-way counters**
- **Password protection** (32-bit) for prevention of unauthorized memory operations
- Simultaneous operation of more than one tag in the field due to **anti-collision function**
- Available as **dry inlay, wet inlay, or label**

### Frequency

- NFC 13.56 MHz

### Antenna Dimensions

- 33.2 x 15 mm

### Chip

- NXP MIFARE® Ultralight® EV1

### International Standards

- NFC Forum Type 2 Tag
- ISO/IEC 14443 Type A

### Industries

- Ticketing in transport
- Ticketing in leisure
- Loyalty programs

## Specifications

| Format                    | Dry Inlay   | Wet Inlay  | Label  |
|---------------------------|---|--|--|
| Product Part Number       | 9001021   | 9001022  | 9001023  |
| Manufacturing Part Number | I00XXXMS0331  | I00PADMS0331   | L15PADMS0331   |
| IC                        | NXP MIFARE® Ultralight® EV1   | NXP MIFARE® Ultralight® EV1  | NXP MIFARE® Ultralight® EV1  |
| User Memory               | 384 bit   | 384 bit  | 384 bit  |
| Antenna Dimension         | 33.2 mm x 15 mm   | 33.2 mm x 15 mm  | 33.2 mm x 15 mm  |
| Tag Dimensions            | 33.2 mm x 15 mm   | 36 mm x 18 mm  | 36 mm x 18 mm  |
| ISO/IEC Norm              | ISO/IEC 14443A  | ISO/IEC 14443A   | ISO/IEC 14443A   |
| Frequency                 | 13.56 MHz   | 13.56 MHz  | 13.56 MHz  |
| Face Material             | -   | -  | White PET  |
| Thickness                 | ~ 190µm   | ~ 300µm  | ~ 370µm  |
| Pitch                     | 48 mm   | 48 mm  | 48 mm  |
| Web Width                 | 30 mm   | 30 mm  | 30 mm  |
| Operating Temperature     | -20°C ~ 70°C (-4°F ~ 158°F), at <60%RH                                  | -20°C ~ 70°C (-4°F ~ 158°F), at <60%RH                                 | -20°C ~ 70°C (-4°F ~ 158°F), at <60%RH                                 |
| Storage Information       | 2 years under desiccated condition; 10°C ~ 25°C (50°F ~ 77°F), ≤ 60% RH | 1 year under desiccated condition; 10°C ~ 25°C (50°F ~ 77°F), ≤ 60% RH | 1 year under desiccated condition; 10°C ~ 25°C (50°F ~ 77°F), ≤ 60% RH |

**Contact Information:** [sales@identiv.com](mailto:sales@identiv.com)

Care and handling: To minimize static charge and environmental impact, it's crucial to adhere to standard industry practices related to electronics and RFID when handling RFID inlays, as they are sensitive to ESD.

Application: To ensure that this product meets specific requirements, customers/users must thoroughly test it under end-use conditions. Identiv does not claim that the product is suitable for any particular purpose or use. Additionally, Identiv retains the right to modify, supplement, change, or discontinue product offerings at any time without prior notice. While the information presented here is believed to be reliable, Identiv does not guarantee the accuracy or correctness of the data.

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