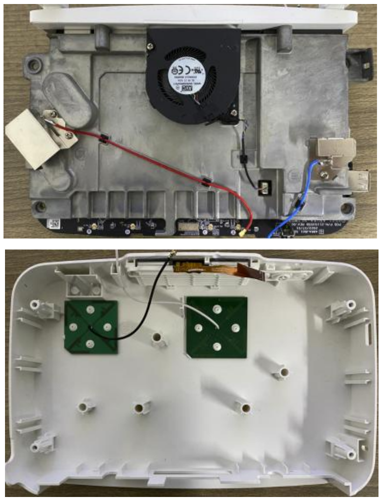
DATA SHEET

ARUBA
ANTENNA

ANT-605R

The Model ANT-605R's superior performance is derived by combining the benefits of four high gain antenna elements with high isolation between each beam. This Omnidirectional and high isolation improves the SNR in MIMO channels, thereby increasing the range and throughput of WLAN, devices. The Model ANT-605R supports independent Tri-band transmission in the 2.4GHz band, the 4.9 to 5.9GHz Band and 5.9GHz-7.2GHzband, BT and GPS.



FREQUENCY/UNCORRELATED GAIN

4.4dBi @ 2.4 GHz, 4.7dBi @ 5GHz, 4.7dBi @ 6GHz, 5.1dBi @ BLE, 2.7dBi @ GNSS

DIMENSIONS

206.15*208.37*20.7 mm

WEIGHT

120.5.g (0.5 lbs)

Material

Plate: Aluminum

Carrier: Plastic

Antenna: Metal/PCB

IMPEDANCE

50 ohms

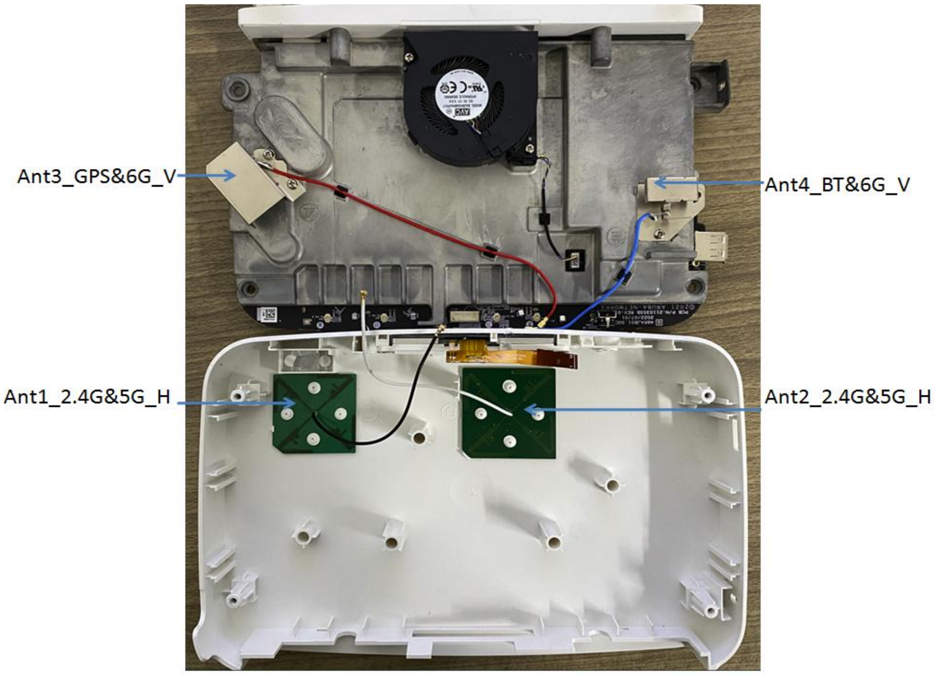
OPERATING TEMPERATURE

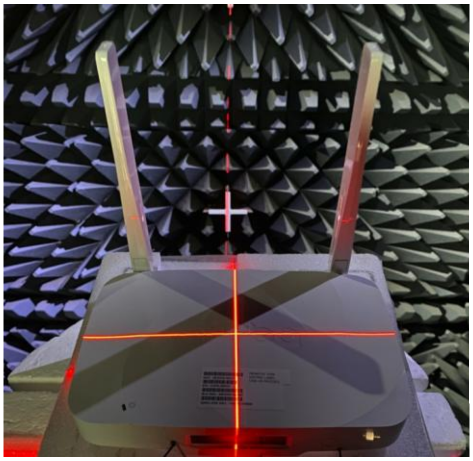
-40° C to +55° C

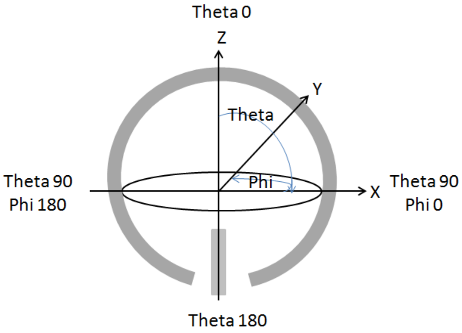
VSWR

2:1 max

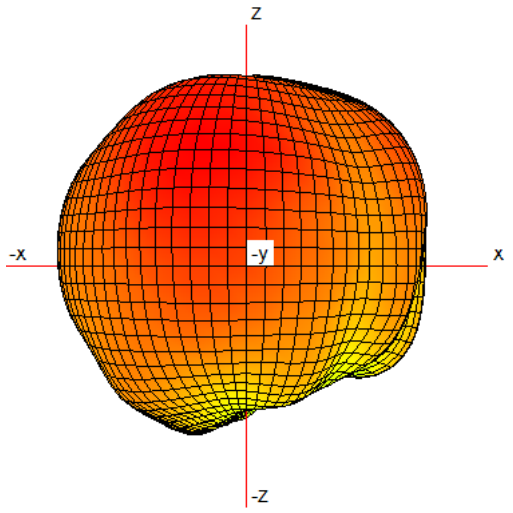
ANTENNA PATTERN PLOTS


Ant3_GPS&6G_V
Ant4_BT&6G_V
Ant1_2.4G&5G_H
Ant2_2.4G&5G_H




Theta 0
Z
Y
Theta
Phi
Theta 90
Phi 180
X
Theta 90
Phi 0
Theta 180

Radiation Patterns at 2.45 GHz



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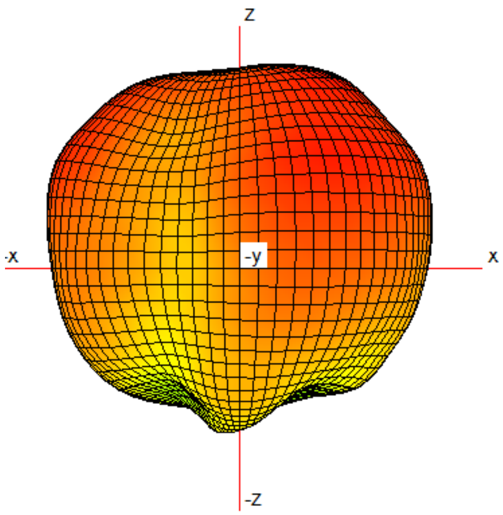

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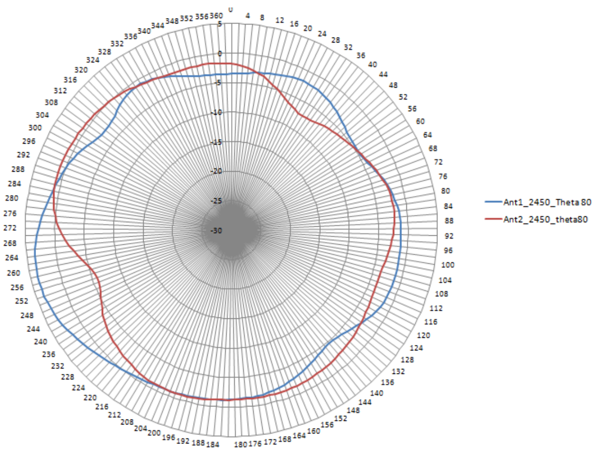
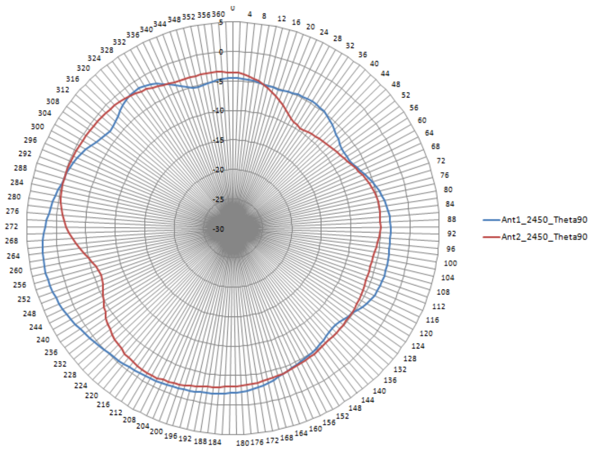
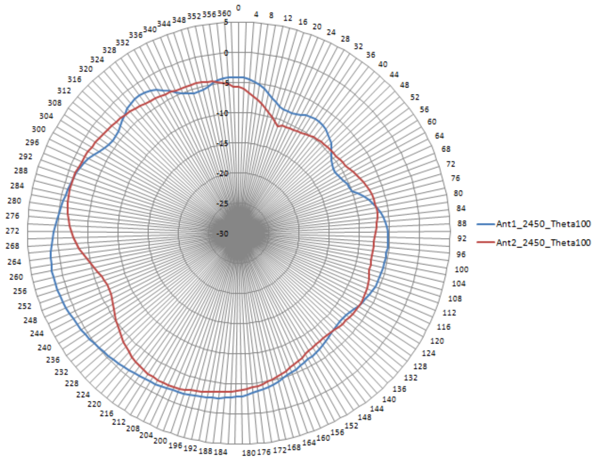
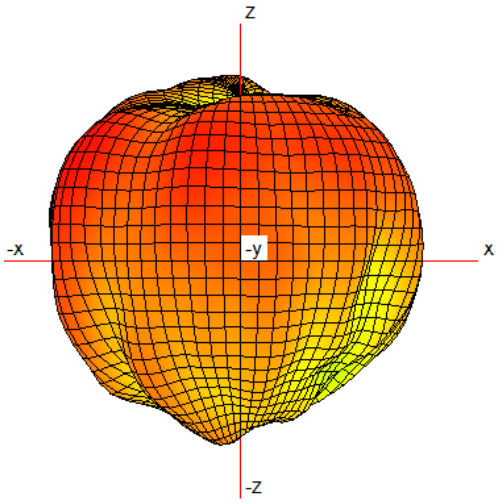






Radiation Patterns at 5.5GHz



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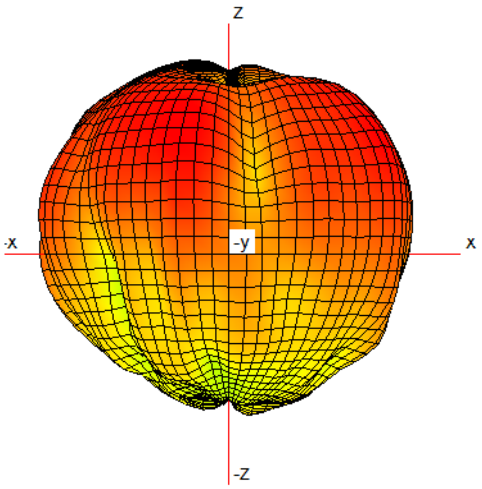

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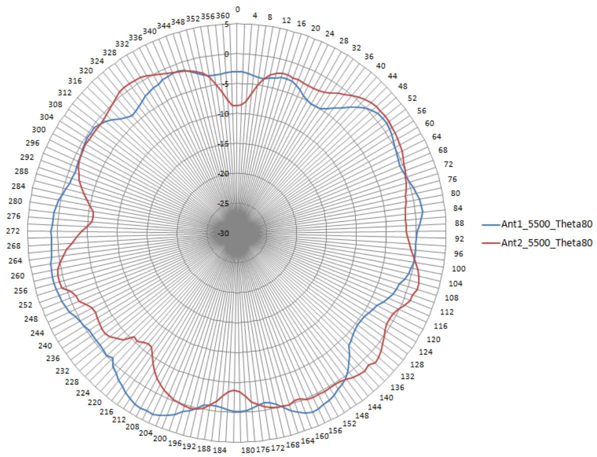
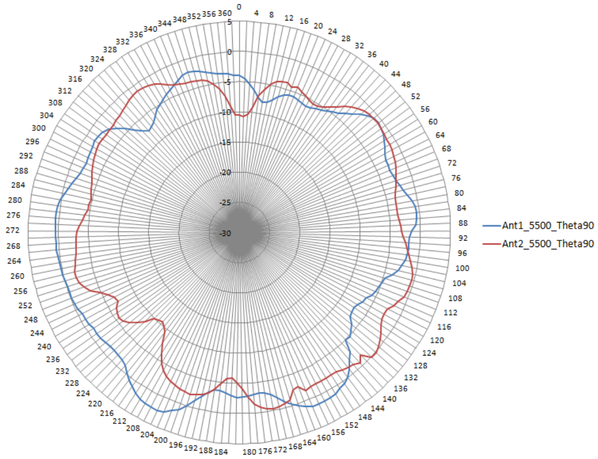
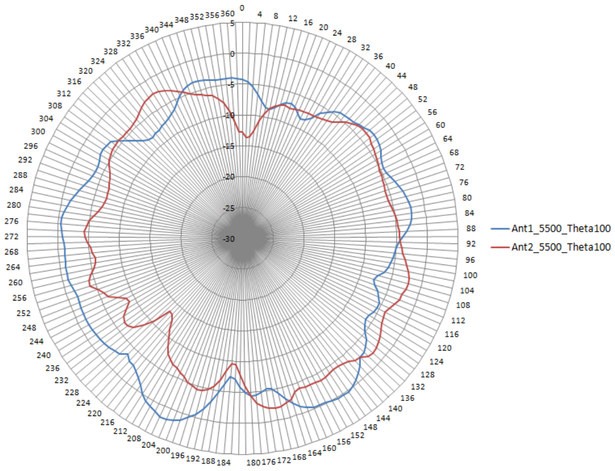
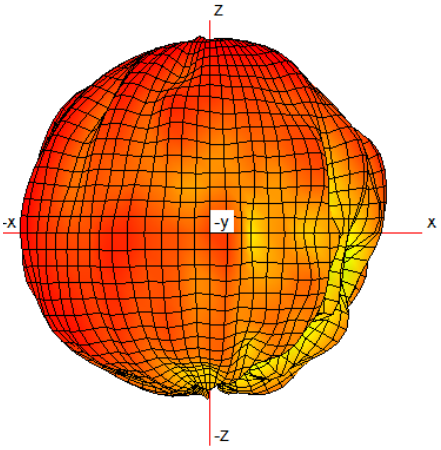






Radiation Patterns at 6.5GHz



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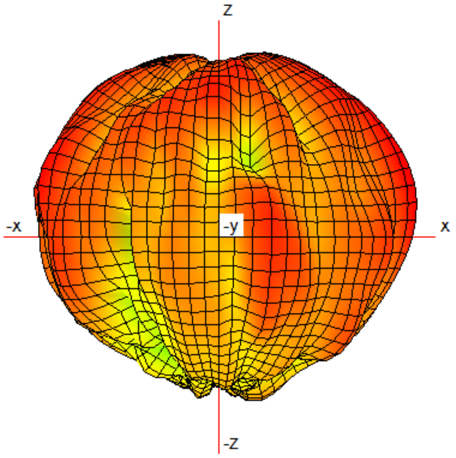

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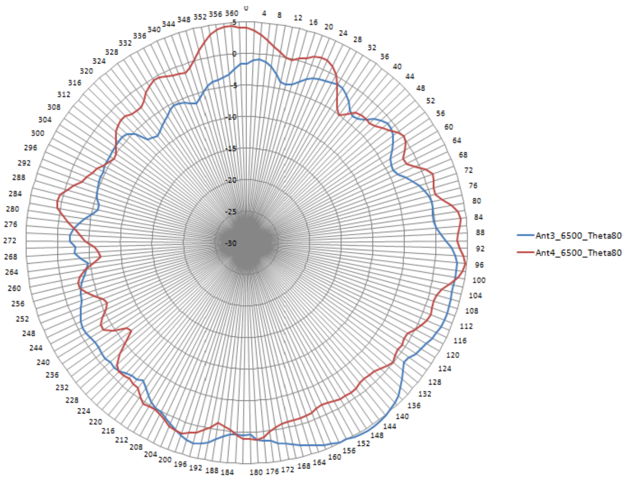
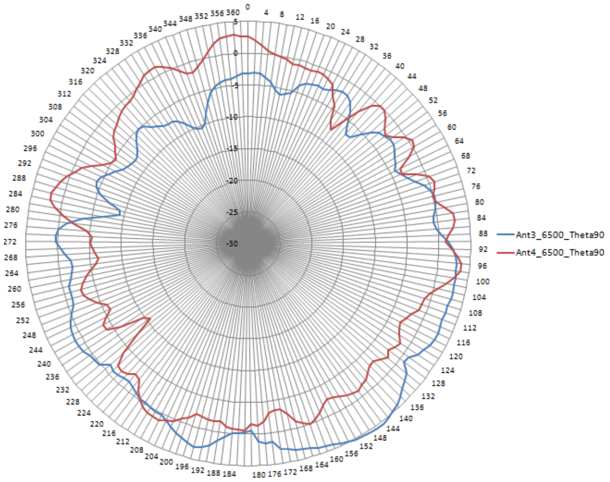
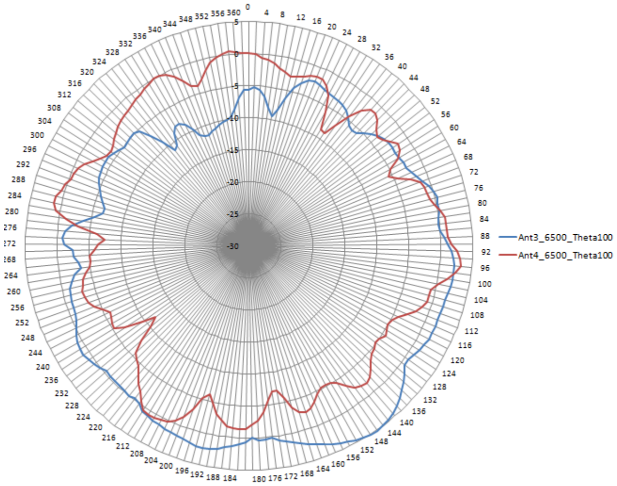
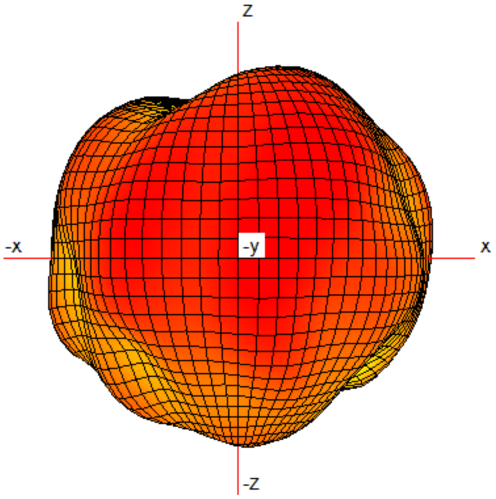






Radiation Patterns at BLE



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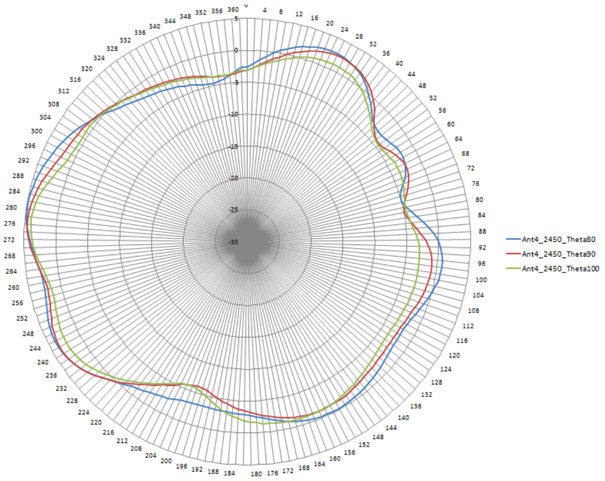
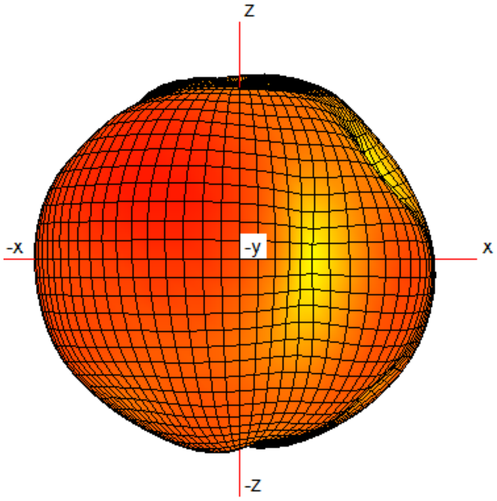


Radiation Patterns at GNSS



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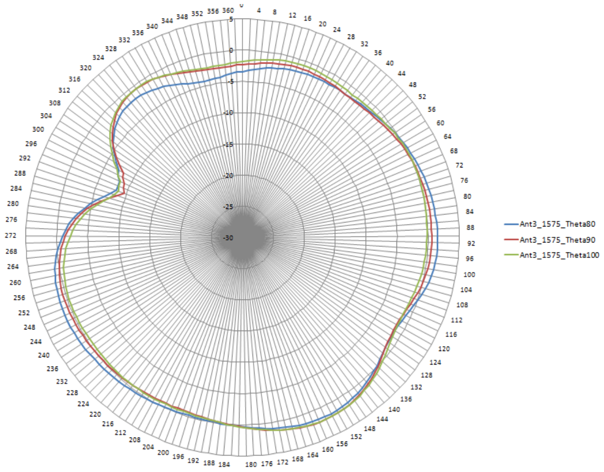


Results summary at 2.4G

	S11(dB)		Efficiency(%)		Max Gain(dBi)		Isolation(dB)		Flatness(dB)	
	SPC	test result	SPC	test result (Average)	SPC	test result	SPC	test result	SPC	test result
Ant1 (2.4G+5G H)	-10	9.6	70	73%	3dBi<Max Gain<5dBi	5.3 @ 2.40Ghz	20dB vs Ant2	18dB	10dB @ theta80 /90/100	8.5@ theta80
						5.5 @ 2.45Ghz	25dB vs Ant3&Ant4	26dB		10 @ theta90
						4.9 @ 2.49Ghz	30dB vs Ant LTE	30dB		12.6@ theta100
Ant2 (2.4G+5G H)	-10	9.8	70	67%	3dBi<Max Gain<5dBi	4.2 @ 2.40Ghz	20dB vs Ant1	18dB	10dB @ theta80 /90/100	8.2@ theta80
						3.9 @ 2.45Ghz	25dB vs Ant3&Ant4	31dB		9.4@ theta90
						4.5 @ 2.49Ghz	30dB vs Ant LTE	29dB		10.1@ theta100

Frequency (Mhz)	Uncorrelated Gain (dBi)	correlated Gain (dBi)
2400	3.4	6.4
2450	4.1	7.1
2490	4.4	7.4

Results summary at 5G

	S11(dB)		Efficiency(%)		Max Gain(dBi)		Isolation(dB)		Flatness(dB)	
	SPC	test result	SPC	test result (Average)	SPC	test result	SPC	test result	SPC	test result
Ant1 (2.4G+5G H)	-10	10.1	70	73% @5G	3dBi<Max Gain<5.5dBi @ 5GHz	5.3 @ 5.1Ghz	20dB vs Ant2	18dB	10dB @ theta80 /90/100	9.8@ theta80
						5.3 @ 5.5Ghz	25dB vs Ant3&Ant4	26dB		10.7 @ theta90
						4.8 @ 5.85Ghz	30dB vs Ant LTE	30dB		10.5@ theta100
Ant2 (2.4G+5G H)	-10	10.2	70	75% @5G	3dBi<Max Gain<5.5dBi @ 5GHz	5.5 @ 5.1Ghz	20dB vs Ant1	18dB	10dB @ theta80 /90/100	9.3@ theta80
						5.0 @ 5.5Ghz	25dB vs Ant3&Ant4	31dB		10.7 @ theta90
						5.5 @ 5.85Ghz	30dB vs Ant LTE	29dB		10.9@ theta100

Frequency (Mhz)	Uncorrelated Gain (dBi)	correlated Gain (dBi)
5100	4.7	7.4
5500	4.6	7.6
5850	3.4	6.4

Results summary at 6G

	S11(dB)		Efficiency(%)		Max Gain(dBi)		Isolation(dB)		Flatness(dB)	
	SPC	test result	SPC	test result (Average)	SPC	test result	SPC	test result	SPC	test result
Ant3 (GPS+6G V)	-10	14.8	70	79%	3dBi<Max Gain<5.5dBi @ 6GHz	4.7 @ 5.9Ghz	25dB vs Ant1&Ant2	28dB	10dB @ theta80 /90/100	14.4 @ theta80
						5.5 @ 6.5Ghz	20dB vs Ant4	32dB		17.9 @ theta90
						5.4 @ 7.125Ghz	20/30dB vs Ant LTE	20dB @ GPS 35dB @ 6G		17.0 @ theta100
Ant4 (BT+6G V)	-10	9.6	70	73%	3dBi<Max Gain<5.5dBi @ 6GHz	4.2 @ 5.9Ghz	25dB vs Ant1&Ant2	28dB	10dB @ theta80 /90/100	12.9 @ theta80
						5.4 @ 6.5Ghz	20dB vs Ant4	29dB		13.2 @ theta90
						5.5 @ 7.125Ghz	30dB vs Ant LTE	27dB @ BT 33dB @ 6G		13.7 @ theta100

Frequency (Mhz)	Uncorrelated Gain (dBi)	correlated Gain (dBi)
5900	3.1	6
6500	4.7	7.7
7125	4.3	7.3

Results summary at GNSS

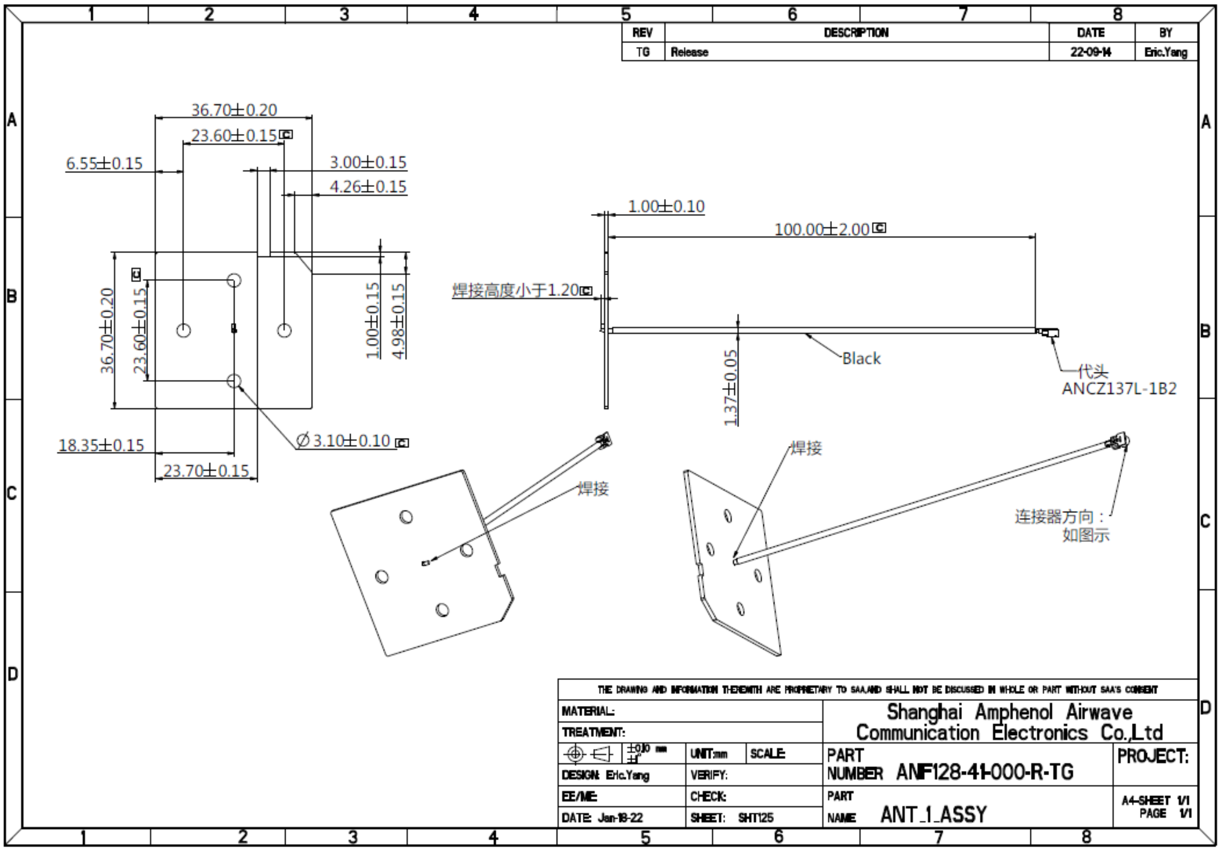
	S11(dB)		Efficiency(%)		Max Gain(dBi)		Isolation(dB)		Flatness(dB)	
	SPC	test result	SPC	test result (Average)	SPC	test result	SPC	test result	SPC	test result
Ant3 (GPS+6G V)	-10	18	70	73%		2.7 @ 1.575Ghz	20dB vs other Ants	20dB	10dB @ theta80 /90/100	9.9 @ theta80 11.7 @ theta90 10.7 @ theta100

Results summary at BLE

	S11(dB)		Efficiency(%)		Max Gain(dBi)		Isolation(dB)		Flatness(dB)	
	SPC	test result	SPC	test result (Average)	SPC	test result	SPC	test result	SPC	test result
Ant4 (BT+6G V)	-10	15.2	70	74%	3dBi<Max Gain<5dBi	3.9 @ 2.4Ghz	25dB vs Ant1&Ant2	28dB	10dB @ theta80 /90/100	11.9 @ theta80
						5.0 @ 2.45Ghz	20dB vs Ant3	29dB		10.7 @ theta90
						5.1 @ 2.5Ghz	30dB vs Ant LTE	27dB		10.2 @ theta100

Correlated gain values generated by first generating the correlated gains of the co-pol pairs [10log[(10G1/20 + 10G2/20 + … + 10GN/20)2 /NANT] using the spatial gain data. The results were then summed [10log[(10G1/10 + 10G2/10 + … + 10GN/10)/NANT].

Dimensions


REV
DESCRIPTION
DATE
BY
TG
Release
22-09-14
Eric.Yang
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23.60±0.15
6.55±0.15
3.00±0.15
4.26±0.15
36.70±0.20
23.60±0.15
1.00±0.15
4.98±0.15
18.35±0.15
23.70±0.15
Ø3.10±0.10
1.00±0.10
100.00±2.00
焊接高度小于1.20
Black
1.37±0.05
代头
ANCZ137L-1B2
焊接
焊接
连接器方向：
如图示
THE DRAWING AND INFORMATION THEREWITH ARE PROPRIETARY TO SAA,AND SHALL NOT BE DISCUSSED IN WHOLE OR PART WITHOUT SAA'S CONSENT
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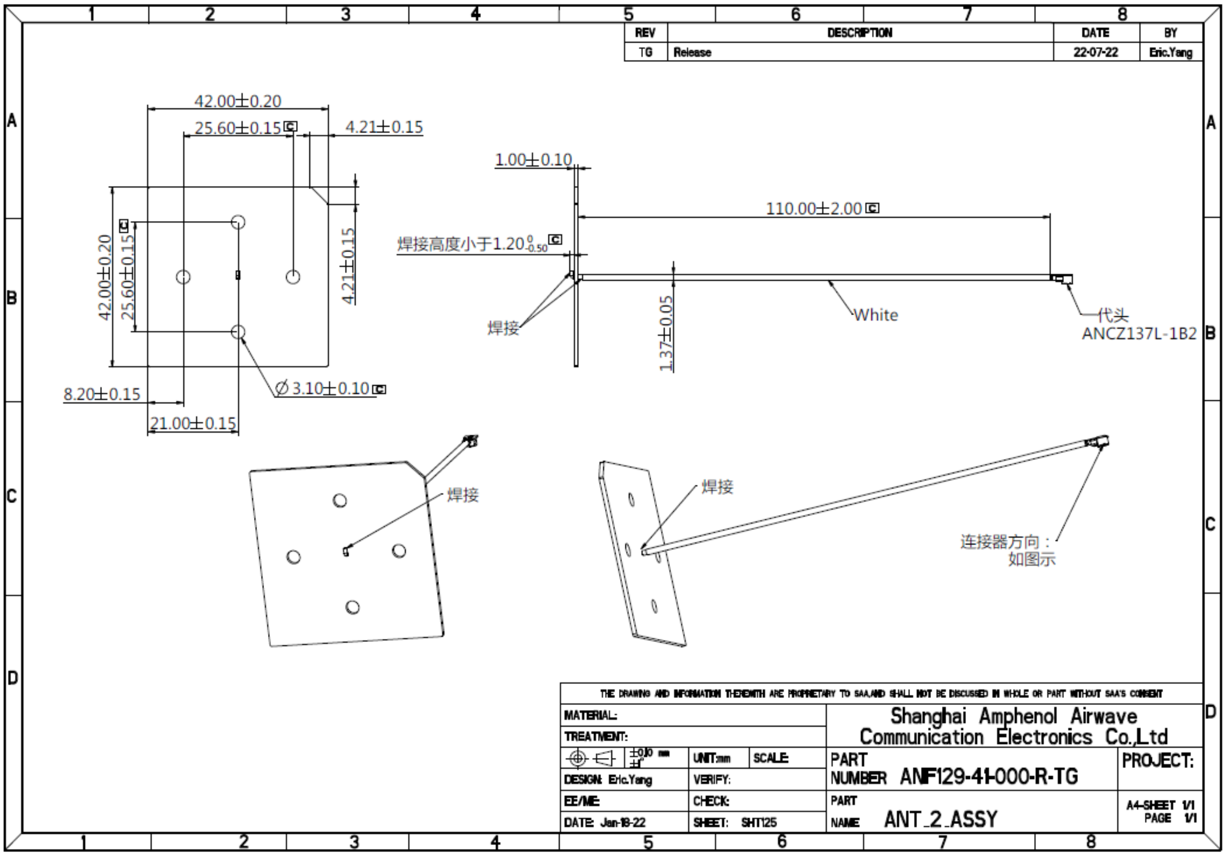
TREATMENT:
±0.10 mm
UNIT:mm
SCALE:
DESIGN: Eric.Yang
VERIFY:
EE/ME:
CHECK:
DATE: Jan-18-22
SHEET: SHT125
Shanghai Amphenol Airwave Communication Electronics Co.,Ltd
PART NUMBER ANF128-41-000-R-TG
PART NAME ANT_1_ASSY
PROJECT:
A4-SHEET 1/1
PAGE 1/1


REV
DESCRIPTION
DATE
BY
TG
Release
22-07-22
Eric.Yang
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42.00±0.20
25.60±0.15
4.21±0.15
8.20±0.15
21.00±0.15
Ø3.10±0.10
1.00±0.10
110.00±2.00
焊接高度小于1.20
焊接
1.37±0.05
White
代头
ANCZ137L-1B2
焊接
焊接
连接器方向：
如图示
THE DRAWING AND INFORMATION THEREWITH ARE PROPRIETARY TO SAA,AND SHALL NOT BE DISCUSSED IN WHOLE OR PART WITHOUT SAA'S CONSENT
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TREATMENT:
±0.10 mm
UNIT:mm
SCALE:
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VERIFY:
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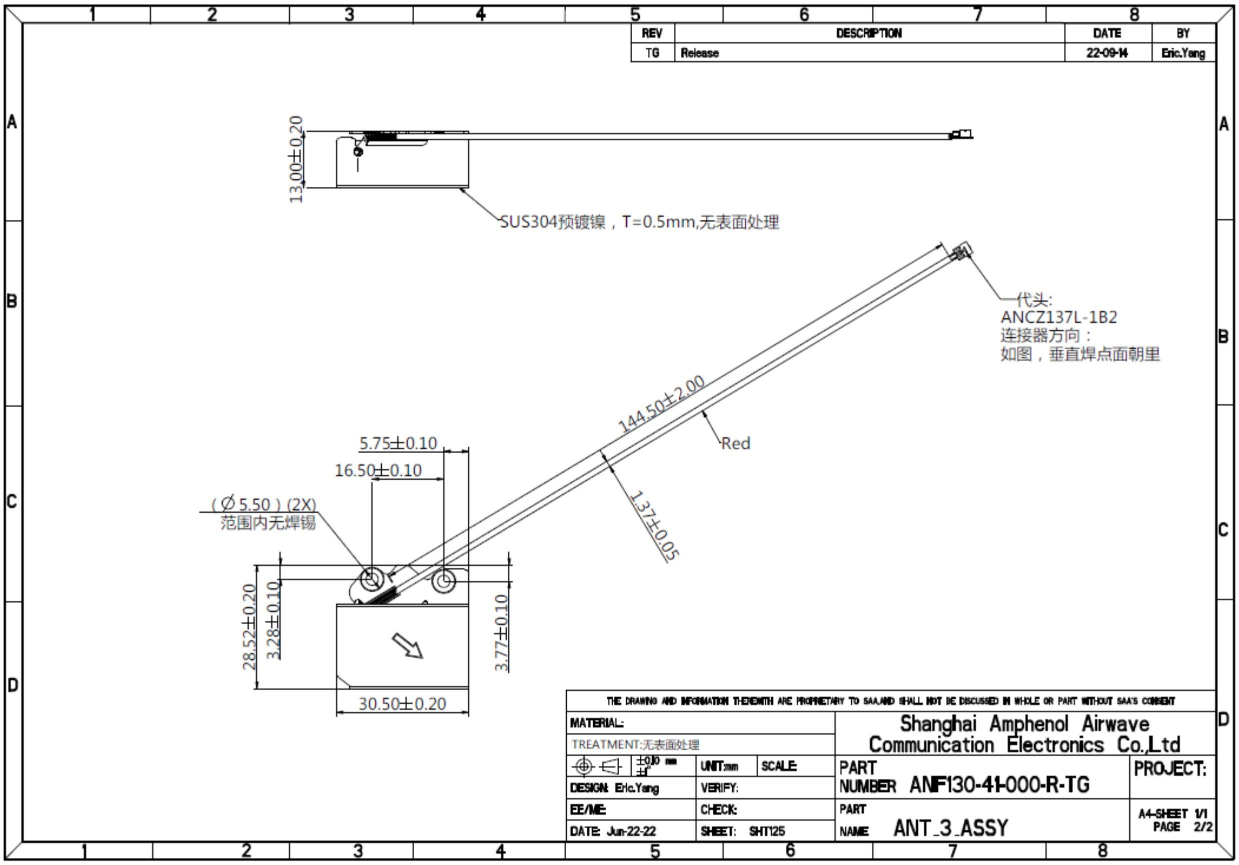
SHEET: SHT125
Shanghai Amphenol Airwave Communication Electronics Co.,Ltd
PART NUMBER ANF129-41-000-R-TG
PART NAME ANT_2_ASSY
PROJECT:
A4-SHEET 1/1
PAGE 1/1


REV
DESCRIPTION
DATE
BY
TG
Release
22-09-14
Eric.Yang
13.00±0.20
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代头:
ANCZ137L-1B2
连接器方向：
如图，垂直焊点面朝里
144.50±2.00
Red
1.37±0.05
5.75±0.10
16.50±0.10
(Ø5.50) (2X)
范围内无焊锡
28.52±0.20
3.28±0.10
3.77±0.10
30.50±0.20
THE DRAWING AND INFORMATION THEREWITH ARE PROPRIETARY TO SAA,AND SHALL NOT BE DISCUSSED IN WHOLE OR PART WITHOUT SAA'S CONSENT
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TREATMENT:无表面处理
±0.10 mm
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SCALE:
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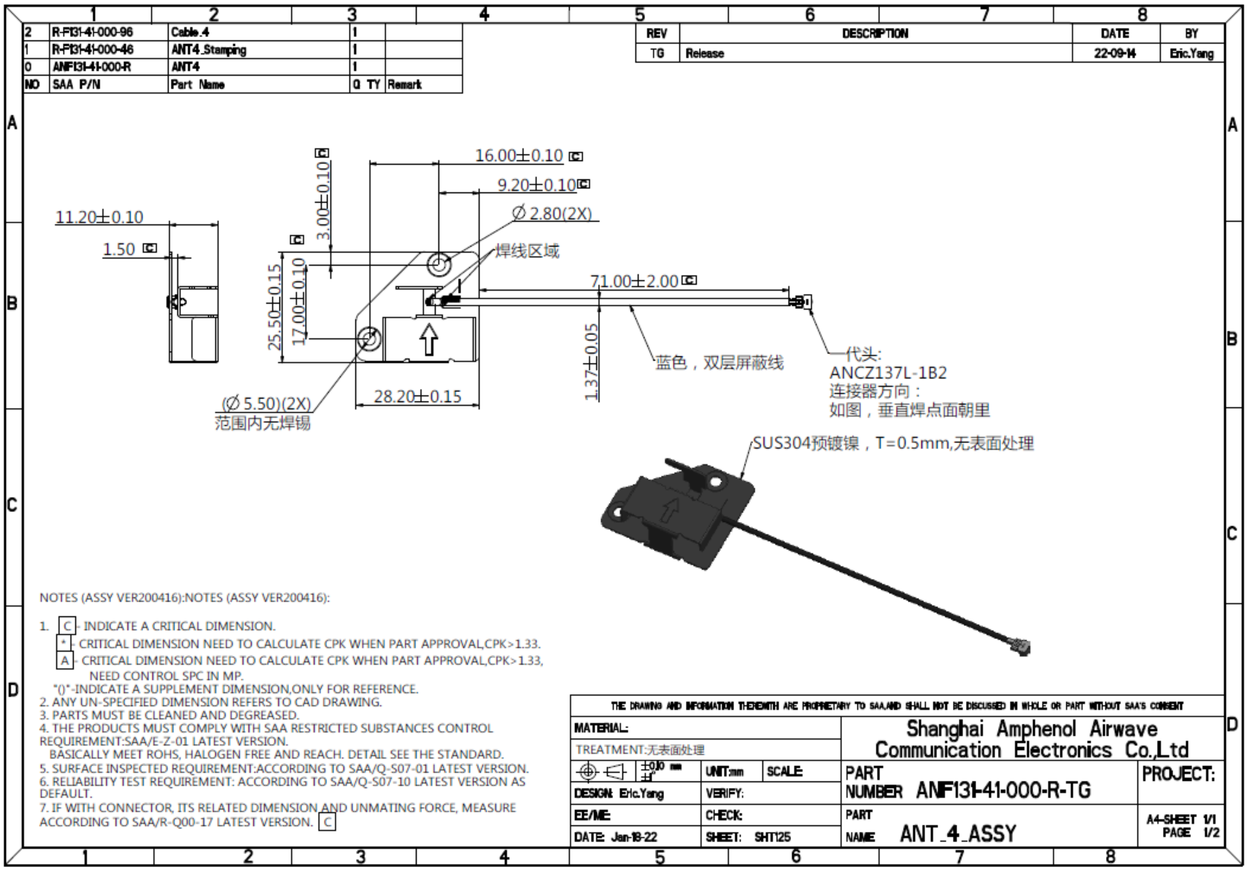
VERIFY:
EE/ME:
CHECK:
DATE: Jun-22-22
SHEET: SHT125
Shanghai Amphenol Airwave Communication Electronics Co.,Ltd
PART NUMBER ANF130-41-000-R-TG
PART NAME ANT_3_ASSY
PROJECT:
A4-SHEET 1/1
PAGE 2/2



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0	ANF131-41-000-R	ANT4	1	

REV	DESCRIPTION	DATE	BY
TG	Release	22-09-14	Eric.Yang

NOTES (ASSY VER200416):NOTES (ASSY VER200416):

1. C - INDICATE A CRITICAL DIMENSION.
   * - CRITICAL DIMENSION NEED TO CALCULATE CPK WHEN PART APPROVAL,CPK>1.33.
   A - CRITICAL DIMENSION NEED TO CALCULATE CPK WHEN PART APPROVAL,CPK>1.33, NEED CONTROL SPC IN MP.
   "()"-INDICATE A SUPPLEMENT DIMENSION,ONLY FOR REFERENCE.
2. ANY UN-SPECIFIED DIMENSION REFERS TO CAD DRAWING.
3. PARTS MUST BE CLEANED AND DEGREASED.
4. THE PRODUCTS MUST COMPLY WITH SAA RESTRICTED SUBSTANCES CONTROL REQUIREMENT:SAA/E-Z-01 LATEST VERSION.
   BASICALLY MEET ROHS, HALOGEN FREE AND REACH. DETAIL SEE THE STANDARD.
5. SURFACE INSPECTED REQUIREMENT:ACCORDING TO SAA/Q-S07-01 LATEST VERSION.
6. RELIABILITY TEST REQUIREMENT: ACCORDING TO SAA/Q-S07-10 LATEST VERSION AS DEFAULT.
7. IF WITH CONNECTOR, ITS RELATED DIMENSION AND UNMATING FORCE, MEASURE ACCORDING TO SAA/R-Q00-17 LATEST VERSION. C

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MATERIAL:		Shanghai Amphenol Airwave Communication Electronics Co.,Ltd	
TREATMENT:无表面处理			
±0.10 mm	UNIT:mm SCALE:	PART NUMBER ANF131-41-000-R-TG	PROJECT:
DESIGN: Eric.Yang	VERIFY:		
EE/ME:	CHECK:	PART NAME ANT_4_ASSY	A4-SHEET 1/1 PAGE 1/2
DATE: Jan-18-22	SHEET: SHT125		

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