



QUBE PLUS 4010

UHF RFID Antenna

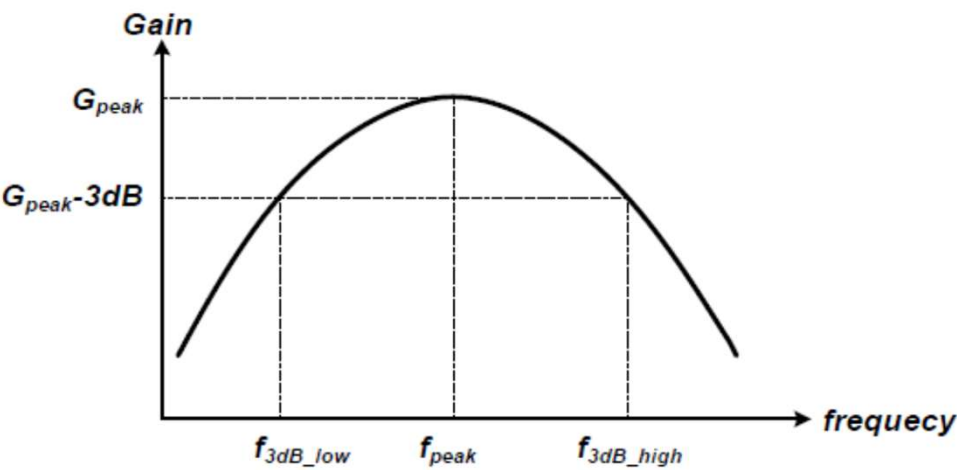
Specification

1. Part Name
KSA-921A4010B100E

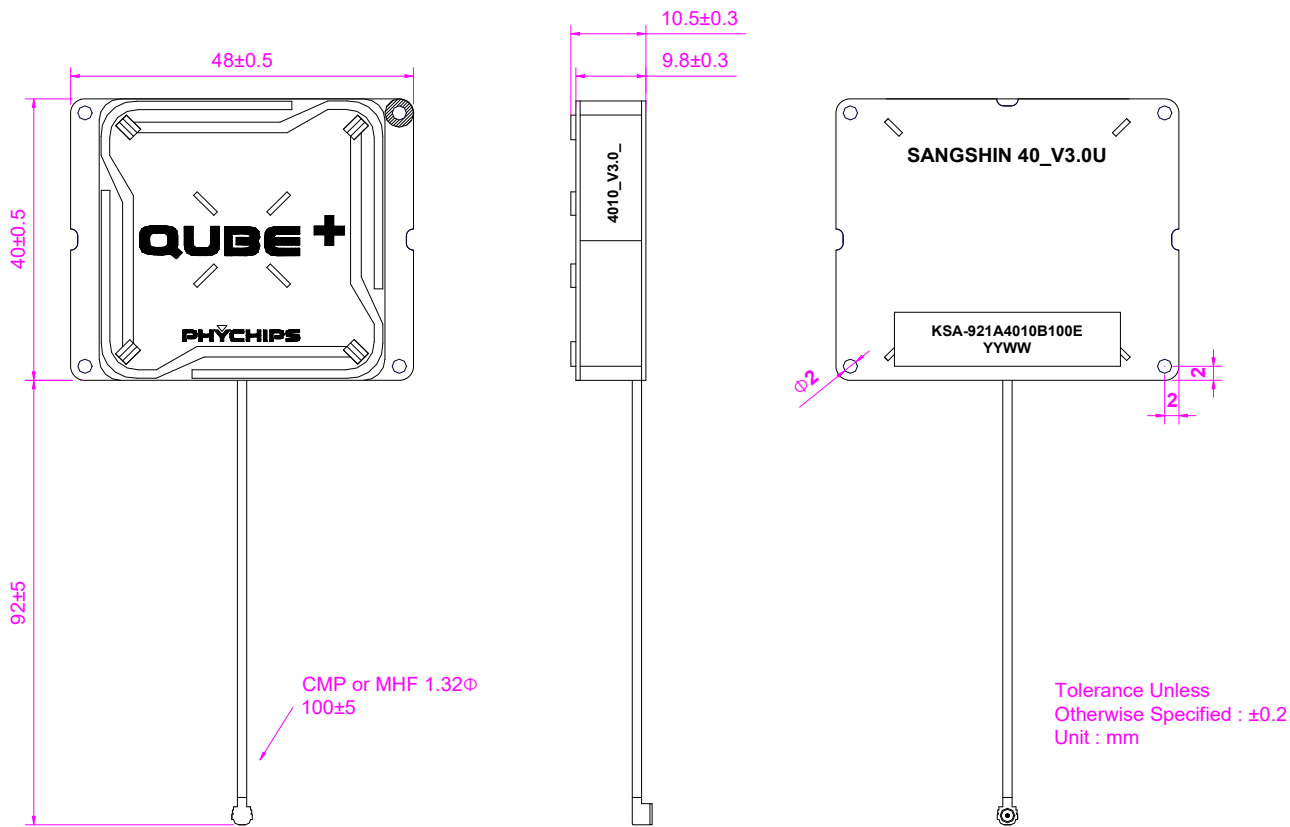
2. Electrical Specifications

Item	Specifications			
	Min.	Typical	Max.	Unit
Center Frequency (= Fc)	917	921	925	MHz
3dB Bandwidth	10	18		MHz
Return Loss @ Fc			-15	dB
Polarization	R.H.C.P			
Peak Gain @ Fc (RHCP)		1		dBic
Gain @ Reference Antenna	-15	-12		dB

Note 1. 3dB Bandwidth is defined as frequency range between f3dB_low and f3dB_high.



3. Dimensions



* Both CMP(Gigalane) and MHF(I-PEX) can be used interchangeably.
However, only one type, either CMP or MHF, must be used in the same LOT production.

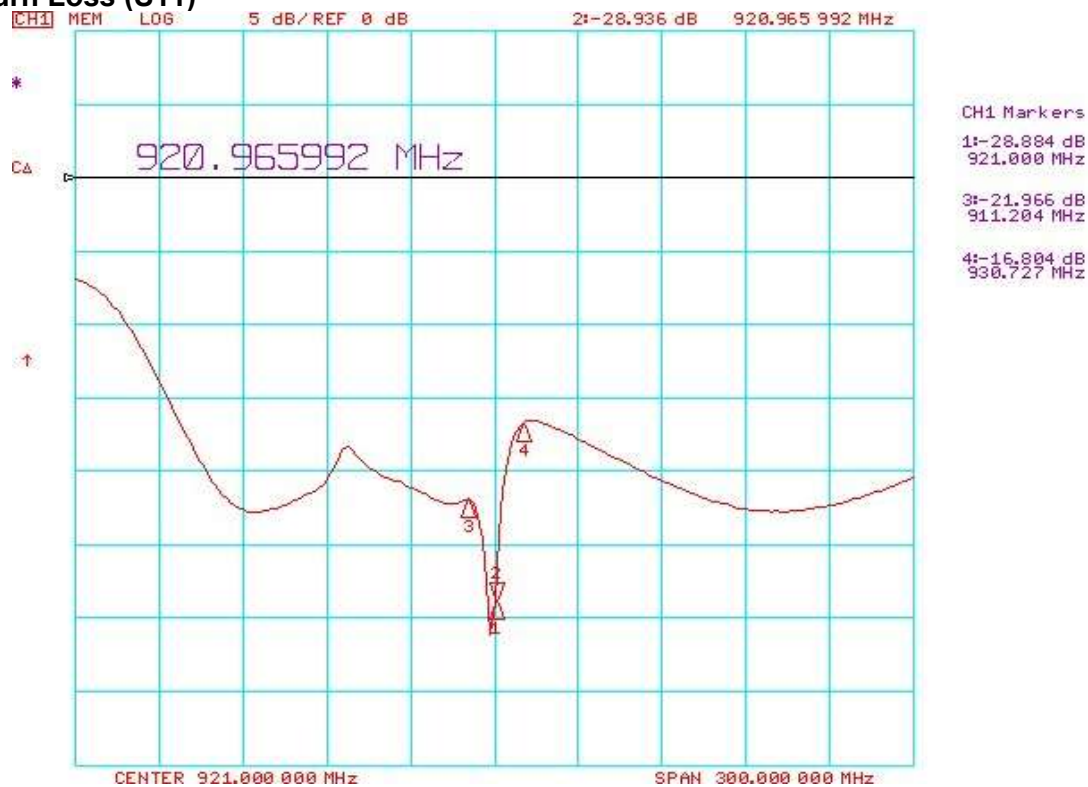
* YYWW : Date Code

* Dimensions of Connector

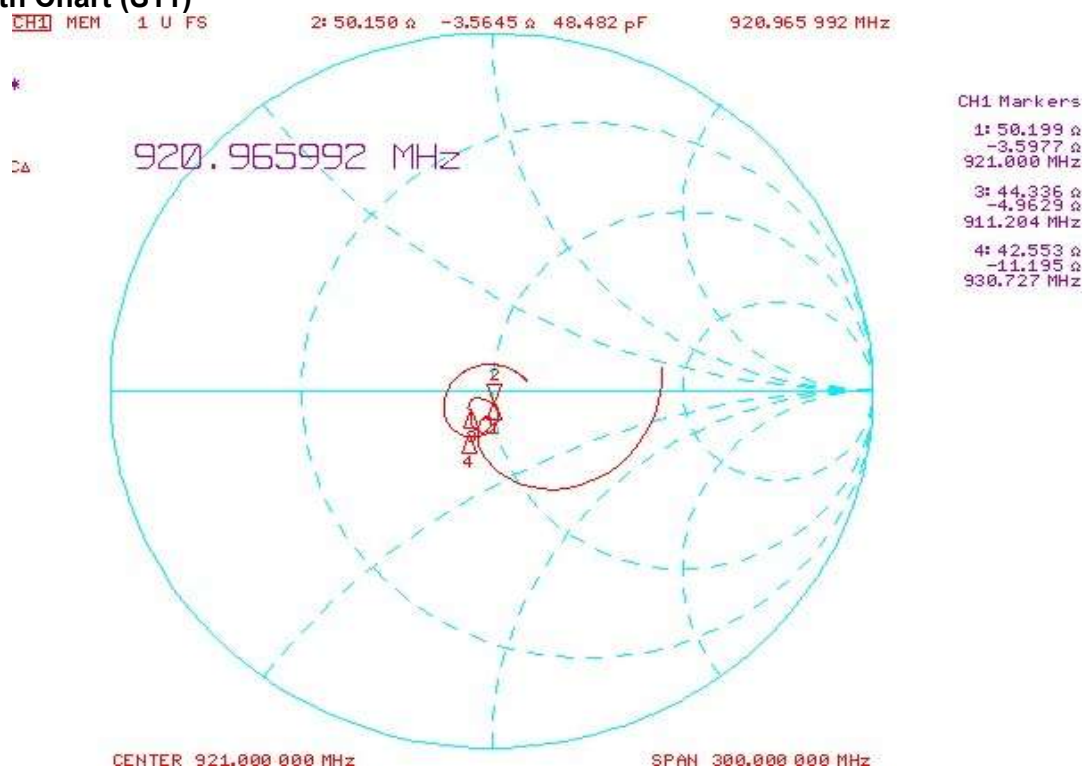
CMP		MHF	

4. S-parameter Data

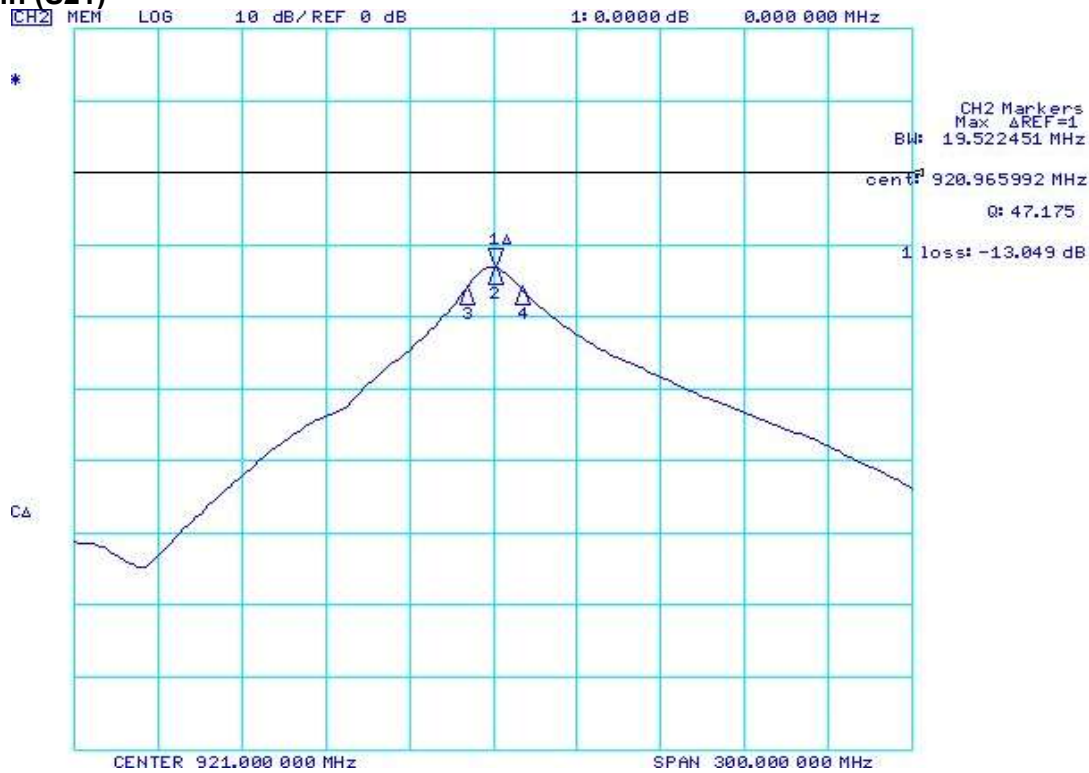
4.1 Return Loss (S11)



4.2 Smith Chart (S11)



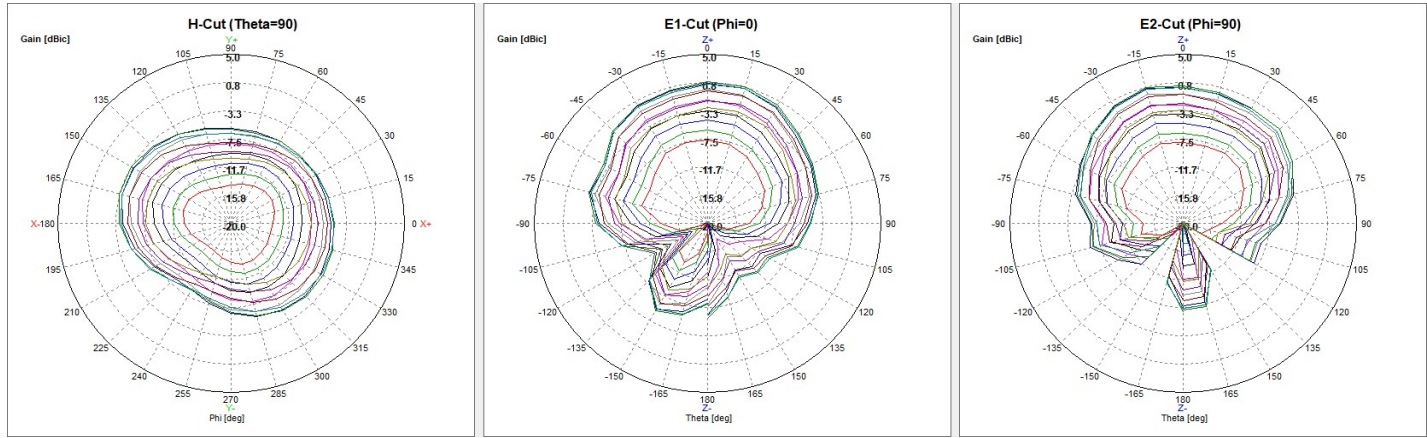
4.3 Gain (S21)



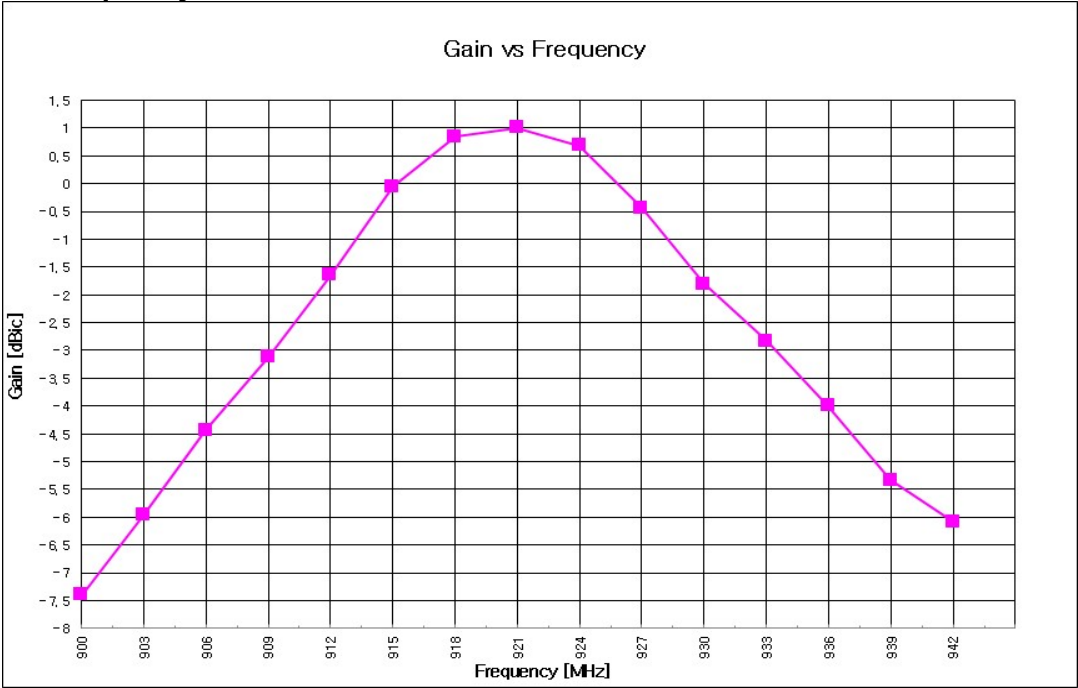
5. Antenna Chamber Data

5.1 RHCP Gain

		RHCP				H(Theta=0)				E1(Phi=0)				E2(Phi=90)				
No.	Freq.	Eff.[%]	Avg.[dBic]	Peak[dBic]	Theta[deg]	Phi[deg]	Avg.[dBic]	Peak[dBic]	[deg]	BW[deg]	Avg.[dBic]	Peak[dBic]	Theta[deg]	BW[deg]	Avg.[dBic]	Peak[dBic]	Theta[deg]	BW[deg]
1	900.000	6.05	-12.18	-7.40	0.00	240.00	-13.90	-12.85	165.00	999.00	-11.59	-7.65	0.00	138.86	-11.71	-7.77	-15.00	136.05
2	903.000	8.35	-10.78	-5.97	0.00	225.00	-12.46	-11.34	165.00	999.00	-10.20	-6.20	0.00	137.40	-10.29	-6.35	-15.00	135.58
3	906.000	11.84	-9.27	-4.44	0.00	240.00	-10.89	-9.70	165.00	999.00	-8.70	-4.67	0.00	136.87	-8.75	-4.73	-15.00	133.79
4	909.000	15.89	-7.99	-3.12	0.00	255.00	-9.57	-8.31	150.00	336.40	-7.42	-3.32	0.00	116.06	-7.45	-3.38	-15.00	131.65
5	912.000	22.08	-6.56	-1.65	0.00	255.00	-8.09	-6.63	150.00	327.22	-5.97	-1.83	0.00	112.34	-6.01	-1.86	-15.00	127.34
6	915.000	31.43	-5.03	-0.06	0.00	255.00	-6.48	-4.82	150.00	307.26	-4.35	-0.20	0.00	108.54	-4.48	-0.25	-15.00	122.60
7	918.000	38.32	-4.17	0.84	0.00	255.00	-5.57	-3.64	150.00	295.66	-3.37	0.73	0.00	107.89	-3.67	0.66	-15.00	118.30
8	921.000	39.73	-4.01	1.00	0.00	270.00	-5.38	-3.33	165.00	270.96	-3.05	0.95	0.00	109.84	-3.60	0.83	-15.00	116.08
9	924.000	36.83	-4.34	0.68	0.00	255.00	-5.70	-3.62	165.00	116.48	-3.26	0.64	15.00	112.02	-4.01	0.49	-15.00	115.02
10	927.000	28.52	-5.45	-0.44	0.00	255.00	-6.82	-4.77	165.00	112.81	-4.30	-0.44	15.00	113.52	-5.18	-0.63	-15.00	114.62
11	930.000	20.67	-6.85	-1.81	0.00	255.00	-8.23	-6.27	165.00	118.02	-5.68	-1.83	15.00	114.18	-6.59	-2.04	-15.00	114.43
12	933.000	16.27	-7.89	-2.83	0.00	270.00	-9.29	-7.46	165.00	298.15	-6.72	-2.88	15.00	114.59	-7.63	-3.08	-15.00	114.52
13	936.000	12.39	-9.07	-4.00	0.00	270.00	-10.50	-8.65	165.00	298.57	-7.90	-4.04	15.00	114.00	-8.81	-4.30	-15.00	114.94
14	939.000	9.11	-10.40	-5.34	15.00	0.00	-11.86	-10.00	165.00	301.97	-9.24	-5.34	15.00	113.86	-10.12	-5.62	-15.00	115.05
15	942.000	7.62	-11.18	-6.08	15.00	15.00	-12.67	-10.83	165.00	303.57	-10.01	-6.12	15.00	114.05	-10.89	-6.40	-15.00	115.13



5.2 Gain vs Frequency



6. Measurement within enclosure
TBD
6.1 Reader or Model Name

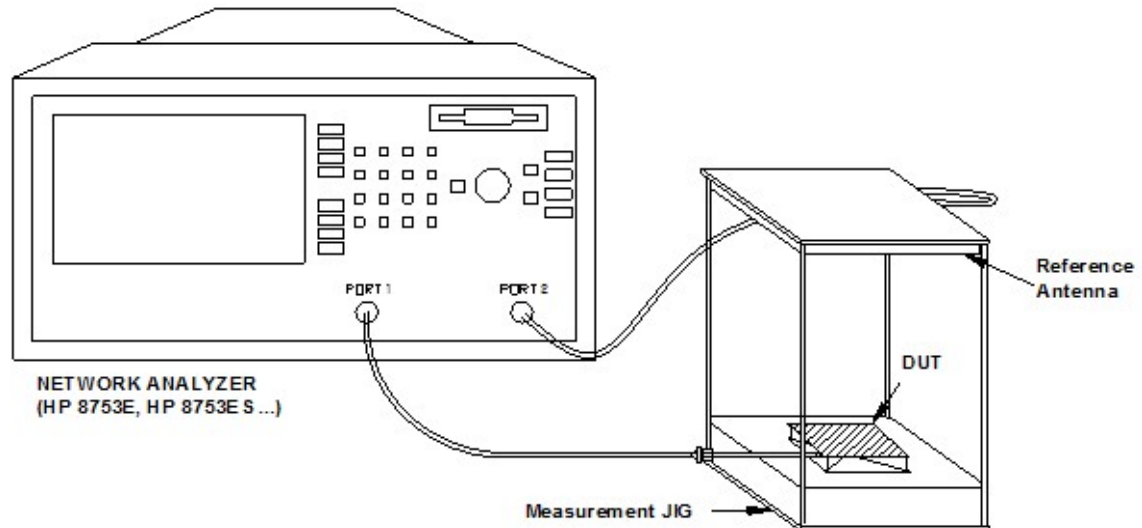
6.2 Electrical Specifications

Item		Specifications			
		Min.	Typical	Max.	Unit
Center Frequency (= Fc)					MHz
3dB Bandwidth					MHz
Return Loss @ Fc					dB
Polarization					
Peak Gain	RHCP				dBic
	H (Theta-Pol)				dB
	V (Phi-Pol)				dB
Axial Ratio @ Fc					

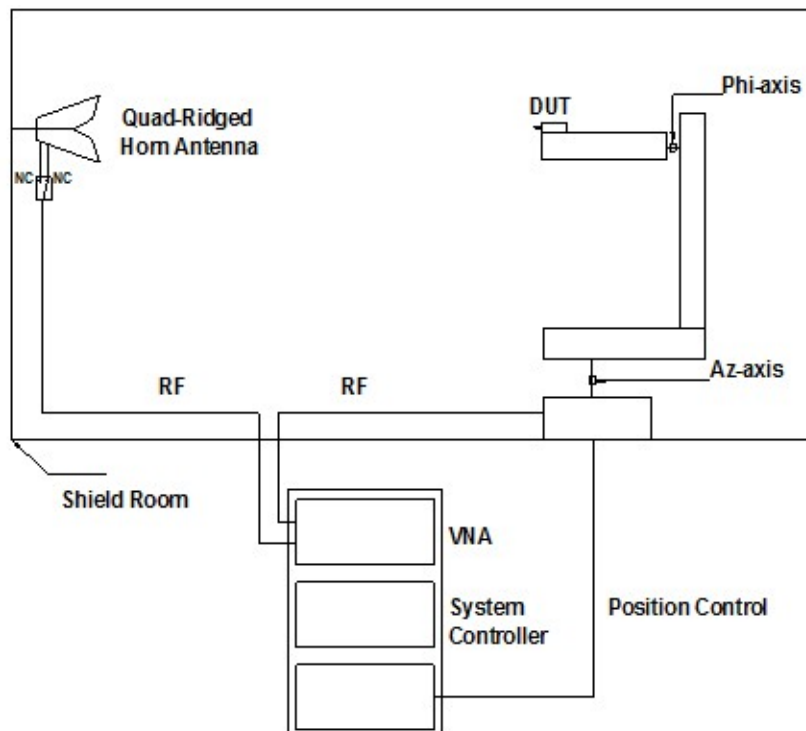
6.3 Antenna Chamber Data within enclosure

7. Measurement Condition

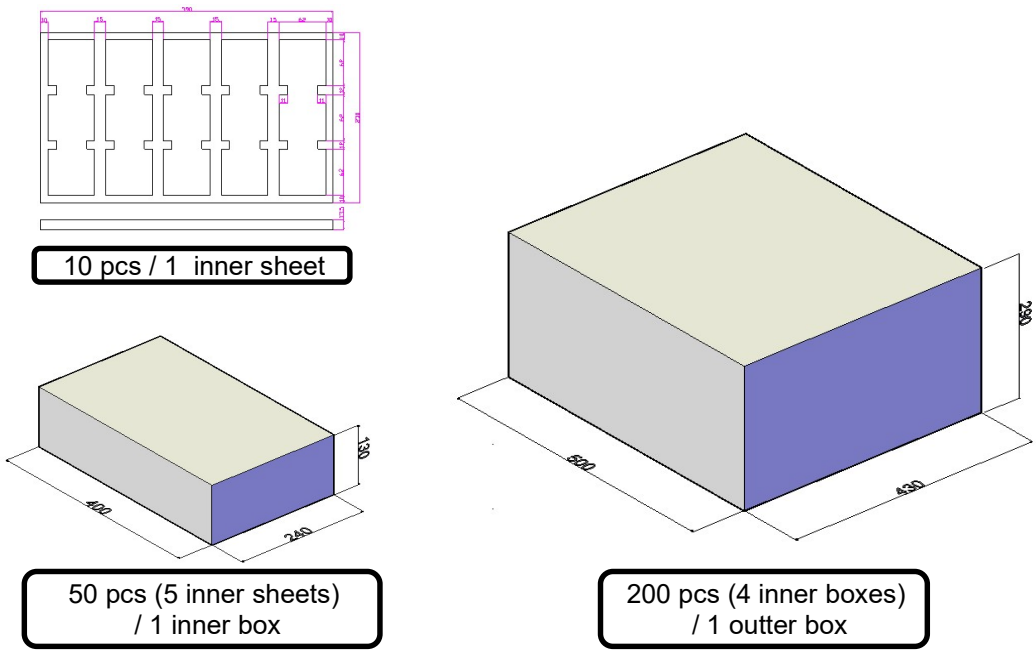
7.1 S-parameter Measurement



7.2 Gain Measurement



8. Package



9. Revision

Revision No.	Originator	Description of Change	Date of Changes
Ver-00	JSKim	Sample Specificaton	09-Jul-24

10. Contact Information

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