



UPM RFID

Product Specification

BullsEye NFC Paper Tag

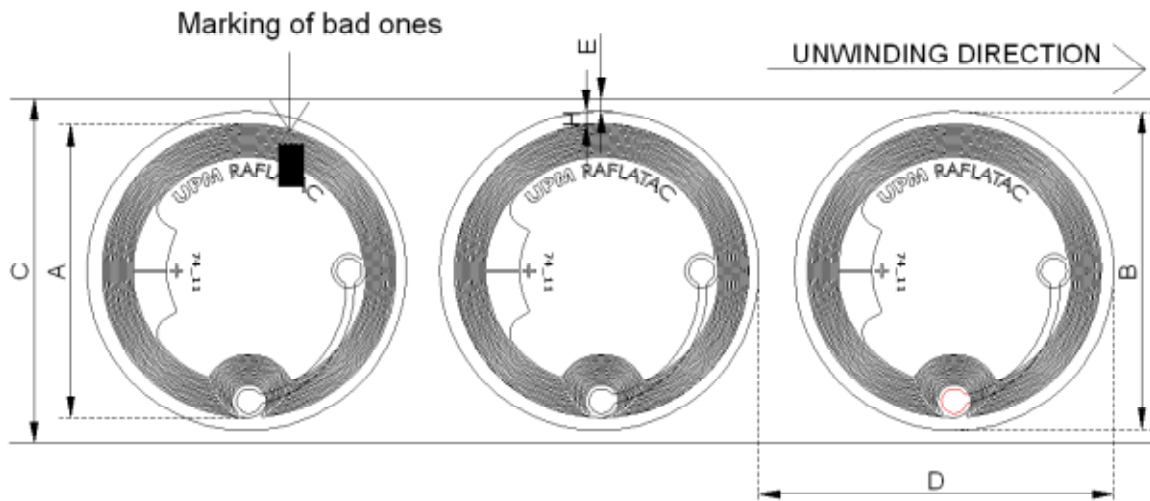
ISO 14 443 A

NXP Mifare Ultralight C (17 pF)

Sales code 3002096

**Mechanical dimensions**

A	Coil diameter	35 mm	± 0,5 mm	1,378 in
B	Die-cut diameter	38 mm	± 0,2 mm	1,496 in
C	Web width	41 mm	± 0.5 mm	1,614 in
D	Pitch, length per piece MD	42 mm	± 1,5 mm	1,654 in
E	Die-cut to web edge	1,5 mm	± 1,5 mm	0,059 in
H	Coil to die-cut	1,5 mm	± 1,5 mm	0,059 in
	Thickness of the IC	120 µm	± 10 %	
	Overall thickness of the transponder package (excluding IC and siliconized paper)	201 µm	± 10 %	
	Thickness of the siliconized paper	56 µm	± 5 %	



**Electrical characteristics**

Integrated Circuit (IC)	NXP Mifare Ultralight C (17 pF)
Air interface protocol	ISO 14 443 A
Operation frequency	13,56 MHz
Unloaded resonance frequency	15,70 MHz ± 1,25 MHz
Memory	1536 bit

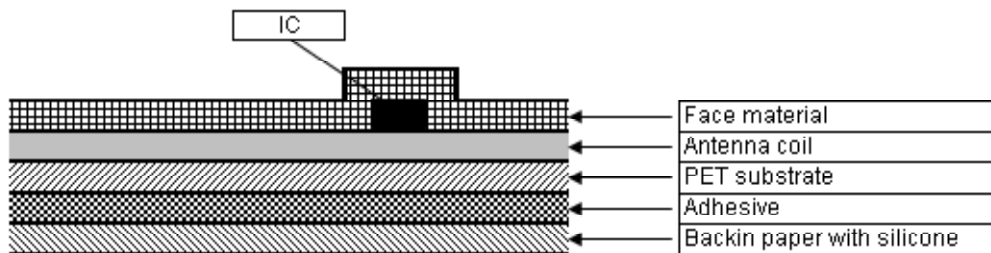
### General characteristics of transponder

Operating temperature (electronics parts)	-25 °C / +70 °C	-13 °F / 158 °F
Thermal cycle resistance (electronics parts)	200 cycles -40 °C / +80 °C (JESD22-A104-B)	200 cycles -40 °F / 176 °F (JESD22-A104-B)
Temperature humidity resistance (electronics parts)	85 °C, 85 % RH, 168 h (IEC60068-2-67)	185 °F, 85 % RH, 168 h (IEC60068-2-67)
ESD voltage immunity	± 2 kV peak HBM	
Shelf life: From the date of manufacture 2 years in	+20 °C, 50 % RH	68 °F, 50 % RH
Bending diameter (D)	> 50 mm, tension less than 10 N	

### Delivery form

Transponder format	Die-cut	
Transponder face material	Opaque Matt Paper 79	
Transponder backing material	Siliconized Paper 56	
Transponder antenna material	Aluminum, crimped coil	
Transponder adhesive	RA-4	
- labelling temperature	min. +5 °C	min. 41 °F
- usage temperature	-10 °C - 90 °C	14 °F - 194 °F
- peel	min. 10 N / 25 mm (FTM 1)	
Final inspection	100 %, known faulty ones marked	
Minimum delivery yield	95 %	
Reel label	Reel number, Material number, Material description, Yield, qty of functional inlays, qty of non-functional inlays, date, time	
Printability	Needs to be tested by customer	

### Structure



### Delivery details

Appearance	Single row reel form
Reel core	Paper core inner diameter 76 mm (3 in)
Transponder alignment	Chip at rear of transponder
Winding of the reel	Face out

### Disclaimer:

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This technical specification replaces all earlier ones.

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