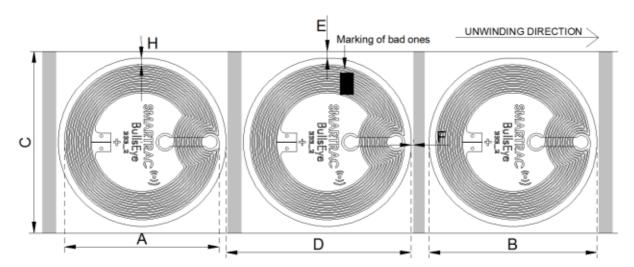


# **Preliminary Product Specification**

BullsEye NFC Wet Inlay ISO/IEC 18092 Sony FeliCa Lite-S Sales code 3003103

## **Mechanical dimensions**

| Α | Antenna size  | 35 mm  | ± 0,5 mm | 1,378 in |
|---|---|--------|----------|----------|
| В | Die-cut size  | 38 mm  | ± 0,2 mm | 1,496 in |
| С | 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 |
| F | Die-cut to register mark  | 0,5 mm | ± 1,0 mm | 0,020 in |
| Н | Antenna to die-cut (CD)   | 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) | 141 μm | ± 10 %   |          |



### **Electrical characteristics**

| Integrated Circuit (IC)      | Sony FeliCa Lite-S |
|------------------------------|--------------------|
| Air interface protocol       | ISO/IEC 18092      |
| Operation frequency          | 13,56 MHz          |
| Unloaded resonance frequency | TBD                |
| Memory                       | 224 bytes          |

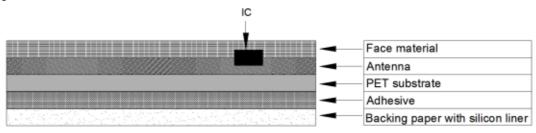
# General characteristics of transponder

| Operating temperature                               | -25 °C / +85 °C                 | -13 °F / 185 °F |
|---|---------------------------------|-----------------|
| (electronics parts)                                 |                                 |                 |
| 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    | Clear PET 12  |                |  |
| Transponder backing material | Siliconized Paper 56  |                |  |
| Transponder antenna material | Aluminum  |                |  |
| Transponder adhesive         | RA-2  |                |  |
| - labelling temperature      | min. +5 °C  | min. +41 °F    |  |
| - usage temperature          | -40°C - 150 °C  | -40°F - 302 °F |  |
| - peel                       | min. 8 N / 25 mm (FTM 2)  |                |  |
| Final inspection             | 100 %, known faulty ones marked   |                |  |
| Minimum delivery yield       | 95 %  |                |  |
| Reel Label                   | Reel number, Material number, Material description,<br>Yield, Qty of functional inlays, Qty of non-functional<br>inlays, Date |                |  |
| Printability                 | Needs to be tested by customer  |                |  |

### Structure



### **Delivery details**

| zonio, wotano         |   |  |  |  |
|-----------------------|---|--|--|--|
| 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             | 4000 pcs/reel Diameter: < 205 mm                |  |  |  |
| Package size          | 16000 pcs/box Deliveries only in full packages. |  |  |  |

#### Disclaimer:

SMARTRAC reserves the right to change its products and services at any time without notice. Our recommendations are based on our best knowledge and experience. As the products are used outside our control we cannot take responsibility for any damage that may be caused when using the product. Use extra care in handling the product.

Products classified as CES samples have the released for production (RFP) product's form factor, RF performance and IC functionality. CES samples represent the RFP products in most aspects. CES samples are delivered without any warranty. During the CES phase, SMARTRAC reserves the right to modify product specifications without notice.

This technical specification replaces all earlier ones.

Version '

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