



QUBE 6010 PLUS

UHF RFID Antenna

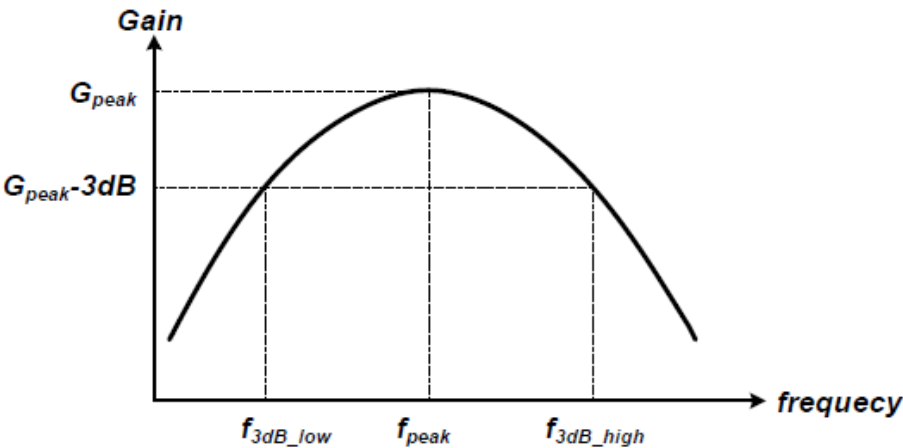
Specification

1. Part Name
KSA-921A6010B100E

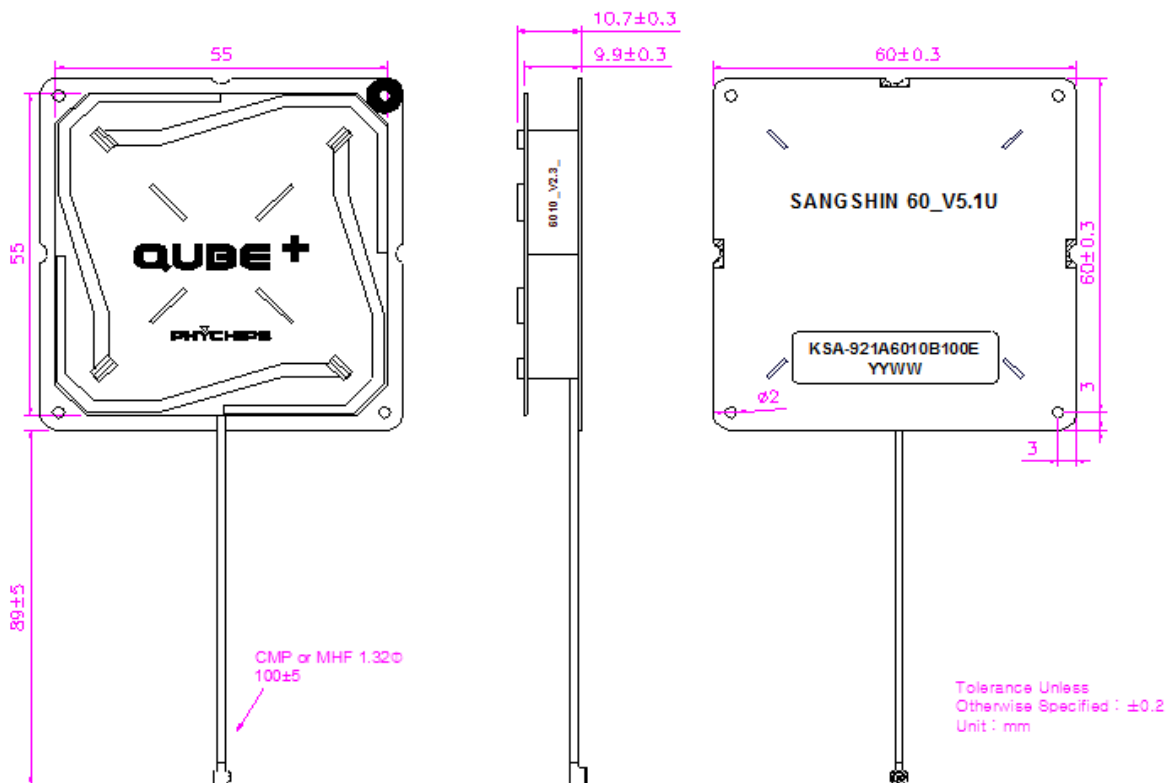
2. Electrical Specifications

Item	Specifications			
	Min.	Typical	Max.	Unit
Center Frequency (= Fc)	917	921	925	MHz
3dB Bandwidth	24	28		MHz
Return Loss @ Fc			-15	dB
Polarization	R.H.C.P			
Peak Gain @ Fc (RHCP)		3.3		dBic
Gain @ Reference Antenna	-13	-11		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

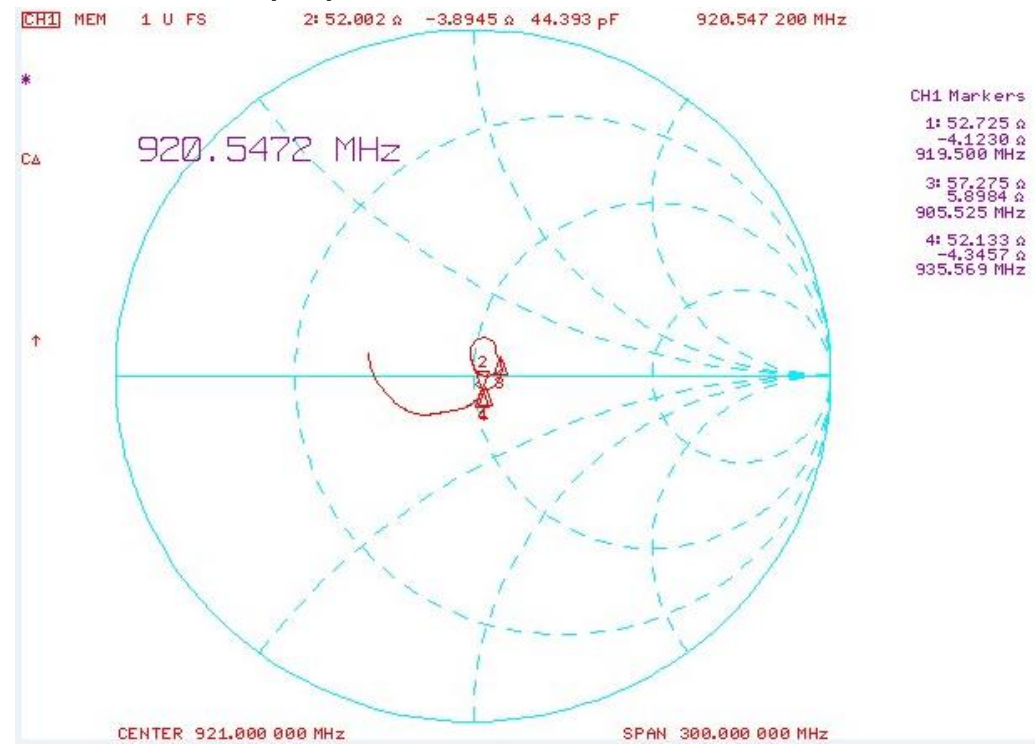
* Dimensions of Connector

CMP		MHF	
 3 ± 0.2	 2.0 ± 0.2 5.9 ± 0.3	 2.62 ± 0.2 3.00 ± 0.2	 4.00 ± 0.4 2.10 ± 0.1

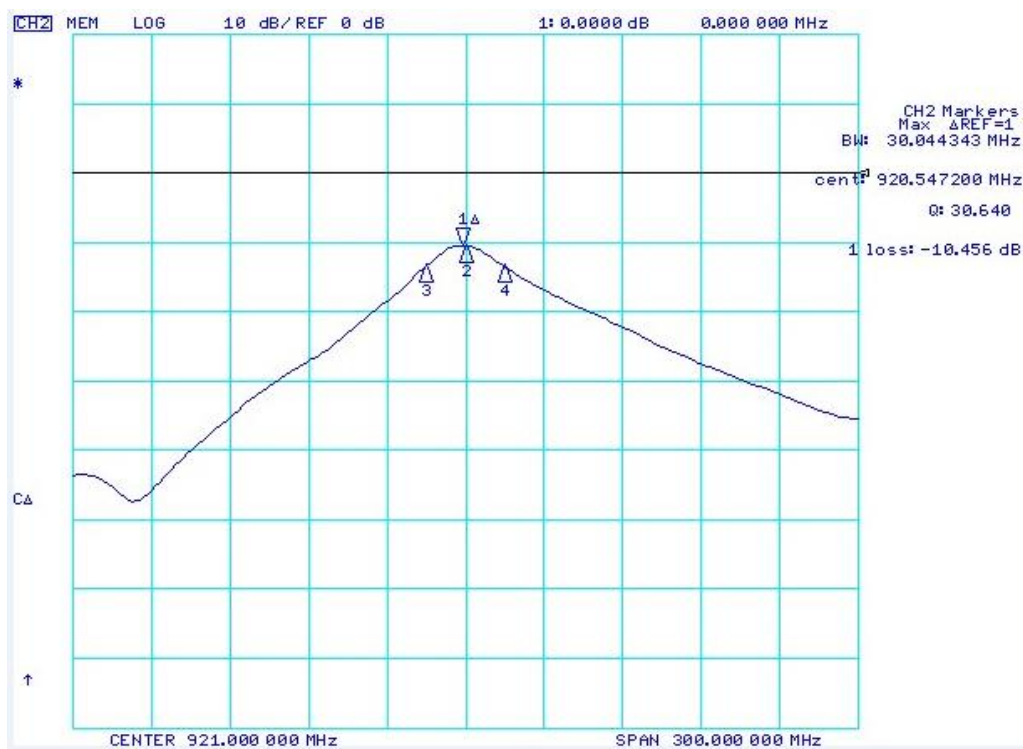
4. S-parameter Data
4.1 Return Loss (S11)



4.2 Smith Chart (S11)



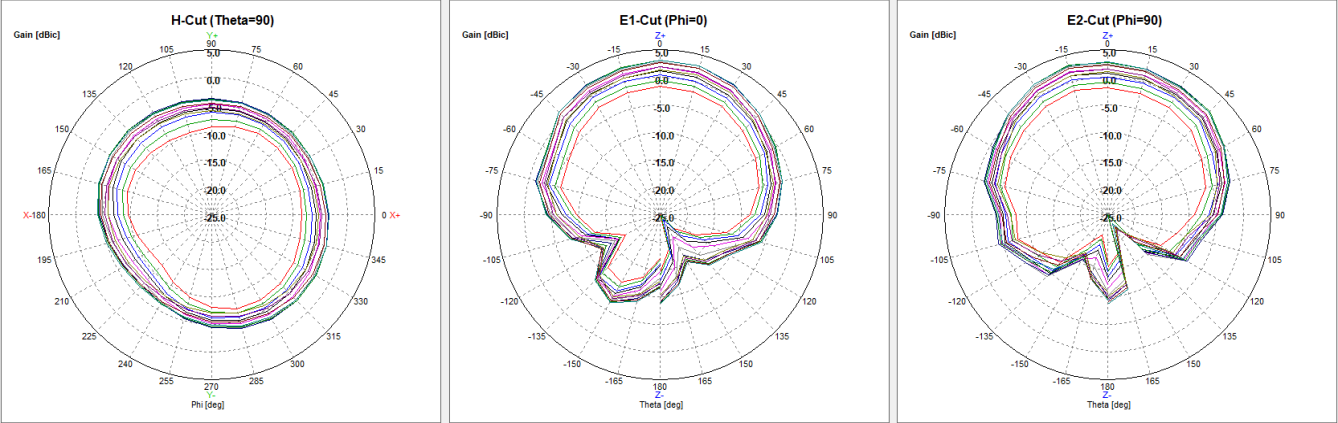
4.3 Gain (S21)



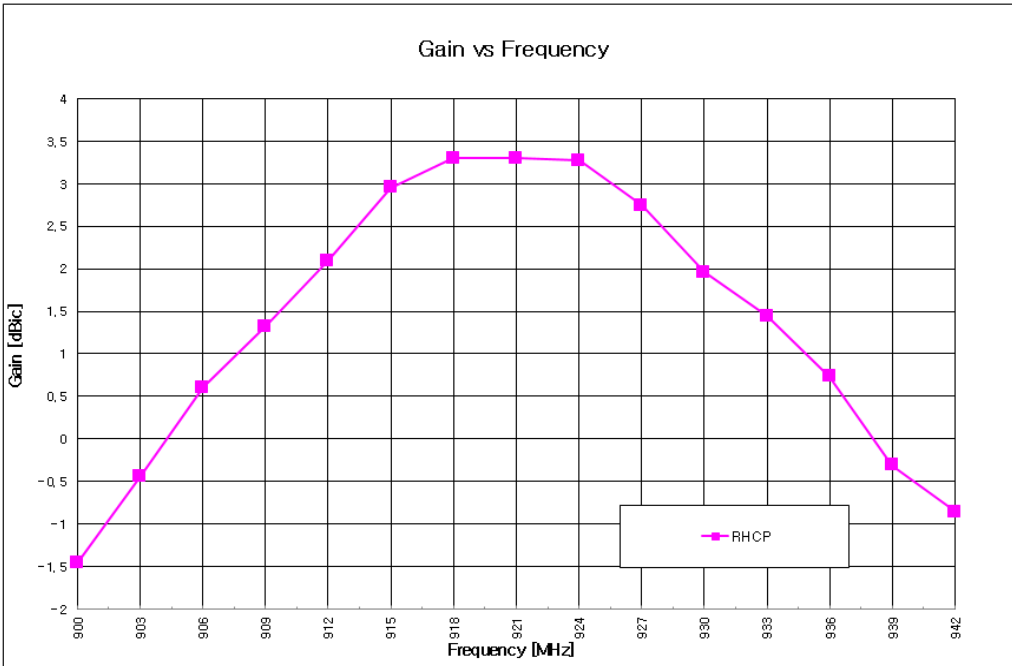
5. Antenna Chamber Data

5.1 RHCP Gain

		RHCP					H(Theta=)				E1(Phi=0)				E2(Phi=90)			
No.	Freq.	Eff.[%]	Avg.[dBic]	Peak[dBic]	Theta[°]	Phi[deg]	Avg.[dBic]	Peak[dBic]	[deg]	BW[deg]	Avg.[dBic]	Peak[dBic]	Theta[°]	BW[deg]	Avg.[dBic]	Peak[dBic]	Theta[°]	BW[deg]
1	900.000	21.02	-6.77	-1.46	0.00	-105.00	-8.72	-7.04	300.00	305.83	-6.20	-1.67	0.00	112.38	-6.02	-1.60	-15.00	120.79
2	903.000	26.54	-5.76	-0.44	0.00	-90.00	-7.74	-6.30	300.00	311.70	-5.23	-0.67	0.00	111.55	-4.99	-0.61	-15.00	121.48
3	906.000	33.41	-4.76	0.60	0.00	-90.00	-6.70	-5.38	300.00	312.92	-4.24	0.37	0.00	110.27	-3.97	0.42	-15.00	120.18
4	909.000	38.94	-4.10	1.32	0.00	-90.00	-5.98	-4.73	315.00	312.09	-3.56	1.09	0.00	108.91	-3.31	1.13	-15.00	117.65
5	912.000	46.03	-3.37	2.09	0.00	-90.00	-5.22	-3.99	315.00	310.34	-2.79	1.89	0.00	107.46	-2.59	1.91	-15.00	115.31
6	915.000	55.40	-2.56	2.95	0.00	-90.00	-4.35	-3.10	315.00	321.30	-1.92	2.76	0.00	106.47	-1.81	2.78	-15.00	112.58
7	918.000	59.31	-2.27	3.30	0.00	-75.00	-4.02	-2.80	315.00	320.06	-1.54	3.12	0.00	106.04	-1.55	3.10	-15.00	110.90
8	921.000	58.88	-2.30	3.30	0.00	-90.00	-4.03	-2.86	330.00	320.25	-1.49	3.14	0.00	106.22	-1.61	3.11	-15.00	109.35
9	924.000	57.93	-2.37	3.27	0.00	-75.00	-4.08	-2.93	330.00	321.17	-1.49	3.12	0.00	106.13	-1.70	3.05	-15.00	108.43
10	927.000	51.00	-2.92	2.74	0.00	-75.00	-4.66	-3.55	330.00	338.78	-1.99	2.59	0.00	106.51	-2.27	2.51	-15.00	107.85
11	930.000	42.25	-3.74	1.96	0.00	-75.00	-5.49	-4.45	330.00	359.06	-2.76	1.83	0.00	106.11	-3.09	1.71	-15.00	107.29
12	933.000	37.46	-4.26	1.44	0.00	-60.00	-6.05	-5.03	330.00	999.00	-3.26	1.33	0.00	106.16	-3.61	1.21	-15.00	106.91
13	936.000	31.51	-5.02	0.73	0.00	-75.00	-6.84	-5.84	345.00	999.00	-3.98	0.60	0.00	106.48	-4.36	0.45	-15.00	106.87
14	939.000	24.76	-6.06	-0.31	0.00	-60.00	-7.92	-6.96	345.00	999.00	-5.01	-0.44	15.00	106.92	-5.40	-0.61	-15.00	106.83
15	942.000	21.78	-6.62	-0.86	0.00	-60.00	-8.53	-7.59	345.00	999.00	-5.53	-0.95	15.00	106.92	-5.96	-1.17	-15.00	107.07



5.2 Gain vs Frequency



6. Measurement within enclosure
TBD

6.1 Reader or Model Name

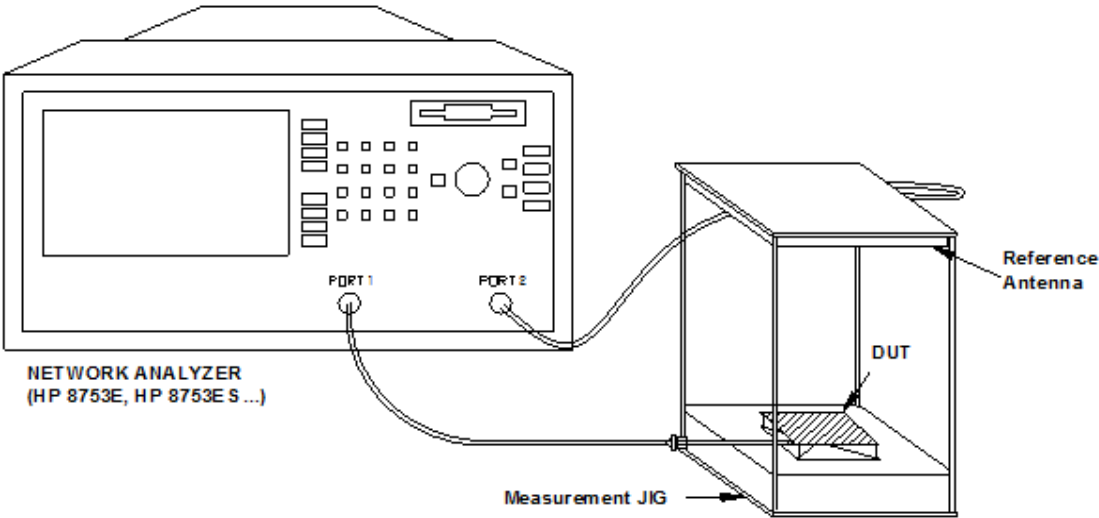
6.2 Electrical Specifications

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					

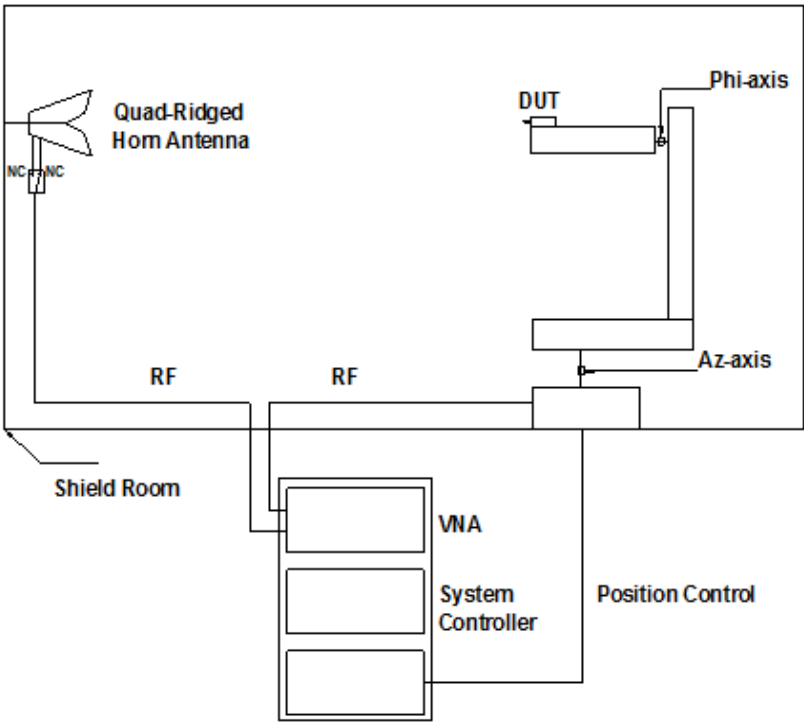
6.3 Antenna Chamber Data within enclosure

7. Measurement Condition

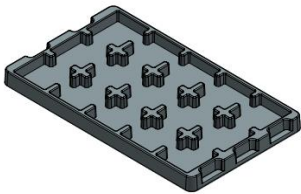
7.1 S-parameter Measurement



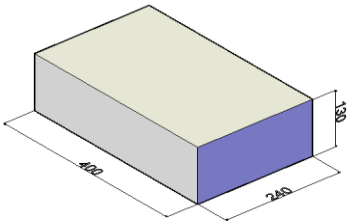
7.2 Gain Measurement



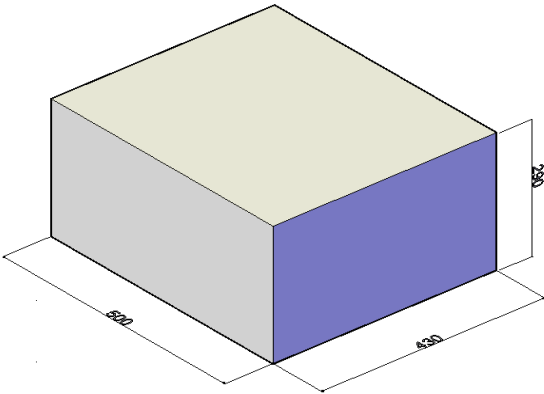
8. Package



10pcs / 1 inner sheet



50 pcs (5 inner sheets)
/ 1 inner box



200 pcs (4 inner boxes)
/ 1 outter box

9. Revision

Revision No.	Originator	Description of Change	Date of Changes
Ver-00	SYKim	Sample Specificaton	19-Jul-24

10. Contact Information

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