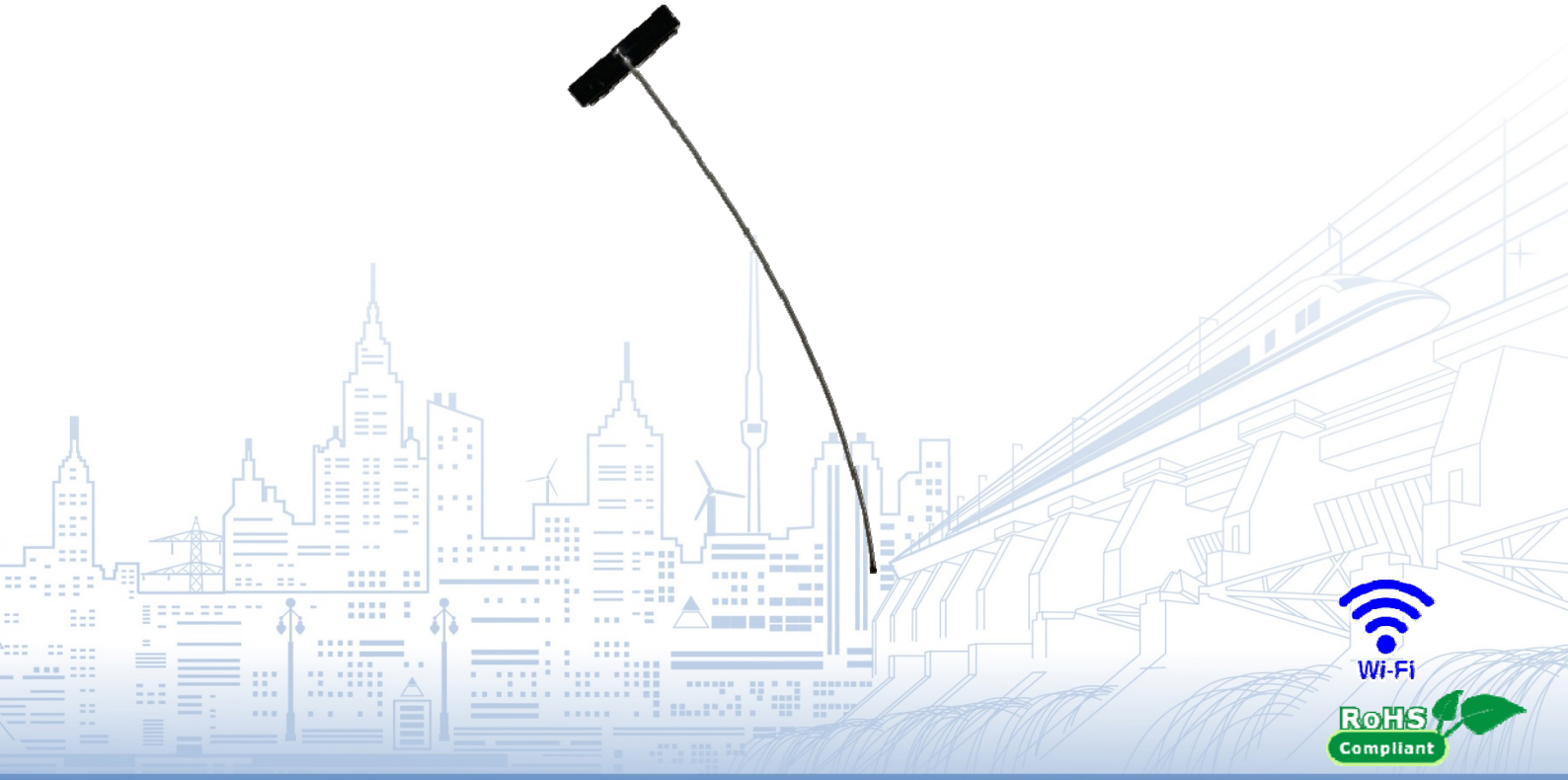
文件履歷表

申請單編號	版本	修訂內容簡述	修訂頁次	申請日期	修訂者
	A	新制定	ALL	2024.02.05	Iris Huang
發行份數：電子檔發行					



Product Name: WiFi Dual Band Antenna (HE018)

Part Number: H2B1PC9A1C0100

Features:

- Supporting WiFi 5 & 6, covering 2400~2485 & 5150~5850 MHz
- Stable and reliable in performances
- Dimensions: 30.0 x 5.0 x 0.5 mm
- Compact size
- RoHS 2.0 Compliant

Applications:

- Wi-Fi(802.11n/a/b/g) functions

WiFi Dual Band PCB Antenna

MODEL: HE018

Version: Preliminary

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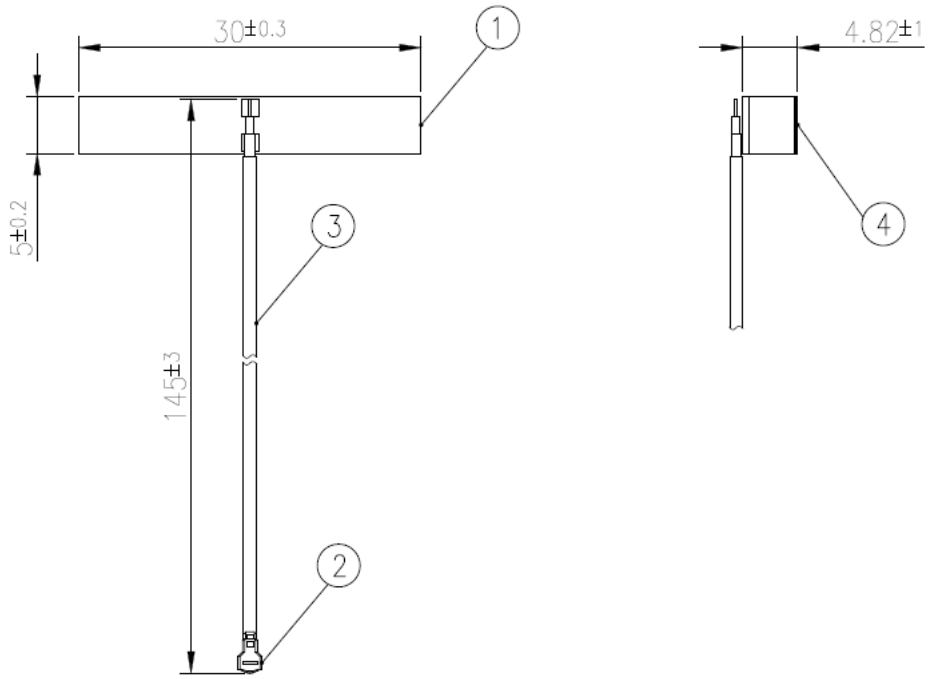
I. Specifications:

Items	Specifications	
Frequencies (MHz)	2400~2485	5150~5850
Return loss(dB)	<-10.0 Typ.	
Efficiency (%)	67.2 Typ.	64.2 Typ.
Average Gain (dB)	-1.7 Typ.	-1.9 Typ.
Peak Gain (dBi)	2.7 Typ.	2.4 Typ.
Impedance (Ω)	50	
Polarization	Linear Polarization	

Mechanical Specifications	
Dimensions (mm)	30.0(L) x 5.0 (W) x 0.5 (H)
Material	FR4
Environmental Conditions	
Operation Temperature (°C)	-40 ~ +85
Storage Temperature (°C)	-5 ~ +40
Relative Humidity	10 ~ 70 %

II. Dimensions of antenna with cable (unit: mm)



NOTE:
1.All materials are RoHS 2.0 compliant.

Item	Name	Material	Color	Q'ty
1	PCB	FR4	Black	1
2	I-PEX Connector (20448-001R-081)	Phosphor Bronze	Au Plated	1
3	OD1.13 Coaxial Cable	FEP	Grey	1
4	Foam Double-Sided Adhesive Tape	PE EVA &3M 9810T	Liner	1

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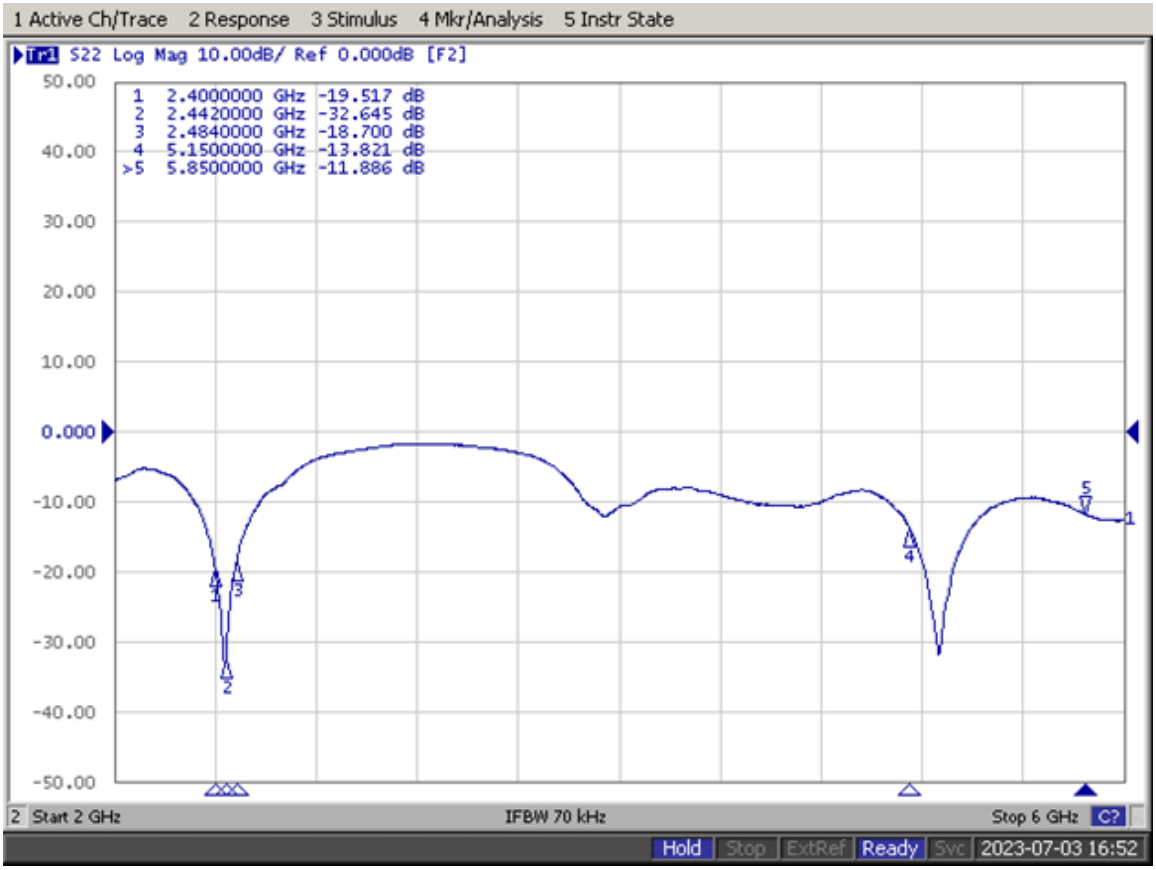
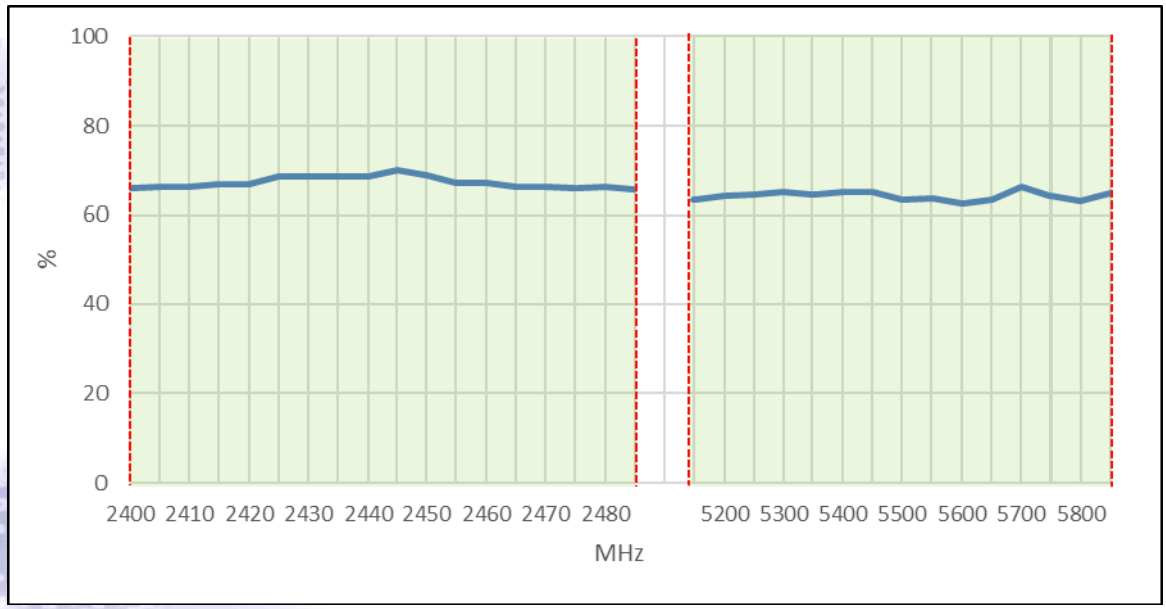
III. Properties:

a) Return loss(dB)



b) Efficiency (%)



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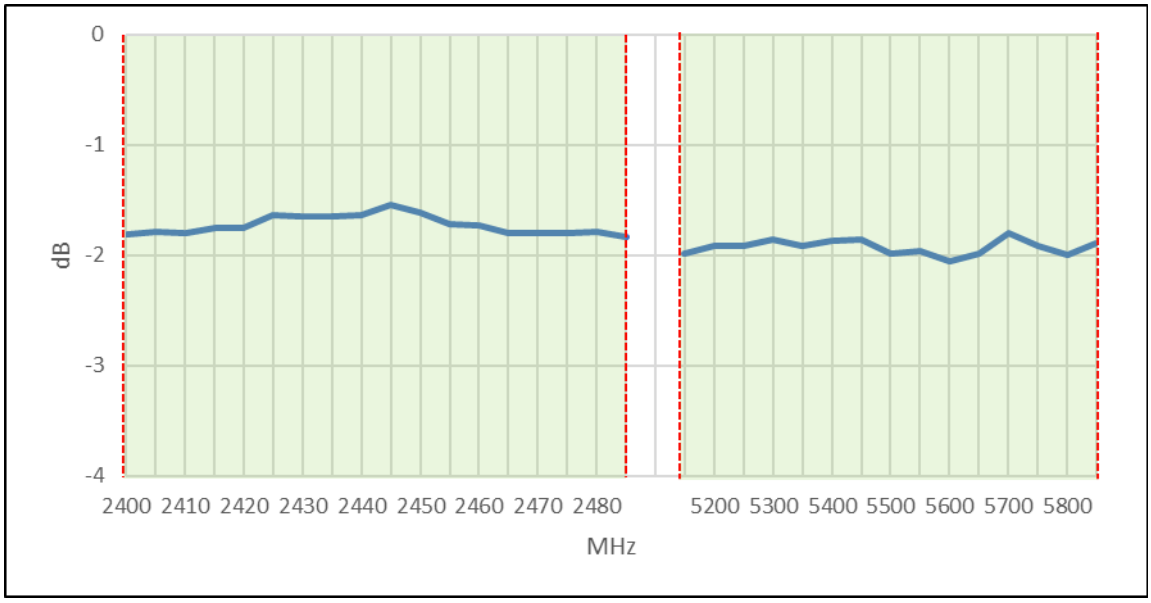
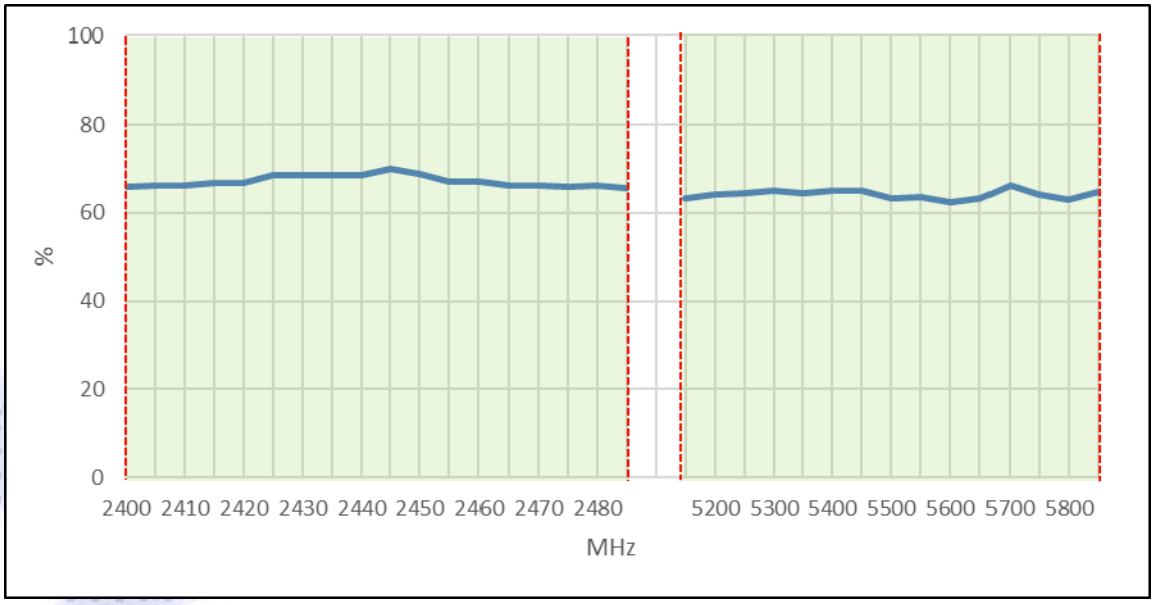
c) Average Gain (dB)



d) Peak Gain (dBi)



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Antenna Radiation Pattern Measurement:

The antenna radiation patterns are measured in Unictron's 3D Anechoic Chamber. The measurement setup is as show below.

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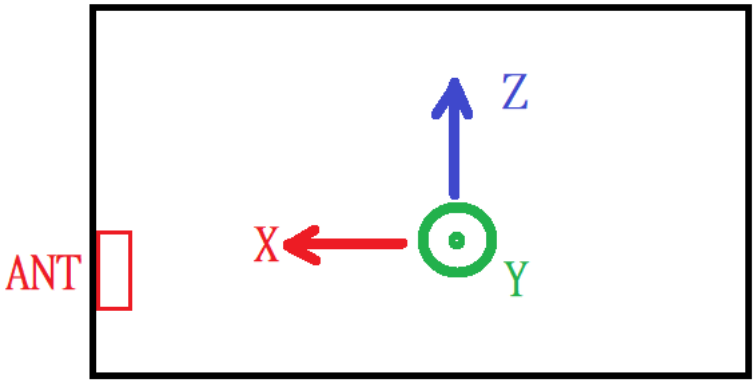
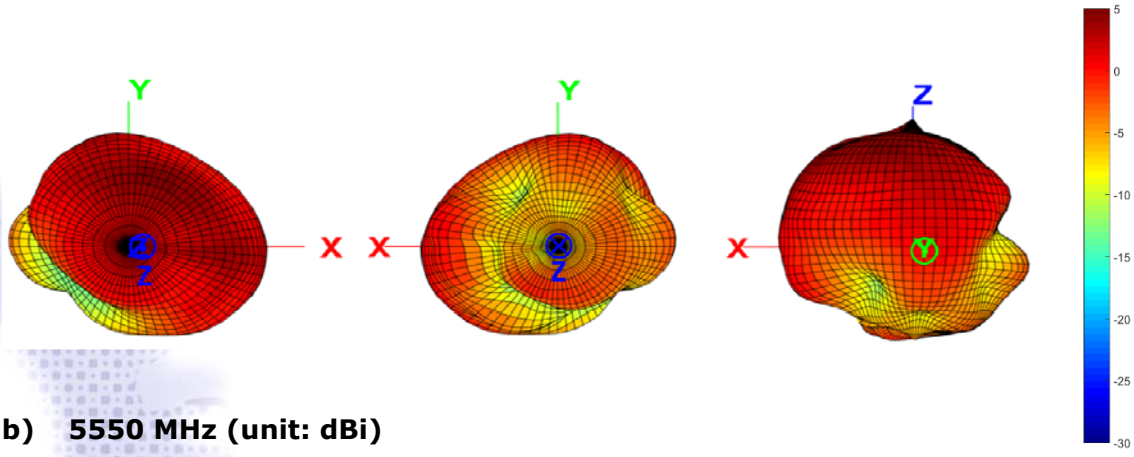
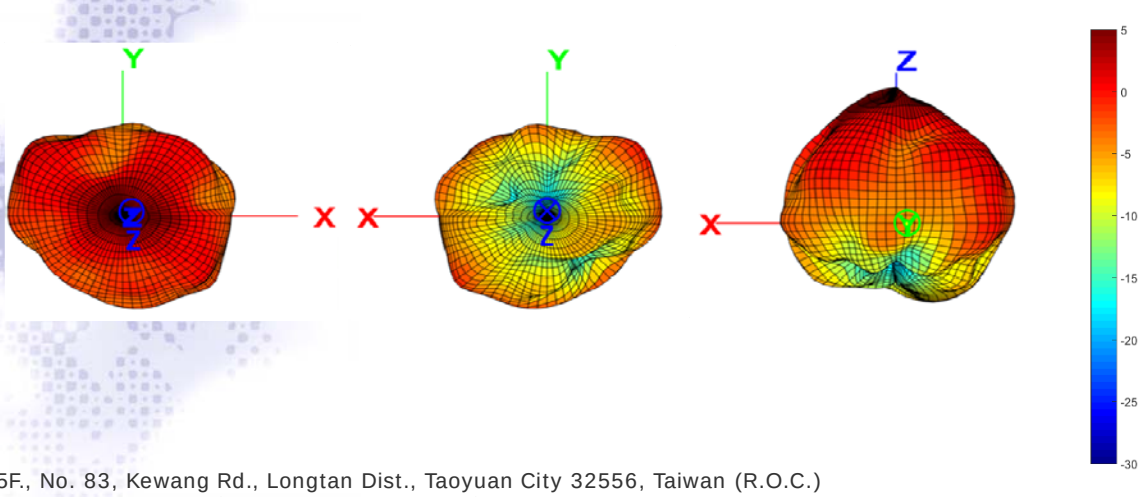


3D Radiation Gain Pattern

a) 2442 MHz (unit: dBi)



b) 5550 MHz (unit: dBi)



IX. Packing: (Unit: mm)

a) Weight:

Unit Weight: 0.6± 0.1 (g)

b) Quantity:

Each PE Bag: 25 pcs

Each Outer Box: 5,000 pcs

Process	Photos	Remark
1		Put 25 pcs in a PE bag and attach label on PE bag.
2		Put 200 PE bags into an outer box with 5,000 pcs of antenna inside.

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IV. MHF Connector Instruction Manual:

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1. How to hold a cable connector

Hold the both ends of cable connector as show in Fig.1.

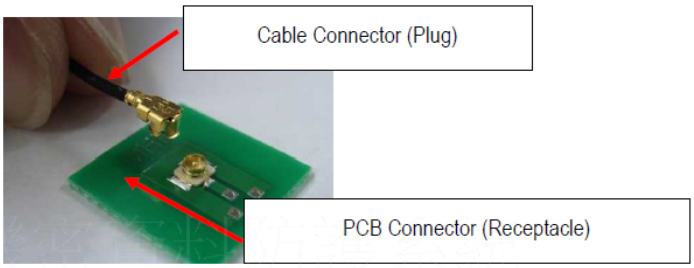


Fig.1

2. Which direction to mate

Set connectors of the board side and of the cable side as shown in Fig.2.
Please check they are set firmly by moving back and forth slightly.

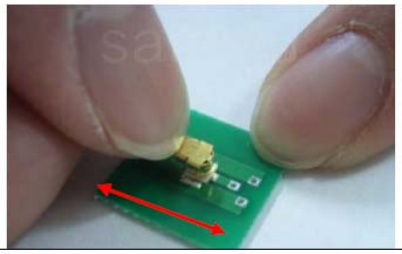
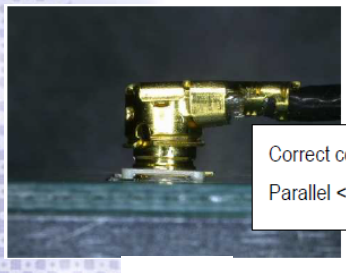


Fig.2.

Move back and forth slightly. They should not move.

CAUTION

Please make sure to set the cable side connector parallel to the board as shown in Fig.3.
If you mate in not parallel condition as shown in Fig.4, connector will be damaged



Correct connector mating
Parallel <OK>

Fig 3.

Wrong connector mating
Not parallel <NG>

Fig 4.

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3. How to mate

Push cable connector at its center location vertically as show in Fig.5. When click sound can be heard "the connector mating action is complete".

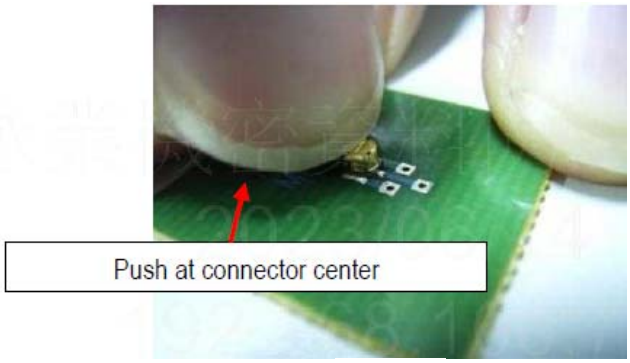

Fig 5.

(CAUTION IN CABLE CONNECTOR HANDLING)

In the case of Fig.6, it has possibility to damage to the housing and come off from receptacle connector.

Especially when operator give continuous force to the direction (black allow), the tendency become higher.

So please take care of handing harness

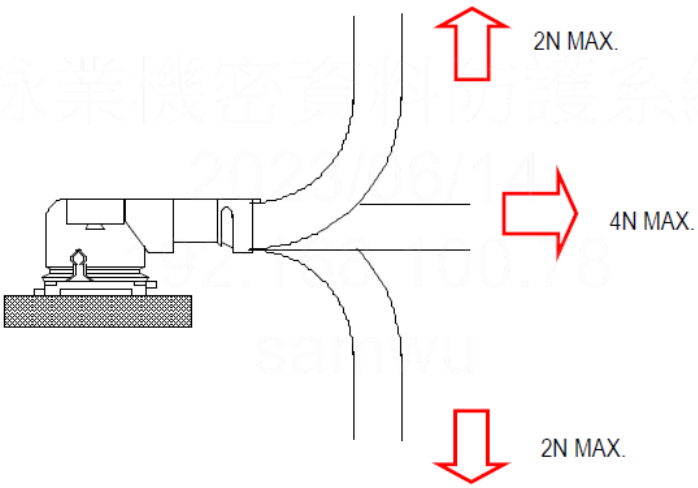

Fig 6.