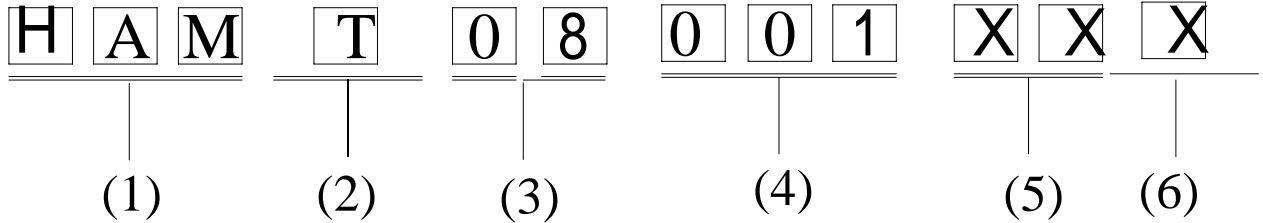


# External Antenna for HAMT08001XXX

## 1. Explanation of Part Number



- (1) Product type : Helical Antenna Module
- (2) System code :T for Tri-band
- (3) Customer code :
- (4) Series code :
- (5) Appearance :
- (6) Suffix

## 2. Electrical properties:

Item	Property
Frequency Range	880~960 MHz and 1710~1990 MHz
Impedance	50 Ω (Typ.)
VSWR <small>(see Fig 1)</small>	3.5
Gain	0dBi (Max.)
Polarization	Vertical
Radiation pattern	Near omni-directional in the horizontal plane

Checking Point	Frequency (MHz)				
VSWR	880MHz	960MHz	1710MHz	1880MHz	1990MHz
	3.5	3.5	3.5	3.5	3.5

UNLESS OTHER SPECIFIED TOLERANCES ON :

X = ±2    X.X = ±0.5    X.XX = ±0.05

ANGLES = ±    HOLEDIA = ±



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INPAQ TECHNOLOGY CO., LTD.

SCALE :                      UNIT : mm

DRAWN BY : 張明貴                      CHECKED BY: 陳秉宏

DESIGNED BY : 張明貴                      APPROVED BY : 張啟隆

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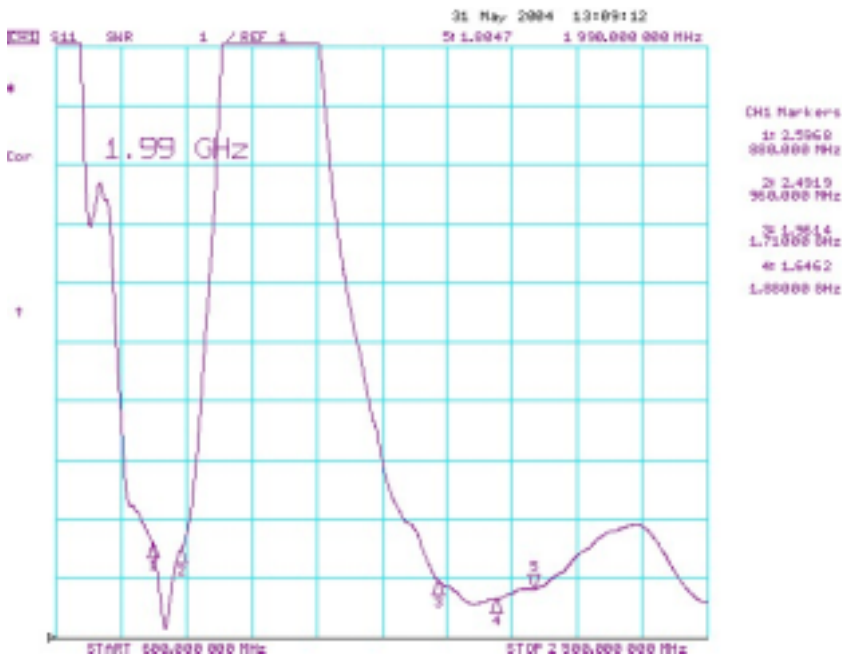
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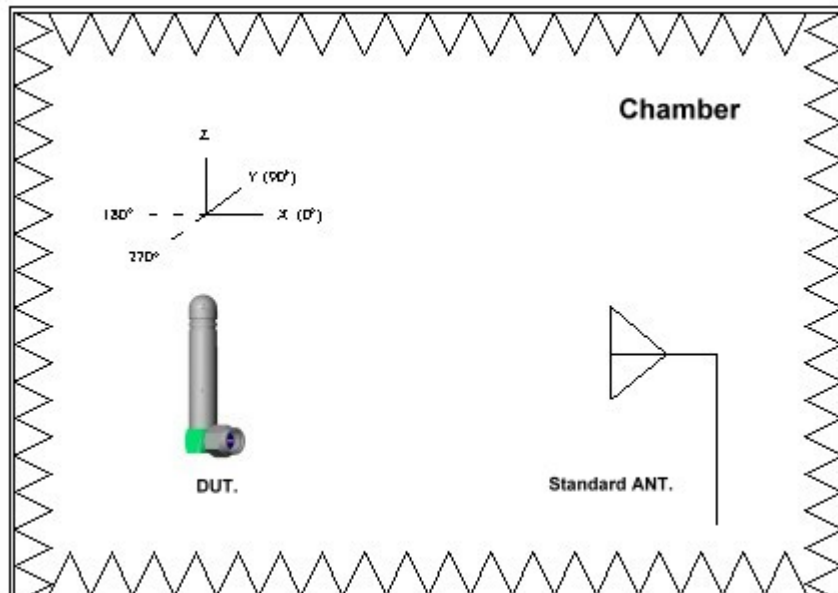
**Figure 1. VSWR**



**Figure 2. Gain**

The Gain pattern was measuring in INPAQ's FAR-field chamber . DUT will be placed on the table of rotator , a standard horn antenna and Vector Network Analyzer was using to collected data. ( Please contact to INPAQ for more detail )

● **Measuring factors definition**



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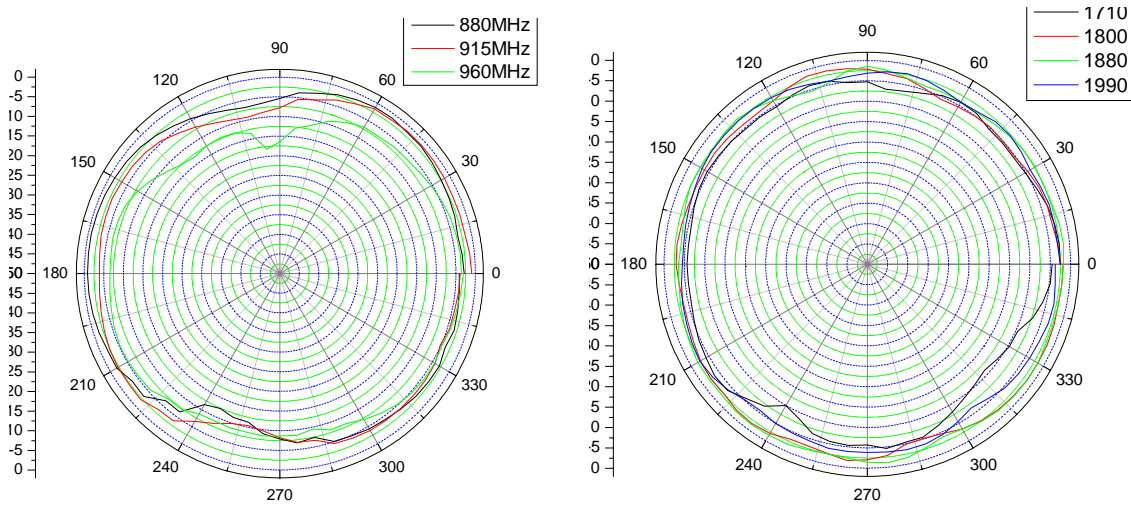
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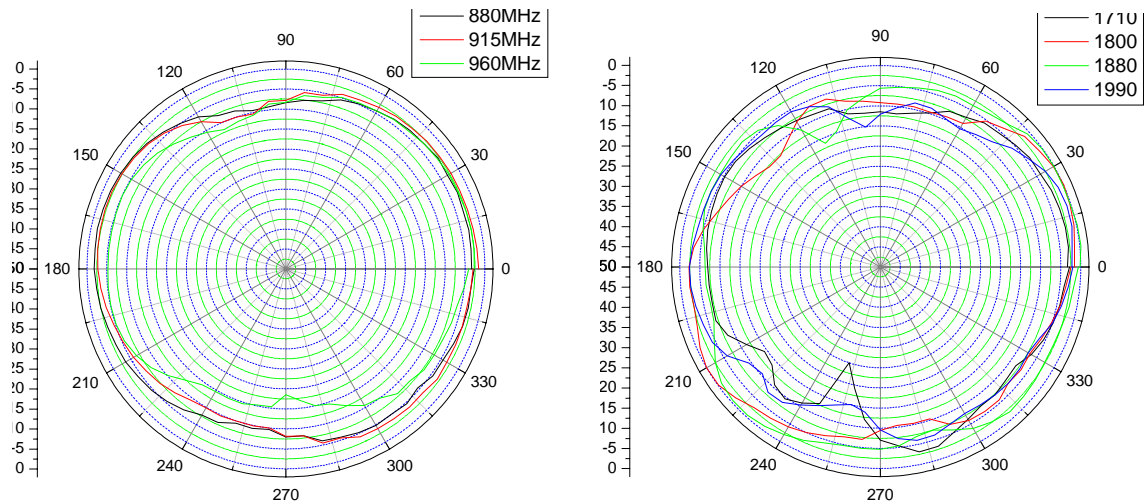
Unit dBi	H-plane		E-plane	
	Max	Average	Max	Average
880	-0.79	-3.26	-1.64	-4.32
915	-1.01	-3.81	-1.65	-4.27
960	-3.12	-6.68	-2.47	-6.38
1710	-2.61	-5.41	-2.84	-6.44
1800	-1.54	-3.02	0.02	-4.35
1880	-1.15	-2.51	0.22	-3.11
1990	-2.30	-3.61	-1.10	-5.51

## Gain and Radiation Pattern

### Radiation patterns H\_plan



### Radiation patterns E\_plan



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### 3. Mechanical properties:

Item	Property
Color	Black ( Typ.)
Plastic Cover	TPU or TPE
Antenna Base	SMA R/A improved type
Coil	Phosphor Bronze

Operating Temperature : -20~+65

Storage Temperature : -40~+80

### 4. Environmental Characteristics:

No	Item	Test Condition	Specification
4-1	High Temperature/Humidity Operating test	1.Temperature : +60±2 . 2.Humidity : 90~95%RH 3.Time : 24hrs	1. Normal functional test must be satisfied after the test.  2. No material deformation is allowed.
4-2	Low Temperature/Humidity Operating test	1.Temperature : -20±2 . 2.Humidity : 0%RH 3.Time : 24hrs	
4-3	High Temperature/Humidity Storage	1.Temperature : +80±2 . 2.Humidity : 90~95%RH 3.Time : 88hrs	
4-4	Low Temperature/Humidity Storage	1.Temperature : -40±2 . 2.Humidity : 0%RH 3.Time : 28hr	
4-5	Temperature Cycle Operating Test	1.Temperature : -40~+75 2.Duration : ● 88 Hours, ● 45min/dwelling@ -40 , ● 10 per min./transition from -40 to 75 , ● 45min/dwelling@75 ,	
4-6	Temperature Shock Test	1.Temperature : -40± ~+85 . 2.Time : 30 minutes/dwelling, 5 minutes/ transition, 24 cycles	

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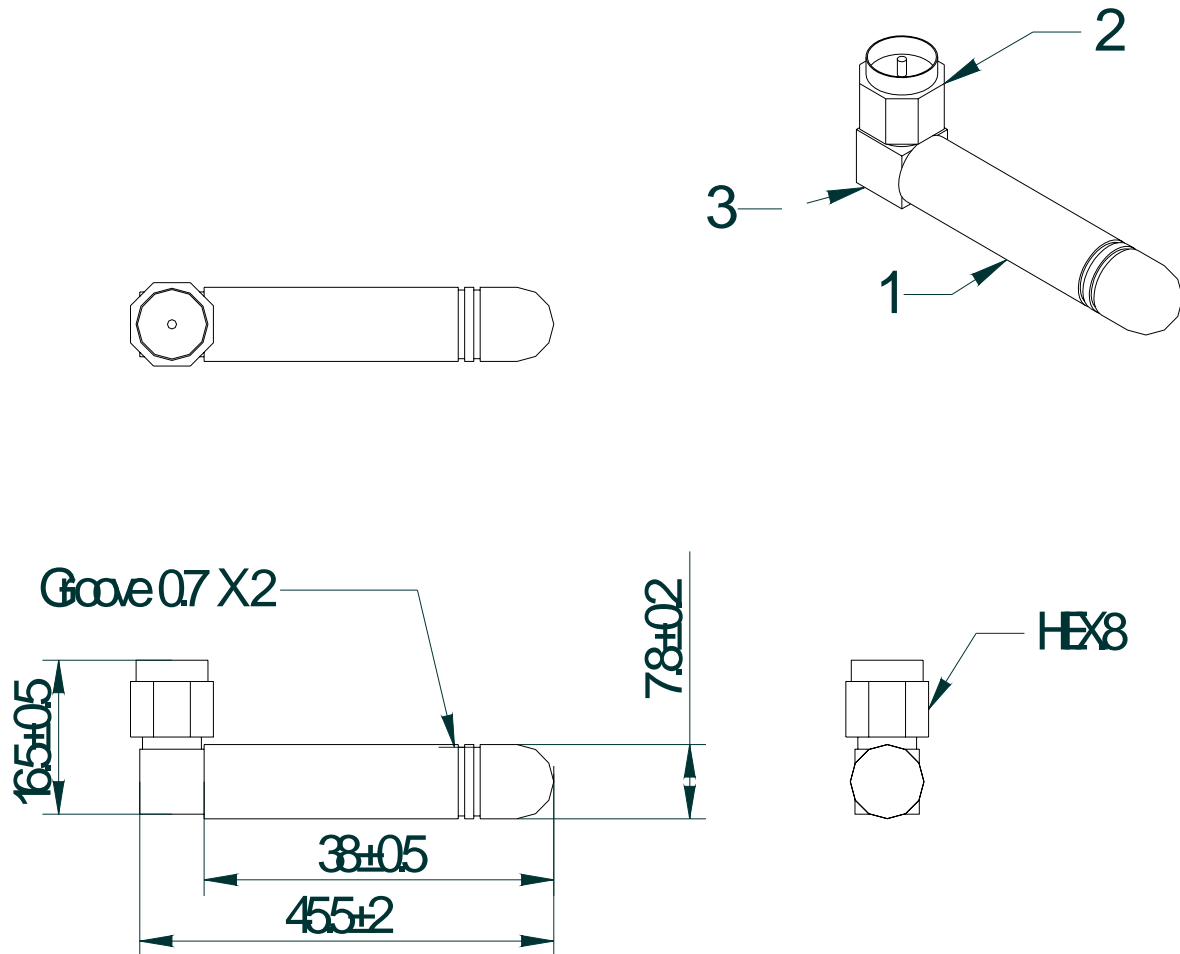
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## 5. Physical Dimension :



Unit : mm

Parts List			
No	Description	Q'ty	Unit
01	Plastic Antenna Cover ( TPU or TPE ,Black )	1	PC
02	SMA R/A improved type ( BSBM + Au plating )	1	PC
03	Metal Cap ( BSBM + Au plating )	1	PC

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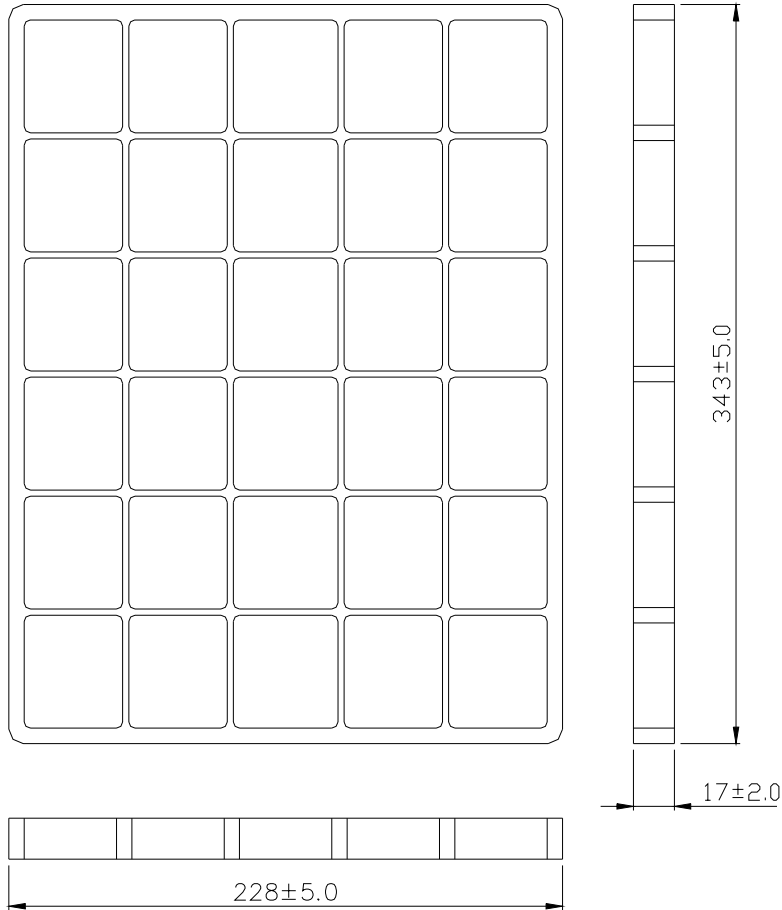
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## 6.Packaging:

Antenna to be packed in compartmentalized blisters tray (each 30 pcs per tray).

**Material : PET Thickness : 0.085mm**



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