



TopGain

SPECIFICATION

DESCRIPTION	Chip Antenna
PART NO.	CH2G4-6022-000D1-01
VERSION	V01

頂益科技有限公司

TOPGAIN TECHNOLOGY CO., LTD.

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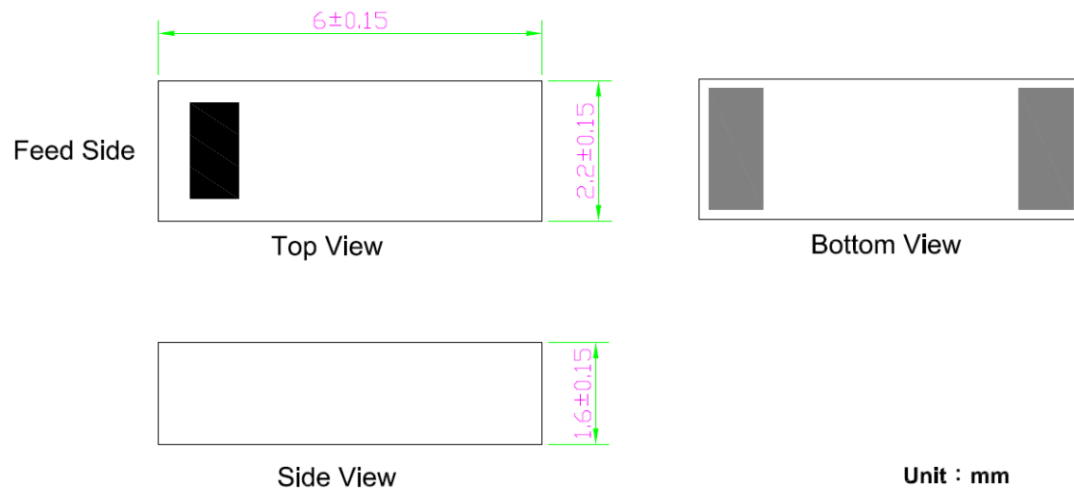
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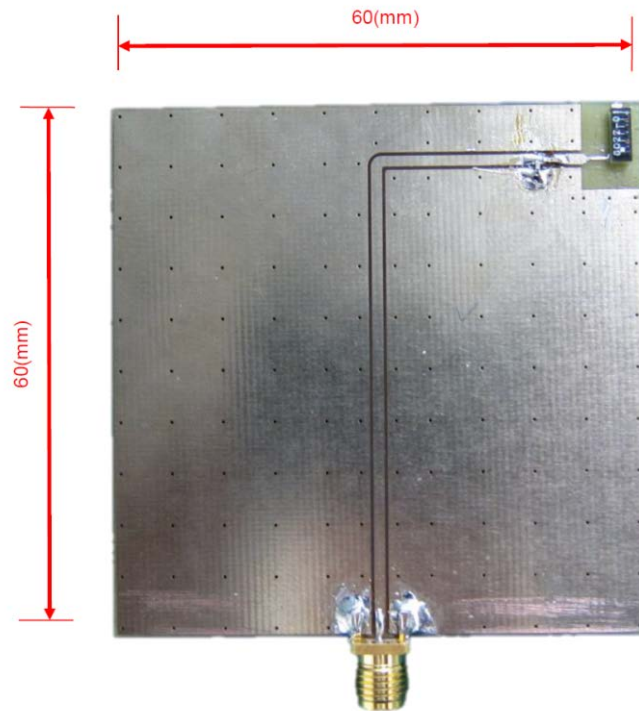
1. Antenna Specification

Outline Dimensions	6.0x2.2x1.6(mm)
Ground Plane	60×60(mm)
Frequency Range	2.4GHz ~ 2.5GHz
Impedance	50 Ohm Nominal
Bandwidth (under -10dB return loss)	100MHz (Typ.)
Radiation	Omni-directional
Peak Gain	2.3 dBi (Typ.)
Efficiency	60% (Typ.)
Polarization	Linear Polarization
Storage Temp	-25℃ ~ +85℃
Color	Black

2. Antenna Dimension

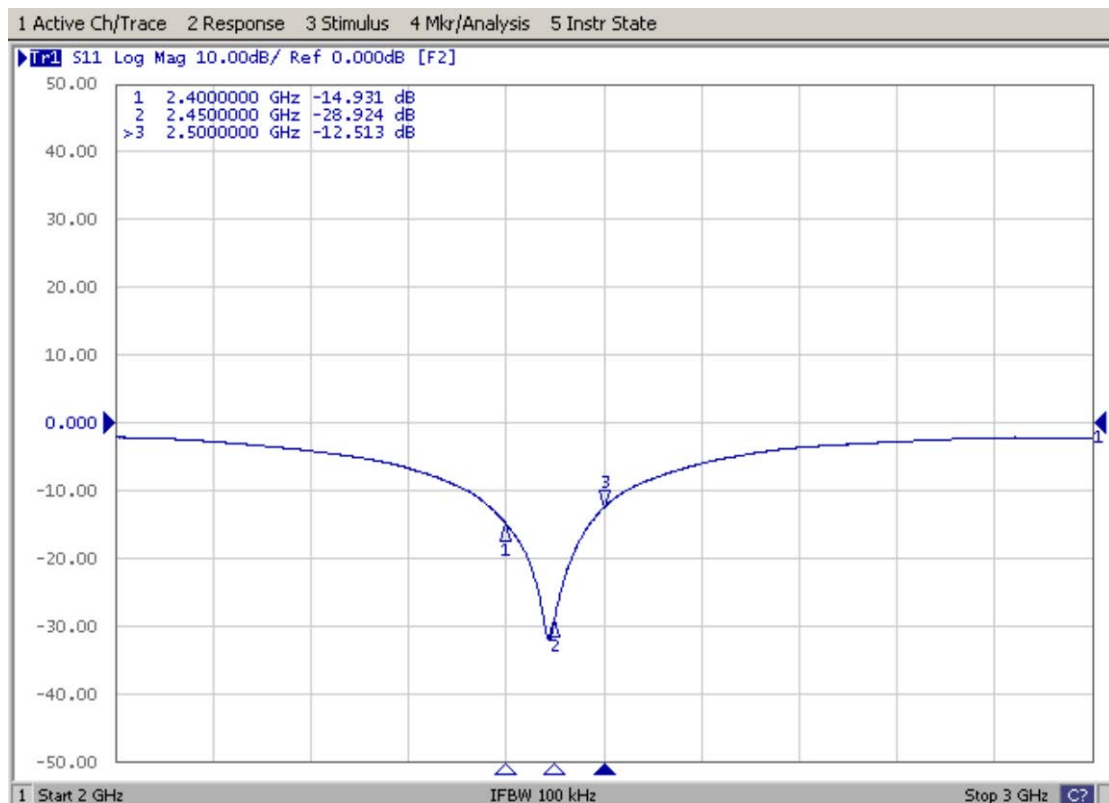


3. Test Data

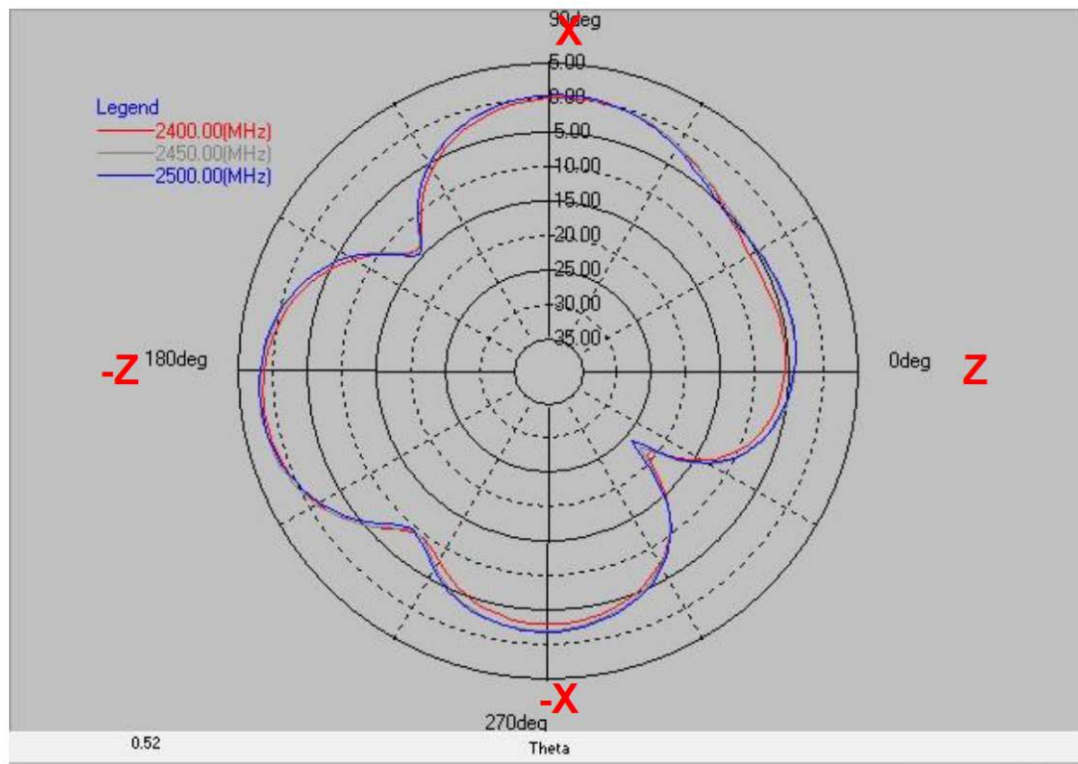


3.1 ELECTRICAL CHARACTERISTICS

S11

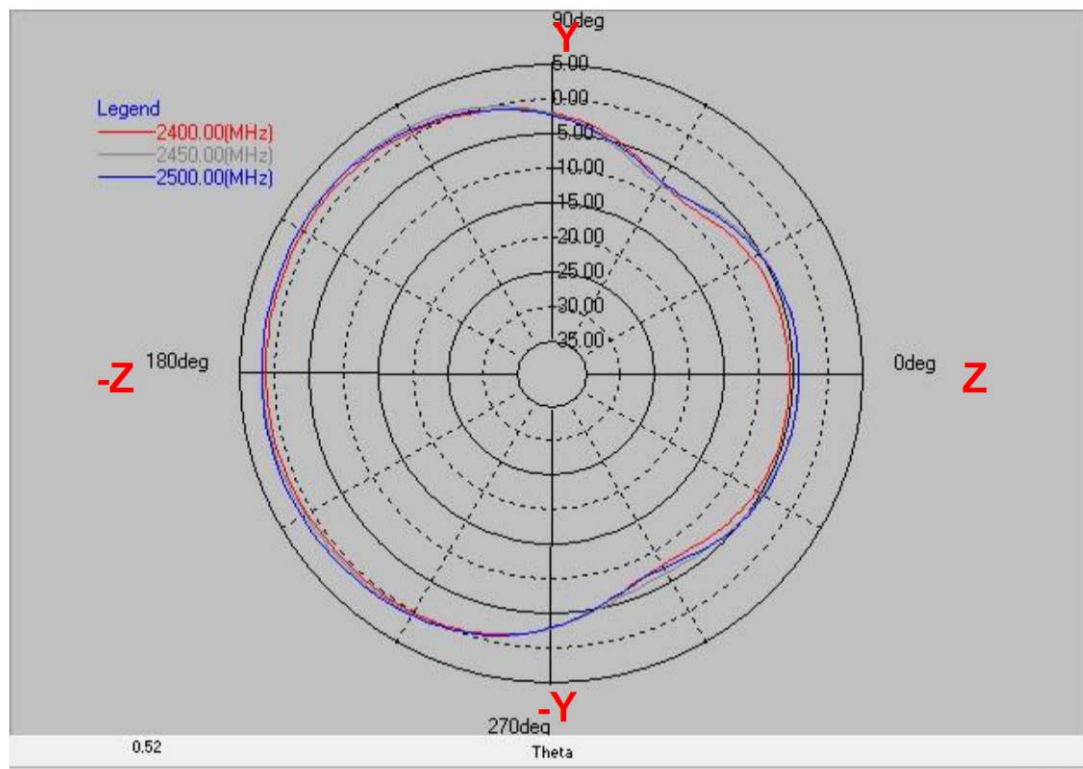


Frequency(MHz) : **2400~2500.** Pattern Field : **Z-X plane**



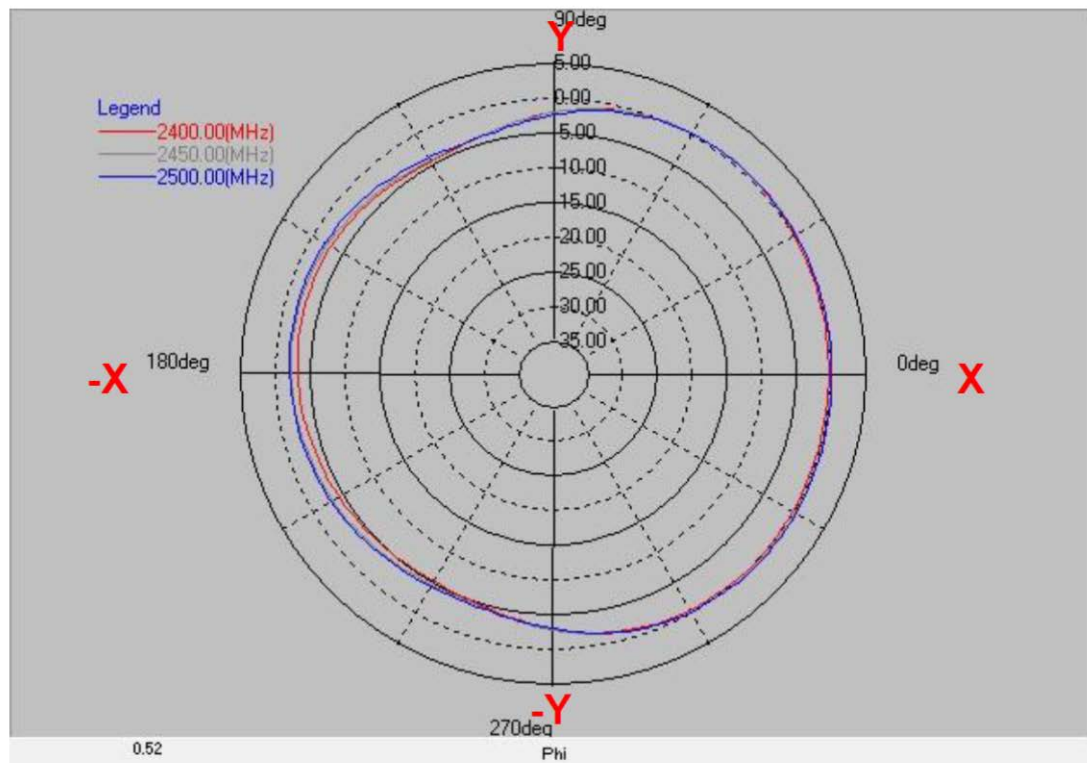
Frequency	Max value(dBi)	Min value(dBi)	Average(dBi)
2400(MHz)	1.64	-21.05	-3.40
2450(MHz)	2.12	-22.47	-2.82
2500(MHz)	2.08	-24.13	-2.88

Frequency(MHz) : **2400~2500.** Pattern Field : **Z-Y plane**



Frequency	Max value(dBi)	Min value(dBi)	Average(dBi)
2400(MHz)	1.45	-8.68	-1.62
2450(MHz)	2.00	-8.51	-1.09
2500(MHz)	1.92	-8.10	-1.08

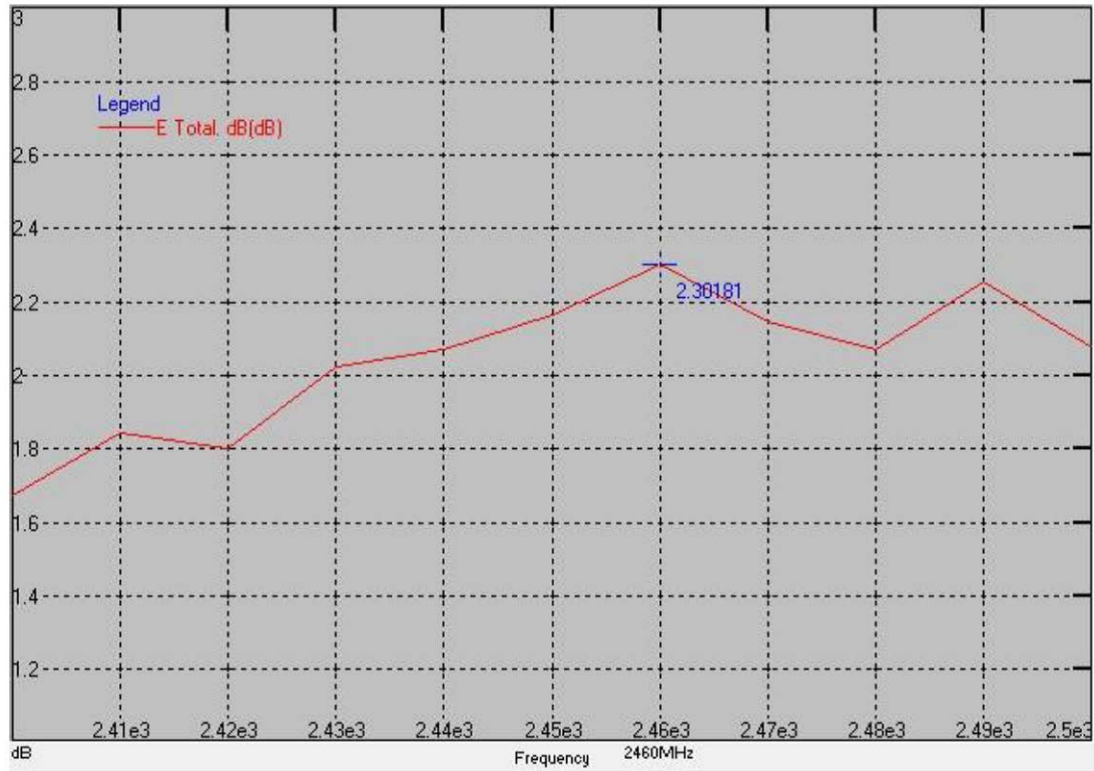
Frequency(MHz) : **2400~2500.** Pattern Field : **X-Y plane**



Frequency	Max value(dBi)	Min value(dBi)	Average(dBi)
2400(MHz)	0.30	-5.40	-1.82
2450(MHz)	0.41	-4.87	-1.47
2500(MHz)	0.38	-4.66	-1.40

3.2 Antenna Peak Gain

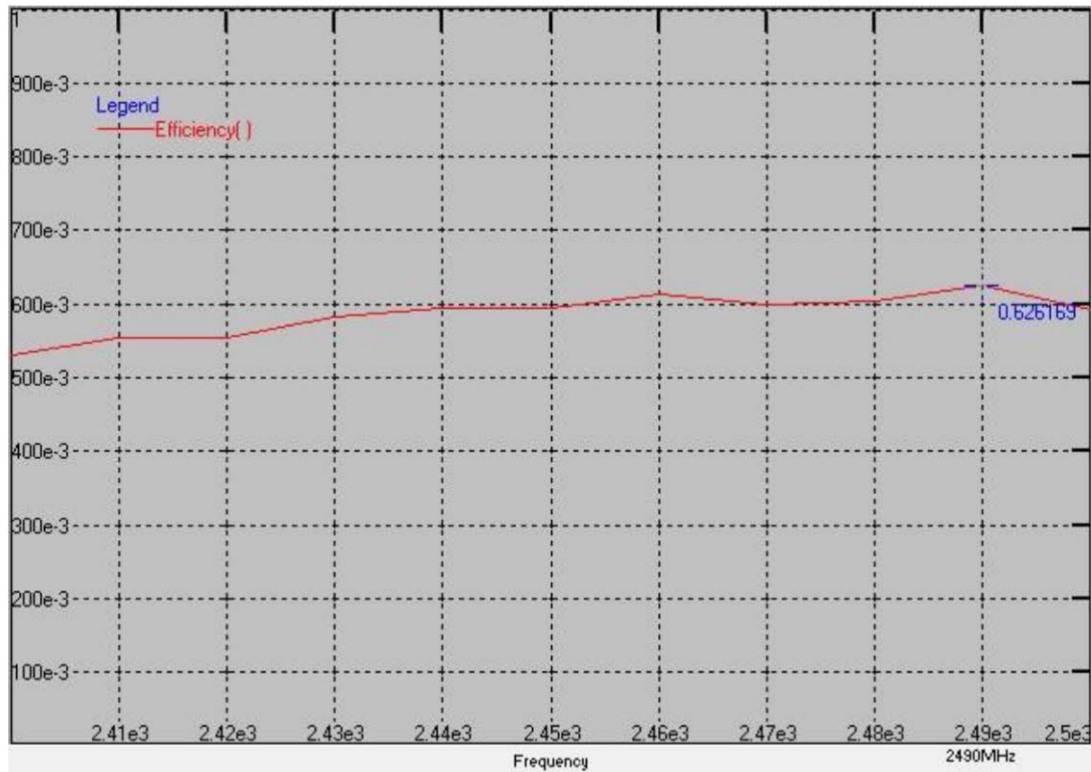
Frequency(MHz) : 2400~2500.



Peak Gain : Max 2.3dBi @ 2460 MHz

3.3 Antenna Efficiency

Frequency(MHz) : 2400~2500.



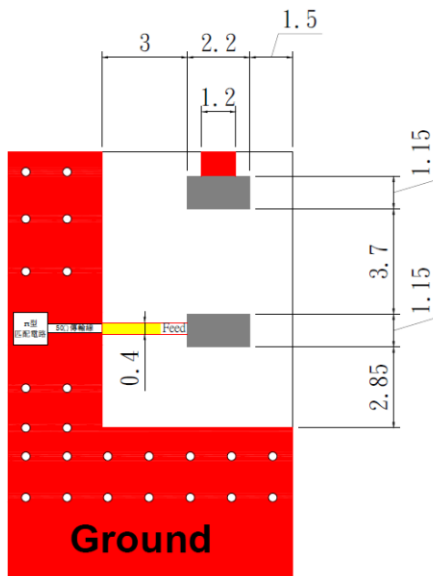
Efficiency : Max 62 % @ 2490 MHz

4. Layout Guide:

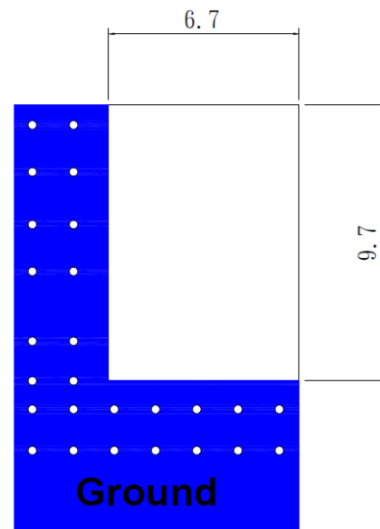
a. Solder Land Pattern:

Land pattern for soldering (black marking areas) is as shown below.

Matching circuit is needed for good performance, when customer's device is different.



Top Layout

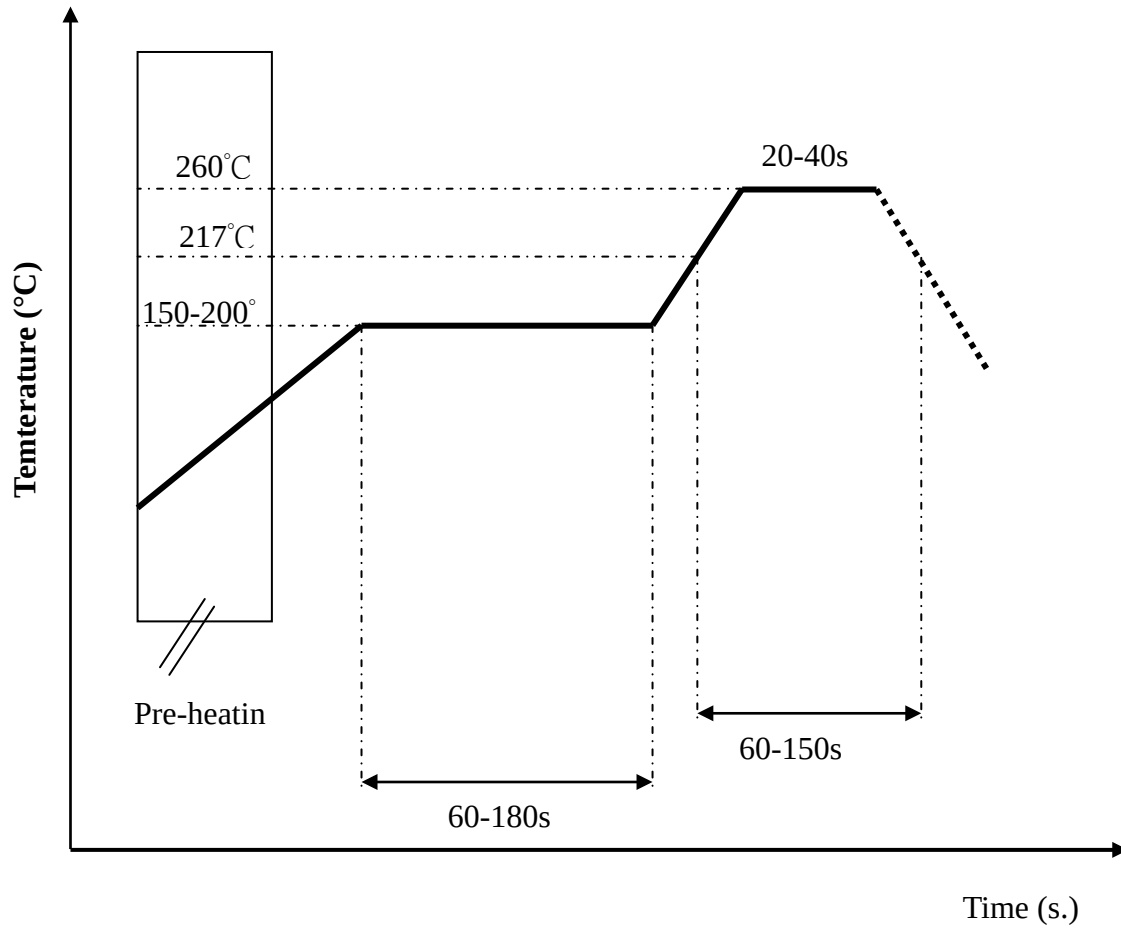


Bottom Layout

Unit:mm

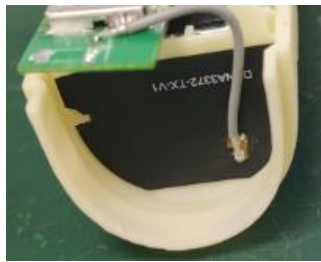
5. Soldering Conditions:

a. Typical Soldering Profile for Lead-free Process



P/N	WA-F-LA-03-287
Manufacture	INPAQ TECHNOLOGY CO., LTD.
Frequency range	2400Hz ~2500MHz
Type	IFA
Cable Length	30 mm
Peak Gain	3.1dBi @2440MHz
Peak Gain From	Data sheet of "WA-F-LA-03-287.pdf"

Antenna	Size	Color	Cable Length (mm)	Cable Type
TX	25mm*18mm	Gray	30	Φ=0.81mm,I-PEX(I)



Results Summary-Peak Gain & Efficiency-C2&C2-1

Frequency (MHz)	TX-C2		Frequency (MHz)	TX-C2-1	
	Efficiency (%)	Peak Gain (dBi)		Efficiency (%)	Peak Gain (dBi)
2400	56.53	1.82	2400	54.16	2.32
2410	63.45	2.17	2410	56.77	2.54
2420	61.29	2.28	2420	55.71	2.72
2430	59.82	2.39	2430	56.99	2.97
2440	59.98	2.52	2440	57.53	3.08
2450	60.31	2.47	2450	56.56	2.99
2460	60.63	2.49	2460	56.99	2.93
2470	61.12	2.5	2470	58.75	2.81
2480	60.31	2.52	2480	59.89	2.6
2490	58.87	2.5	2490	58.64	2.15
2500	57.45	2.58	2500	57.86	1.86