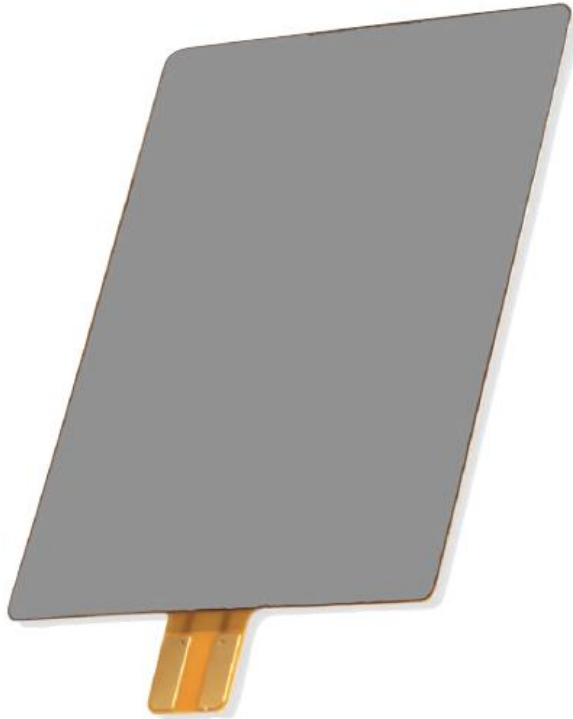


Series: NFC Antenna

**Description:**

13.56MHz Flex Antenna with Ferrite

**PART NUMBER: W3580**



**Features:**

- Frequency 13.56 MHz
- Size 35 x 50 x 0.48 mm
- Thin semi flexible structure
- Includes Ferrite sheet to enable operation in close proximity to metal
- Mounting with adhesive tape

**Applications:**

- Mobile Devices
- Pairing, Sharing
- Payment terminals
- NFC
- RFID

All dimensions are in mm / inches

Issue: 1950

In the effort to improve our products, we reserve the right to make changes judged to be necessary.

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**Description:**  
 13.56MHz Flex Antenna with Ferrite  
**PART NUMBER: W3580**

**Series: NFC Antenna**

**ELECTRICAL SPECIFICATIONS**

Antenna Type	Coil Antenna
Frequency	13.56MHz
Reading Distance	20mm EMVco 15mm Card (avg.)
Impedance	50ohm /80 ohm
Self Resonance Frequency	46MHz
Inductance	1.30uH
Resistance	3.25ohm
Q -Factor	34
Matched Q Value	5-15

**MECHANICAL SPECIFICATIONS**

Overall Length	58mm
Weight	1.2g
Antenna Color / Material	Yellow FPC + Ferrite
Mounting Method	Adhesive Tape

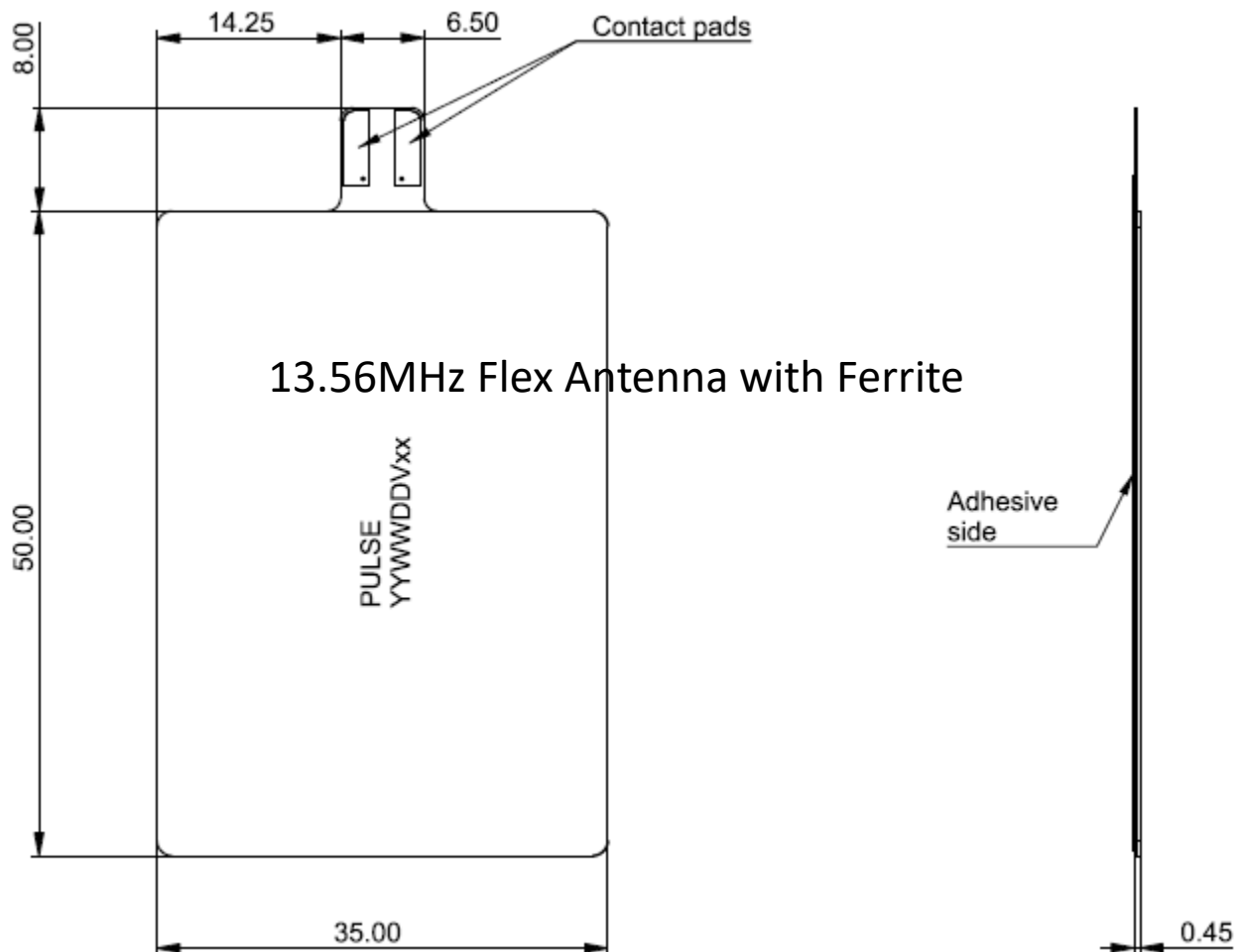
**ENVIRONMENTAL SPECIFICATIONS**

Operating Temperature	-40~ +85° C
Storage Temperature	-40~ +85° C
RoHS Compliant	Yes

**Description:**  
13.56MHz Flex Antenna with Ferrite  
**PART NUMBER: W3580**

**Series: NFC Antenna**

**MECHANICAL DRAWING**



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**Description:**

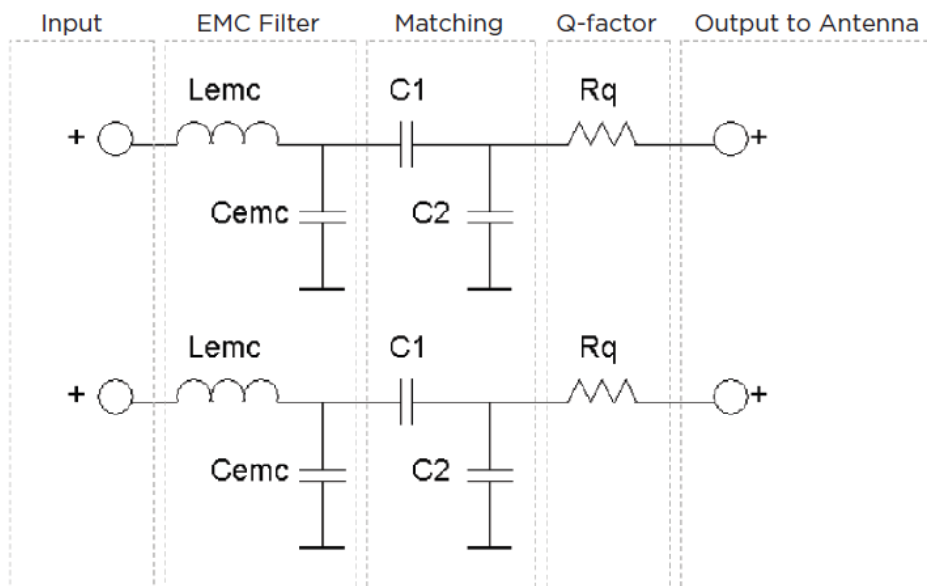
13.56MHz Flex Antenna with Ferrite

**PART NUMBER: W3580**

**Series: NFC Antenna**

**Recommended matching circuit**

Component	Value	Note
Lemc	560 nH	Filter resonance at 15.4 MHz
Cemc	180 pF	Filter resonance at 15.4 MHz
C1	51 pF	Antenna matching component, value depends on the antenna environment Antenna matching
C2	198 pF	Antenna matching component, value depends on the antenna environment Antenna matching
Rq	0 Ohm	Rq resistors used to lower Q-value



Issue: 1950

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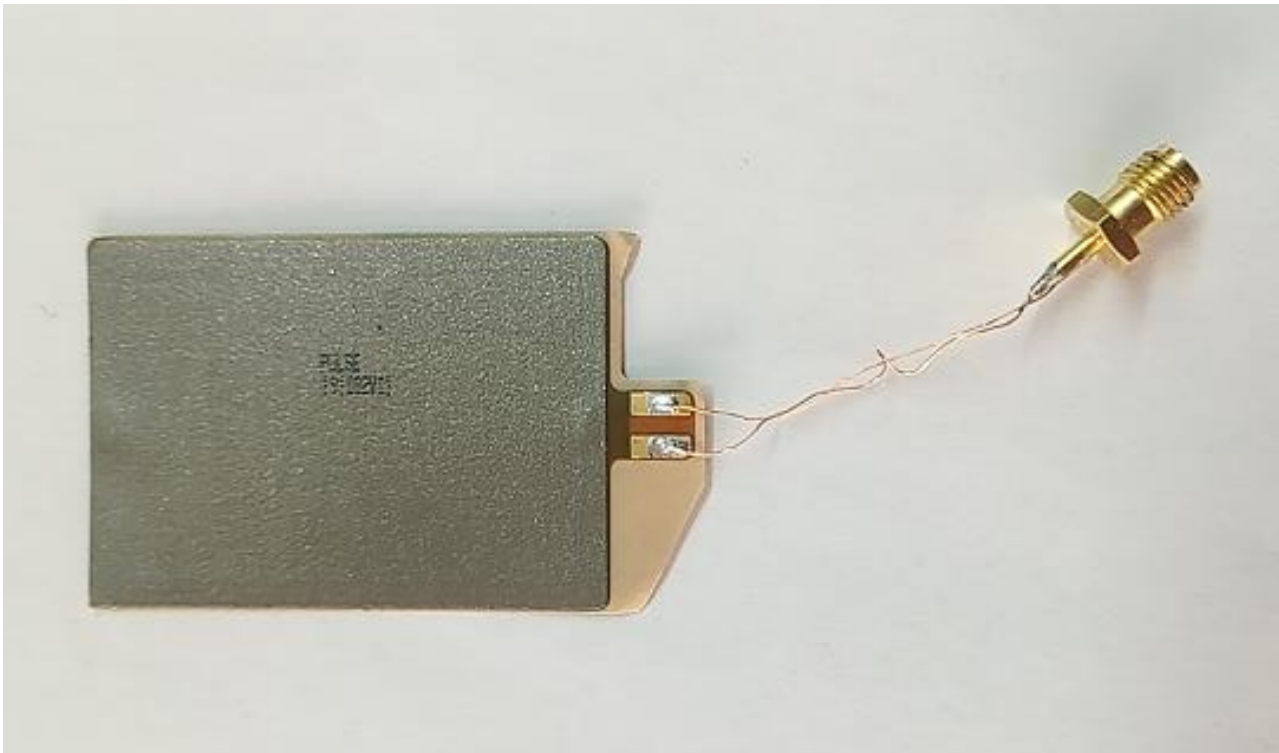
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**Description:**  
13.56MHz Flex Antenna with Ferrite  
**PART NUMBER: W3580**

**Series: NFC Antenna**

**TEST SETUP**



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**Description:**

13.56MHz Flex Antenna with Ferrite

**PART NUMBER: W3580**

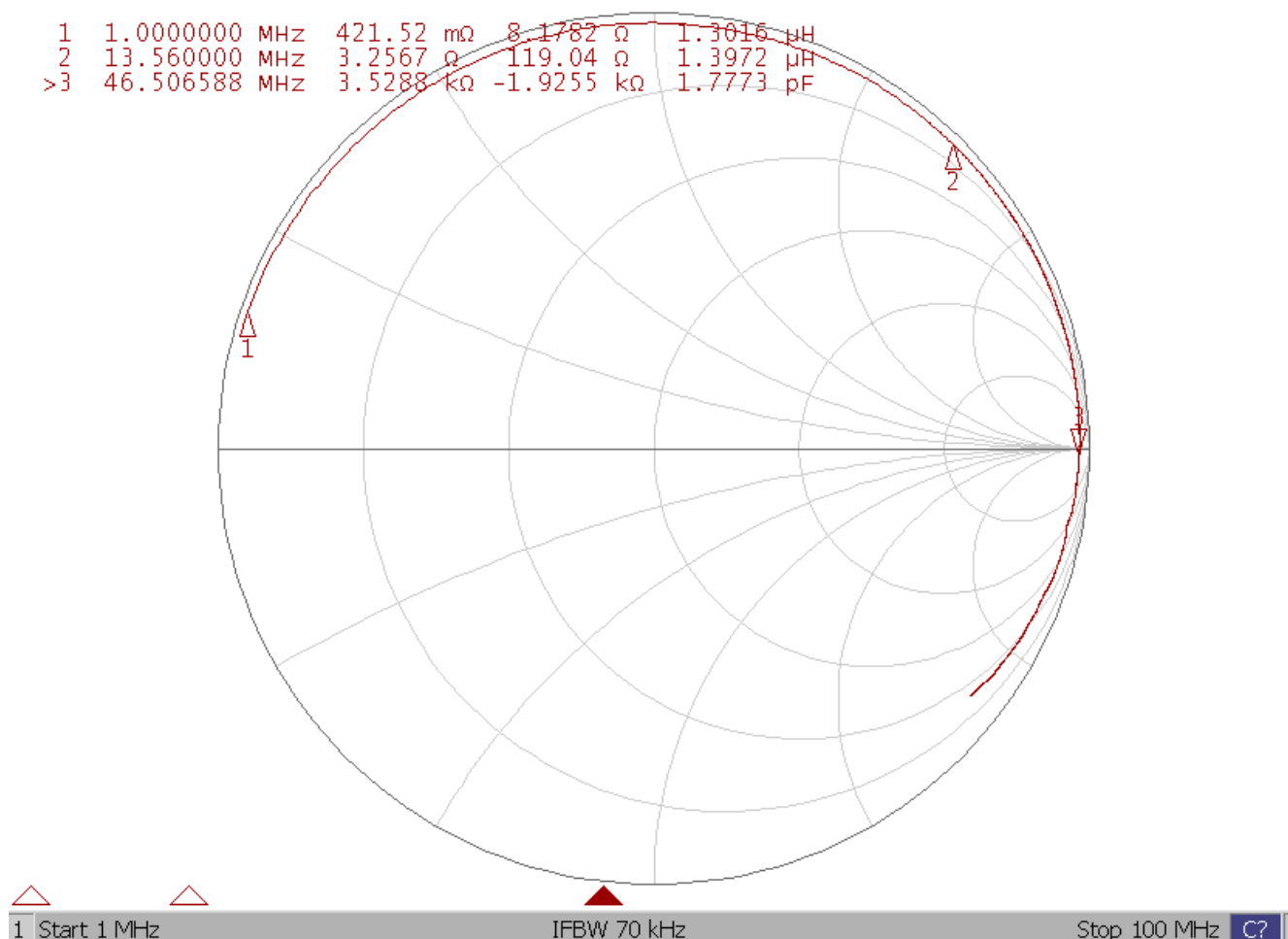
**Series: NFC Antenna**

**CHARTS**

**W3580 Parameters without matching circuit**

▶ Tr2 s11 Smith (R+jX) Scale 1.000U [F2]

1	1.0000000	MHZ	421.52	mΩ	8.1782	Ω	1.3016	μH
2	13.560000	MHZ	3.2567	Ω	119.04	Ω	1.3972	μH
>3	46.506588	MHZ	3.5288	kΩ	-1.9255	kΩ	1.7773	pF



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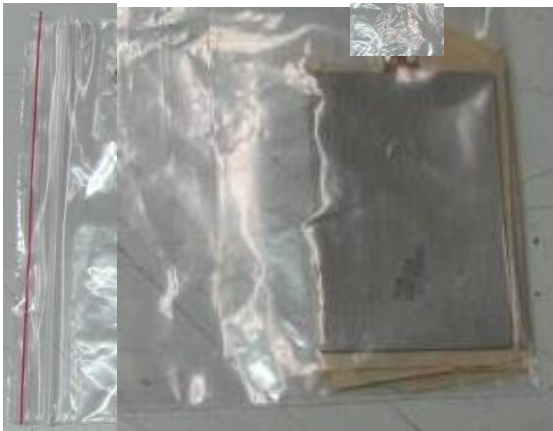
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**Description:**  
13.56MHz Flex Antenna with Ferrite  
**PART NUMBER: W3580**

**Series: NFC Antenna**

## PACKAGING

10pcs Antennas packed in 1pcs PE Bag,  
100pcs PE Bags of Antennas (total 1000pcs) packed in one Carton.



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