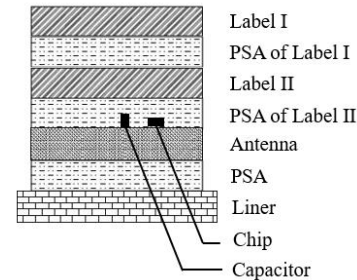


1. Product Overview



Product Overview



Product Structure

2. Materials

RFID Label:	
- Size (Final Cut-out)	28x44 mm (MDxCD) R2
- Thickness (Over IC)	~ 480 μm
- Thickness (Over Antenna)	~ 280 μm
RF Chip:	
- IC Code	Wiliot WLT000403 IC
- RF Protocol	BLE (Bluetooth Low Energy) 5.0
- Thickness	~ 223.5 μm
Antenna Substrate:	
- Antenna Size	UHF 2.4 GHz Identiv Smart Inlays 19.24x40.05 mm
- Material	Cu etched on PET substrate (copper thickness ~18 μm) Remarks: Antenna revision of finish goods depends on stock availability of Identiv
External Capacitor I:	
- Capacitance	~ 470nF
- Thickness	~ 300 μm
- SMD capacitor device code	0201 (0.6x0.3x0.3mm)
- Supplier part number	Murata GRM033R60J474KE90D
Label I:	White PET (~50 μm)
PSA of Label I:	Acrylic (~20 μm)
Label II:	Black PET (~75 μm)
PSA of Label II:	Acrylic (~22 μm)
Antenna:	PET substrate (~71 μm)
PSA:	Acrylic (~19 μm)
Liner:	Release paper (~51 μm)

3. Reliability

Operating Temperature:	-20°C ~ 70°C (-4°F ~ 158°F), at <60%RH (According to and limited by chip specification)
Storage Life:	1 year under desiccated condition; 10°C ~ 25°C (50°F ~ 77°F), ≤ 60% RH
Reliability:	
- Thermal Cycle Test	TBC
- Thermal Humidity Test	TBC

4. Delivery Details

Delivery Format:	Reel - Flange size: OD 300mm/ID 76mm - Qty/reel (Functional units): 5,000 units (Approximate) - Bad units: Indicated with black square-shape mark (Size: ~10x10mm) - Carton box size (L x W x H): 39 x 34 x 34cm - Pallet tray size (L x W x H): 120 x 80 x 13cm - # of reels per carton box: ~ 6 reels - # of weight per carton box: TBC kg - # of carton per pallet: 24 Carton boxes - # of weight per pallet: TBC kg - Full Pallet size (L x W x H): 120 x 80 x 151cm
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5. Ordering Information

Product Code:	LA1PADV50190
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6. Dimension of RFID Label in Reel Format

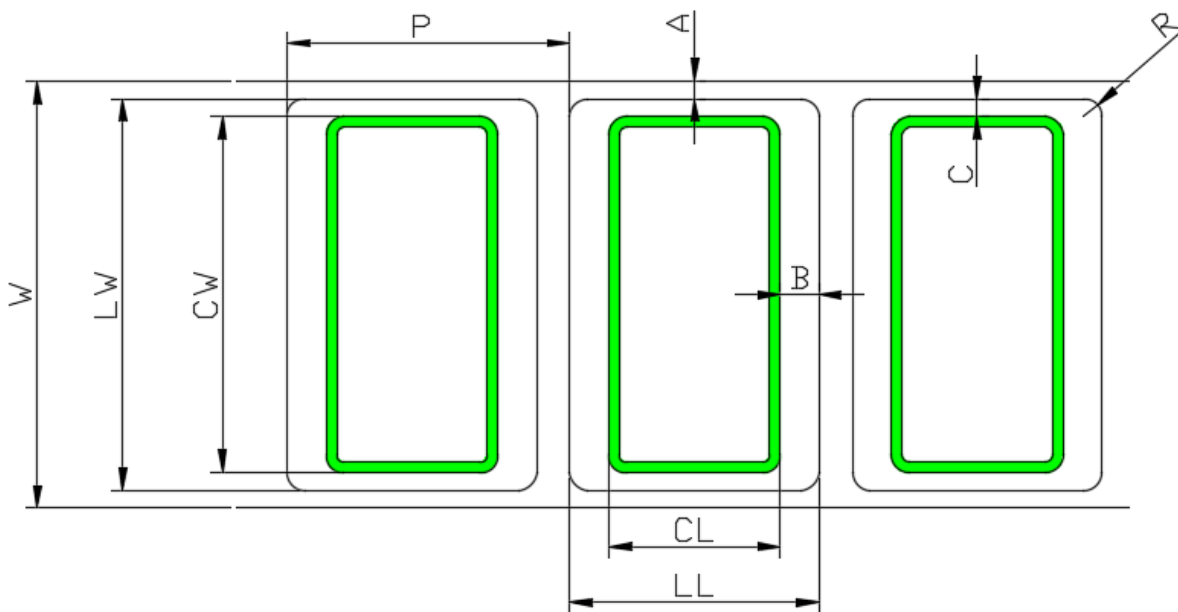
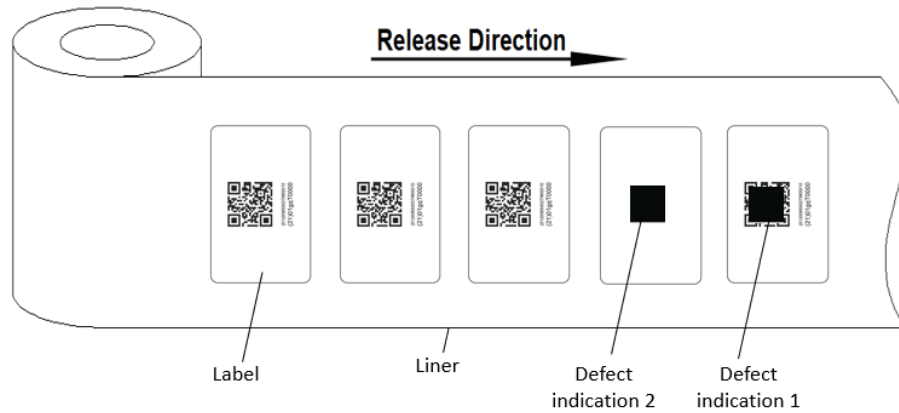


Fig 1 Dimension of RFID Label in Reel Format

Mechanical Dimensions

Item #	Description	Dimension	Tolerance
P	Pitch of Label to Label	31.75 mm	± 1.5 mm
W	Liner width	48.0 mm	± 2.0 mm
CL × CW	Transponder antenna size	19.24 × 40.05 mm	± 0.5 mm
LL × LW	Transponder die-cut label size	28 × 44 mm	± 0.5 mm
R	Transponder die-cut label corner radius	2.0 mm	± 0.5 mm
A	Transponder die-cut label to web edge	2.0 mm	± 2.0 mm
B	Transponder antenna to die-cut (MD)	4.4 mm	± 2.0 mm
C	Transponder antenna to die-cut (CD)	2.0 mm	± 2.0 mm
Miscellaneous	Thickness of the IC	223.5 μm	± 18.5 μm
	Overall thickness of transponder package (Excluding IC and Liner)	280 μm	± 10%
	Thickness of Liner	51 μm	± 10%

7. Packing Information



Defect indication 1 – label with print defects
 Defect indication 2 – label with unresponsive tags

Fig 2 Reel Release Directions – Label Face Out (Factory Default)



Fig 3 Packing Label on Flange (sample only)

Product Code	: LA1PADV50190-E0000
	: N.A.
Description	: Label Wiliot WLT000403
	: 28x44 mm (MDxCD) R2
Reel / Box No	: 1
Lot No.	: A220 2888
Pass/ Total Quantity	: 5000 / 5000
Running No. (smallest)	: N.A.
Running No. (largest)	: N.A.
Date of Production	: 28/11/2022
Employee No	: EP000379
	L02R02

Fig 4 Flange Label (sample only)

Label

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Wiliot WLT000403, 28x44 mm (MDxCD) R2

Product Code : LA1PADV50190

8. Details of artwork printing



Artwork Printing:

Good tags are marked with GS1-QR in SGTIN format as per the below specification:

- 1) Barcode version – 33x33
- 2) Module size – 0.38
- 3) Error correction – 30%
- 4) QR code size – 12.5mm x 12.5mm
- 5) QR with printed text- 18.5mm x 12.5mm

- Human Readable Data below QR Code (line 1);

Exp: "(01)00850027865010"

- Font: Arial, Regular, 3.5pt, line spacing +10, 18 digits

- Human Readable Data (line 2);

Exp: "(21)01gqT0000"

- Font: Arial, Regular, 5pt, line spacing +10, 13 digits

- QR code to be scanned out;

Exp: "(01)00850027865010(21)01gqT0000", 31 digits

9. Tag Serialization

With the aid of the Wiliot API, each tag will be electrically qualified and IC memory data of functional tags will be read out for serialization together with the external ID data as in the QR code printed on the label surface.

10. Legal Information

Application Notes:

Identiv products ("Products")

Products will not cause damage to other items under normal application, and with appropriate and proper surface preparation and label application as prescribed by Identiv. For label-tagging applications, it is imperative that the surfaces to which the Products are applied or attached to are clean, dry, and free of grease, oil or any other foreign particles/materials at all times. Adhesive strength between the Products and the objects to be tagged is dependent on the type of adhesive used, characteristic of object surface, compatibility between the adhesive and the object surface, and other applicable factors. When dispensing process is required, relevant dispensing equipments shall be maintained & cleaned regularly, and IC shall be free of mechanical pressure during dispensing. Extra thickness introduced by the Products could lead to unexpected malfunction for insertion and/or embedding application, especially when space is limited and/or when under extreme environmental conditions. As such, prior to use, a user has to independently determine the suitability of the Products for the user's purposes.

IC chips

Identiv does not manufacture IC chips nor make any changes/modifications to IC memory used for the Products (such as EAS, AFI, user memory, etc if applicable). There is therefore no special chip configuration taken into consideration in the Product Specifications of the Products, unless otherwise specified separately. Please refer to the relevant IC functional specifications for details defined by the relevant IC manufacturer.

Non-use of Products:

Products are not intended for use:

- (i) in life support appliances, devices, or systems where malfunction of the Products can reasonably be expected to result in personal injury, or
- (ii) in direct contact with goods which may be ingested by any living being ("Goods"), or
- (iii) on any form of packaging containing the Goods, where one or several compounds in these products may seep through such packaging into the Goods.

Users using or selling the Products for use in such applications do so strictly on their own risk and hereby expressly agree and undertake to fully indemnify Identiv for all losses, claims and/or damages suffered or incurred by Identiv arising or resulting from such improper use or sale.

Warranty:

All Products are sold with the understanding that user has independently determined suitability of such products for its purposes.

Identiv warrants that Products conform to Identiv's specifications (or if applicable, those of user specifically accepted by Identiv in writing) and are free from defects in materials and workmanship – this warranty expires 12 months after the delivery of the Products. If within the warranty period Products are proven to be defective for reasons directly attributable to Identiv, Identiv shall at its option (i) repair or replace under the same conditions, or modify, all or part of such defective Products; or (ii) refund user with a lump sum equal to the selling price of such defective Products. If Identiv requests, user shall return such defective Products.

Identiv warrants that Products shall be free from defect in title without time limit.

The above warranties and remedies are subject to user having: (a) inspected the Products upon receipt within 2 working days from delivery; (b) notified Identiv in writing of (b1) obvious defect within 5 working days from delivery, or (b2) hidden defect immediately upon becoming aware of such defect; (c) precisely described in such notice the nature of the defects; and (d) properly received, handled, stored, installed, operated, maintained or used Products without them having been subject to alteration, accident, abuse, misuse or repair. The warranties and remedies are not enforceable until Products have been paid in full and shall not apply to (I) defects due to information and equipment supplied by and/or specified by user or third parties; (II) Products which have been altered or repaired by anyone; or (III) normal wear and tear of Products.

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Label

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Williot WLT000403, 28x44 mm (MDxCD) R2

Product Code : LA1PADV50190

11. Revision History

S/N	Date	Description of Change
00	26/09/22	Initial version.
01	28/10/22	Product Code & Section 4 "flange size & qty pr reel" updated.
02	15/11/22	Product code updated.
03	01/12/22	Section 1,2,4,7,8 & 9 "Label details" updated.

12. Approval

	Name:	Job Title:	Sign/Date:
Prepared By:	Hanisa	Assistant Engineer	01/12/22
Checked By:	Lu Xin	Senior Product Development Engineer	01/12/22
Approved By:	MZ Du	Engineering Manager	01/12/22

13. Customer Acceptance

The product is accepted as signed below:	
Name:	
Designation:	
Company:	
Signature/Date:	

CONTACTS

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Revision/Date of release: 2022-12

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