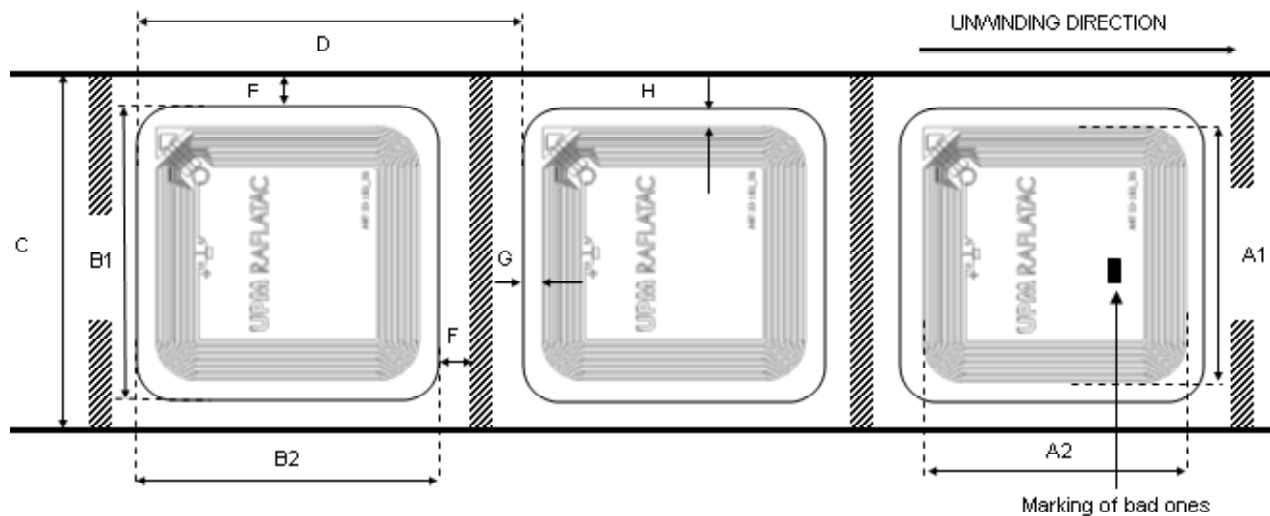




50 x 50 mm Paper Tag
ISO 15 693
NXP ICode SLI
Sales code 3001228

Mechanical dimensions

A1 x A2	Coil size	47 x 47 mm	± 0,5 mm	1,850 x 1,850 in
B1 x B2	Die-cut size	50 x 50 mm	± 0,2 mm	1,969 x 1,969 in
C	Web width	54 mm	± 0,5 mm	2,126 in
D	Pitch, length per piece MD	56 mm	± 1,5 mm	2,205 in
E	Die-cut to web edge	2 mm	± 1,5 mm	0,079 in
F	Die-cut to register mark	1,5 mm	± 1,0 mm	0,059 in
G	Coil to die-cut (MD)	1,5 mm	± 1,5 mm	0,059 in
H	Coil to die-cut (CD)	1,5 mm	± 1,5 mm	0,059 in
	Thickness of the IC	150 µm	± 10 %	
	Overall thickness of transponder package (excluding IC and siliconized paper)	191 µm	± 10 %	
	Thickness of the siliconized paper	56 µm	± 5 %	



Electrical characteristics

Integrated Circuit (IC)	NXP ICode SLI
IC's protocol	ISO 15 693
Operation frequency	13,56 MHz
Unloaded resonance frequency	14,15 MHz ± 0,30 MHz
Memory	1k bit R/W EEPROM

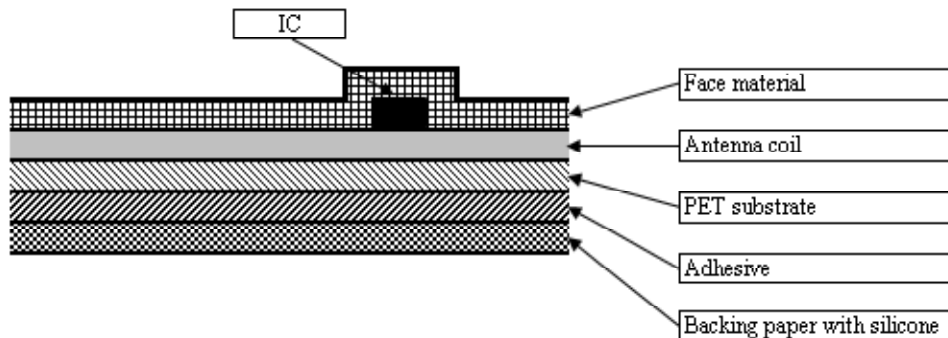
General characteristics of transponder

Operating temperature (electronics parts)	-25 °C / +85 °C	-13 °F / 185 °F
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	
Static pressure (P)	< 10 MPa (10 N/mm ²)	

Delivery form

Transponder format	Die-cut	
Transponder face material	Opaque Matt Paper 79	
Transponder backing material	Siliconized Paper 56	
Transponder antenna material	Copper	
Transponder adhesive	RA-2	
- labelling temperature	min. +5 °C	min. 41 °F
- usage temperature	-10 °C - 120 °C	14 °F - 248 °F
- peel	min. 8 N / 25 mm (FTM 2)	
Final inspection	100 %, known faulty ones marked	
Minimum delivery yield	97 %	
Reel label	Reel number, product number, quantity of passed tags, prod. order number, yield and date	
Printability	Flexography and TTR with selected ribbons. Do not print over IC area	

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
Reel size	2000 pcs/reel

Warranty:

UPM Raflatac RFID tags designated for books and sold into library applications are guaranteed for the lifetime* of the book in standard environmental conditions (typically +20 °C, 50 % relative humidity). The warranty starts from the date of delivery from UPM Raflatac.

The

storage of book tags prior to use must be as per UPM Raflatac guidelines (+15 – +25 °C, 40 – 60 % relative humidity).

* Lifetime in a public lending library is considered to be 10 years.

N.B.

- a. It is highly recommended that book tags are placed on the inside of the back cover.
- b. Extremes of temperature and/or humidity may adversely affect the performance of the book tag.
- c. Damage through physical and malicious abuse is not covered.
- d. IC data retention is guaranteed for 10 years, with a minimum endurance of 100,000 re-writes.
- e. Adhesive performance may vary depending on the substrate.
Surfaces which are rough and fibrous will reduce adhesive performance.
Surfaces which contain plasticizers (PVC/vinyl) should be avoided.
Surfaces which are highly varnished or have high silicone content will affect adhesive performance.
- f. The warranty covers the replacement cost of the tag only.
No consequential claims will be accepted.
- g. All claims are investigated before approval.

Disclaimer:

UPM Raflatac reserves the right to change its products and services at any time without notice. Our recommendations are based on our best knowledge and experience.

Use extra care in handling the product.

This technical specification replaces all earlier ones.

Version	1
Update date	15 December 2008
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Approved	UPM Raflatac, RFID / Kirsi Kervinen