

# Antenna Test Report for WE7224443-VR Regulatory

PCBA: R01

Prepared by Steven Chang

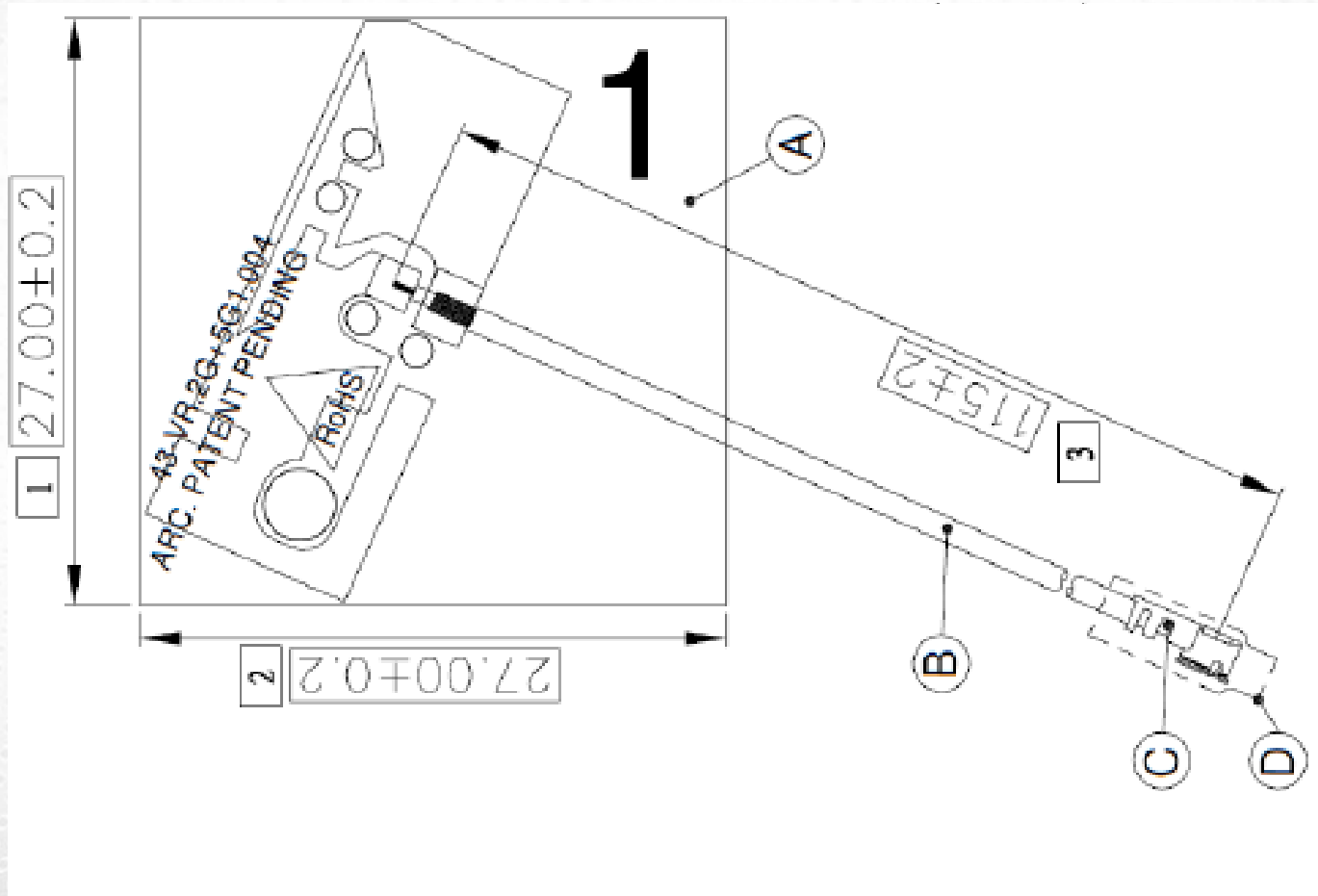
11/25/2022

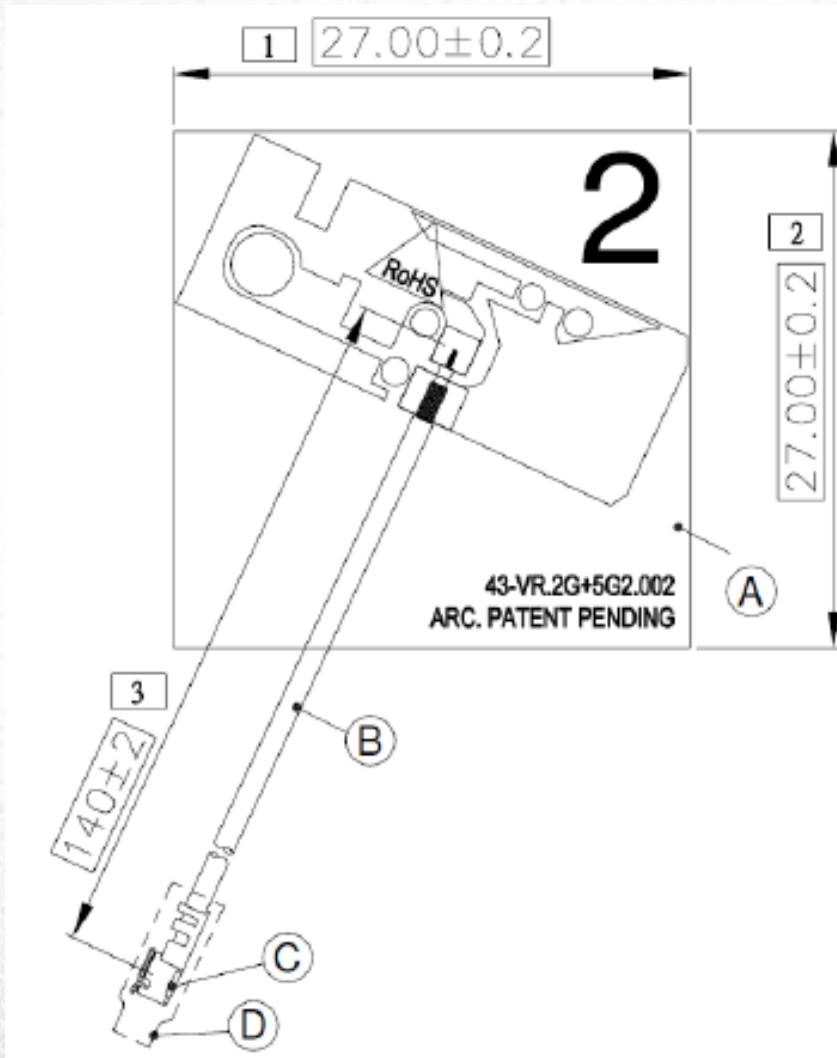
Version 1.1

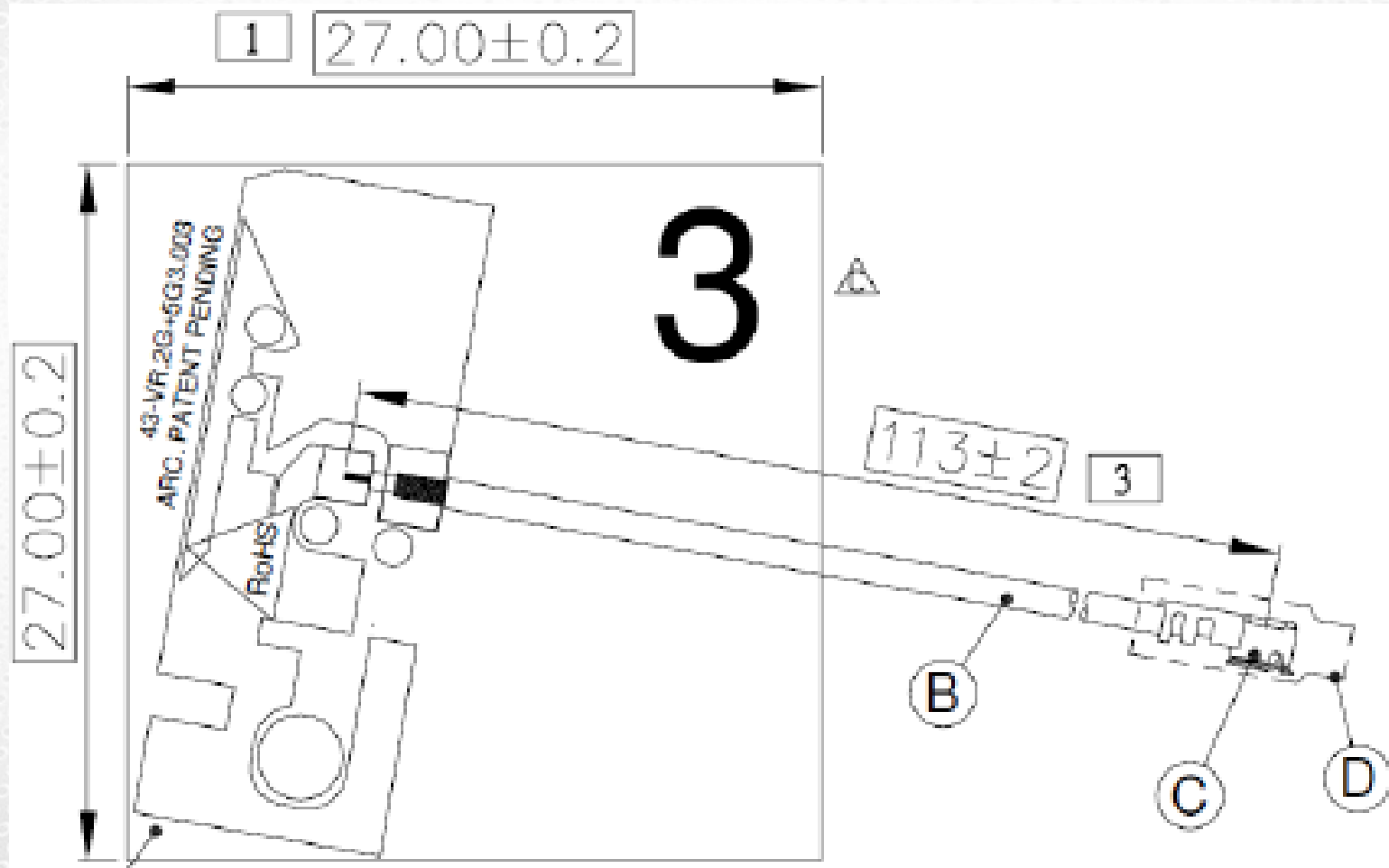


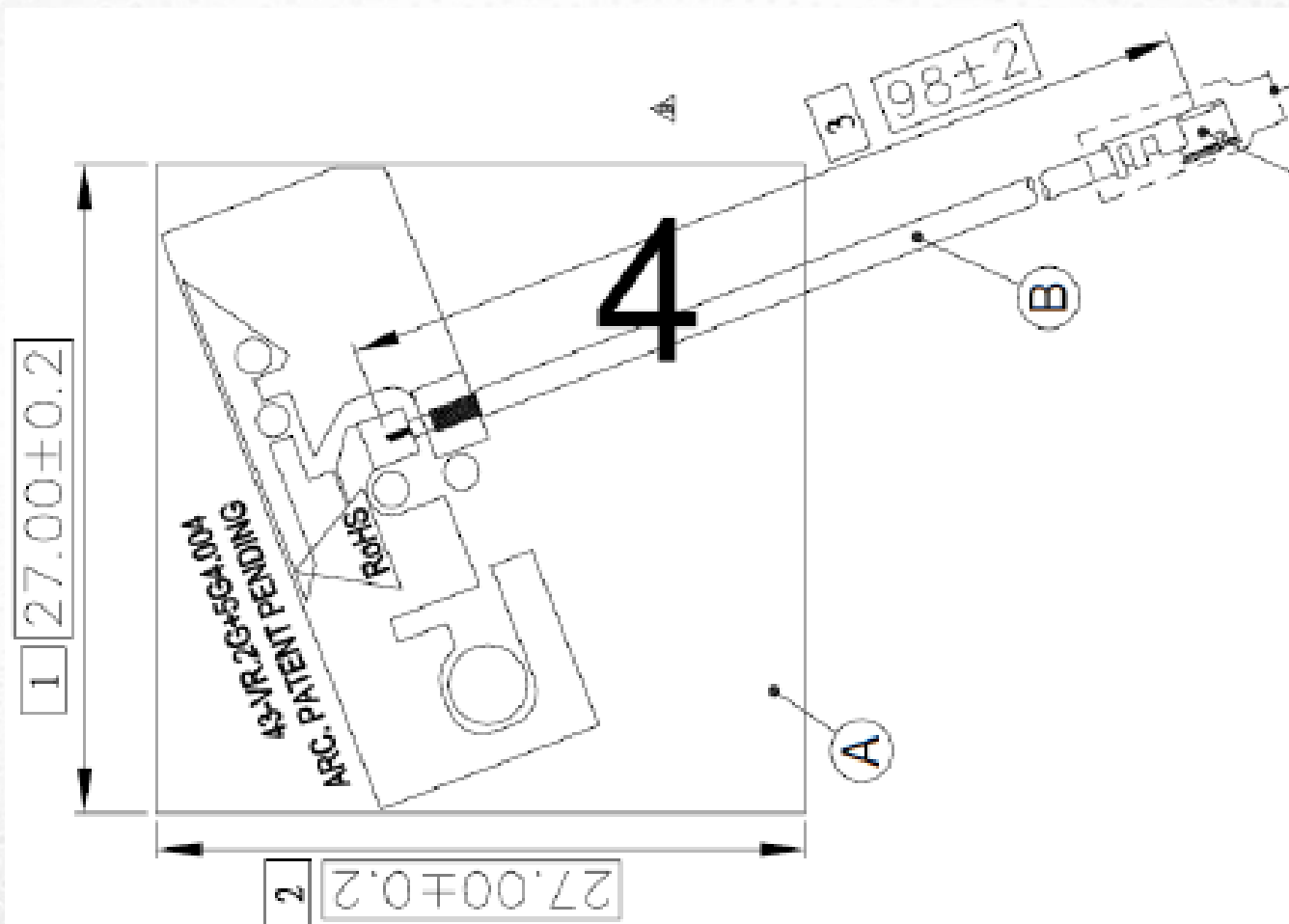
Antenna Spec : *The following forms for modify *(Please note that Cable lose is included or not) -->						Including Cable Loss			
Antenna NO.	RF Chain NO.	Brand	Model	Antenna Net Gain(dBi)	Frequency range	Antenna Type	Connector Type	*Cable Loss(dB)	Cable Length
2.4G/5GL DB ANT 1	AJ7	Arcadyan	WE7224443-VR	0.9	2.4~2.4835GHz	PIFA	ipex(MHF)	0.72	115mm
				0.6	5.15~5.25GHz			1	
				0.6	5.25~5.35GHz			1	
				1	5.47~5.725GHz			1.0	
				1	5.725~5.85GHz			1.0	
2.4G/5GL DB ANT 2	AJ5	Arcadyan	WE7224443-VR	0.5	2.4~2.4835GHz	PIFA	ipex(MHF)	0.88	140mm
				0.7	5.15~5.25GHz			1.22	
				0.7	5.25~5.35GHz			1.22	
				2.2	5.47~5.725GHz			1.26	
				2.2	5.725~5.85GHz			1.26	
2.4G/5GL DB ANT 3	AJ3	Arcadyan	WE7224443-VR	1.3	2.4~2.4835GHz	PIFA	ipex(MHF)	0.71	113mm
				0	5.15~5.25GHz			0.99	
				0	5.25~5.35GHz			0.99	
				0.4	5.47~5.725GHz			1.02	
				0.4	5.725~5.85GHz			1.02	
2.4G/5GL DB ANT 4	AJ9	Arcadyan	WE7224443-VR	0.3	2.4~2.4835GHz	PIFA	ipex(MHF)	0.61	98mm
				3.1	5.15~5.25GHz			0.86	
				3.1	5.25~5.35GHz			0.86	
				3	5.47~5.725GHz			0.88	
				3	5.725~5.85GHz			0.88	

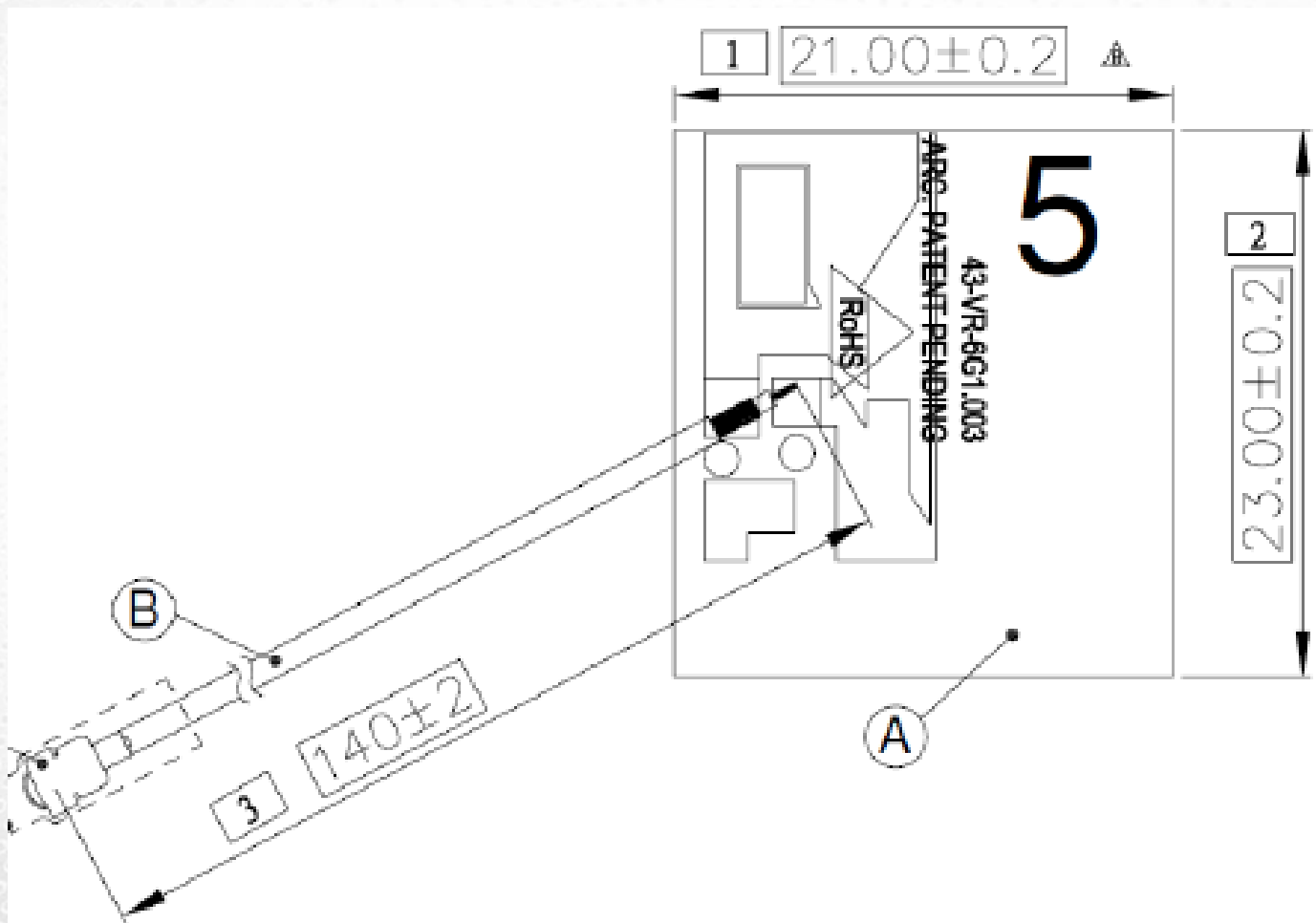
Antenna Spec : *The following forms for modify *(Please note that Cable lose is included or not) -->							Including Cable Loss		
Antenna NO.	RF Chain NO.	Brand	Model	Antenna Net Gain(dBi)	Frequency range	Antenna Type	Connector Type	*Cable Loss(dB)	Cable Length
5GH/6E ANT 1	AJ4	Arcadyan	WE7224443-VR	1.3	5.47~5.725GHz	PIFA	ipex(MHF)	1.26	140mm
				1.3	5.725~5.85GHz			1.26	
				0.7	5.925GHz~6.425GHz			1.4	
				0.7	6.425GHz~6.525GHz			1.4	
				0.7	6.525GHz~6.875Hz			1.45	
				0.7	6.875Hz~7.125GHz			1.56	
5GH/6E ANT 2	AJ1	Arcadyan	WE7224443-VR	3.2	5.47~5.725GHz	PIFA	ipex(MHF)	1.26	140mm
				3.2	5.725~5.85GHz			1.26	
				1.1	5.925GHz~6.425GHz			1.4	
				1.1	6.425GHz~6.525GHz			1.4	
				1.1	6.525GHz~6.875Hz			1.45	
				1.1	6.875Hz~7.125GHz			1.56	
5GH/6E ANT 3	AJ2	Arcadyan	WE7224443-VR	1.9	5.47~5.725GHz	PIFA	ipex(MHF)	0.63	70mm
				1.9	5.725~5.85GHz			0.63	
				2.8	5.925GHz~6.425GHz			0.7	
				2.8	6.425GHz~6.525GHz			0.7	
				2.8	6.525GHz~6.875Hz			0.73	
				2.8	6.875Hz~7.125GHz			0.78	
5GH/6E ANT 4	AJ3	Arcadyan	WE7224443-VR	0.2	5.47~5.725GHz	PIFA	ipex(MHF)	0.52	58mm
				0.2	5.725~5.85GHz			0.52	
				0.6	5.925GHz~6.425GHz			0.58	
				0.6	6.425GHz~6.525GHz			0.58	
				0.6	6.525GHz~6.875Hz			0.6	
				0.6	6.875Hz~7.125GHz			0.65	



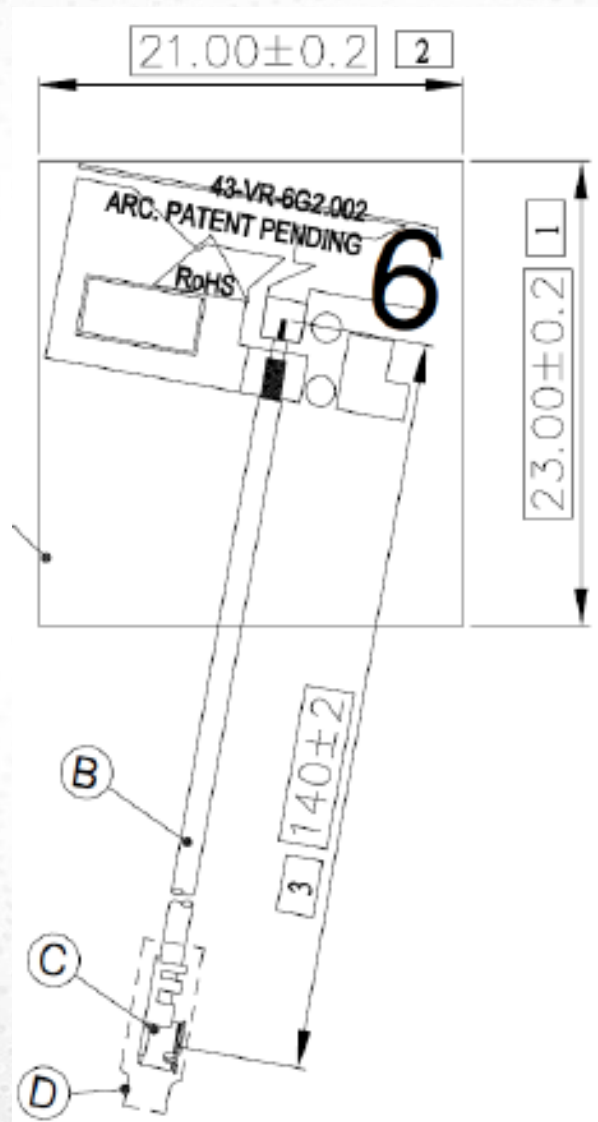


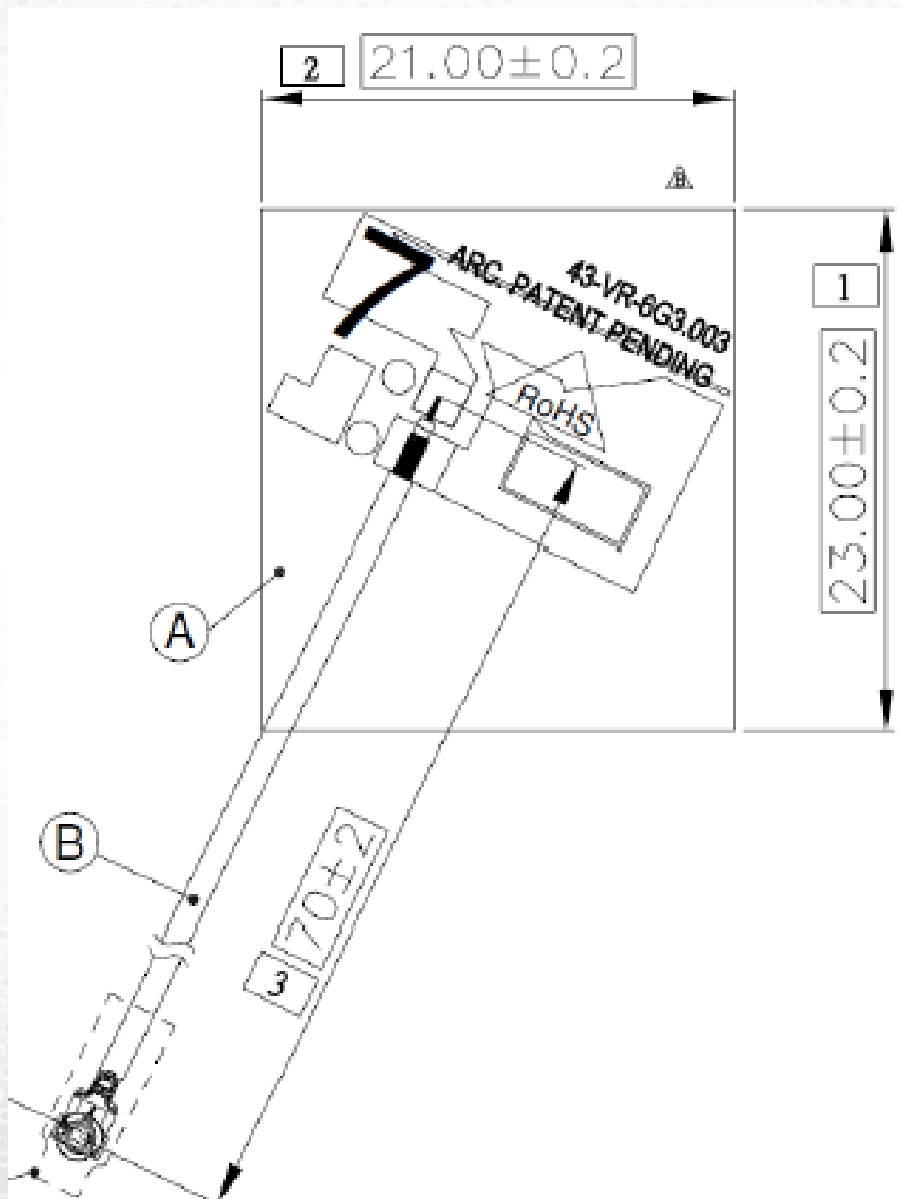


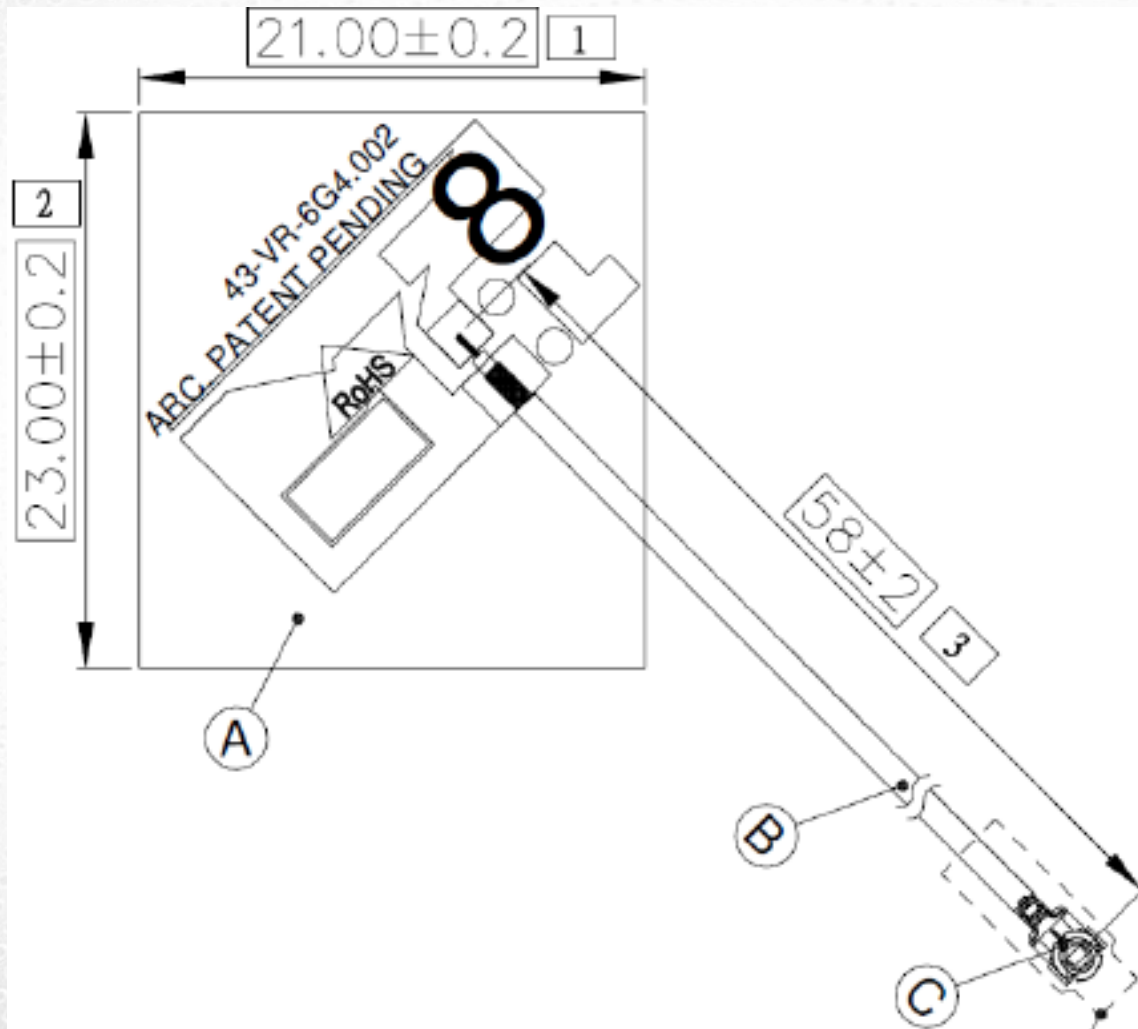


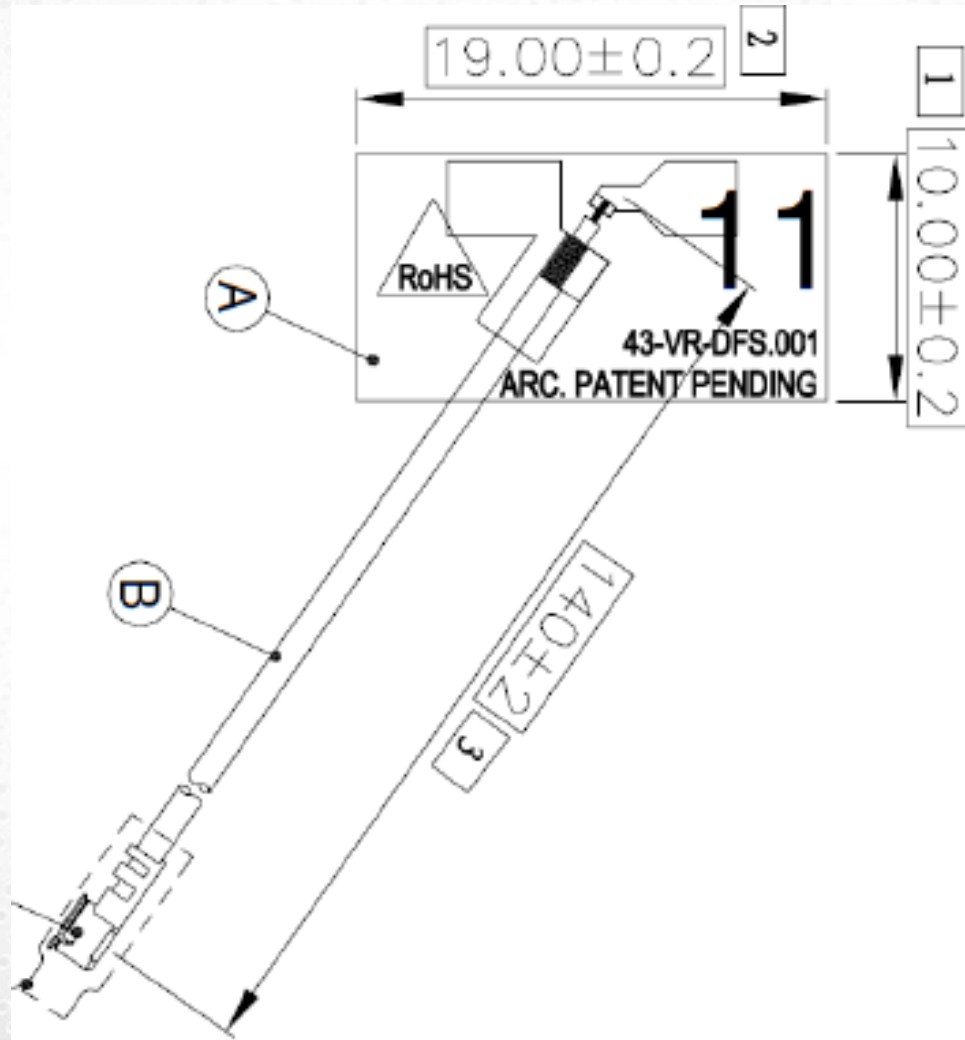












## Included cable loss

	2G gain(dBi)	5GL gain(dBi)	5GH gain(dBi)
DB Ant1	0.9	0.6	1
DB Ant2	0.5	0.7	2.2
DB Ant3	1.3	0	0.4
DB Ant4	0.3	3.1	3

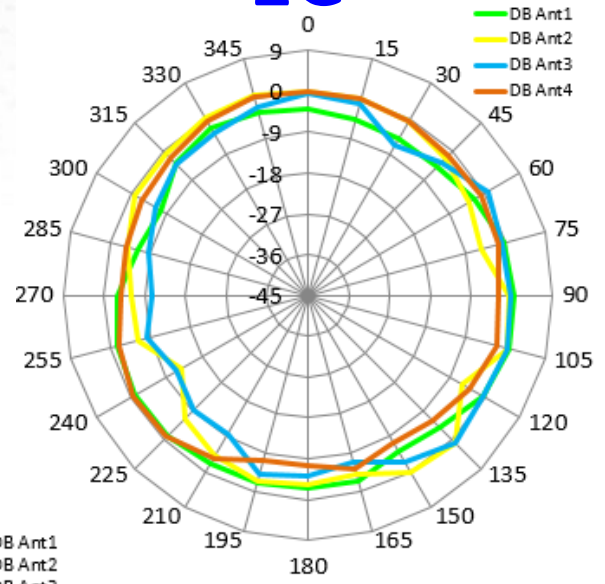
**Included cable loss**

	5GH gain(dBi)	6G gain(dBi)
Ant1	1.3	0.7
Ant2	3.2	1.1
Ant3	1.9	2.8
Ant4	0.2	0.6

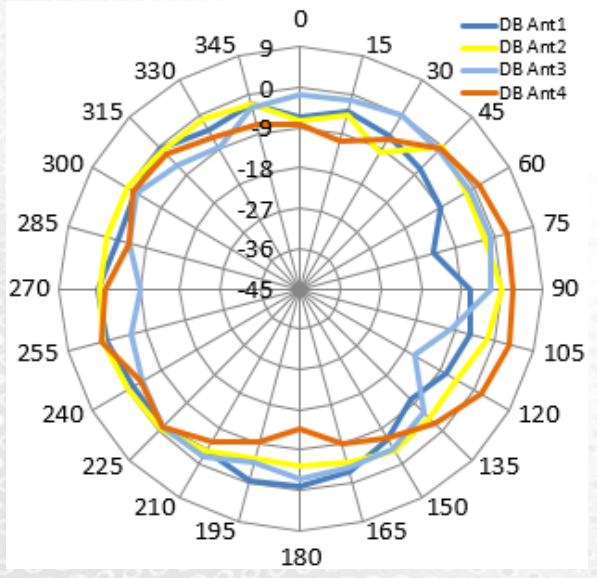
**Included cable**

	DFS gain(dBi)
DFS Ant	0.15

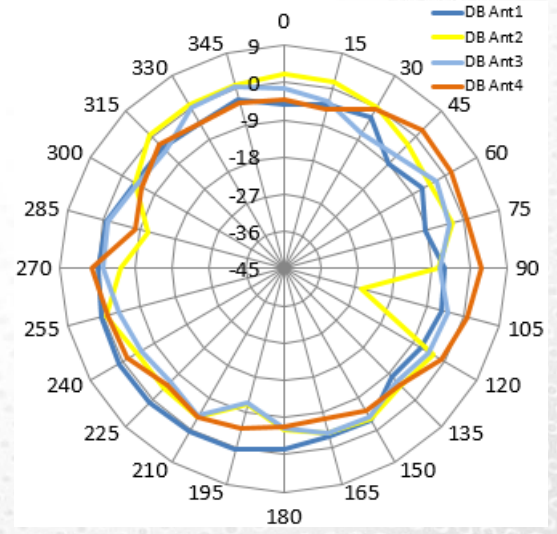
## 2G



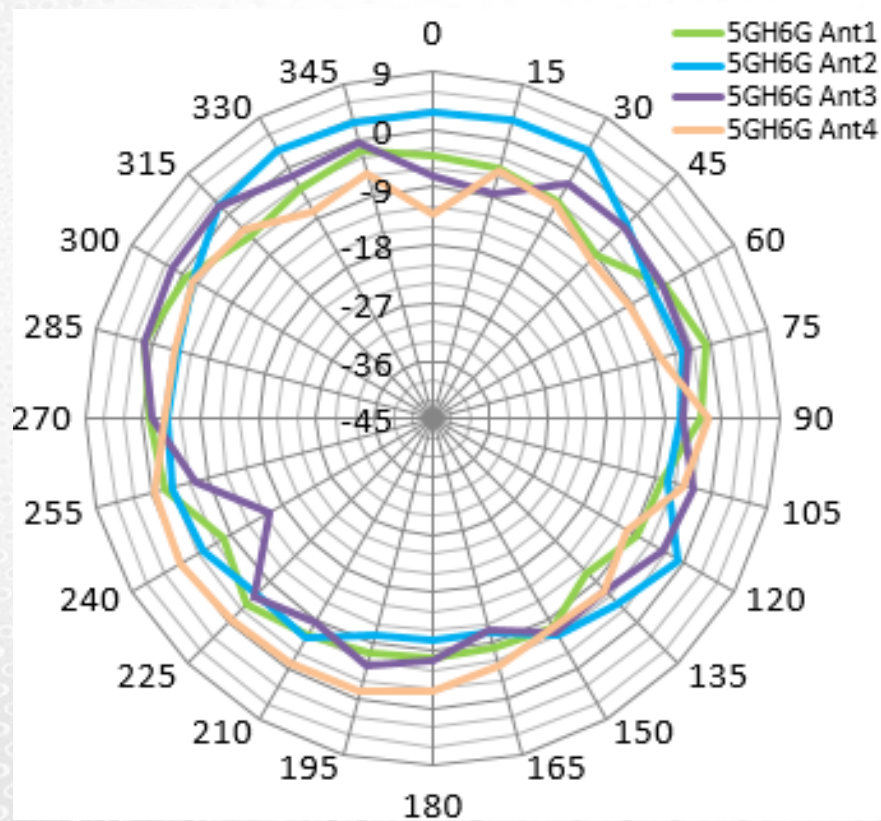
## 5GL



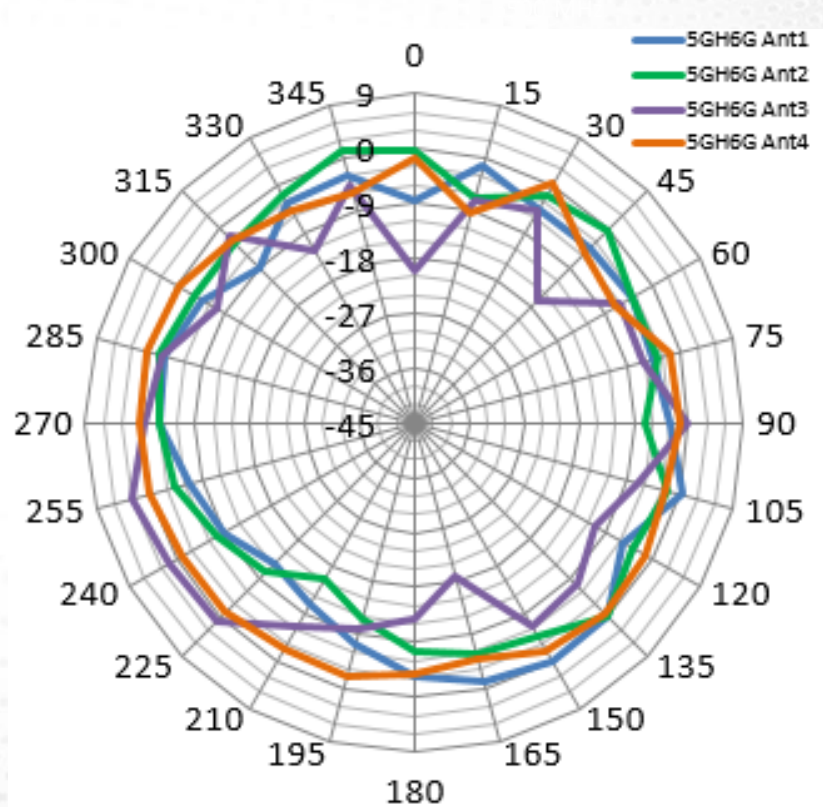
## 5GH



## 5GH

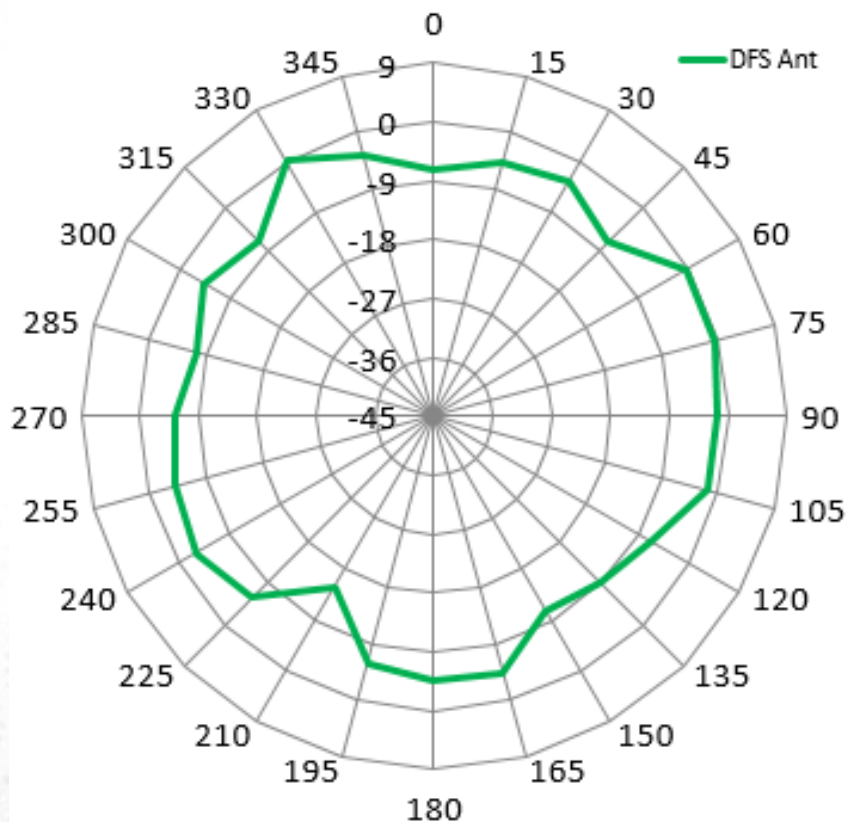


## 6G



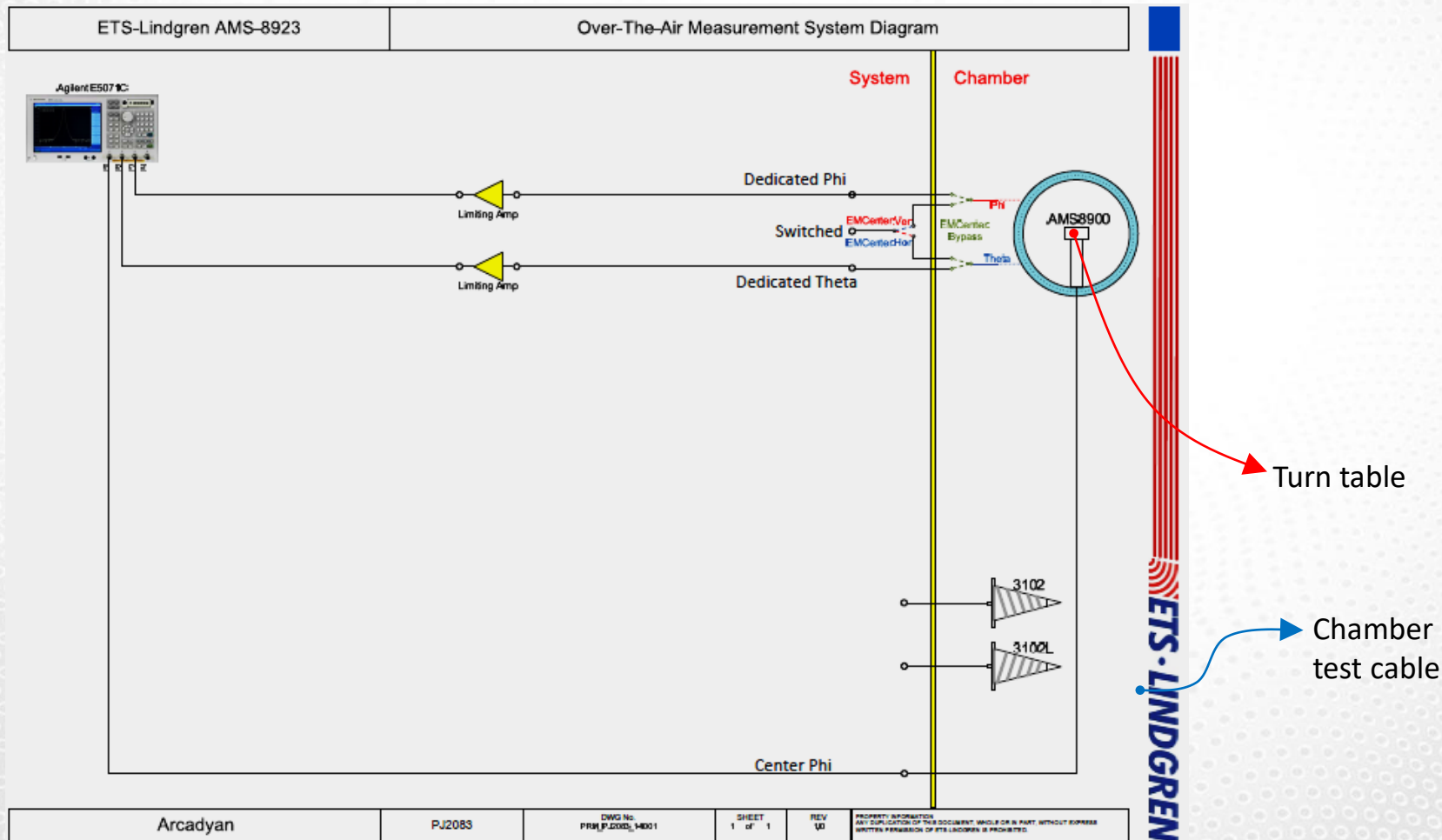


# 5GHz DFS



# Antenna Measurement System Diagram

- The DUT is put on the turn table.
- The connector of DUT's antenna connector is connected to chamber test cable' connector when the antenna is measuring.



<b>Tester</b>	Steven Chang
<b>KEYSIGHT E5080B VNA calibration date</b>	2/25/2020
<b>KEYSIGHT E5080B VNA calibration date</b>	8/28/2025
<b>Antenna test date</b>	6/29/2022
<b>Test software</b>	ETS-Lindgren EMQuest Version 1.12