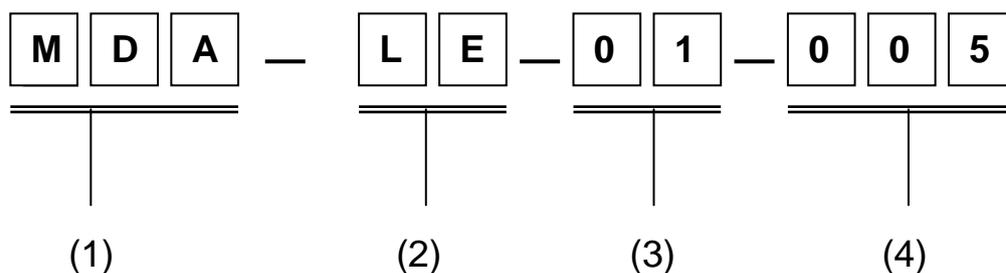


Embedded Multi-Band Antenna for MDA-LE-01-005

1. Explanation of part number :



- (1) Product type/Material : Wireless Antenna/Holder + LDS
- (2) Frequency/Band code : 2400~2500 & 5150~7125MHz
- (3) Coaxial Cable Type : White Coaxial Cable
- (4) Suffix : 005

2. Electrical Specification :

Ant. Part Number (main & aux parts)	Type	Connector Type	Cable length	Laptop/ Host Model
Aux: INPAQ P/N: MDA-LE-01-005 ASUS P/N: 14008-05330300	PIFA	I-PEX MHF4-L	144.5	GZ301V

Antenna Type	PIFA Antenna For WIFI 802.11a/b/g/n/ac/ax		
Connector Type	I-PEX MHF4-L Connector		
Cable Type	OD 1.13 Normal RF Cable		
Impedance	50Ω		
Polarization	Linear		
Radiation Pattern	Omni-directional		
Frequency Range	WLAN 802.11a/b/g/n/ac/ax	2.4~2.5GHz & 5.15~7.125 GHz	
VSWR	WLAN 802.11a/b/g/n/ac/ax	≤ 3.5	
Operation Temperature	-10°C ~+55°C		
Storage Temperature	-30°C ~+75°C		
Return Loss	≤ -6 dB		
Max Power	1W		

UNLESS OTHER SPECIFIED TOLERANCES ON :

X=± X.X=± X.XX=±
 ANGLES=± HOLEDIA=±



INPAQ TECHNOLOGY CO., LTD.

SCALE : N/A

UNIT : mm

DRAWN BY:周敬晨

CHECKED BY:鄭榮謀

DESIGNED BY:高楨棋

APPROVED BY:張建焜

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TITLE : Embedded Multi-Band Antenna for
MDA-LE-01-005

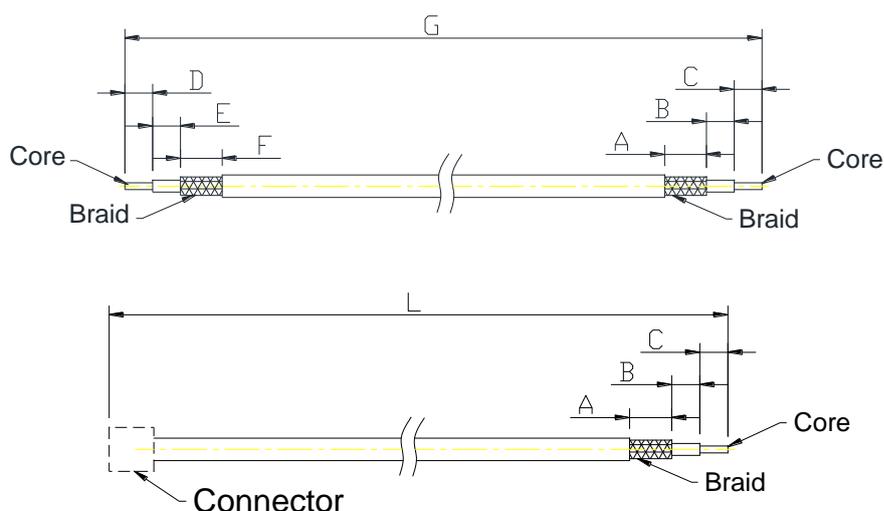
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NO.

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3. RF Connector :

3-1 Cable Dimension :



Connector : I-PEX MHF-4L ; Cable : RF Cable ϕ 1.13 Normal (White)

L : 160.5 \pm 2.0

D : 1.20 \pm 0.15

A : 3.0 \pm 0.5(沾錫)

E : 0.72 \pm 0.15

B : 3.0 \pm 0.5

F : 1.00 \pm 0.15

C : 1.0 \pm 0.5(沾錫)

G : 159.5 \pm 2.0

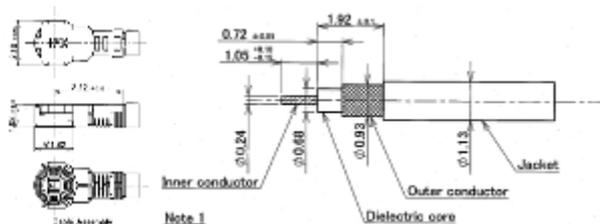
unit : mm

3-1.1 Electric SPEC :

短路/斷路測試 : (使用三用電表量測)

- 芯線與 Braid wires 間不可短路。
- Connector 之 Ground 與線路另一端之 Braid wires 間不可斷路。
- Connector 之芯線與線路另一端之芯線間不可斷路。

3-1.2 Connector Appearance : I-PEX MHF-4L (此為示意圖)



UNLESS OTHER SPECIFIED TOLERANCES ON :

X \pm X.X \pm X.XX \pm
 ANGLES \pm HOLEDIA \pm



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4. Electrical Specification :

Those specifications were specially defined for GZ301V model, and all characteristics were measured under the model's handset testing jig.

4-1. Frequency Band :

Frequency Band	MHz	MHz
Wi-Fi 6e	2400~2500	5150~7125

4-2. Impedance :

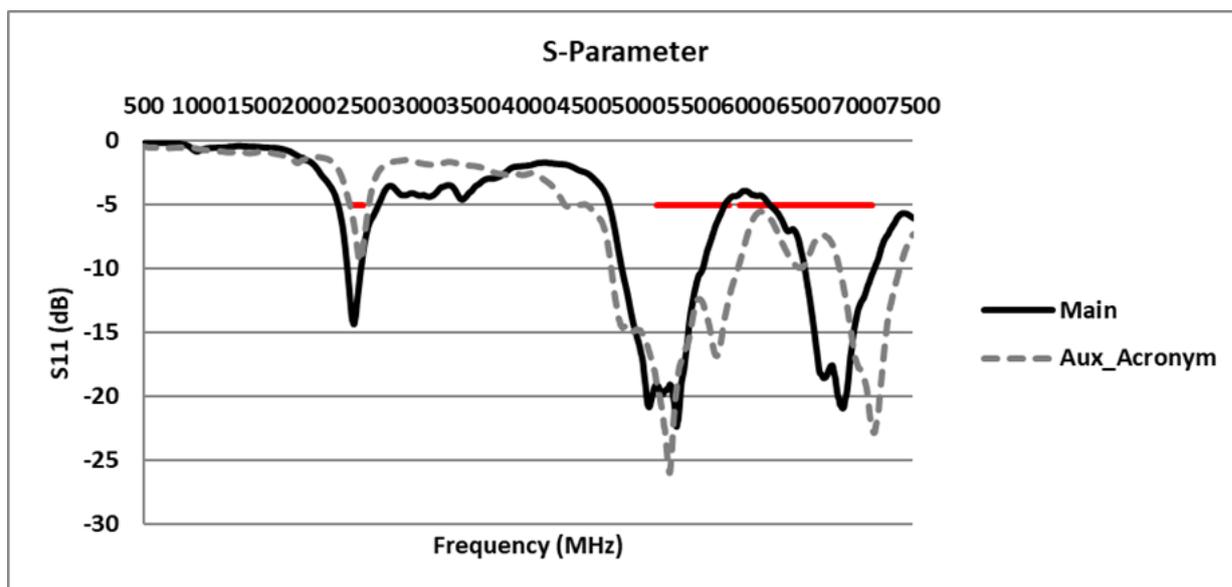
50 ohm nominal

4-3. Matching circuit :

None

4-4. Return loss/VSWR :

Frequency(MHz)	2425	2495	5120	5855	7150
Aux S11(dB)	-7.00	-8.50	-17.04	-11.29	-22.74



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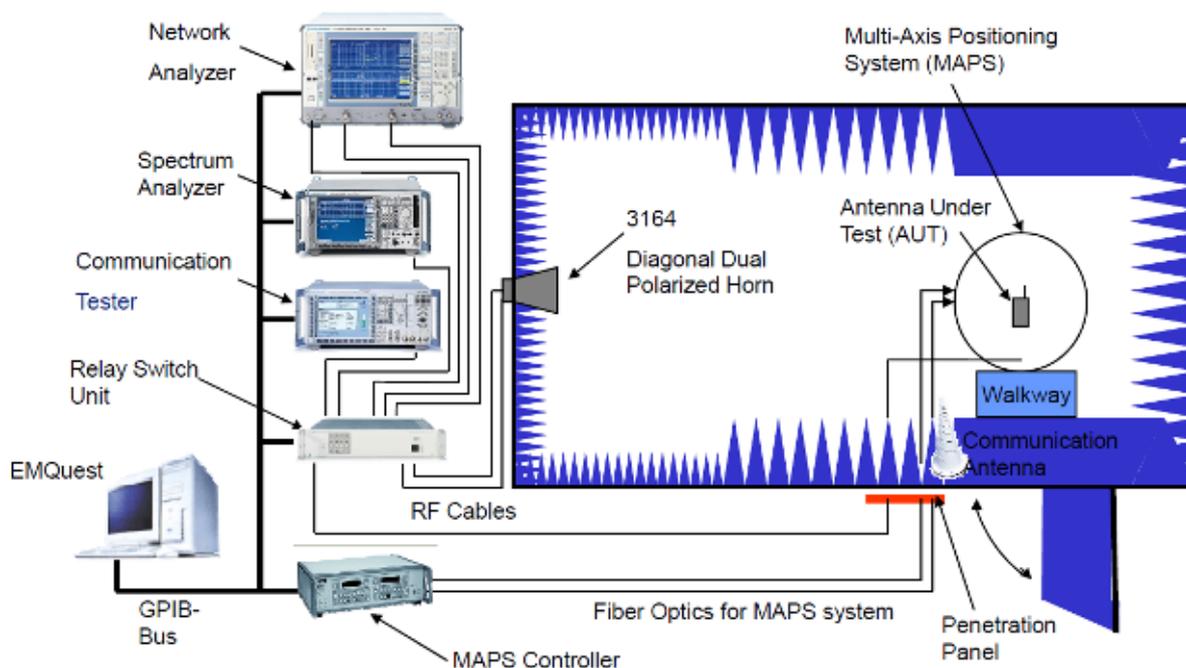
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4-5 Gain and Radiation Pattern

4-5.1 Measure method

1. Using a low loss coaxial cable to link a standard handset jig
2. Fixed this handset jig on chamber's rotator plane
3. Linking jig into network analyzer port and using a probing horn antenna to collect data.
4. Using another standard gain horn antenna to calibrated those data

4-5.2 Chamber definition



1. An anechoic chamber (10mx3mx3m) which satisfied far-field condition was applied to avoid multi-path effect
2. The quiet room region is 50cmx50cmx50cm at the center of rotator
3. The distance between DUT and standard antenna is 9.14m
4. Two measurement antennas is 3164-06 (300MHz - 6GHz) and 3164-05 (2 - 18GHz)

UNLESS OTHER SPECIFIED TOLERANCES ON :

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 ANGLES=± HOLEDIA=±



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4-5.3 Gain data and radiation pattern

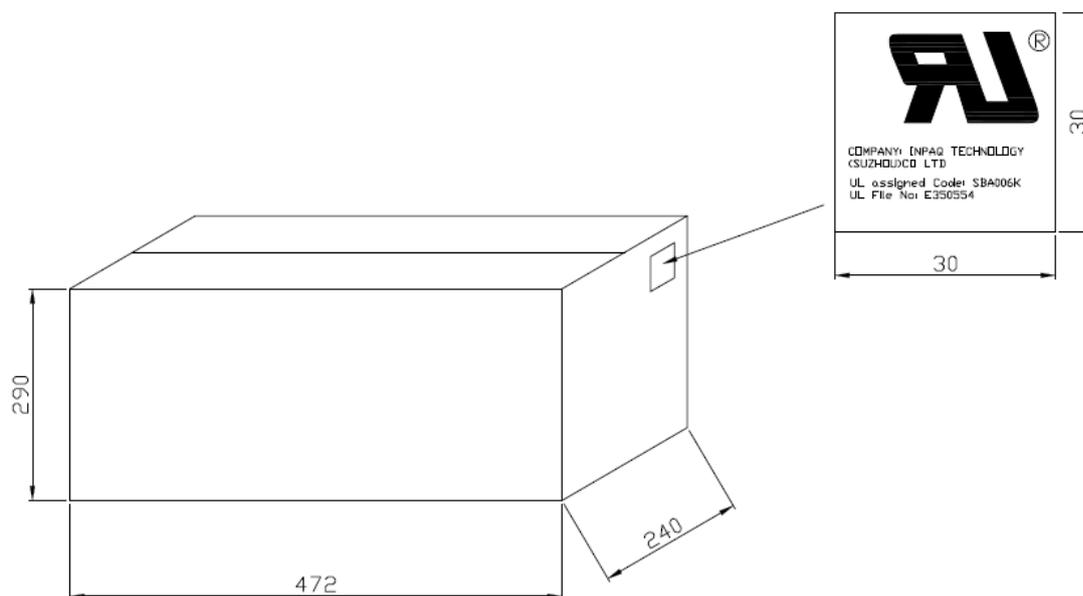
Antenna gain is marked (dBi) and is based on **STANDARD HORN** antenna. The data shows Average-Gain.

	Aux
Frequency (MHz)	Peak gain w/ cable loss (dBi)
2400-2483.5	-0.74
5150-5250	1.55
5250-5350	0.64
5470-5725	3.55
5725-5850	3.66
5850-5895	3.66
5925-6425	3.61
6425-6525	3.72
6525-6875	3.38
6875-7125	3.87

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ANGLES=±		HOLEDIA=±	
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TITLE : Embedded Multi-Band Antenna for MDA-LE-01-005		DOCUMENT NO.	ENS000172600
			SPEC REV. P1

5. 外箱貼附 Cable 的 UL 標籤：

The appearance of cable UL label is according to drawing Figure 7-1-1



帶線材的產品出貨時皆需貼附此標籤

UNLESS OTHER SPECIFIED TOLERANCES ON : X=± X.X=± X.XX=± ANGLES=± HOLEDIA=±		 INPAQ TECHNOLOGY CO., LTD.
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