Functional difference between NFC type-1 tag, NFC type-2 tag, NFC type-3 tag, NFC Type-4 Tag

This NFC tutorial covers following sub topics:

How NFC Works | NFC Modulation and coding | NFC Tag vs NFC Reader | NFC Tag Types | NFC-A,NFC-B,NFC-F | difference between bluetooth,wifi,RFID and NFC | NFC Tools and Equipments

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This page compares **NFC tag types** viz. type-1, type-2, type-3, type-4 and type-5 and mentions functional difference between NFC type-1 tag, NFC type-2 tag, NFC type-3 tag, NFC Type-4 Tag and NFC type-5 (Mifare classic tag). We will compare these NFC tag types with respect to standard, memory, speed, data access, collision mechanism and pricing. Compliant products for each of the tag types are also mentioned.

NFC tags are used for variety of applications such as banking, transit pass, business IDs, ticketing etc.

NFC Type-1 Tag

Following are the features of **NFC type-1 Tag**:

• Standard: ISO-14443A

• Memory Size: 96 bytes

• Speed: 106 Kbps

• Data Access: Read/Write or Read Only

• Collision mechanism: Data collision protection not available.

• Compliant Products: Innovision Topaz

• Pricing:Low

NFC Type-2 Tag

Following are the features of **NFC type-2 Tag**:

• **Standard**: ISO-14443A

| RADAR |
satellite |
Waveguide |

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• **Memory Size**: 48 bytes/ 144 bytes

• **Speed**: 106 Kbps

• **Data Access**: Read/Write or Read Only

• **Collision mechanism**: Anti-collision support available

• **Compliant Products**: NXP Mifare Ultralight, NXP Mifare Ultralight C

• **Pricing**: Low

NFC Type-3 Tag

Following are the features of **NFC type-3 Tag**:

• Standard: ISO-18092, JIS-X-6319-4

• Memory Size: 1/4/9 KB

• Speed: 212 or 424 kbps

• Data Access: Read/Write or Read Only

• Collision mechanism: Anti-collision support available

• Compliant Products: Sony Felica

• Pricing: High

NFC Type-4 Tag

Following are the features of **NFC type-4 Tag**:

• Standard: NXP DESFire Tag (ISO-14443A)

• Memory Size: 4 KB/ 32 KB

• Speed: 106/212/424 Kbps

• Data Access: Read/Write or Read Only

Networking | Network Security | FTTH | KNX | WAP | Mobile IP

• Collision mechanism: Anti-collision support available

• Compliant Products: NXP DESFire, NXP SmartMX-JCOP

• Pricing: Medium to high

NFC Type-5 Tag (Type Mifare Classic Tag)

Following are the features of **NFC type-5** Tag i.e. **Mifare Classic Tag**:

• Standard: ISO-14443A, MF1 IC S50

• Memory Size: 192 Bytes/ 768 bytes/ 3584 bytes

• Speed: 106Kbps

• Data Access: Read/Write or Read Only

• Collision mechanism: Anti-collision Support available

• Compliant Products: NXP Mifare Classic 1K, NXP Mifare Classic 4K, NXP Mifare Classic Mini

• Pricing: Low

NFC technology related links

NFC basics | NFC-A,NFC-B,NFC-F types | NFC vs RFID | difference between bluetooth,wifi,RFID and NFC | What is NFC on phone | Difference between NFC tag types | NFC Tag vs NFC Reader

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