



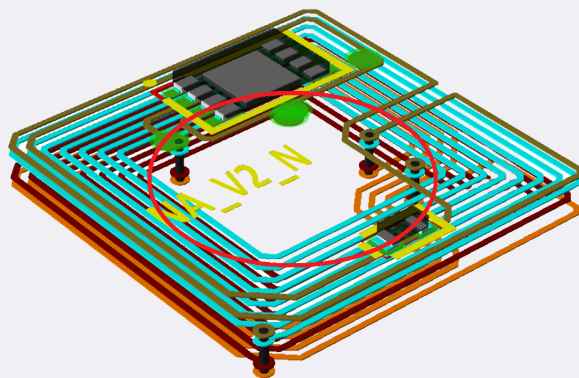
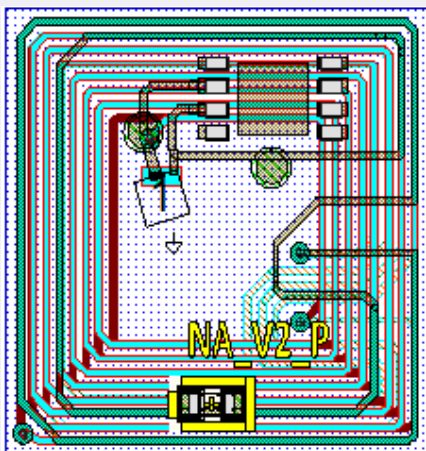
## PRODUCT DESCRIPTION

Beechat Vault NA\_V2\_P NFC Tag 01 – is an ultra small size NFC tag – 9.7×9.7×1.6mm using the ST chip M24SR64-Y with 8-Kbyte (64-kbit) EEPROM memory and uses the NFC ISO/IEC 14443 Type A interface. Working distance – up to 20mm.

### 01 KEY FEATURES

1. Compatible with Android and iOS as well as NFC ISO/IEC 14443 compatible readers.
2. High storage capacity, capable of storing large amounts of information via NFC compared to other tags on the market.
3. AES-128-bit password protection available on-tag.
4. 200 years data retention, and all weather enclosure.

### 02 PRODUCT IMAGE



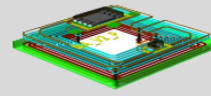
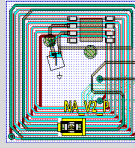
Beechat Vault NA\_V2\_P NFC Tag 01



## 03

# TECHNICAL SPECIFICATIONS

### Layout



### Contactless interface

- NFC Forum Type 4 Tag
- ISO/IEC 14443 Type A
- 106 Kbps data rate

### Memory

- 8-Kbyte (64-kbit) EEPROM
  - Support of NDEF data structure
  - Data retention: 200 years
  - Write cycle endurance:
    - 1 million Write cycles at 25 °C
    - 600k Write cycles at 85 °C
    - 500k Write cycles at 105 °C
  - Read up to 246 bytes in a single command
  - Write up to 246 bytes in a single command
  - 7 bytes unique identifier (UID)
  - 128 bits passwords protection
- Forum Type 4 Tag
- ISO/IEC 14443 Type A
  - 106 Kbps data rate

### Working distance

up to 20 mm

### Size

9.7×9.7×1.6mm

### Weight

2g

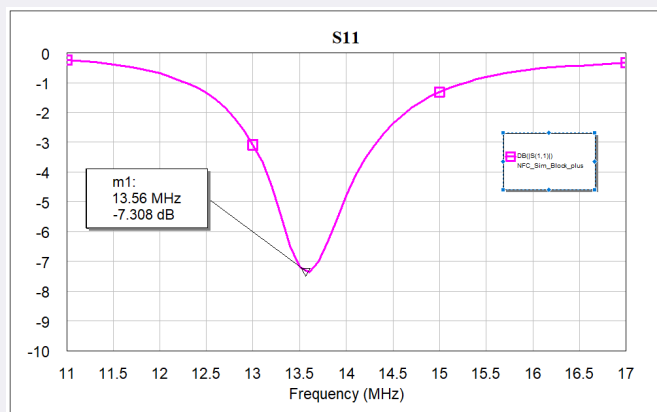
### Working Frequency

13.56 Mhz

### Matching (S11) on 13.56MHz

< -7dB

### S11 Graph





## 04 PCB PRODUCTION AND STACKUP INFORMATION

- Layers: 4
- PCB Thickness: 0.8
- Impedance: no JLC7628
- Outer Copper Weight: 1
- Inner Copper Weight: 0.5
- Material Type: FR4-Standard
- Tg 130-140C
- Appearance Quality: IPC Class 2 Standard

### a) JLC7628 Stackup:

Layer	Material type	Thickness (mm)	
Top Layer 1	Copper	0.035	
Prepreg	7628*1	0.2	
Inner Layer 2	Copper	0.0175	0.3 mm (with copper core)
Core	Core	0.265	
Inner Layer 3	Copper	0.0175	
Prepreg	7628*1	0.2	
Bottom Layer 4	Copper	0.035	

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