



HL GLOBAL

PRELIMINARY ENGINEERING DATASHEET

00-3601022800

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Datasheet Revision History

Revision	Date	Change Log
00-36010228/ Rev.1	04/26/2021	Preliminary Datasheet 1.0

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1. Antenna Product Description

00-3601022800 Embedded Antenna features FPC antenna supporting both 2.4GHz & 5GHz bands for WLAN, off-board, cable-fed antenna, Balanced type antenna.

2. Features Overview

00-3601022800 Embedded Antenna features

- Covering both 2.4GHz & 5GHz freq
- Superior performance
- Off-board, low profile design
- 2.3dBi @2450MHz, 4.2dBi @5500MHz
- Low Cost, High performance



3. Product Photographs



Figure 1. Photo of HL Global antenna 00-3601022800.



4. Antenna Specification Summary

Wireless Standard	IEEE 802.11a /b/g/n/ac
Frequency Range	2.4GHz & 5GHz
Peak Realized Gain(Max)	2.3dBi @2400MHz, 4.2dBi @5500MHz
Realized Efficiency	38% @2400MHz, 48% @5500MHz
Return Loss	> 10dB
Polarization	Linear Polarization
Axial Ratio	/
Radiation Pattern	Omni-directional
Feed Impedance	50Ω
Power Handling	30dBm
Antenna Structure	FPC antenna
Feeding Description	Cable Feeding
Antenna Dimensions	55.0*12.5*2.0(mm)
Weight	0.4g
Temperature Range	Operating temperature: -40° C to +75° C (-40° F to +167° F) Storage temperature: -40° C to +85° C (-40° F to +185° F)

Table 1. 00-3601022800 antenna specification summary.

5. Principal Dimensions

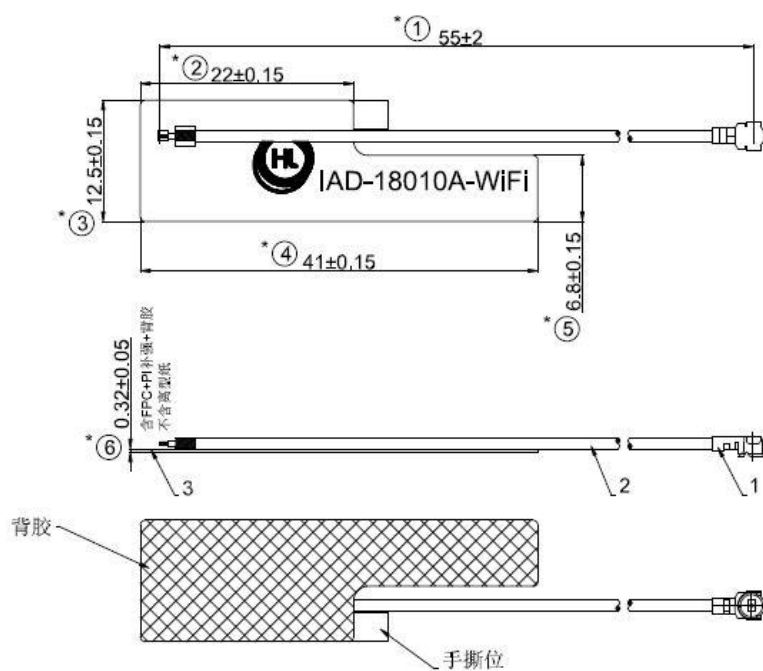
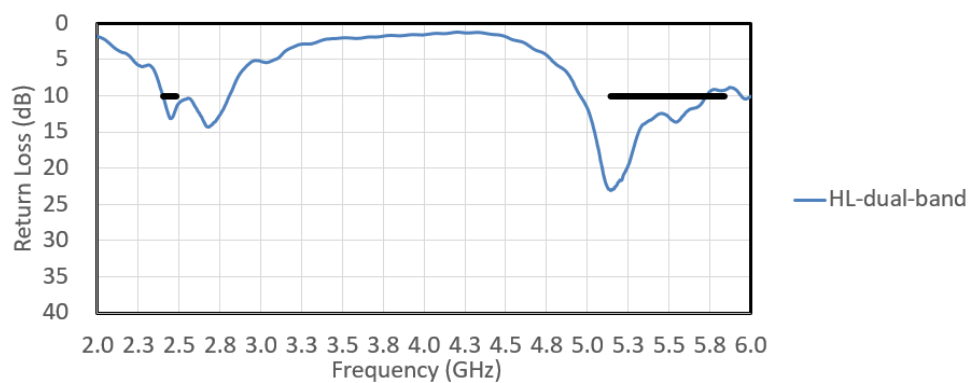


Figure 2.Basic dimensions and tolerances of 00-3601022800.



6. Return Loss

Return Loss (RL) was measured by using Keysight E5071C Vector Network Analyzer (VNA).



Return loss (dB)	Dual-band
2400MHz	10.0
2500MHz	11.3
5150MHz	22.9
5850MHz	9.2

Figure 3. Measured Return Loss of 00-3601022800.



7. Radiation Pattern Characteristics

Radiation characteristics for 00-3601022800 were measured by using Satimo SG24L anechoic chamber.

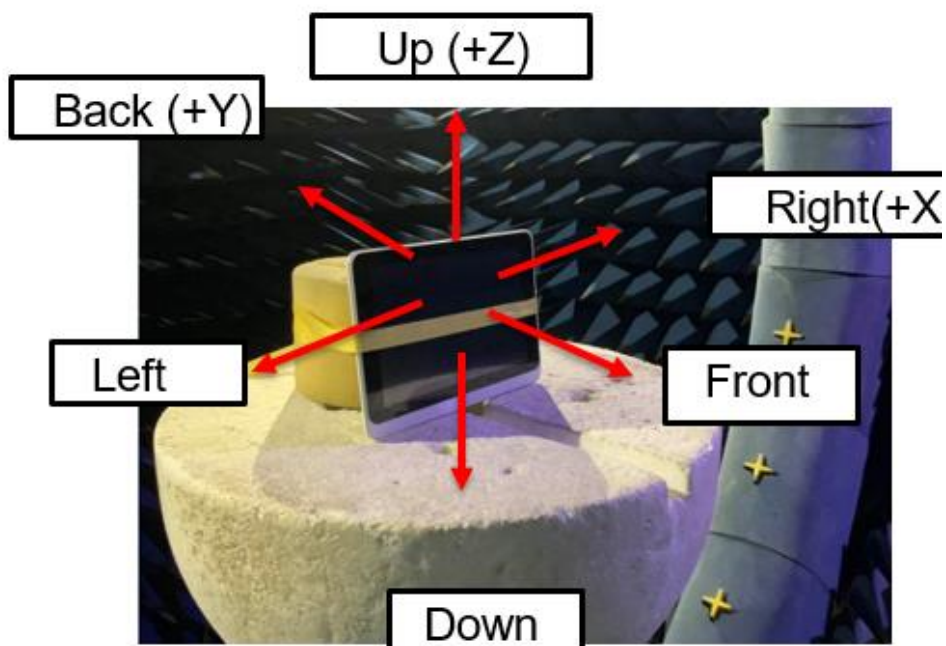


Figure 4. 00-3601022800 antenna for radiation pattern measurements. Coordinate system used for radiation pattern visualization.

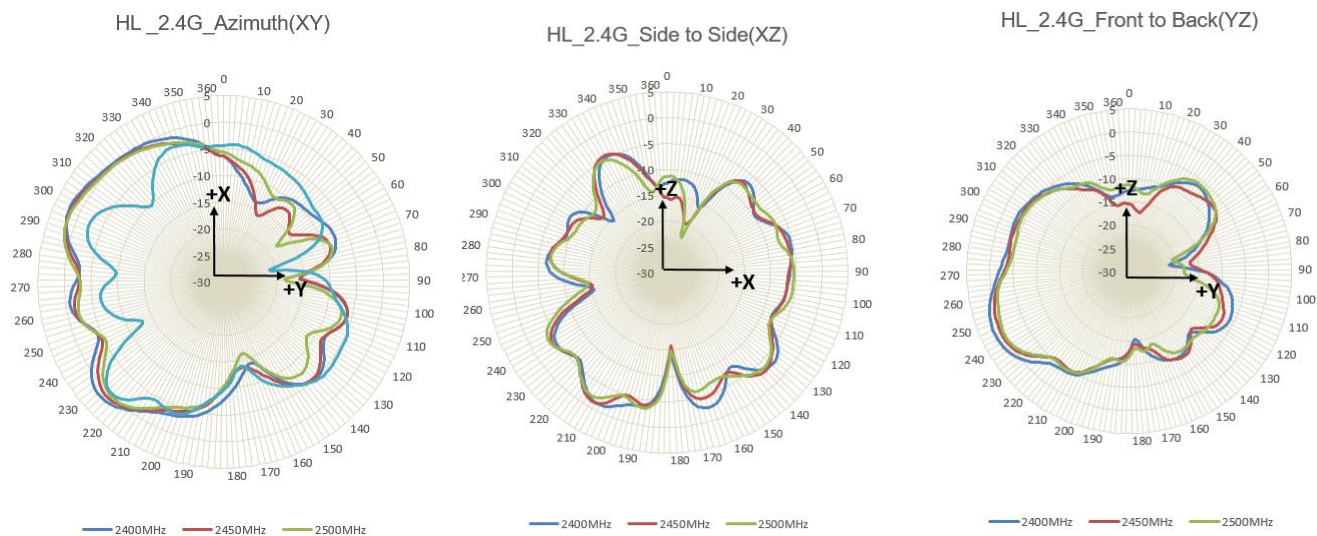


Figure 5. Measured radiation pattern characteristics in principal planes at 2.4GHz.

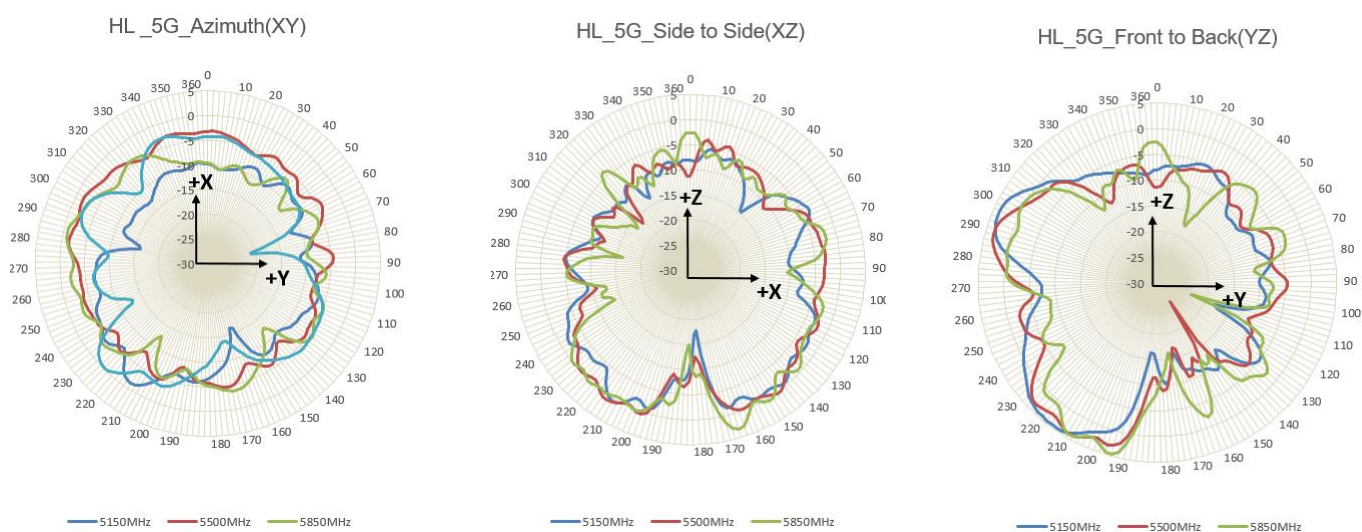


Figure 6. Measured radiation pattern characteristics in principal planes at 5GHz.



8. Realized Efficiency and Peak Realized Gain

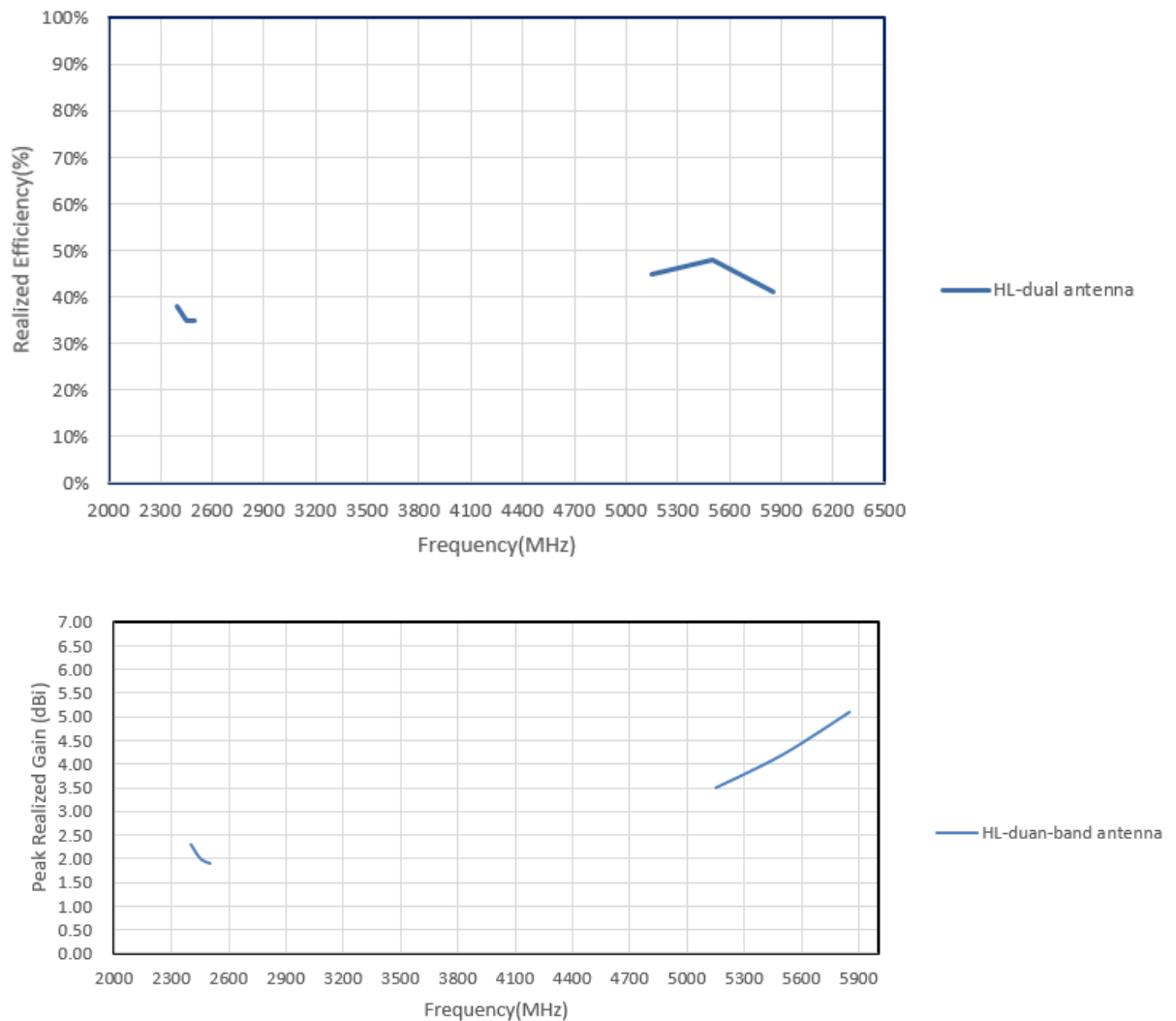


Figure 7. Measured peak realized gain over frequency.



Frequency (MHz)	Realized Efficiency (%)	Peak Realized Gain (dBi)
2400	38%	2.3
2450	35%	2.0
2500	35%	1.9
5150	45%	3.5
5500	48%	4.2
5850	41%	5.1
Average	40%	3.2

Table 2.Summary of realized efficiency and peak realized gain results.

9. Assembly Drawing

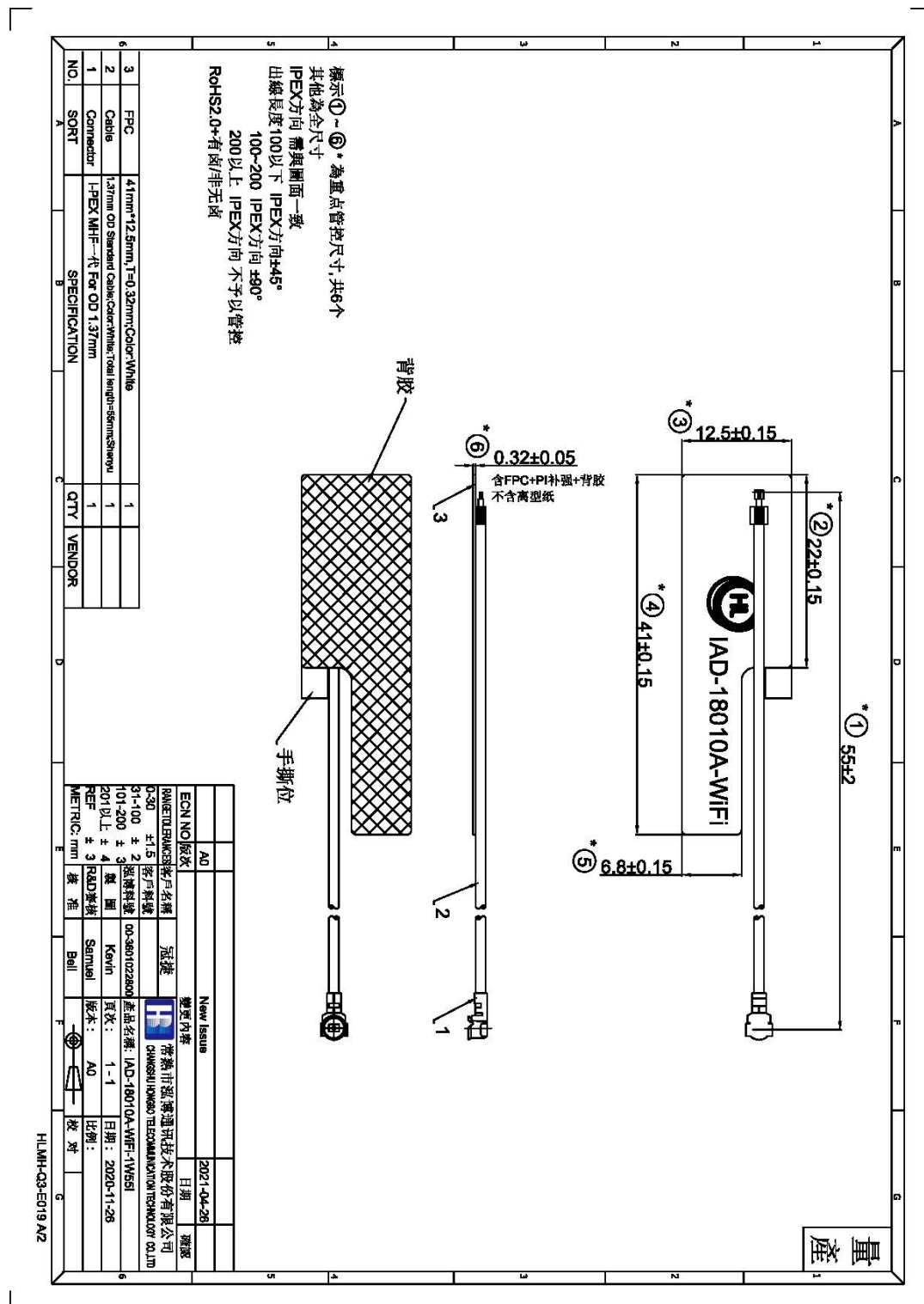


Figure 8.Assembly Drawing.