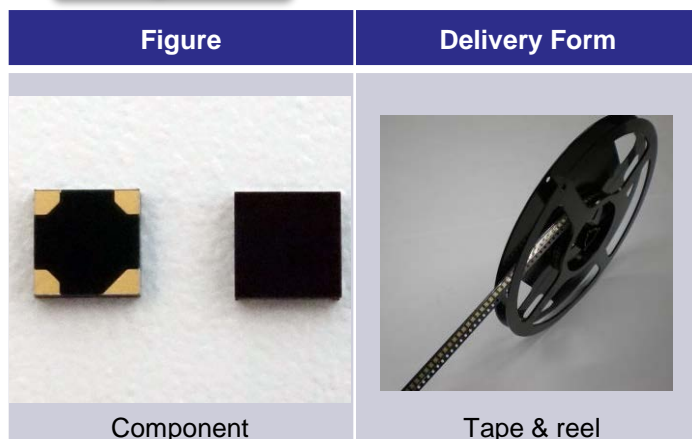


Ultra Small Package Tag (UHF) For PCB

Features

- Built-in Antenna i.e., Readable without External Antenna.
- Easy to Expand Read Range by Existing Pattern as Antenna on PCB.
- Easy to Attach on PCB with Standard Soldering Process.

Figure



Specification

Item	Specification	
Class	IM5-PK2525B	
Size	2.5mm × 2.5mm × 1.0mm	
Protocol	ISO/IEC18000-6 Type C EPC C1Gen2	
IC Chip	Impinj Monza5	
Memory	EPC	128bit(16Byte)
	TID	96bit(48bit Serial)

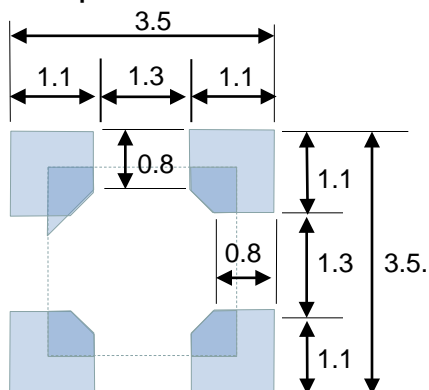
Characteristic

Item	Specification	Condition
Read Range (Note)	30cm typ.	AT-880(1W), 920MHz
Tag area	3.5 x 3.5 mm min.	Backside open area 2.5 x 2.5 mm
Temperature	260°C 5 minutes	2 times Standard Soldering Process

Soldering Pattern

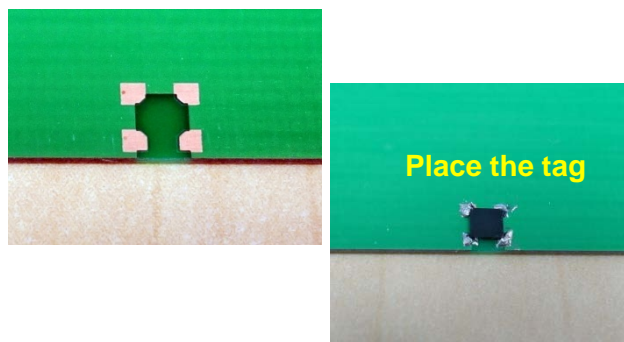
Note: Reade range is depend on conditions and PCB pattern.

Example of Foot Pattern



Unit:mm

Example of PCB Pattern

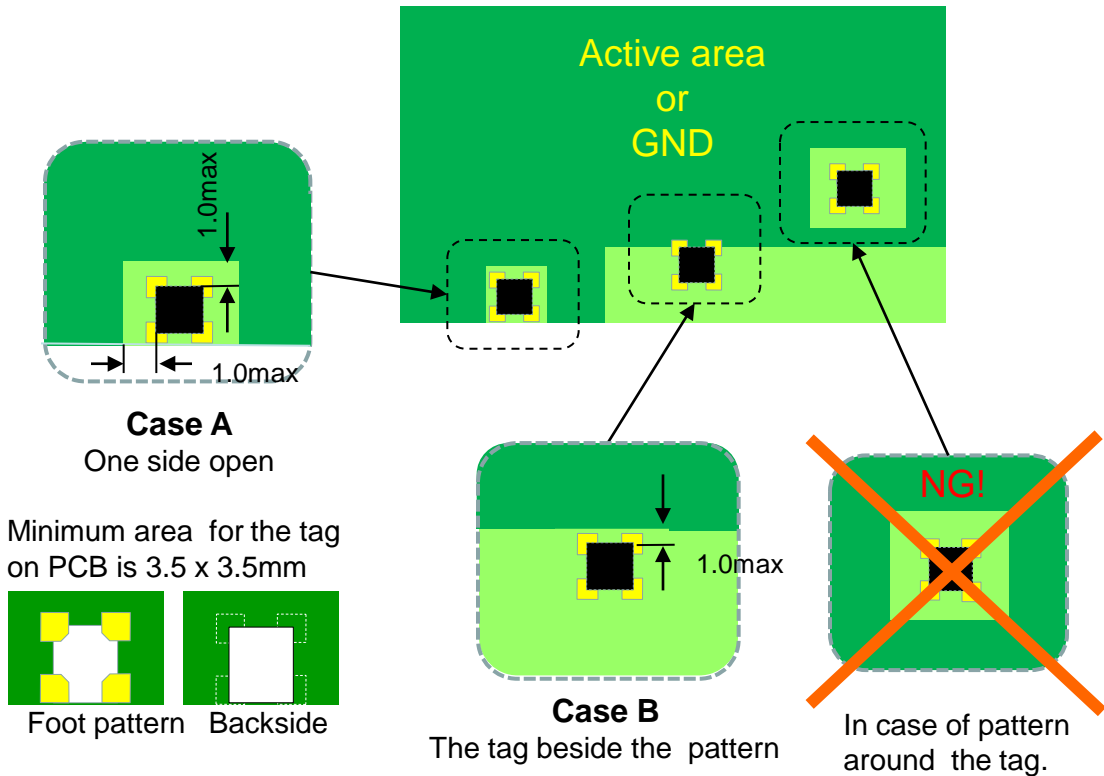


Note : All of pads of the tag are no electrical connection.

Ultra Small Package Tag (UHF) For PCB

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Example of PCB use



Read range (Measurement value as an example)

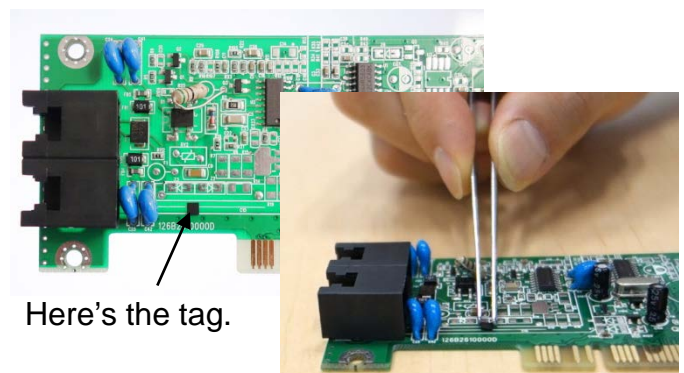
Case	Read range	Condition
Case A	30cm	Reader 1W
Case B	16cm	AT-880

If it needs longer read range, we can support the PCB design.

Tag Location on the PCB

You can easily find a tag location on the PCB, and check read range. It is just place the tag even on the existing PCB. No need soldering.

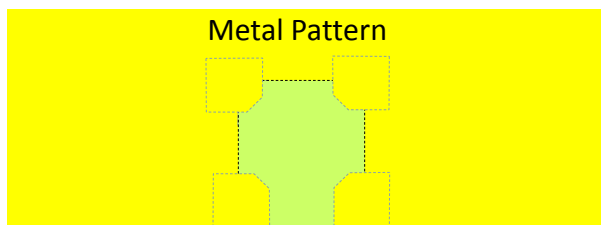
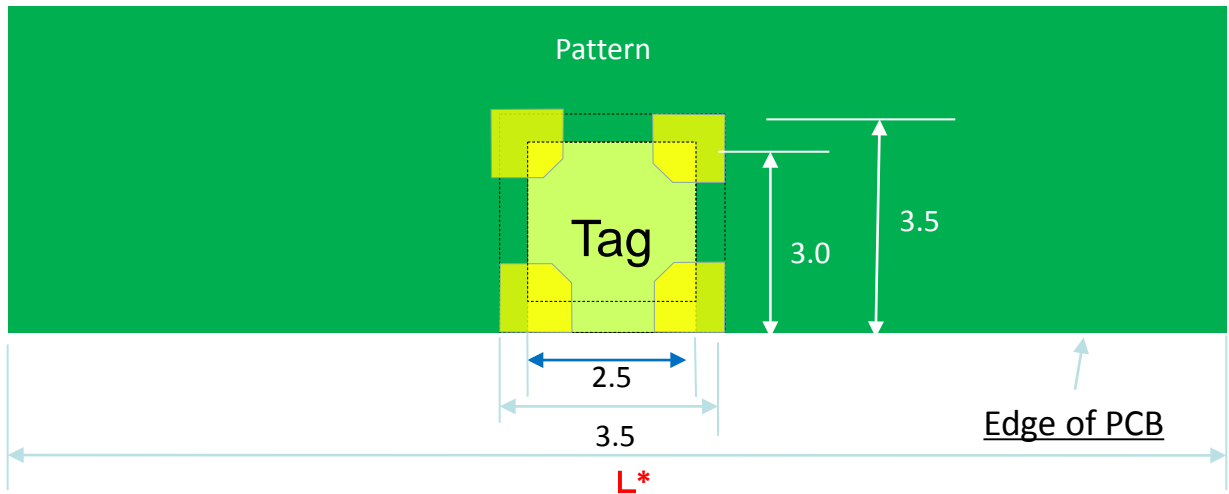
Please see Video



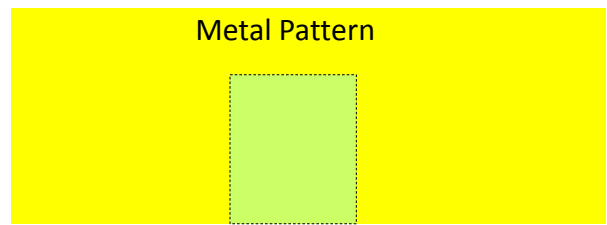
Ultra Small Package Tag (UHF) For PCB

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Recommended Pattern (1) (At the edge of PCB)

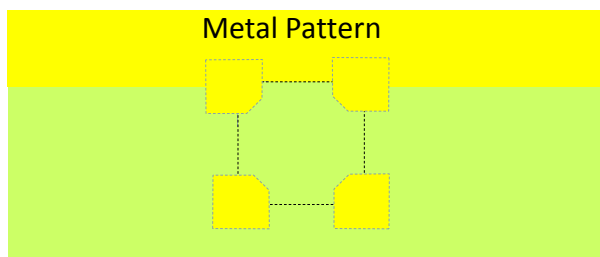
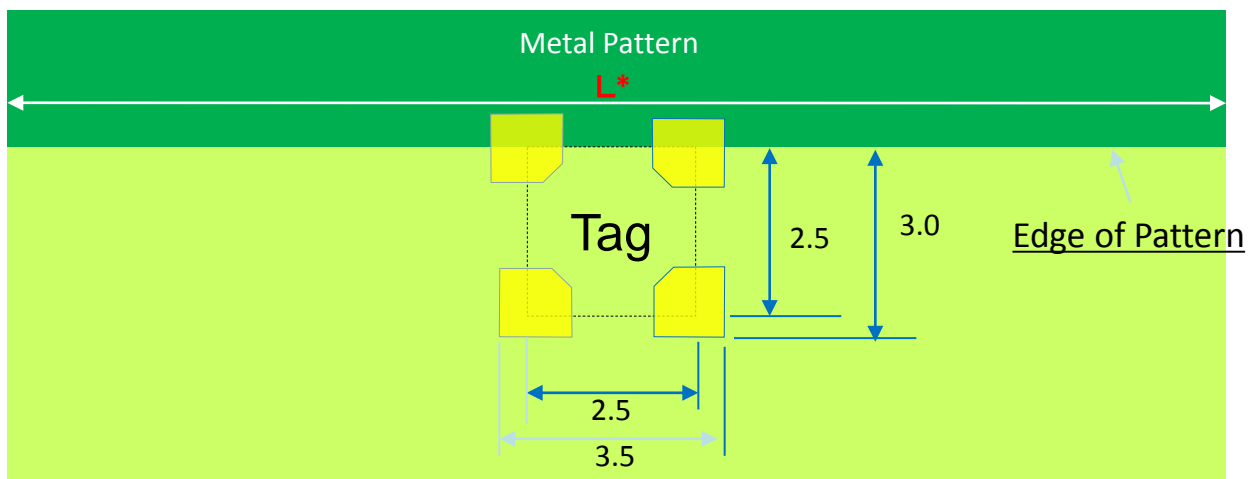


Tag Side

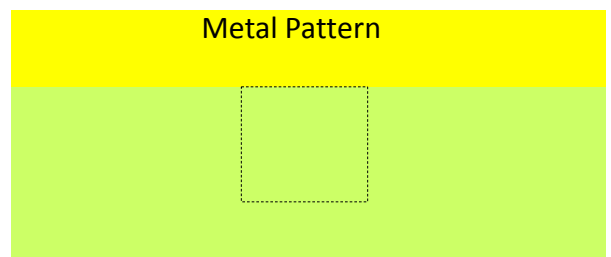


Back Side

Recommended Pattern (2) At the edge of Pattern



Tag Side



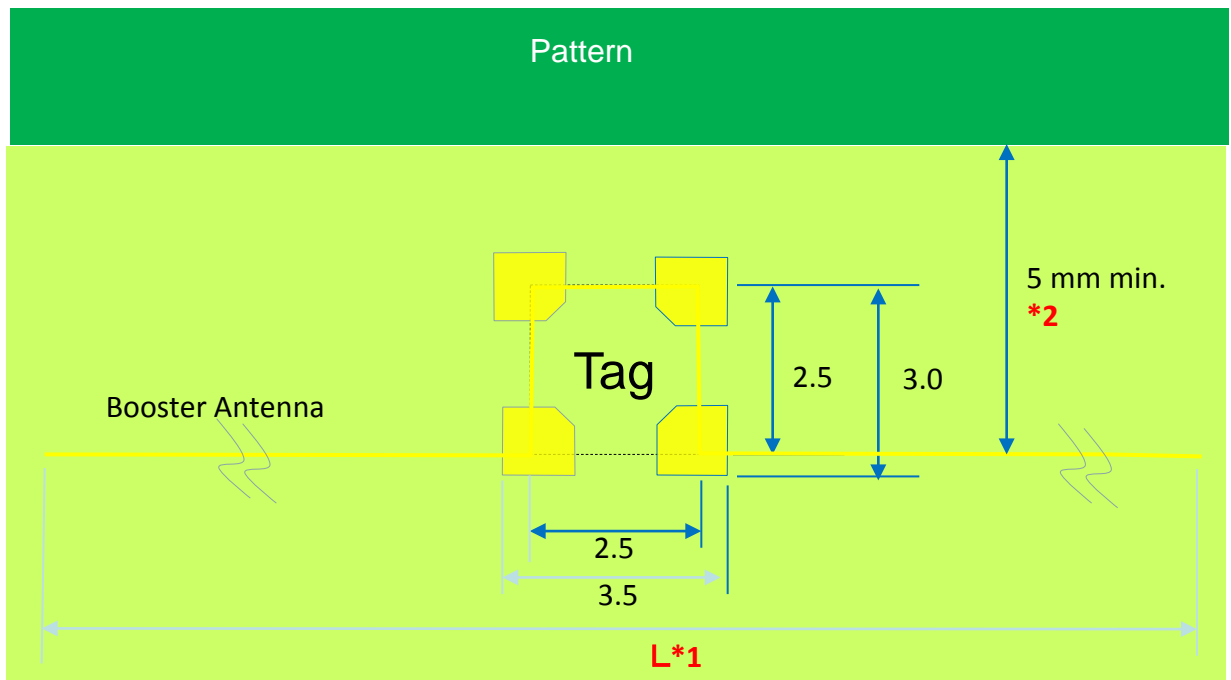
Back Side

- Note : $L = 13.5\text{cm}$ (FCC), 14.5cm (EU) are just for reference, and needs to optimize for each PCB.

Ultra Small Package Tag (UHF) For PCB

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Recommended Pattern (3) make an booster antenna on the PCB
(In case of longer read range is required .)



- Note *1 : L =13.5cm (FCC), 14.5cm (EU) are just for reference, and needs to optimize for each PCB.
- *2 : A booster antenna must be located 5mm min. from the edge of the metal pattern.
And more than 1cm is better for longer read range.
- *3 : Back side of a booster antenna must be no metal pattern.