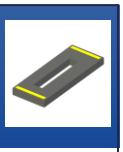
NFC Chip Antenna



AANI-CH-0030

Request Samples | Check Inventory

10 x 4 x 0.8 mm
RoHS/RoHS II Compliant
MSL Level = N/A

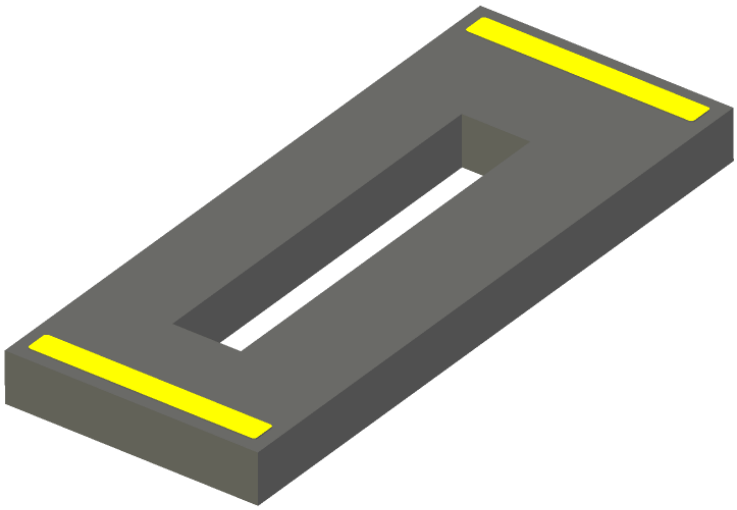
Features

- Compact Size: 10 x 4 x 0.8 mm
- Center Frequency: 13.56MHz
- Nominal Inductance: 0.298 uH
- Read Distance: 10 ~ 30 mm
- Fully SMD Compatible
- RoHS Compliant

Applications

- RFID / NFC Systems
- Data Transfer and Pairing
- Access Control and Identification
- Payment, EMVCo
- Phones, Infotainment, POS Terminals

Product Image



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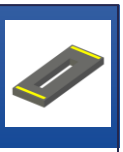
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10 x 4 x 0.8 mm
RoHS/RoHS II Compliant
MSL Level = N/A

Electrical Specification

Parameter	Specification	Unit
Operating Frequency	13.56	MHz
Bandwidth	1	MHz
VSWR (Typ.)	1.1	
Inductance	0.298	µH@13.56MHz
Q-Factor	15.7	
DC Resistance	1.62	Ω@13.56MHz
Self-Resonance Frequency	375.78	MHz
Reading Distance	10~30	mm
Polarization	Linear	-
Impedance	50	Ω

Mechanical Specification

Parameter	Specification
Dimension	10 x 4 x 0.8 mm
Mounting Type	Surface Mount
Weight	0.05 g

Environmental Specification

Parameter	Specification
Operating Temperature	-40°C to +105°C
Storage Temperature	-40°C to +85°C
Humidity	85% R.H.
RoHS Compliance	Yes

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Ordering Information

Part Number	Description
AANI-CH-0030	NFC Chip Antenna on Cut Tape
AANI-CH-0030-T	NFC Chip Antenna on Tape & Reel

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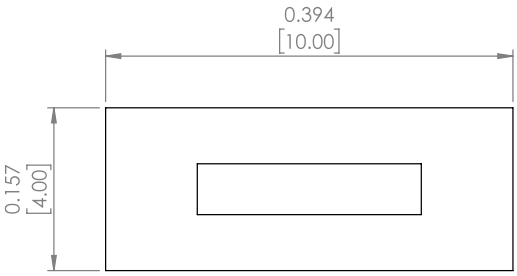


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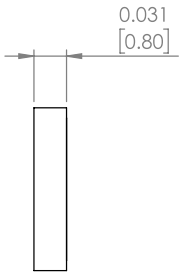
Request Samples | Check Inventory

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MSL Level = N/A

Product Dimensions



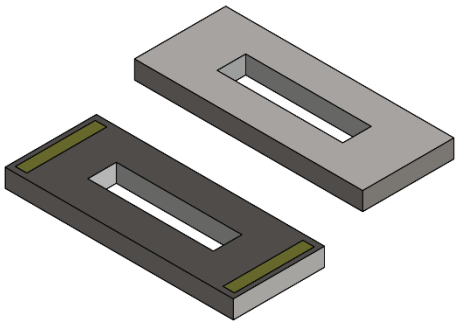
TOP VIEW



SIDE VIEW



BOTTOM VIEW



Unit: Inches [mm]

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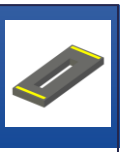
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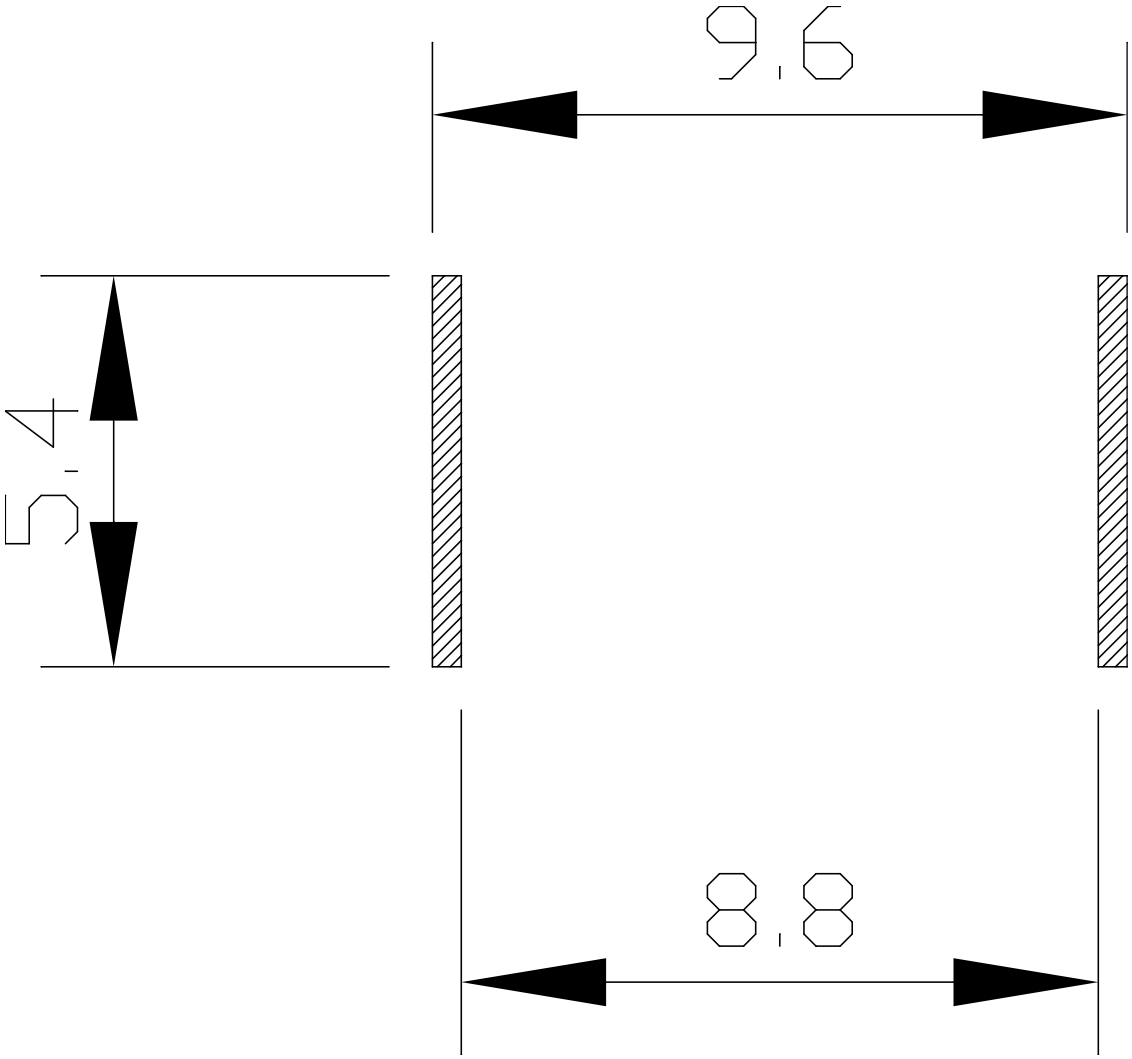


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Land Pattern



Unit: mm

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Reflow Profile [JEDEC J-STD-020]

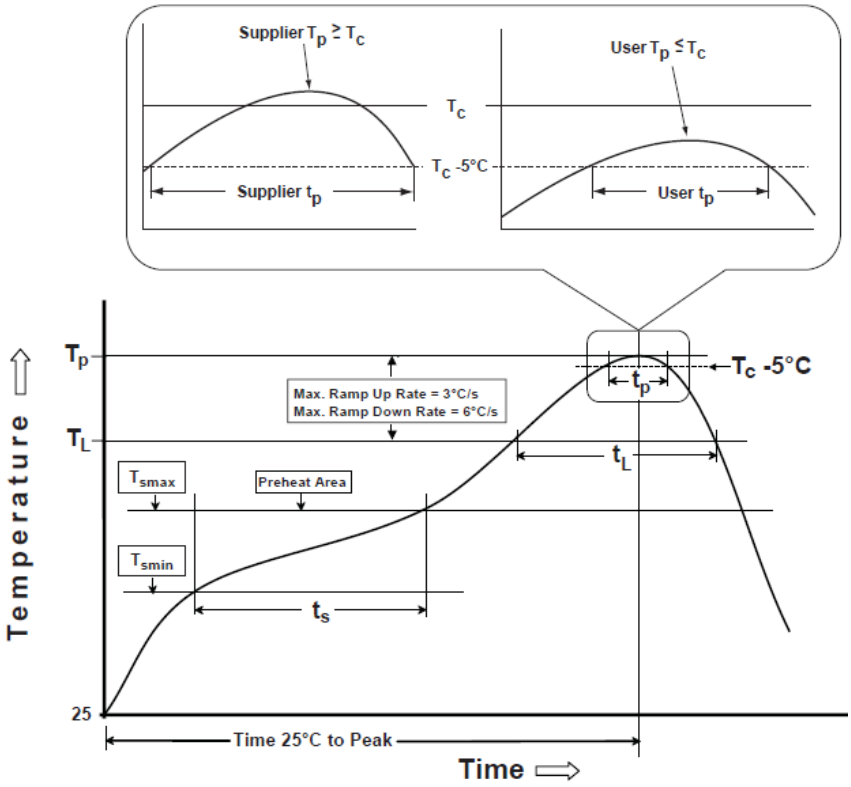


Table 1

SnPb Eutectic Process Classification Temperatures (T_c)		
Package Thickness	**Volume mm³ <350**	**Volume mm³ ≥350**
<2.5 mm	235 °C	220 °C
≥2.5 mm	220 °C	220 °C

Table 2

Pb-Free Process Classification Temperatures (T_c)			
Package Thickness	**Volume mm³ <350**	**Volume mm³ 350-2000**	**Volume mm³ >2000**
<1.6 mm	260 °C	260 °C	260 °C
1.6 mm - 2.5 mm	260 °C	250 °C	245 °C
>2.5 mm	250 °C	245 °C	245 °C

Profile Feature	Sn-Pb Eutectic Assembly	Pb-Free Assembly
Preheat / soak		
Temperature minimum (T_{smin})	100°C	150°C
Temperature maximum (T_{smax})	150°C	200°C
Time (T_{smin} to T_{smax}) (t_s)	60 - 120 sec.	60 - 120 sec.
Average ramp-up rate (T_{smax} to T_P)	3°C/sec. max	3°C/sec. max
Liquidous temperature (T_L)	183°C	217°C
Time at liquidous (t_L)	60 - 150 sec.	60 - 150 sec.
Peak package body temperature (T_P)*	**see Table 1**	**see Table 2**
Time (t_p)** within 5°C of the specified classification temperature (T_C)	20 sec.	30 sec.
Ramp-down rate (T_p to T_{smax})	6°C/sec. max	6°C/sec. max
Time 25°C to peak temperature	6 min. max	8 min. max
Reflow cycles	2 max	2 max

*Tolerance for peak profile temperature (T_P) is defined as a supplier minimum and a user maximum.

**Tolerance for time at peak profile temperature (t_p) is defined as supplier minimum and a user maximum.

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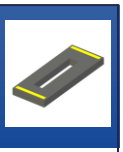
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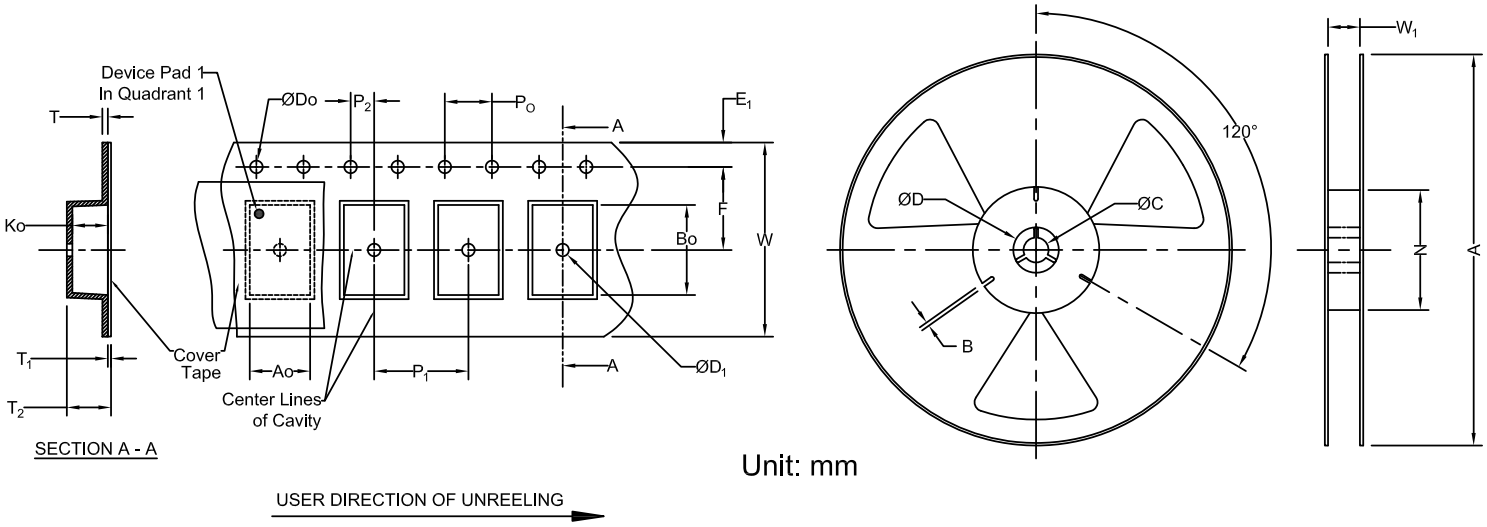
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RoHS/RoHS II Compliant
MSL Level = N/A

Packaging

Tape & Reel

1. Tape & Reel Dimension



Unit: mm

Carrier Tape Specifications (mm)									
E1	D0	P0	P2	K0	P1	W	A0	B0	Reel Qty
1.75	1.5	4.0	2.0	1.3	8.0	16	4.3	10.3	2,000

Reel Specifications (mm)		
A	W_1	N
330	17	100

ATTENTION: Abracon LLC's products are Commercial-Off-The-Shelf ('COTS'), which are designed, intended, and validated for use in commercial, industrial, and automotive applications. The customer is responsible for testing and verifying the performance of an Abracon solution to meet their system-level requirements.

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