MODEL : LK-B20R

4" DESKTOP LABEL PRINTER

All specifications are subject to change without notice

RISK OF EXPLOSION IF BATTERY IS REPLACED BY AN INCORRECT TYPE.
DISPOSE OF USED BATTERIES ACCORDING TO THE INSTURECITONS

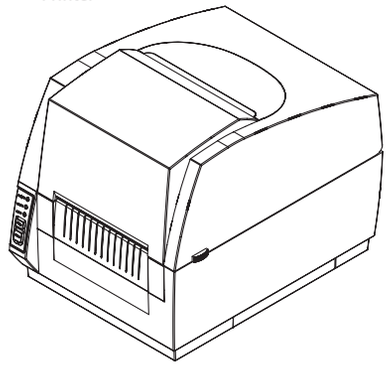
Disposal of Old Electrical&Electronic Equipment(Applicable in the European Union and other European countries with separate collection systems)

This symbol on the product or on its packaging indicates that this product shall not be treated as household waste. Instead it shall be handed over to the applicable collection point for the recycling of electrical and electronics equipment. For more detailed information about recycling of this product, please contact your local city office, your household waste disposal service or the shop where you purchased the product.

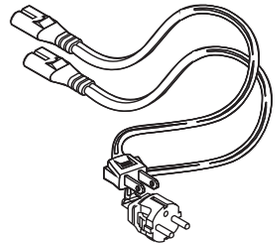
Table of Contents

1. Unpacking

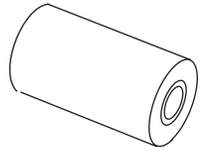
Printer



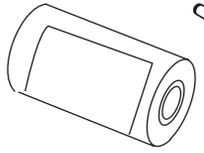
Power Cord(1EA)



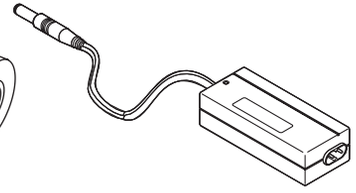
Sample Ribbon



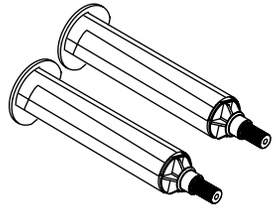
Sample Labels



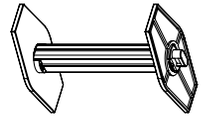
Power Supply



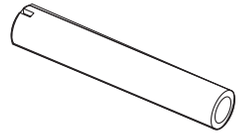
Ribbon Spindle (2EA)



Paper Spindle

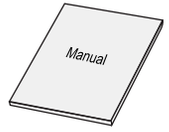


Core

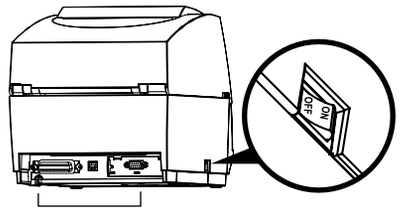


CD

Manual

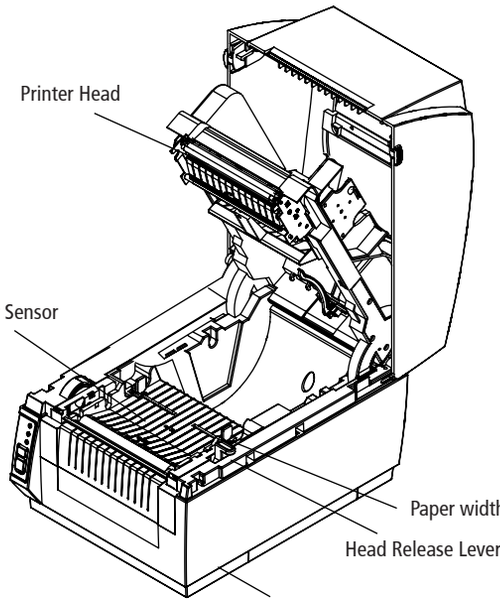


2. Inspecting the printer



Interface Connectors

Power Switch



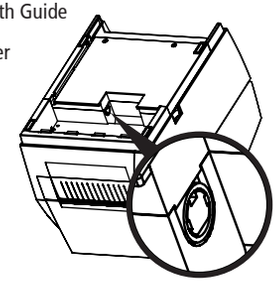
Printer Head

Paper Sensor

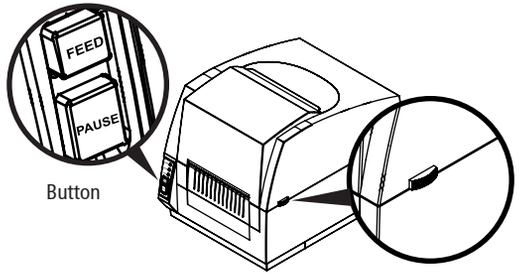
Paper width Guide

Head Release Lever

Bottom Cover



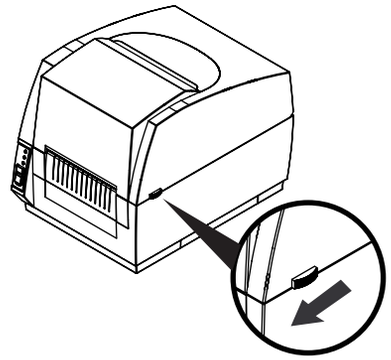
Power Supply



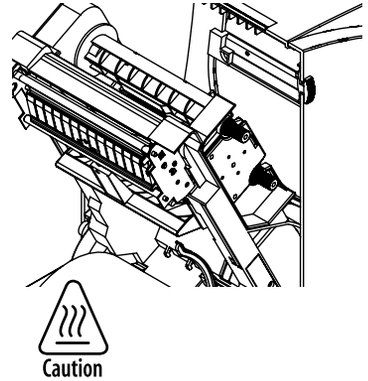
Button

Upper Cover Knob

Opening the printer

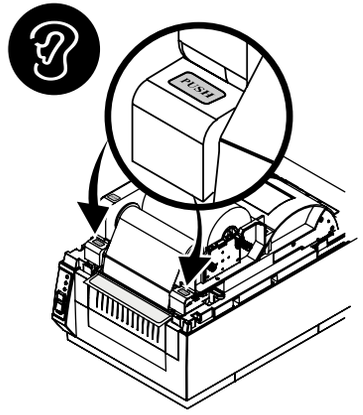


Open the upper cover by pushing the knob in the direction of the arrow



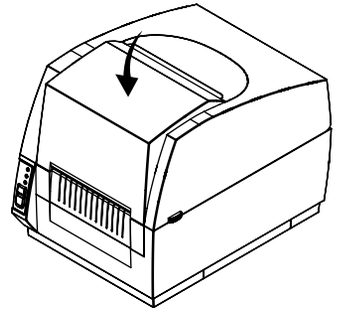
Make sure to be careful of the HOT head

Closing the paper upper guide



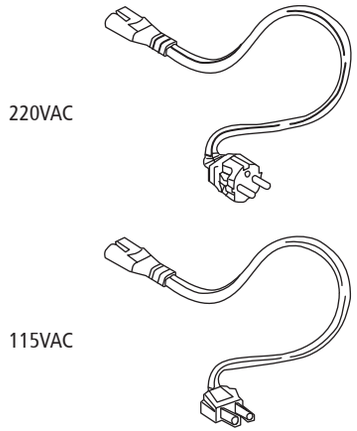
Make sure you hear the closing sound of the paper upper guide.

Closing the upper cover

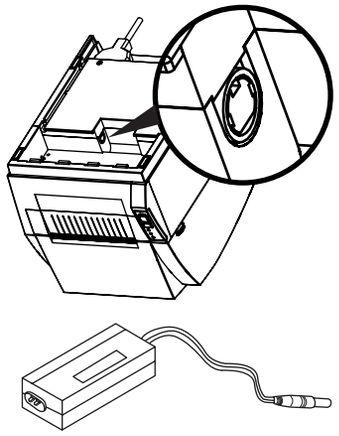


Close the upper cover and make sure you hear the closing sound of the upper cover.

3. Attaching Power Supply

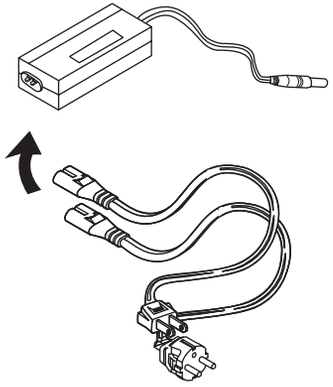


Check the specification of the AC power cord if it is correct with your power system

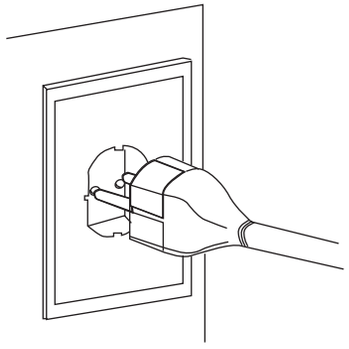


Turn off the power of the printer and connect the power supply to the printer

1 2
3 4

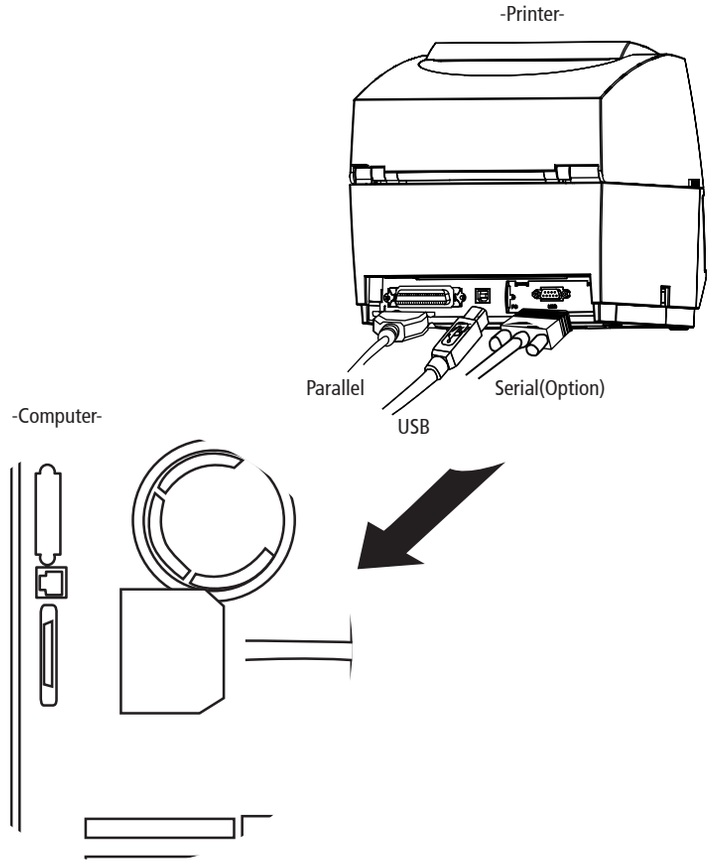


Connect the AC power cord to the power supply



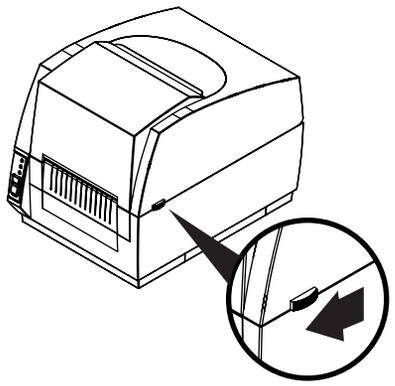
Insert a plug into the outlet

4. Hooking Up the printer and computer

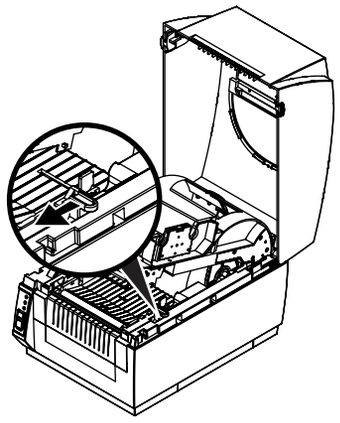


Make sure the printer is turned off then connect the printer to the PC

5. Loading the Paper

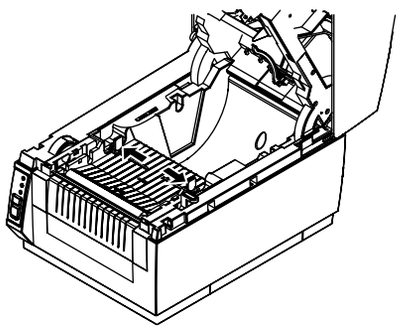


Turn off the printer and open the upper cover by pushing the in the direction of the arrow.

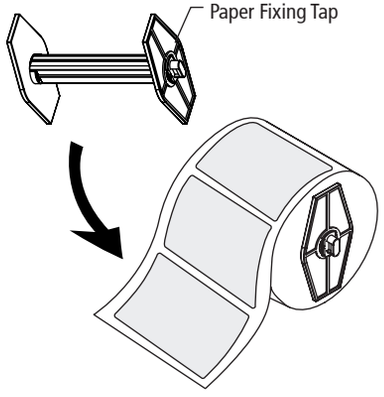


Rise up the paper upper guide by pulling the head release lever

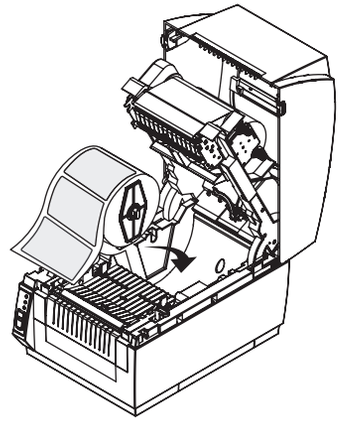
1 2
3 4



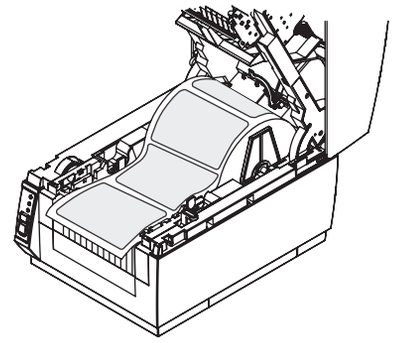
Open the paper width guide by pushing it to the right & left sides.



Pull out one of the adjustable width tabs.
Insert a paper roll replace the tab and center.

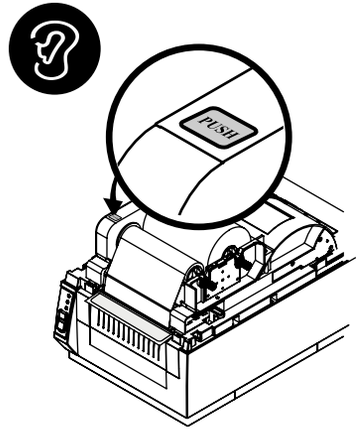


Insert paper roll into the printer

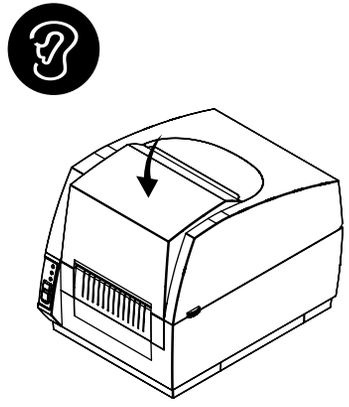


Adjust the paper width guide to meet the paper width

5 6
7 8

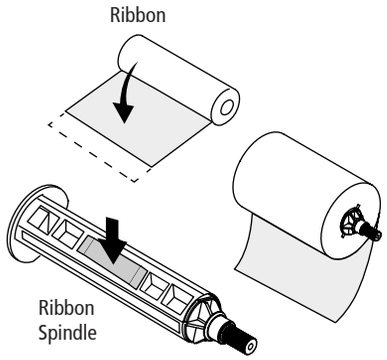


Make sure you hear the closing sound of the paper upper guide.

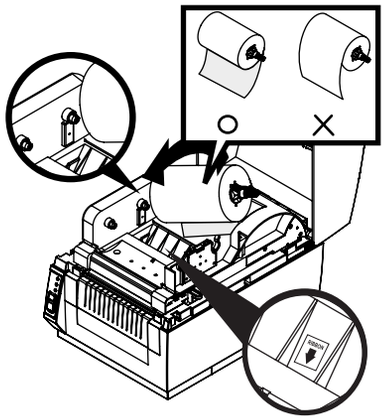


Close the upper cover and make sure you hear the closing sound of the upper cover.

6. Loading Ribbon

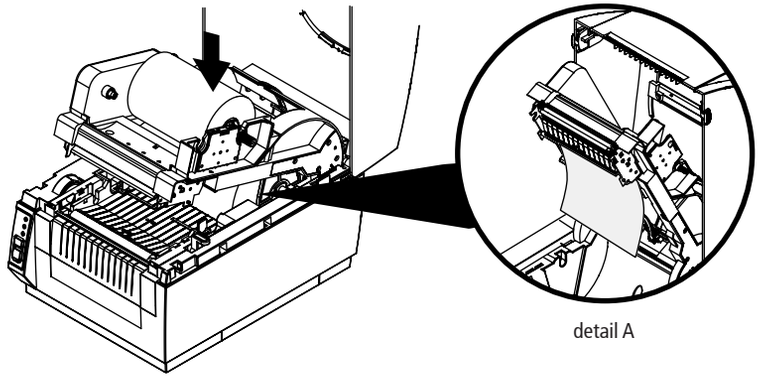


Remove the vinyl covering on the ribbon. Depress the indicated button on the ribbon spindle while inserting the ribbon roll.



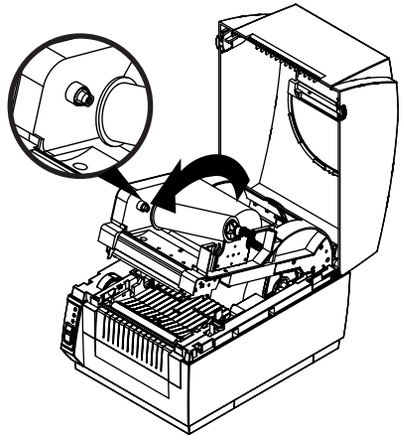
Insert one side of the ribbon spindle

1 2
3

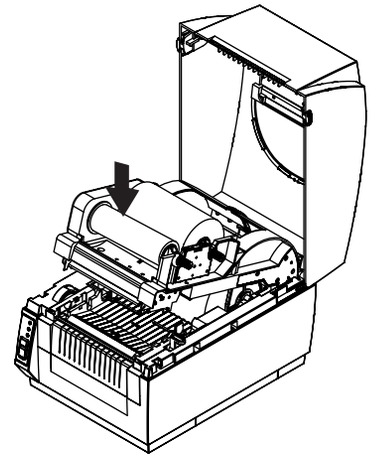


Push the other side of the ribbon spindle down to secure it.

Pull out the ribbon edge through ribbon mechanism as shown in the picture

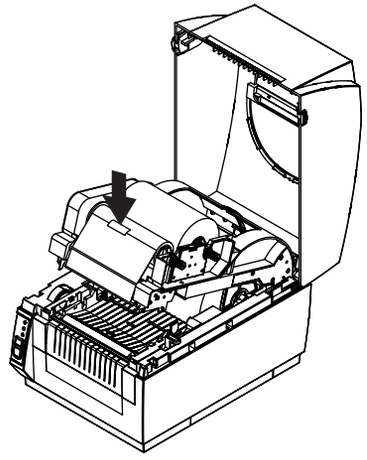


Insert one side of the ribbon spindle

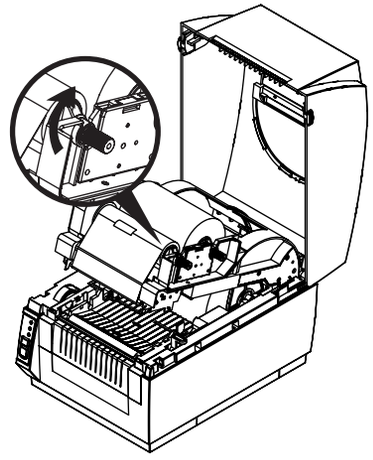


Push the other side of the ribbon spindle down to secure it.

4 5
6 7

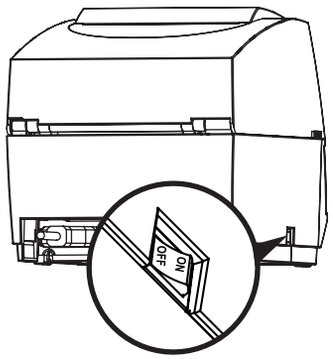


Attach the ribbon to the core with tape as shown.

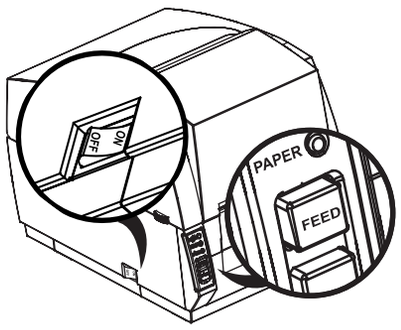


Turn the adjustment knob in the arrow direction to tighten the ribbon.

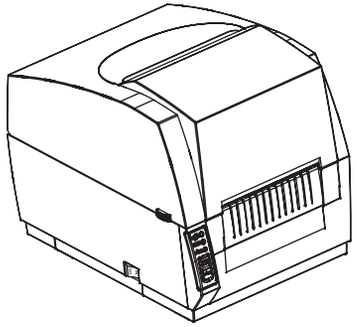
7. Self Test



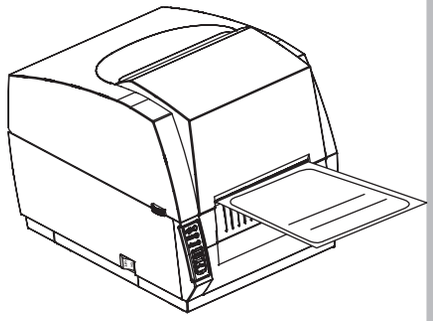
Turn off the printer



While holding down the feed button, turn on the printer



Set free the feed button

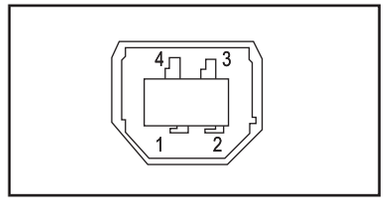


The printer starts printing some basic information

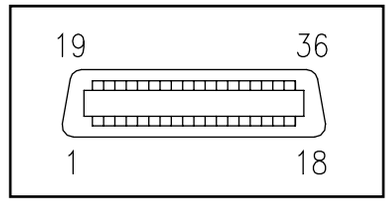
8. Interface

Interface Connectors

Standard

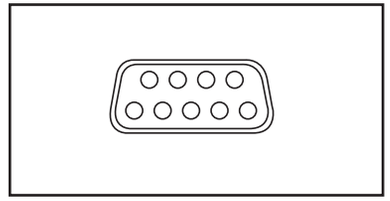


<USB "B" Type>

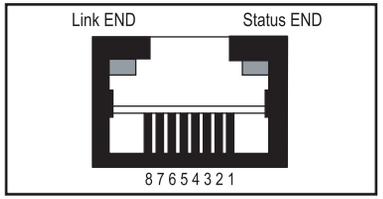


<Centronics Parallel>

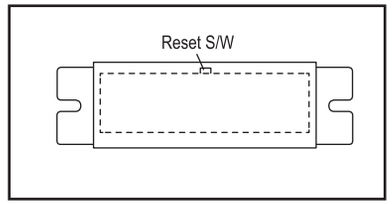
Option



<9 Pin Serial>



<Ethernet>



<Wi-fi>

9Pin Serial Interface

Pin	Signal	I/O	Description
2	RXD	Input	Printer receive data line RS-232C level
3	TXD	Output	Printer transmit data line RS-232C level
4, 7	DTR	Output	Printer handshake to host line RS-232C level
5	GND	-	System Ground
6	DSR	Input	Data Send Ready
1,8,9	NC	-	

Centronics Parallel Interface

Pin	Signal	I/O	Description
1	STROBE-	Input	Synchronize signal Data received
2~9	DATA0~7	Input/Output	Data bit Transmitted 0~7
10	ACK-	Output	Data receiving completed.
11	BUSY	Output	Impossible to print of data receiving.
12	PE	Output	Paper empty
13	SELECT	Output	Printer status for ON/OFF line
14	AUTO FEED-	Input	Paper auto feed signal
15	GROUND	-	System ground
16	GROUND	-	System ground
17	NC	-	
18	LOGIC-H	-	+5V
19~30	GROUND	-	System ground
31	INIT-	Input	Initialize
32	ERROR-	Output	Printer error
33	GROUND	-	System ground
34	NC	-	
35	+5V	-	+5V
36	SELLECT IN-	Input	Printer select signal

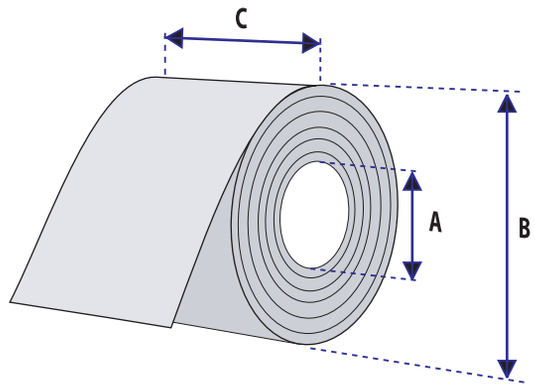
USB Interface

Pin	Signal	I/O	Description
1	+5V	-	+5V
2	DATA-	-	Printer transmit data line
3	DATA+	-	Printer transmit data line
4	GND	-	System Ground

Ethernet Interface

Pin	Signal	I/O
1	Data Out +	Output Data +
2	Data Out -	Output Data -
3	GND	Ground
4	Data IN +	Input Data +
5	Data IN -	Input Data -
6	N.C	
7	N.C	
8	N.C	

9. Media Roll Size



Core		
Diameter(A)	25.4 or 38.1 mm	(1.0 or 1.5 inches)
Max. width	118 mm	(4.65inches)
Roll		
Max.diameter(B)	125 mm	(5 inches)
Max.media width(C)	118 mm	(4.65 inches)
Min.media width(C)	18 mm	(0.7 inches)
Max.media thickness	0.15 mm	(0.006 inches)
Min.mdeia thickness	0.06 mm	(0.003 inches)

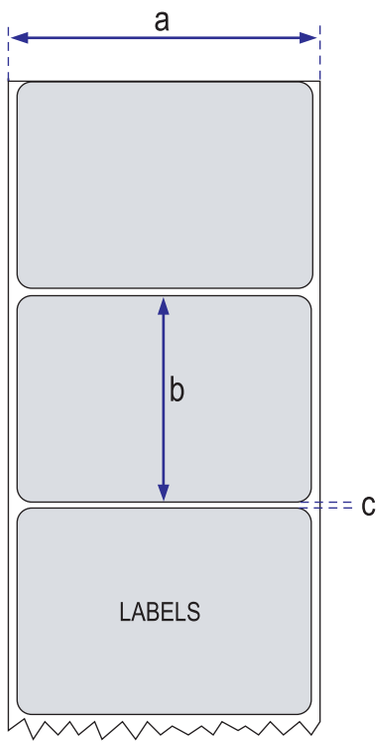
All types of media should normally be wound with the printable side facing outwards and unroll from the top of the roll.
However tags and continuous strip can optionally be wound with the printable sidefacing inwards and unroll from the bottom of the roll as long as they are not used for cut-off operation.

Caution

Protect the media against sand, grit, and other hard particles during printing and storage. Keep the cover closed. Even very small foreign particles may cause severe harm to the delicate printhead.

10. Labels

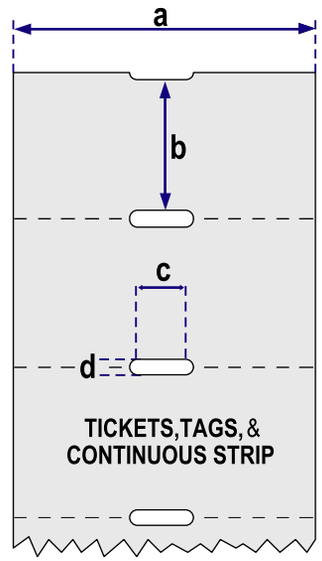
<-- a --> Media width (inch, liner)		
Maximum	118.0 mm	(4.65 inches)
Minimum	18 mm	(0.7 inches)
<-- b --> Label length		
Minimum	10 mm	(0.39 inches)
<-- c --> Label gap height		
Maximum	10 mm	(0.39 inches)
Minimum	2 mm	(0.08 inches)
Liner		
Opacity	75%	



11. Tags and Strip with Slots

<-- a --> Tag or strip width		
Maximum	118.0 mm	(4.65 inches)
Minimum	18 mm	(0.7 inches)
<-- b --> Tag length		
Minimum	10 mm	(0.39 inches)
<-- c --> Detection slot width		
Minimum	14 mm	(0.55 inches)
<-- d --> Detection slot height		
Maximum	10 mm	(0.39 inches)
Minimum	2 mm	(0.08 inches)

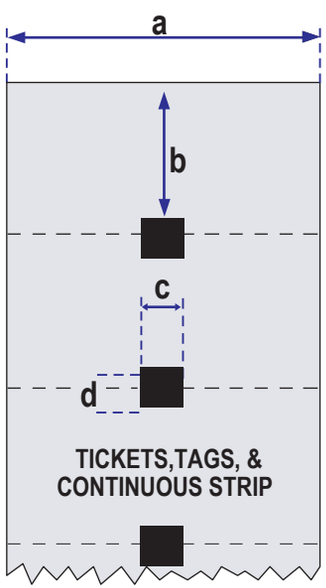
The label gap sensor is offset 4.5 mm(0.177 inches) to the right of the center fo the media path.



12. Tags and Strip with Black Marks

<-- a --> Tag or strip width		
Maximum	118.0 mm	(4.65 inches)
Minimum	18 mm	(0.7 inches)
<-- b --> Tag length		
Minimum	10 mm	(0.39 inches)
<-- c --> Black mark width		
Minimum	14 mm	(0.55 inches)
<-- d --> Black mark height		
Maximum	10 mm	(0.39 inches)
Minimum	3 mm	(0.12 inches)

The black mark sensor is offset 10 mm (0.394 inches) to the right of the center of the media path.
Max. reflectance 5% at 940 nanometer. Carbon black.

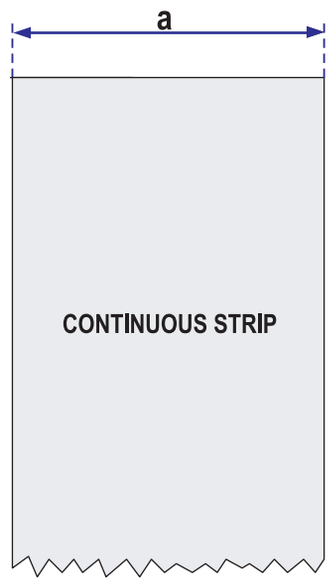


13. Plain Continuous Stock

The printer can use continuous stock without any detection slots or black marks.
The printer must be set for continuous stock by the **Q** command.
The length of each copy is decided by the size of the print image and any additional media feed is decided by the **Q** command.

Continuous stock cannot be used in the Test (Dump) Mode.

<-- a --> Tag or strip width		
Maximum	118.0 mm	(4.65 inches)
Minimum	18 mm	(0.7 inches)



14. Specifications

Product Specifications

Print method		Thermal Transfer and Direct Thermal
Print speed(max)		102mm/sec
Print width(max)		104mm (4.1”)
Print length(max)		630mm (24.8”)
Resolution		203dpi, 8 dots/mm
Paper Width(min~max)		18mm ~118 mm (0.7” ~ 4.64”)
Paper roll size(max)		127mm (5.0”)
Paper thickness		0.06~0.18mm
Paper Type		Label , Tag, Continuous, Fanfold
Paper sensor		Label gap, Notch, Black Mark
Ribbon width(outside diameter)		33mm to 110mm (1.3~4.3”)
Ribbon length		300M, Ø 64 mm (2.5”)
Interface	Standard	Serial(RS-232C), Parallel(IEEE-1284)
	Option	USB, Ethernet, Wireless Lan 802.11b
Memory	Standard	8MB SDRAM, 1.5MB Flash
	Option	8MB Flash
Serial baud rate		115200bps
Auto Cutter (Option)	Life	0.06~0.15mm: 500,000 cuts / 0.15~0.18:300,000 cuts
	Type	Guillotine
Peeler		Option
Programming Language		EPL II (Eltron Programming language)
Barcode	1D	Code39, Code128 with subsets A/B/C, Code
		Interleaved 2 of 5, UPC-A and UPC-E with 2
		EAN-8 and EAN-13 with 2 or 5 Digit Extens
		Postnet, Plessey, German Post Code, MS
	2D	MaxiCode, PDF417, DATAMATRIX, QR CO
Font Specification		6bitmapped 8x12, 10x16, 12x20, 14x24,32x48, 24x24(KSC5601)
Weight		7.9lbs (3.6kg)
Size (W x D x H)		215x287x231

Certification

(1) FCC PART15 CLASS A
(2) CE EMCD (CE-EMCD Class B should use Parallel shield Cable complied with IEEE-1284 standards)
(3) UL/cUL (UL 60950-1)
(4) MIC CLASS A
(5) RoHS (TUV)
(6) CCC

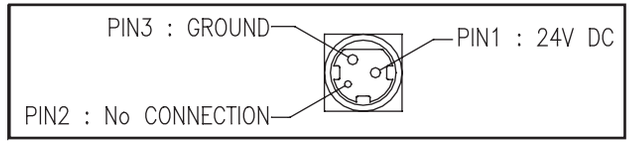
Electrical Characteristics

(1) Input Voltage DC 24V ± 10%

(2) Current Consumption

Operating: Approx. 1.5 A (at ASC II printing)
Peak : Approx. 10 A
(at print duty 100%, For 10 seconds or less)
Stand-by : Approx. 0.15 A

(3) Power Connector

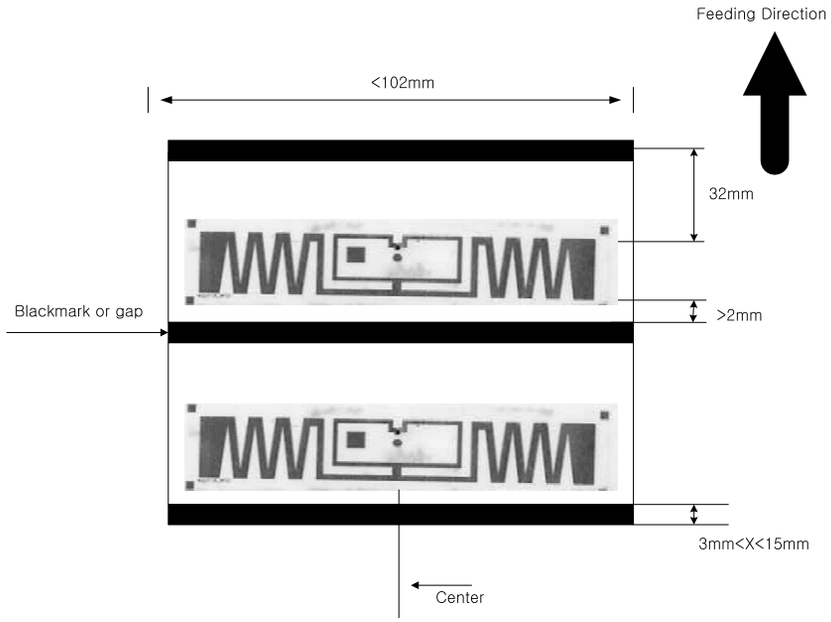


15. Command List

No.	Command	Description
1	A	ASC II Text
2	AUTOFR	Automatic Form Printing
3	B	Bar Code
4	B	RSS-14 Bar Code
5	b	Data Matrix MaxiCode PDF417
6	C	Counter
7	C	Cut Immediate
8	D	Density
9	EI	Print Soft Font Info.
10	EK	Delete Soft Font
11	eR	User Definable Error Response
12	ES	Store Soft Font
13	f	Cut/Peel Position
14	FE	End Form Store
15	FI	Print Form Info.
16	FK	Delete Form
17	FR	Retrieve Form
18	FS	Store Form
19	GG	Retrieve Graphics
20	GI	Print Graphics Info.
21	GK	Delete Graphic
22	GM	Store Graphic
23	GW	Direct Graphic Write
24	I	Character Set Selection
25	JB	Disable Top Of Form Backup
26	JC	Disable Top Of Form Backup –All Cases
27	JF	Enable Top Of Form Backup
28	LE	Line Draw Exclusive OR
29	LO	Line Draw Black
30	LS	Line Draw Diagonal
31	LW	Line Draw White
32	M	Memory Allocation
33	N	Clear Image Buffer
34	o	Cancel Customized Settings
35	oB	Cancel Customize Bar Code
36	oE	Line Mode Font Substitution
37	oH	Macro PDF Offset
38	oM	Disable Initial Esc Sequence Feed
39	oR	Character Substitution(Euro)
40	oW	Customize Bar Code Parameters

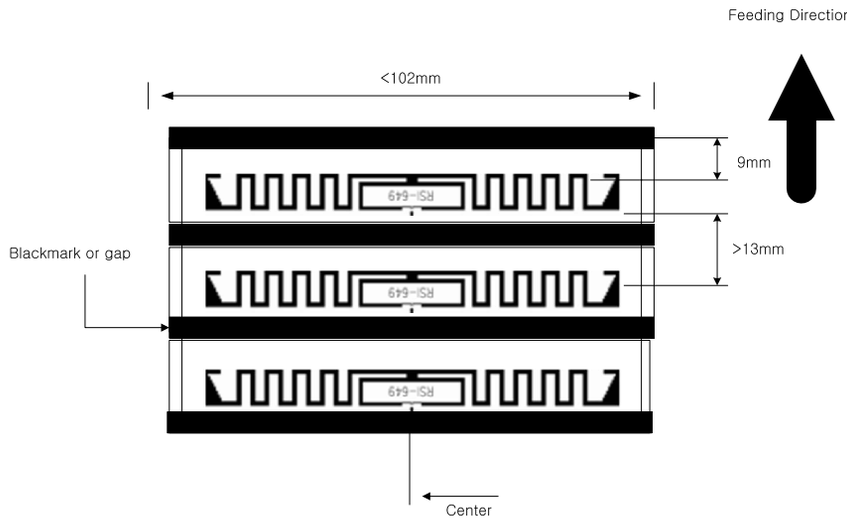
No.	Command	Description
41	O	Options Select
42	OEPL1	Set Line Mode
43	P	Print
44	PA	Print Automatic
45	Q	Set Form Length Transmissive(Gap)Sensor Black Line Sensor Continuous Stock
46	q	Set Form Width
47	r	Set Double Buffer Mode
48	R	Set Reference Point
49	S	Speed Select
50	TD	Define Date Layout(& Print Date)
51	TS	Set Real Time Clock
52	TT	Define Time Layout(& Print Time)
53	U	Print Configuration
54	UA	Enable Clear Label Counter Mode
55	UB	Reset Label Counter Mode
56	UE	External Font Information Inquiry
57	UF	Form Information Inquiry
58	UG	Graphic Information Inquiry
59	UI	Host Prompts/Codepage Inquiry
60	UM	Codepage& Memory Inquiry
61	UN	Disable Error Reporting
62	UP	Codepage& Memory Inquiry/Print
63	UQ	Configuration Inquiry
64	US	Enable Error Reporting
65	V	Define Variable
66	W	Windows Mode
67	xa	Sense Media
68	X	Box Draw
69	Y	Serial Port Setup
70	Z	Print Direction
71	?	Download Variables
72	^ @	Reset Printer
73	^ default	Set Printer to Factory Defaults
74	^ ee	Status Report – Immediate

16. I com TEST



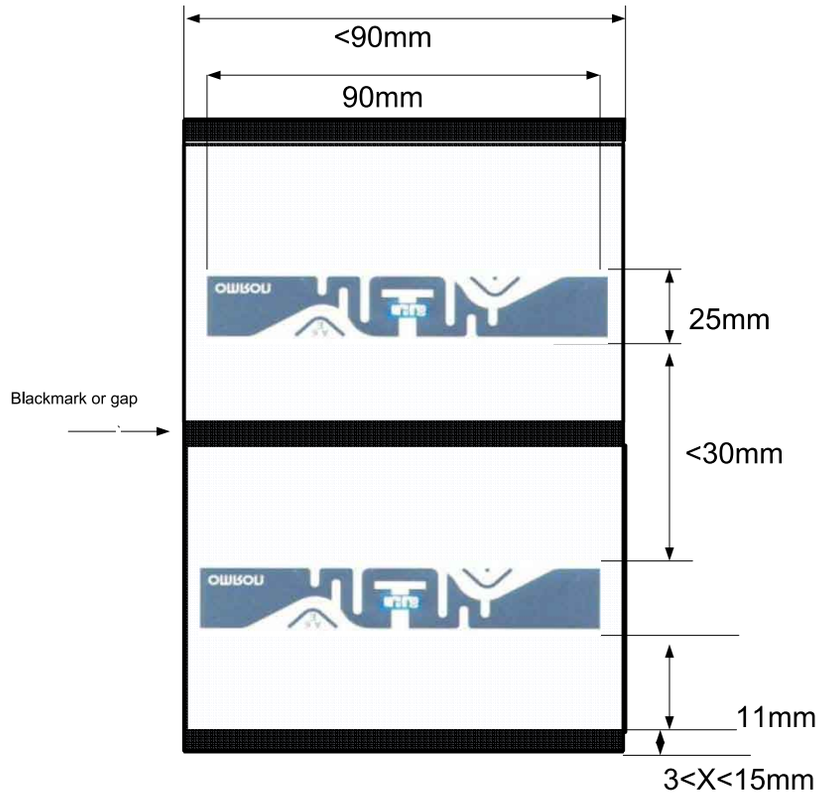
Notes: Dimension are to Transponder Antenna leading edge, not the Transponder leading edge

17. R S I 649 TEST



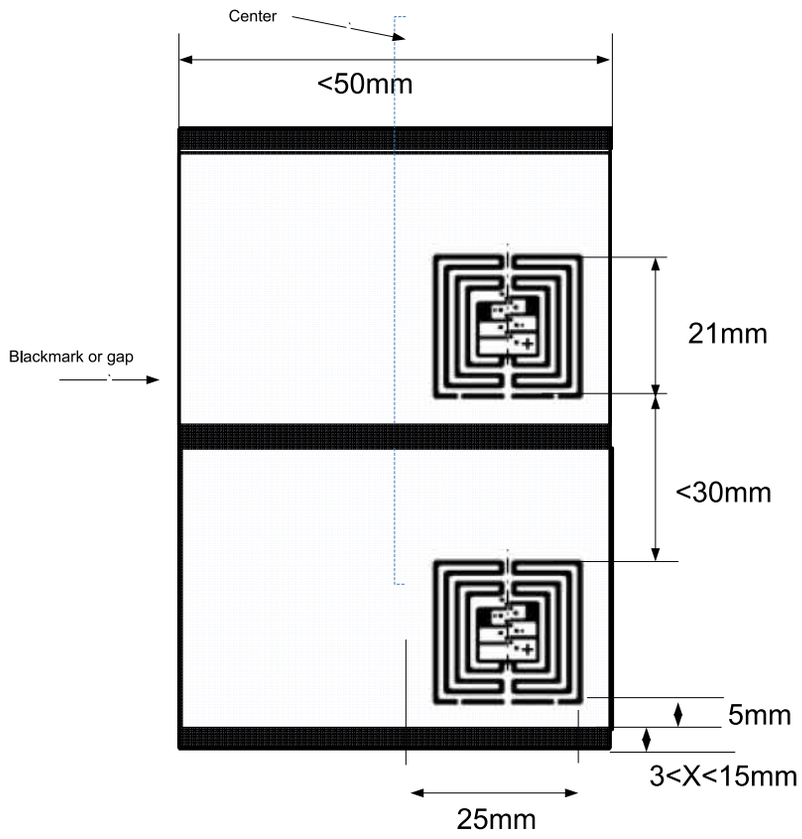
Notes: Dimension are to Transponder Antenna leading edge, not the Transponder leading edge

18. Omron Gen2 Wave



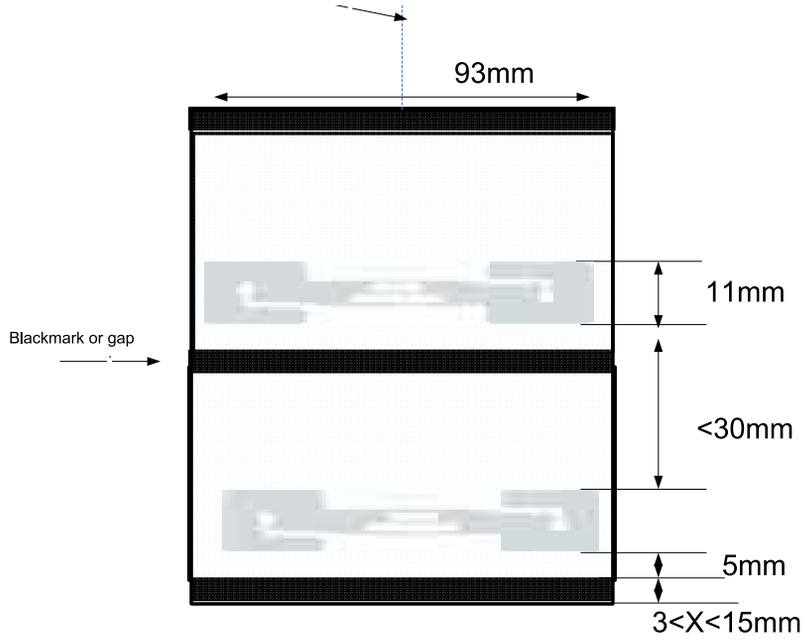
♣ Minimum Gap 30mm

19. Refsec PHARAMA 1X1 TAG TEST



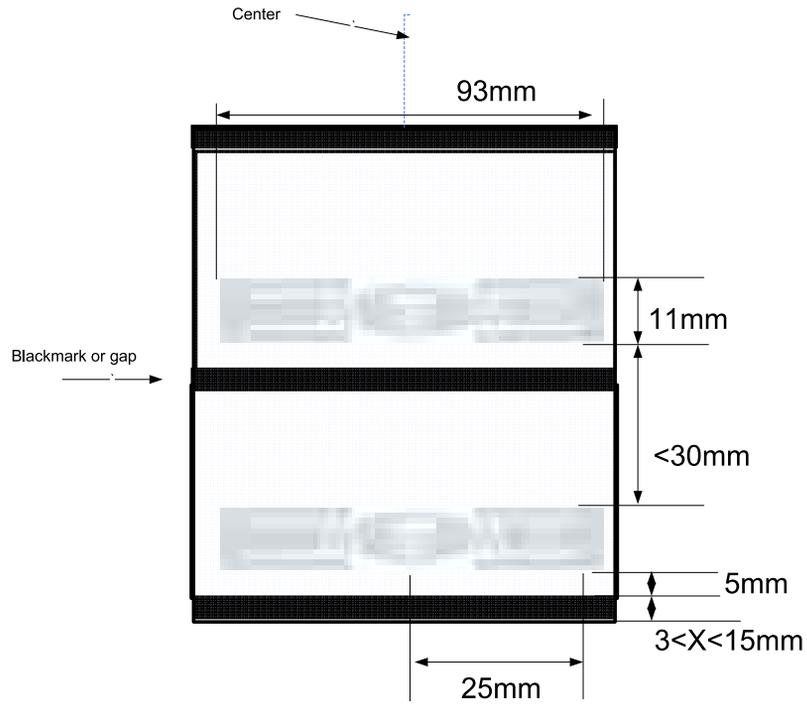
♣ Minimum Gap 30mm

20. Rafsec DOGBONE TEST



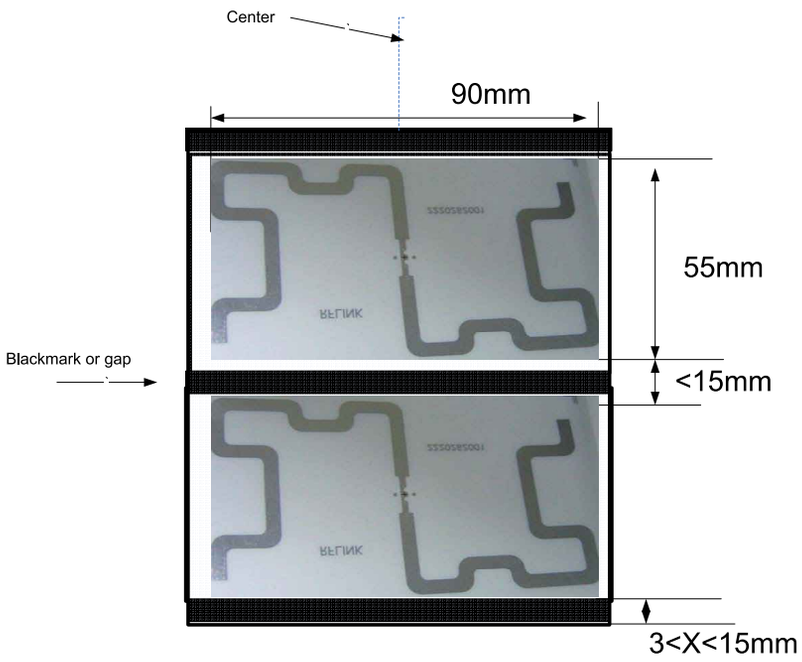
♣ Minimum Gap 30mm

21. Rafsec G2 ShortDipole TEST



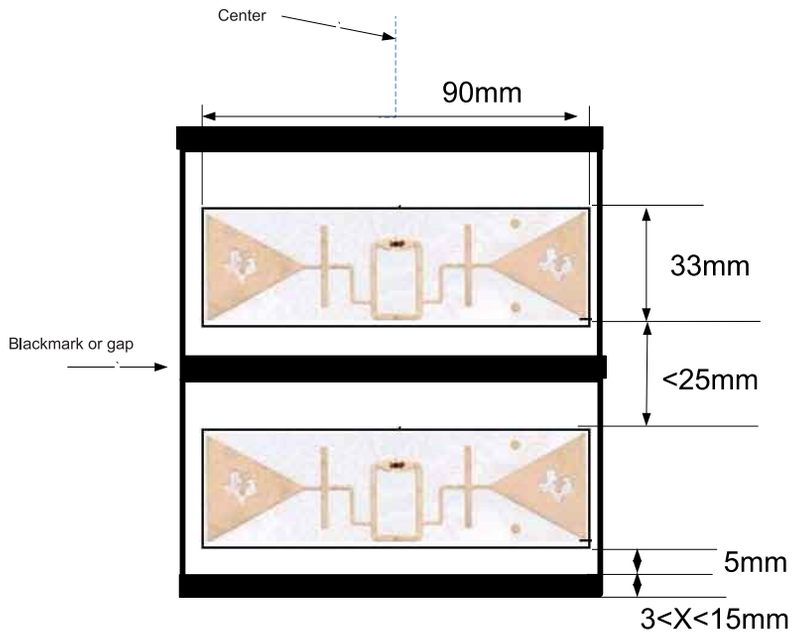
♣ Minimum Gap 30mm

22. RFLINK222026001 TEST

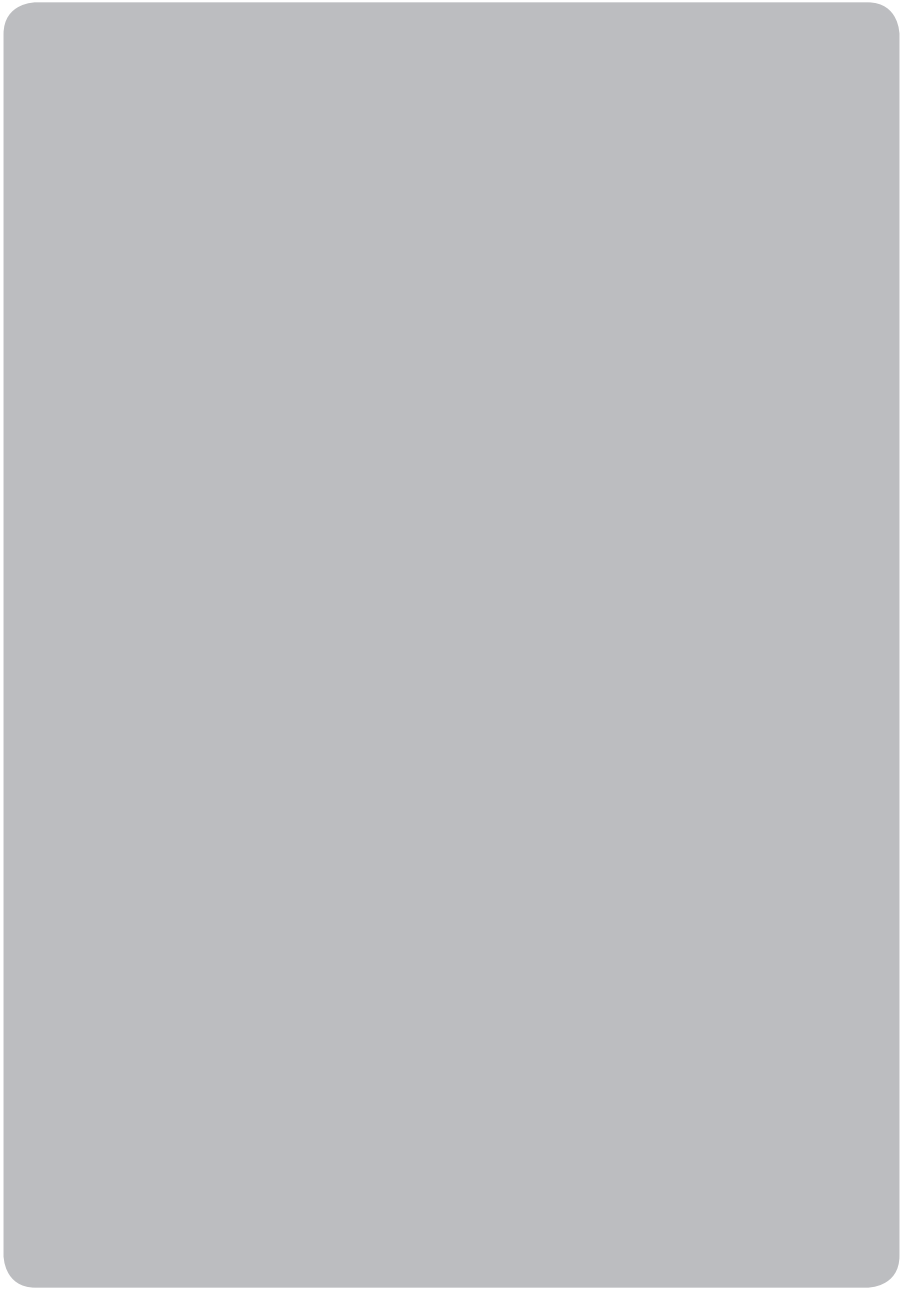


♣ Minimum Gap 15mm

23. TI RI-UHF-00C01-03 TEST



♣ Minimum Gap 25 mm



Rev. 1.0