

125 kHz Coil Antenna Specification Sheet

1. General Information

Product Name	
Model No.	
Standard Compliance	ISO11784 / ISO11785, EM4100, TK4100, Hitag
Operating Frequency	125 kHz

Application: RFID Reader/Writer, Access Control, Animal Tag Reader, Industrial Tracking

2. Electrical Characteristics

Item	Condition	Specification	Unit	Remarks
Resonant Frequency	-	125 ± xx	kHz	Matching Including
Inductance, L	@1 kHz	735	μH	
Quality Factor	@125 kHz	≥ 0.7	-	
Impedance	@125 kHz	8	Ω	

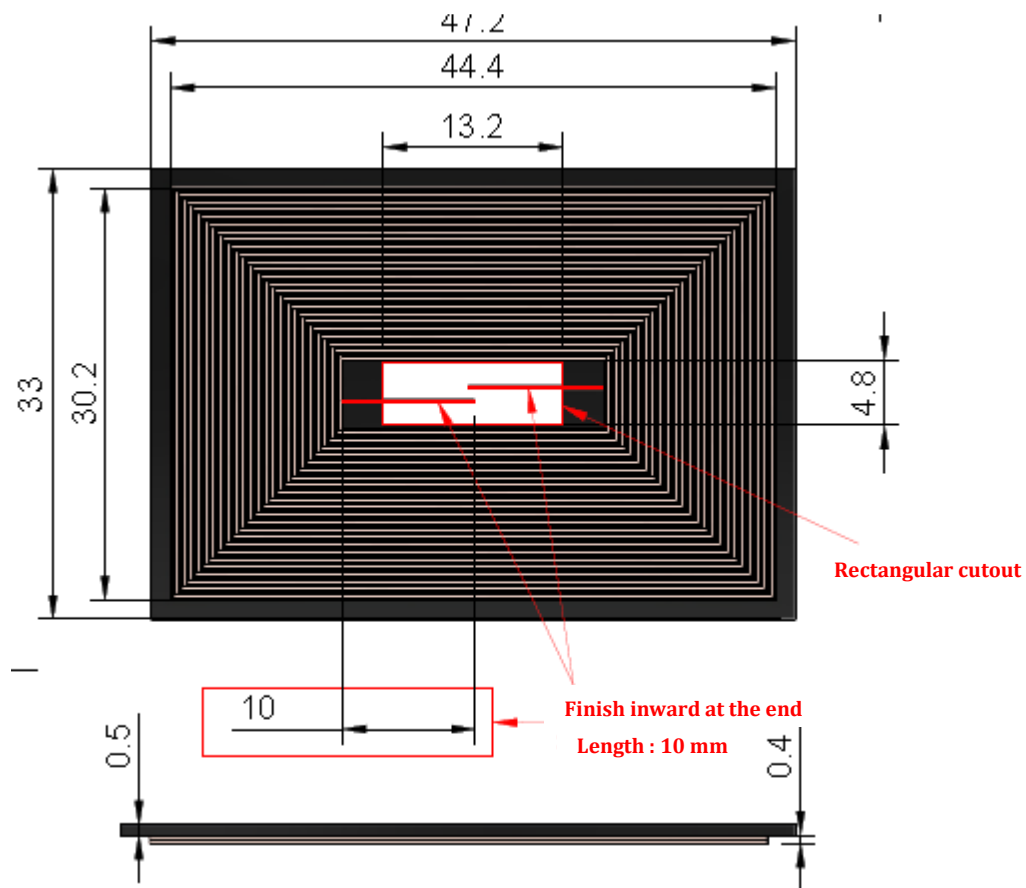
3. Mechanical Characteristics

	Specification	Unit	Remarks
Antenna Type	Air-core Coil	1	
Core Material	Square Coil	-	
Number of Turns	2 layers, 64 turns per layer, total 128TS	Turns	
Wire Diameter	12500	mm	enamel wire
Outer Diameter	44.4x30.2	mm	square
Coil Thickness	0.18	mm	

4. Environmental Characteristics

Item	Condition	Specification
Operating Temperature	-10 ~ +40	°C
Storage Temperature	-40 ~ +55	°C
Humidity	95% RH @ 40°C	Normal Operation

5. coil antenna dimension



13.56 MHz Pattern Antenna Specification Sheet

1. General Information

Product Name	
Model No.	
Standard Compliance	ISO/IEC 14443B, ISO/IEC 15693, NFC Forum
Operating Frequency	13.56 MHz

Application : NFC Reader, RFID Reader, Access Control, Payment Terminal ...

2. Electrical Characteristics

Item	Condition	Specification	Unit	Remarks
Resonant Frequency	-	13.56 ± xx	MHz	Matching Including
Inductance,	@100 kHz	1.8	μH	
Quality Factor	@13.56 MHz	≥ 0.1	-	
Impedance,	@13.56 MHz	3	Ω	

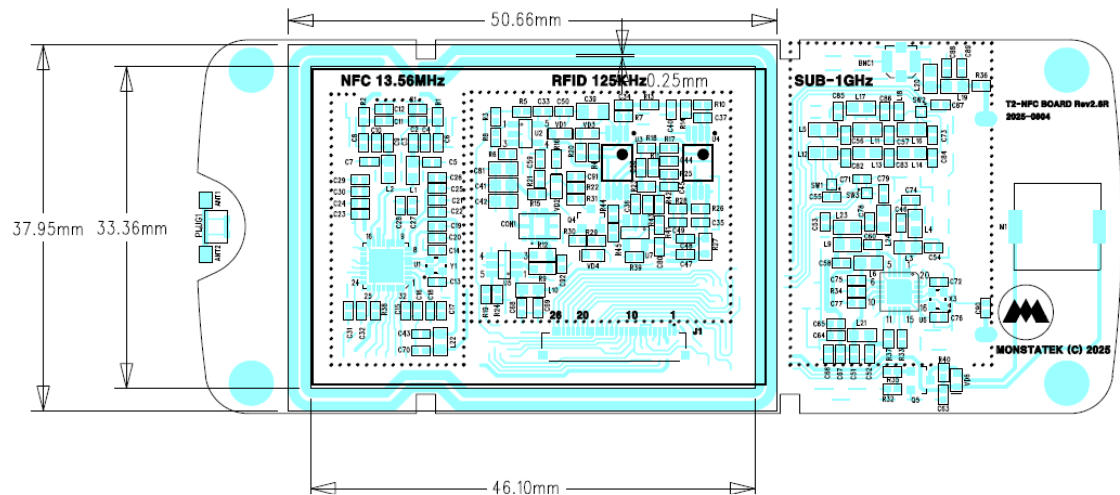
3. Mechanical Characteristics

Item	Specification	Unit	Remarks
Antenna Type	Pattern Coil PCB	1 EA	
Substrate Material	FR-4		
Layer	2		
Number of Turns	2	Turns	
Line Width	1	mm	
Line Spacing	0.25	mm	
Outer Dimension	55X38	mm	
Thickness	0.035	mm	

4. Environmental Characteristics

Item	Condition	Specification
Operating Temperature	-20 ~ +50	°C
Storage Temperature	-40 ~ +60	°C
Humidity	95% RH @ 40°C	Normal Operation

5. Drawings & Layout



Helical Antenna Specification Sheet

1. General Information

Product Name	Helical Antenna
Model No.	HELICAL ANTENNA-001
DWG No.	Multitool M1
Date of Issue	2025-04-16

2. Mechanical Characteristics

Item	Specification	Unit	Remarks
Number of Turns	30	Turns	
Height	23	mm	
Outer Diameter	4.2	mm	
Wire Diameter	0.6	mm	
Material	Plated material	-STEEL NICKEL PLATE	

3. Electrical Characteristics

Item	Condition	Specification	Unit	Remarks
Operating Frequency	-	300 ~ 900	MHz	304.500MHz ~ 927.950MHz
Impedance	@Resonance	50	Ω	standard
Quality Factor	@Resonance	xx	-	
Bandwidth	-3 dB	0.2	MHz	
Max Input Power	-	20	dBm	

4. Helical antenna dimension

