

ARS-PT7 spec

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2. Specification

- . Product Number : ARS-PT7W
- . Version : 1.0

Electrical Characteristics

- . Frequency (MHz) : 2400-2500 & 5150-7125 MHz
- . S.W.R. : < 2.0
- . Return Loss : < -10 dB
- * S.W.R. & Return Loss test at free space *
- . Peak Gain : 3.0 ~ 4.0 dBi
- . Efficiency : 50 ~ 70 %
- * Peak Gain and Efficiency data depended on installation environments*
- . Radiation Pattern : Omni-Directional
- . Impedance : 50 ohm

Mechanical Characteristics

- . Antenna Material : FR4 / PCB
- . Connector : RPSMA Male
- . Material : RoHS 2011/65/EU
with IEC 62321:2008 Method

Environmental Condition

- . Operation Temperature : -40 ~ +80 °C
- . Storage Temperature : -40 ~ +80 °C

3. Reliability Characteristics

R1. Soldering Ability

Condition: the dipped surface of the terminal should be over 95% covered with solder after dipped in soldering material of $260 \pm 5^{\circ}\text{C}$ for 3 ± 1 seconds.

Requirement: no apparent damage

R2. Soldering Heat

Condition: .solder bath temperature : $260 \pm 5^{\circ}\text{C}$
.bathing time : 10 ± 1 seconds

Requirement: no apparent damage

R3. Thermal Shock

Condition: 30 minutes @ $-40 \pm 5^{\circ}\text{C}$ and 5 minutes to 90°C ;
30 minutes @ $90 \pm 5^{\circ}\text{C}$ and 5 minutes to -40°C ;
96 continuous cycles

Requirement: no apparent damage / electrical test pass

R4. Humidity

Condition: R.H. 85% ; $85 \pm 5^{\circ}\text{C}$; 96 Hours

Requirement: no apparent damage / electrical test pass

R5. High Temperature

Condition: $90 \pm 5^{\circ}\text{C}$; 96 Hours

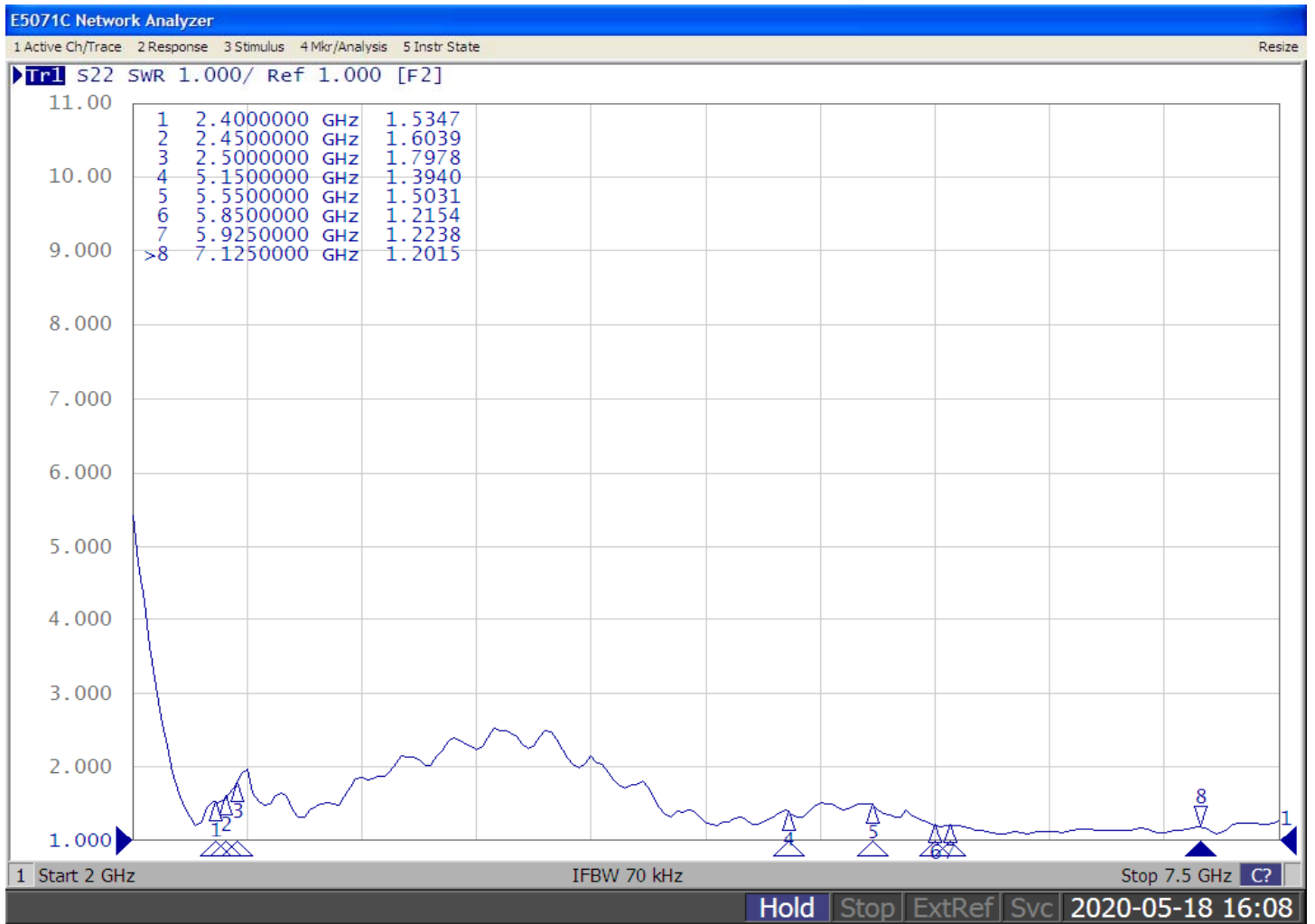
Requirement: no apparent damage / electrical test pass

R6. Low Temperature

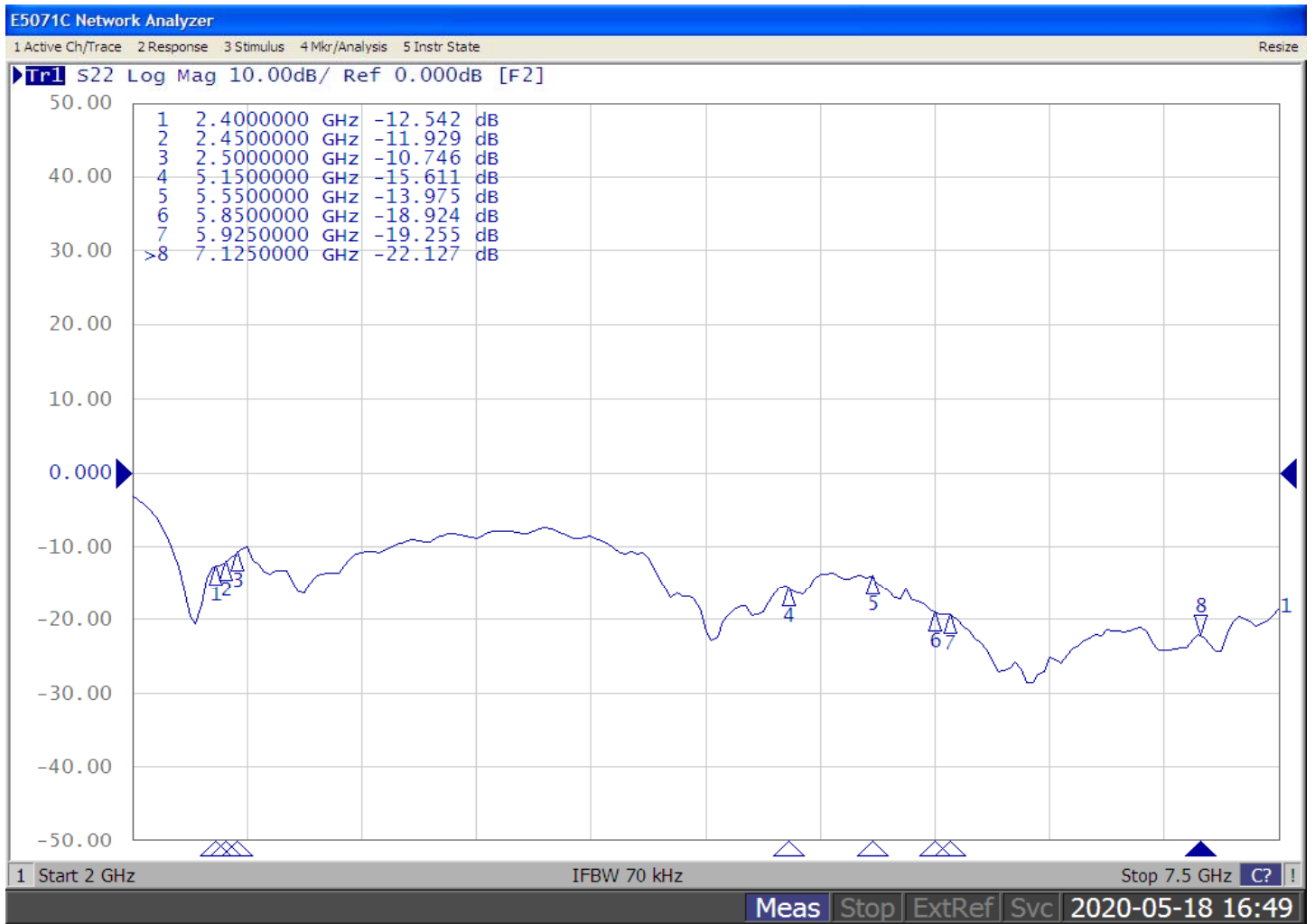
Condition: $-40 \pm 5^{\circ}\text{C}$; 96 Hours

Requirement: no apparent damage / electrical test pass

4.2 S Parameter Test S.W.R. Test Data

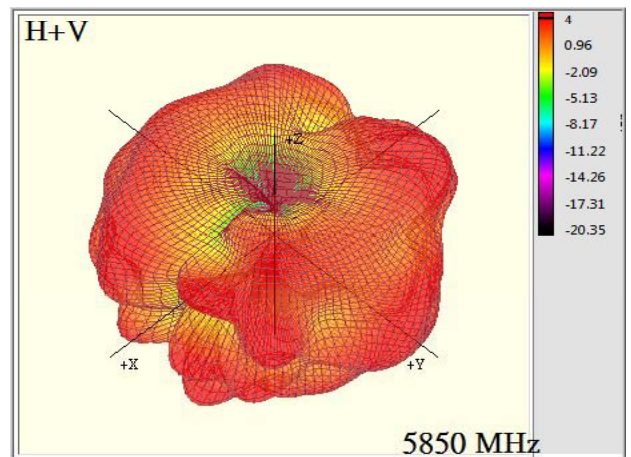
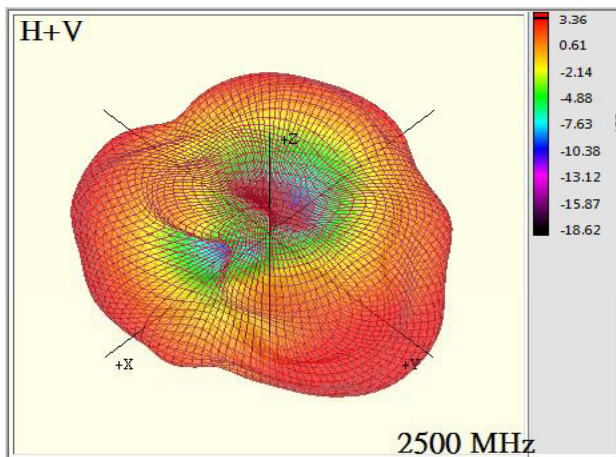
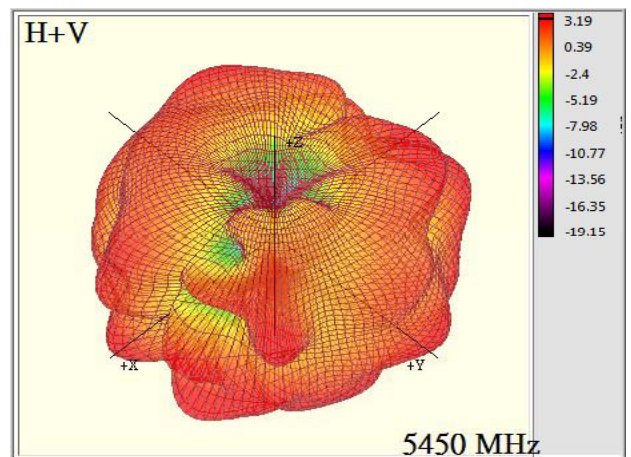
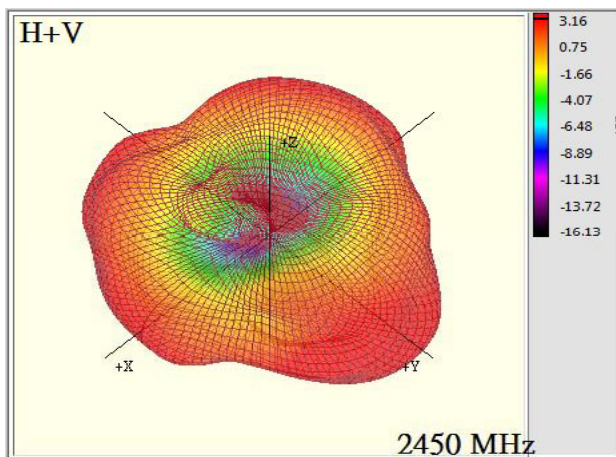
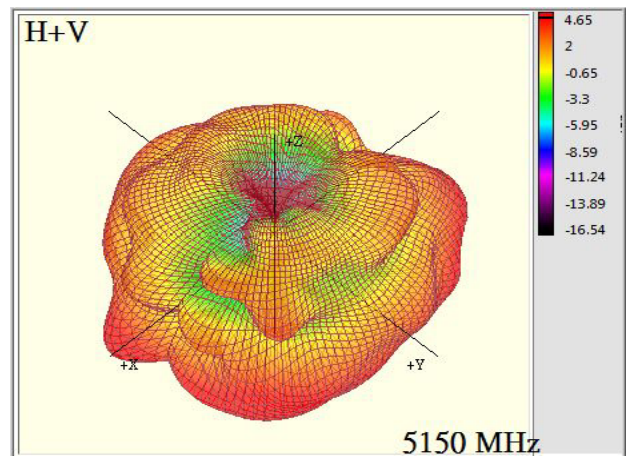
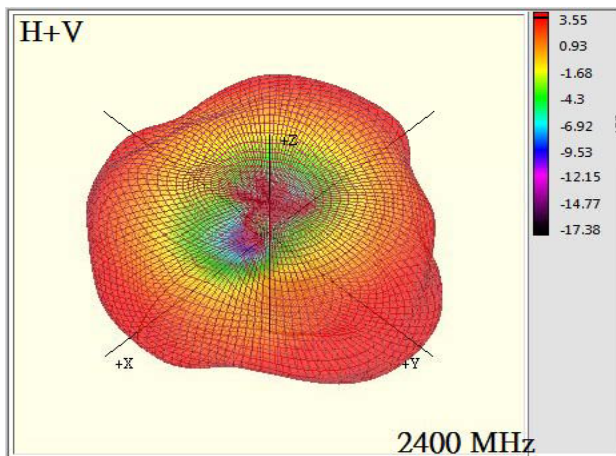


4.3 S Parameter Test Return Loss Test Data



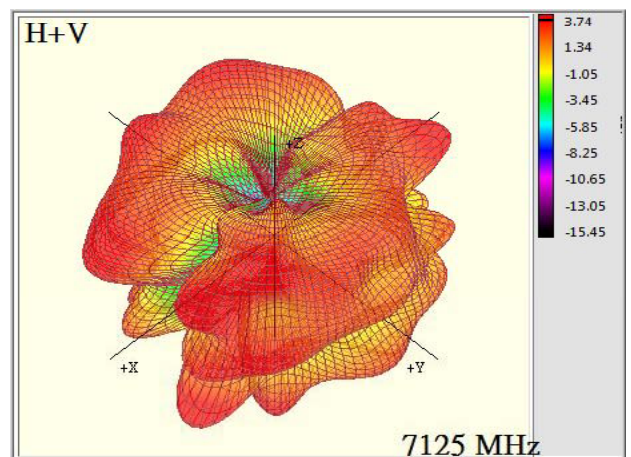
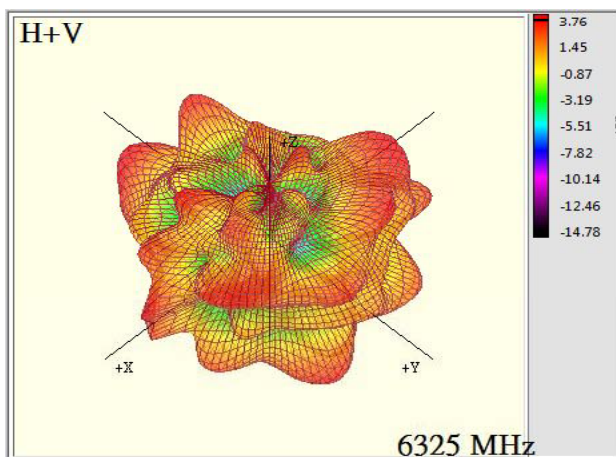
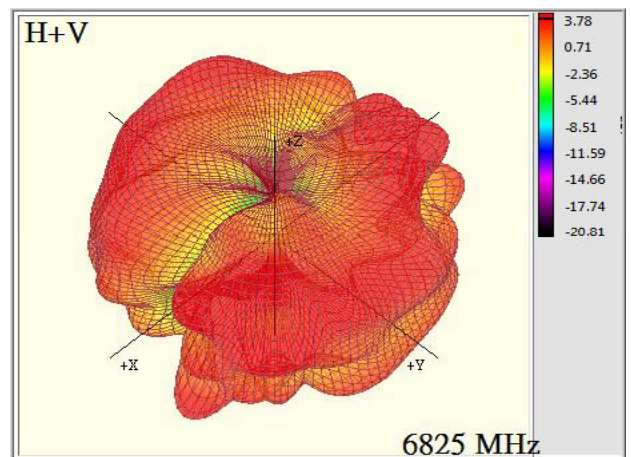
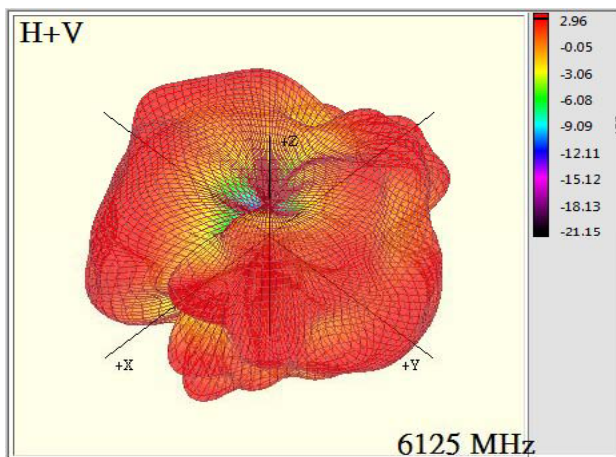
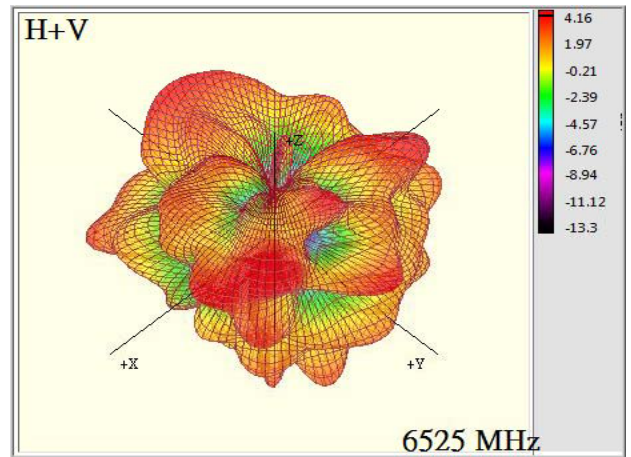
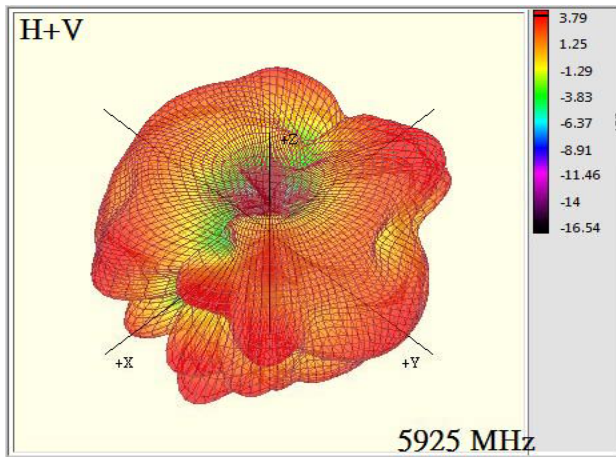
5. Antenna Gain Test

5.2 Antenna Radiation Pattern



5. Antenna Gain Test

5.2 Antenna Radiation Pattern



5. Antenna Gain Test

5.3 Gain and Efficiency Test Data

Total Polarization

Frequency (MHz)	2400	2450	2500	5150	5450	5850
Tot. Rad. Pwr. (dBi)	-0.961	-1.583	-1.722	-1.163	-1.593	-1.168
Peak EIRP (dBi)	3.55	3.16	3.36	4.65	3.19	4.00
Directivity (dBi)	4.42	4.601	4.809	5.36	4.115	5.17
Efficiency (dB)	-0.961	-1.583	-1.722	-1.163	-1.593	-1.168
Efficiency (%)	80.148	69.455	67.273	76.498	69.294	76.426
Gain (dBi)	3.459	3.018	3.088	4.197	2.522	4.002

Frequency (MHz)	5925	6125	6325	6525	6825	7125
Tot. Rad. Pwr. (dBi)	-1.636	-2.335	-2.804	-2.47	-2.103	-1.979
Peak EIRP (dBi)	3.79	2.96	3.76	4.16	3.78	3.74
Directivity (dBi)	5.388	5.202	6.52	6.59	5.06	4.919
Efficiency (dB)	-1.636	-2.335	-2.804	-2.47	-2.103	-1.979
Efficiency (%)	68.608	58.41	52.433	56.624	61.613	63.405
Gain (dBi)	3.751	2.867	3.716	4.12	2.957	2.94

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REV	DATE	DESCRIPTION
X1	2020.02.17	NEW Release

Electrical Characteristics

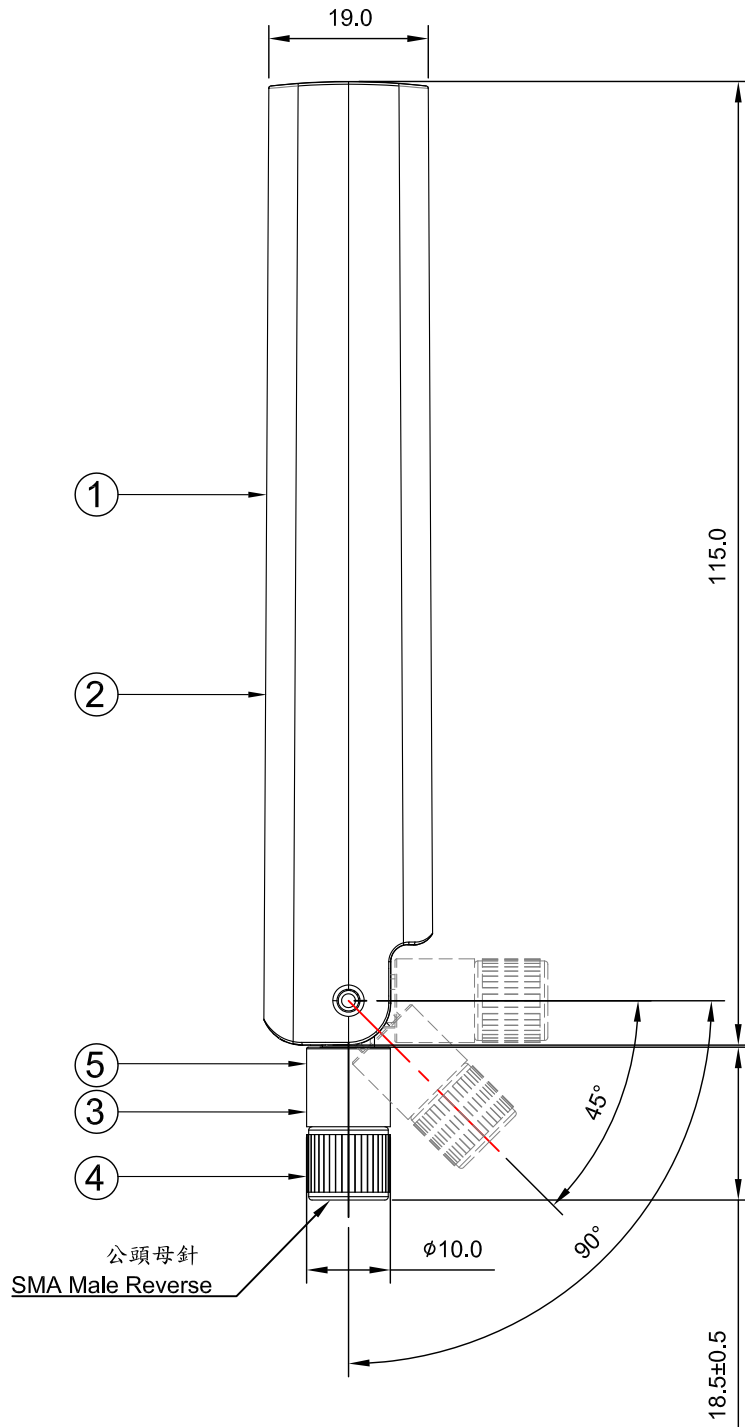
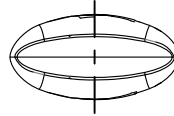
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Environmental Condition

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5	Cable	O.D.1.37mm	Black	1
4	Connector	SMA Male Reverse	Black	1
3	Body2	PC+PPT	Black	1
2	PCB	FR4	Black	1
1	Body1	PC+PPT	Black	1
No.	Name	Material	Finish	Q'ty

APP BY	CHK BY	DES BY
Kuo 2020.02.17 Doris	Deng 2020.02.17 Anders	

VICMOORE			
Customer Model:			
TITLE: WIFI6E ANTENNA			
PART NO.: VM7000-110135LF-01A			
Sheet	UNITS	SCALE	REV
1 of 1	mm	-	X1

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