

#### **TECHNICAL DATA SHEET**

### **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. CONFIDENTIAL AND PROPRIETARY INFORMATION

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#### **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  $-40\sim +85^{\circ}$  C Storage Temperature  $-40\sim +85^{\circ}$  C

RoHS Compliant Yes





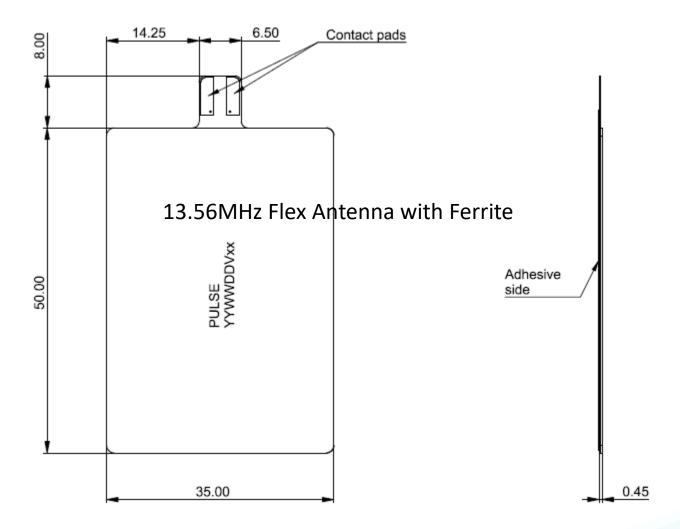
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## MECHANICAL DRAWING







#### **TECHNICAL DATA SHEET**

### **Description**:

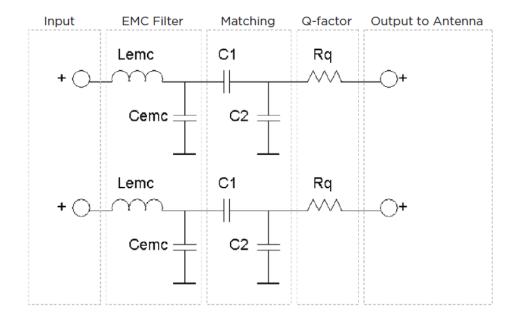
13.56MHz Flex Antenna with Ferrite

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#### **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





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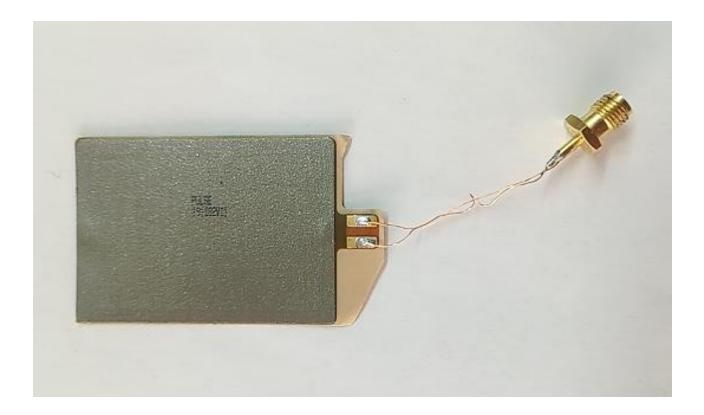
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## **Series: NFC Antenna**

### **TEST SETUP**





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### **Description**:

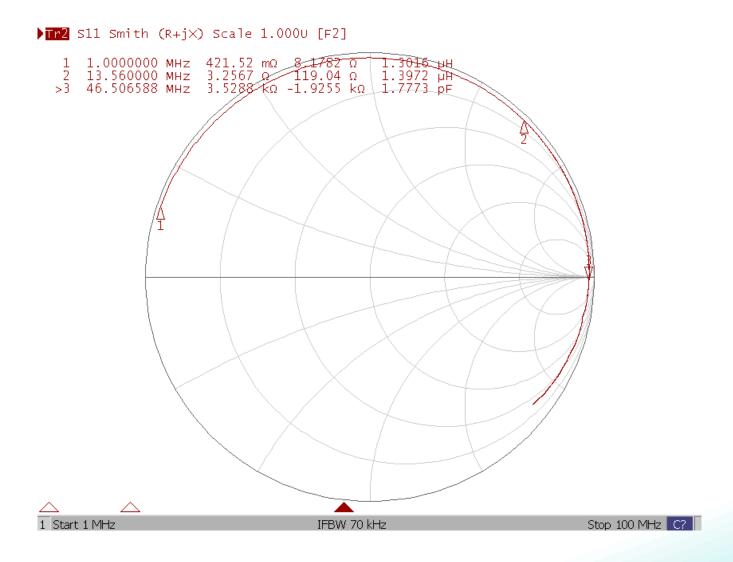
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#### **CHARTS**

## W3580 Parameters without matching circuit







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## PACKAGING

10pcs Antennas packed in 1pcs PE Bag,

100pcs PE Bags of Antennas (total 1000pcs) packed in one Carton.





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