



# bibliotheca RFID tag™ squareClear

ISO 15 693, ISO 18 000-3 Mode 1, NXP ICode SLIX2

Item Code: TAG000050

## mechanical dimensions

<b>A1 x A2</b>	<b>Antenna size</b>	47 x 47 mm	± 0,5 mm	1,850 x 1,850 in
<b>B1 x B2</b>	<b>Die-cut size</b>	50 x50 mm	± 0,2 mm	1,969 x 1,969 in
<b>C</b>	<b>Web width</b>	54 mm	± 0,5 mm	2,126 in
<b>D</b>	<b>Pitch, length per piece MD</b>	56 mm	± 1,5 mm	2,205 in
<b>E</b>	<b>Die-cut to web edge</b>	2 mm	± 1,5 mm	0,079 in
<b>G</b>	<b>Antenna to die-cut (MD)</b>	1,5 mm	± 1,5 mm	0,059 in
<b>H</b>	<b>Antenna to die-cut (CD)</b>	1,5 mm	± 1,5 mm	0,059 in
<b>U</b>	<b>Die-cut corner radius</b>	3 mm		0,118 in
	<b>Thickness of the IC</b>	127 µm	± 15 %	
	<b>Overall thickness of transponder package (excluding IC and siliconized paper)</b>	136 µm	± 10 %	
	<b>Thickness of the siliconized paper</b>	56 µm	± 5 %	

## electrical characteristics

<b>Integrated Circuit (IC)</b>	NXP ICode SLIX2
<b>Air interface protocol</b>	ISO 15 693, ISO 18 000-3 Mode 1
<b>Operating frequency</b>	13,56 MHz
<b>Unloaded resonance frequency</b>	14,10 MHz ± 0,35 MHz
<b>Memory</b>	2.5k bits user memory

## general characteristics of transponder

<b>Operating temperature (electronics parts)</b>	-40 °C / +85 °C	-40 °F / 185 °F
<b>ESD voltage immunity</b>	± 2 kV peak HBM	
<b>Shelf life: From the date of manufacture 2 years in</b>	15 °C / 25 °C, 50 % RH	59 °F / 77 °F, 50 % RH
<b>Bending diameter (D)</b>	> 50 mm, tension less than 10 N	

## delivery form

<b>Transponder format</b>	Die-cut
<b>Transponder face material</b>	Clear PET 12
<b>Transponder backing material</b>	Siliconized Paper 56
<b>Transponder antenna material</b>	Aluminum, crimped coil
<b>Transponder adhesive</b>	Neutral pH Radiation Cured UV Acrylic
<b>labelling temperature</b>	min. +0 °C, min. 32 °F
<b>usage temperature</b>	-20 °C - 80 °C, -4 °F - 176 °F
<b>peel</b>	min. 10 N / 25 mm (FTM 1)
<b>Final inspection</b>	100 %, known faulty ones marked
<b>Minimum delivery yield</b>	97 %
<b>Printability</b>	Needs to be tested by customer

## delivery details

<b>Appearance</b>	Single row reel form
<b>Reel core</b>	Paper core inner diameter 76 mm (3 in)
<b>Transponder alignment</b>	Chip at rear of transponder
<b>Winding of the reel</b>	Face out
<b>Standard reel size</b>	2000 pcs/reel, Diameter:< 205 mm
<b>Package size</b>	6000 pcs/box, Deliveries only in full packages, 3 rolls per box

## bibliotheca label performance guarantee

All bibliotheca RFID tag™ products must pass accelerated aging testing at 85°C and at 85% humidity for 15 weeks which included performance testing. Our entire range of RFID tag™ products, when handled according to our recommended practices, are guaranteed for the lifetime of the item to which they are affixed. Data Retention guaranteed for 50 years with a minimum of 100,000 read/write cycles.

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