



# HF & NFC Inlay

## 45 × 42 mm



[AI]

### 13.56 MHz RFID Transponder Inlay

Product codes for inlays with chip at centre position:

L15-045042A11-xxx [17pF]

L15-045042B11-xxx [23.5pF]

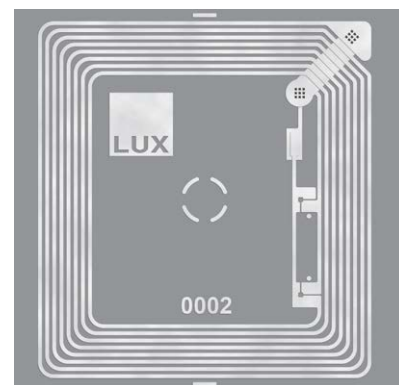
L15-045042C11-xxx [50pF]

Product codes for inlays with chip at corner position:

L15-045042F11-xxx [17pF]

L15-045042G11-xxx [23.5pF]

L15-045042H11-xxx [50pF]



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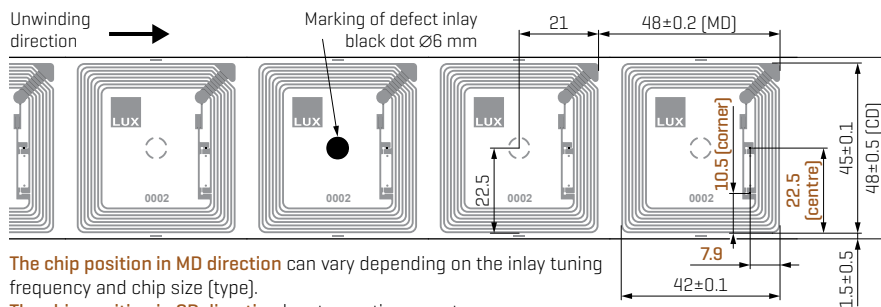
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A range of applications.

LUX-IDent smart inlays are ultra-thin, flexible and designed to be combined with the ideal RFID chip type to attain highest possible performance level at minimum cost.

### INLAY OVERVIEW WITH DIMENSIONS – IN REEL FORMAT [mm]



The chip position in MD direction can vary depending on the inlay tuning frequency and chip size [type].  
The chip position in CD direction has two options: center or corner.

The inlays are ready for converting into various types of smart labels / tickets / tags as typically used for RFID applications in:

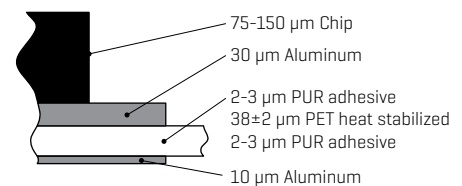
- Logistics
- Asset management
- Supply chain management
- Transportation
- Identification and authentication
- NFC

### RFID CHIP TYPES

Manufacturer Standard	Chip type
<b>NXP</b>	
ISO 15693	ICODE® family
ISO 18000 3M3	
ISO 14443A	MIFARE Classic®, MIFARE Ultralight®, MIFARE Plus®, MIFARE® DESFire®, NTAG™ family
NFC	MIFARE Ultralight®, MIFARE Plus®, MIFARE® DESFire®, NTAG™ family
<b>Infineon</b>	
ISO 15693	my-d™ vicinity
ISO 14443A	my-d™ proximity, my-d™ move, SLE77xxx [A/B], CIPURSE™ products
NFC	my-d™ NFC, my-d™ move NFC, CIPURSE™ products
<b>STMicroelectronics</b>	
ISO 15693	ST25TVxxx family
ISO 14443A	ST25TAxxx family
NFC	ST25TAxxx family
<b>EM Microelectronic</b>	
ISO 15693	EM4237 SLIC/SLIX
NFC	EM4423, NF4
<b>Fujitsu</b>	
ISO 15693	MB89R-family

Other ICs are available upon request.

### CROSS SECTION



### RELIABILITY

Operation temperature	-25°C to 70°C/85°C, depending on chip specification
Storage conditions	1 year at 10°C to 25°C, maximum 60% relative humidity
Thermal humidity test	168h at 85°C / 85% humidity
Temperature cycle resistance	250 cycles at -40°C to 85°C
Bending	Chip upside: Ø 30mm – 15N 35mm [CD] 30N 48mm [CD] Chip downside: Ø 40mm – 15N 35mm [CD] 30N 48mm [CD]
Shear force onto chip	10N / mm <sup>2</sup> chip area
ESD voltage immunity	±2kV max. peak – human body model (HBM) accord. to chip specification

### INLAY DELIVERY DETAILS

Quantity on reel	5,000 / 10,000
Reel dimension	Ø Reel: 265 mm / 365 mm Ø Core: 76.2 mm [3"]
QC inspection inline	100% electrical UID test with bad marking of rejected inlays

LUX-IDent products are not designed, intended, authorized or warranted to be suitable for life support applications or any other life critical applications which could involve potential risk of death, personal injury or severe property or environmental damage.

LUX-IDent assumes neither liability nor responsibility for the technical performance and specifications of the RFID chip type used in the transponder inlay.

Link to chip specification:  
<http://www.lux-ident.com/chip-technologies>