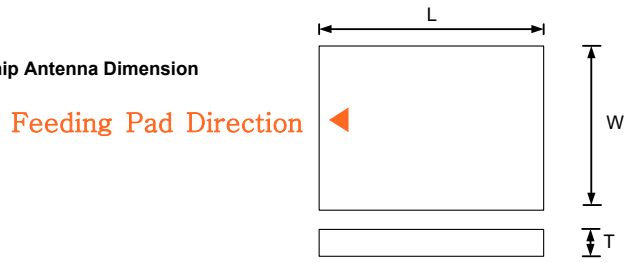
Dielectric Chip Antenna

P/N : ACS5200HFAUWB

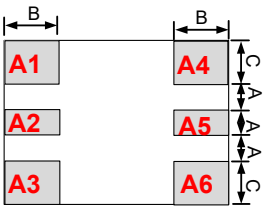
This specification covers the dielectric chip antenna ACS5200HFAUWB used in 3200~10000MHz Wireless Communication.

MECHANICAL DIMENSION (unit : mm, tolerance : ± 0.1)

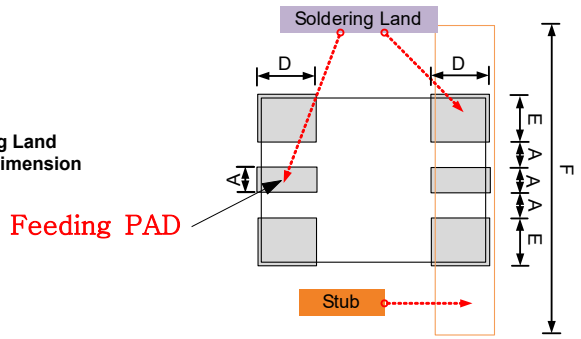
Chip Antenna Dimension



Chip Antenna
Soldering Pad Dimension



PCB
Soldering Land
& Stub Dimension

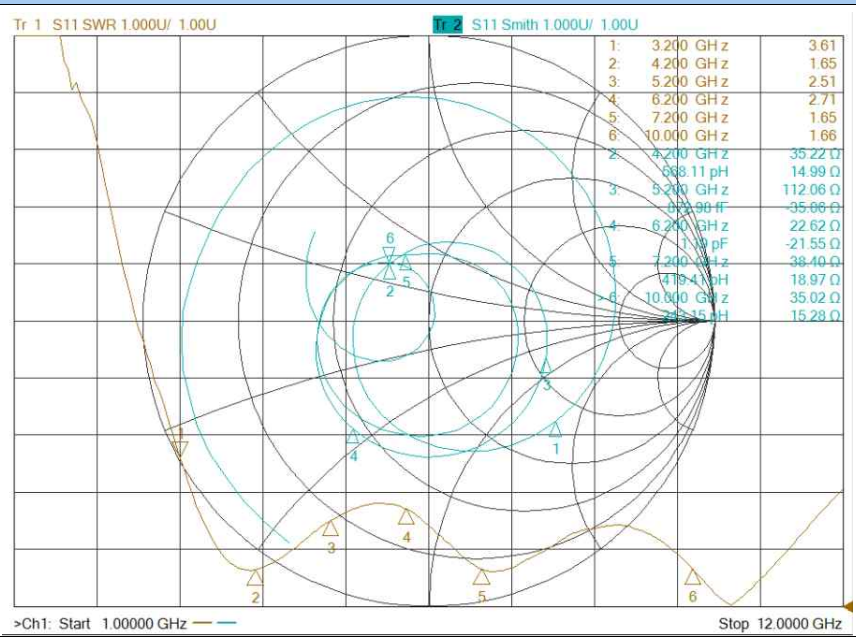


L	8.0
W	6.0
T	1.2
A	1.0
B	2.0
C	1.5
D	2.1
E	1.6
F	13.0

Pin No.	Function
A1	OPEN
A2	Feeding
A3	OPEN
A4	OPEN
A5	OPEN
A6	OPEN

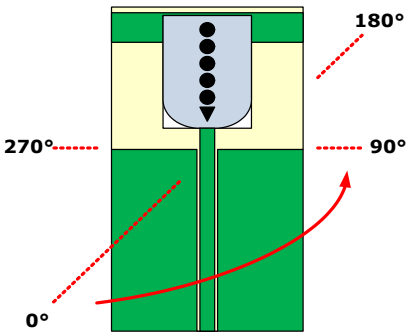
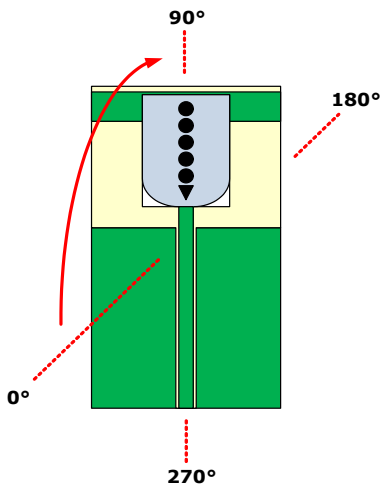
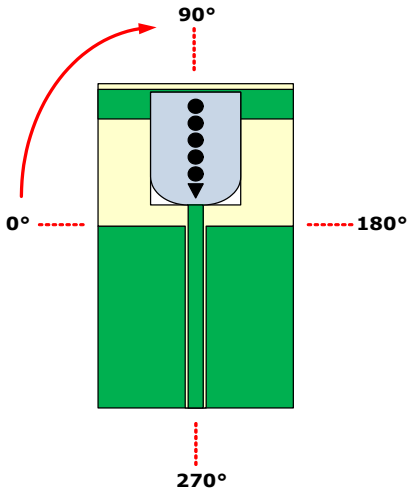
ELECTRICAL CHARACTERISTICS VSWR[MAX] 4.0:1(Typ 3.0:1)

VSWR & Smith chart



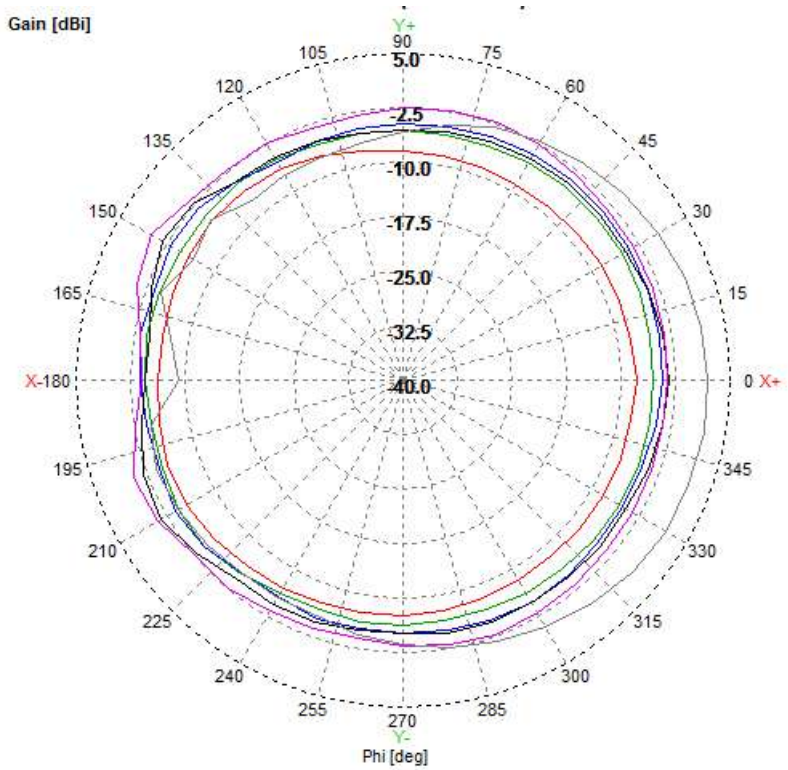
■ ELECTRICAL CHARACTERISTICS (2D)

2D Measurement									
Frequency [MHz]				3200	4200	5200	6200	7200	10000
Gain	Azimuth	Theta	Peak	-5.52	-4.05	-3.12	-1.41	0.00	2.00
			Average	-7.27	-5.31	-4.41	-4.04	-2.68	-1.97
			Efficiency	18.75	29.44	36.22	39.45	53.95	63.53
		Phi	Peak	-17.85	-15.26	-18.04	-14.59	-16.31	-11.44
			Average	-21.82	-19.56	-21.04	-19.96	-19.46	-17.03
			Efficiency	0.66	1.11	0.79	1.01	1.13	1.98
	Elevation 1	Theta	Peak	-4.36	-3.53	-2.04	-1.56	-0.63	1.97
			Average	-7.96	-6.98	-6.01	-5.03	-5.19	-4.79
			Efficiency	16.00	20.04	25.06	31.41	30.27	33.19
		Phi	Peak	-19.44	-19.03	-18.27	-17.53	-17.71	-19.31
			Average	-26.17	-27.14	-24.61	-26.57	-25.89	-24.33
			Efficiency	0.24	0.19	0.35	0.22	0.26	0.37
	Elevation 2	Theta	Peak	-6.31	-4.91	-3.21	-3.08	-2.39	-3.18
			Average	-8.77	-8.24	-7.05	-6.24	-5.70	-8.27
			Efficiency	13.27	15.00	19.72	23.77	26.92	14.89
		Phi	Peak	-14.59	-13.71	-13.69	-12.49	-13.09	-11.23
			Average	-22.97	-19.06	-17.99	-17.78	-17.32	-15.41
			Efficiency	0.50	1.24	1.59	1.67	1.85	2.88

Azimuth Plane	Elevation1 Plane	Elevation2 Plane
		
Theta	Vertical field of measured plane	
Phi	Horizontal field of measured plane	

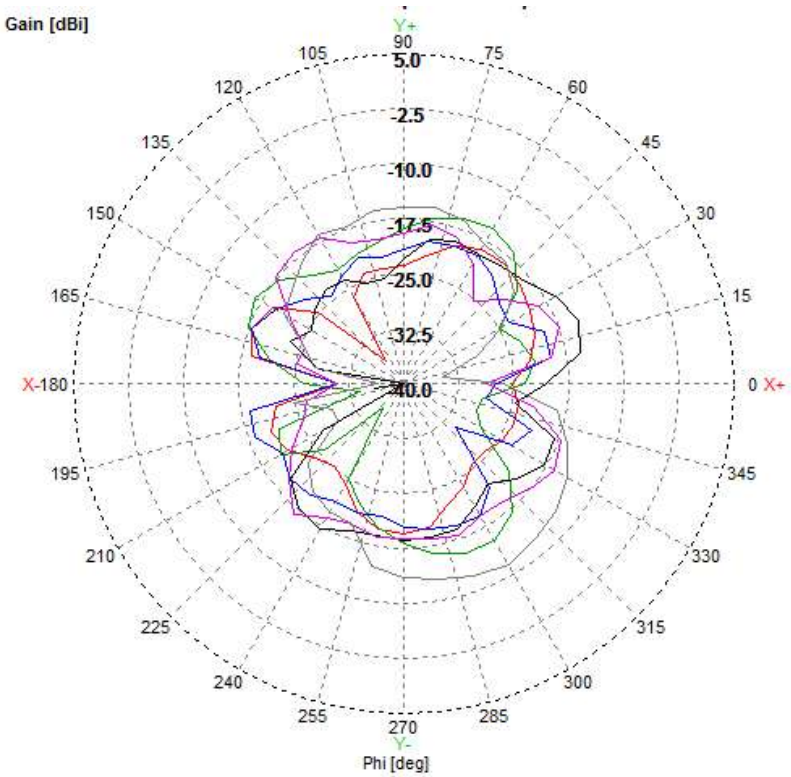
■ 2D RADIATION PATTERN

Azimuth Theta



No.	Freq.
1	3200.000
2	4200.000
3	5200.000
4	6200.000
5	7200.000
6	10000.000

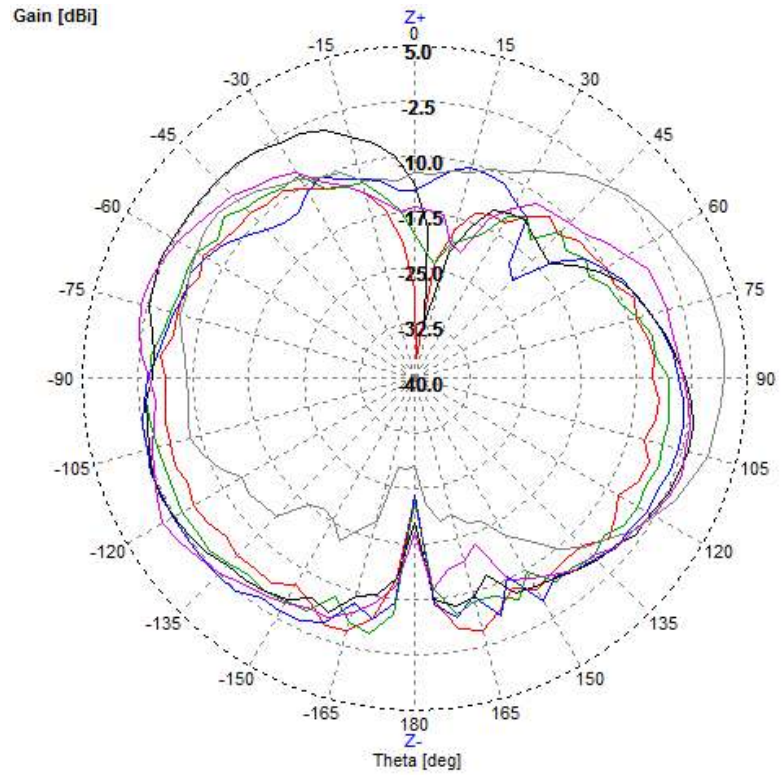
Azimuth Phi



No.	Freq.
1	3200.000
2	4200.000
3	5200.000
4	6200.000
5	7200.000
6	10000.000

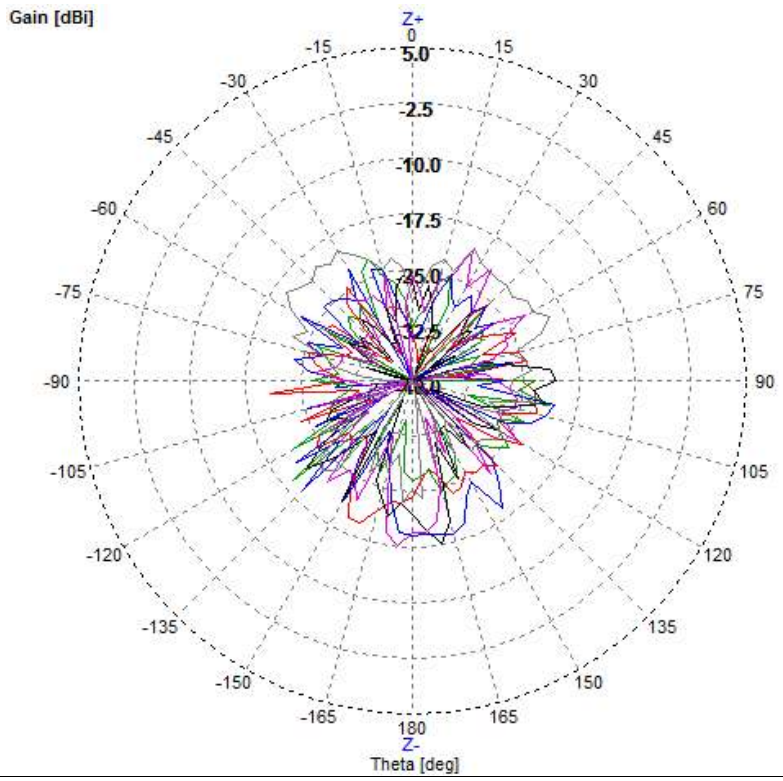
■ 2D RADIATION PATTERN

Elevation1 Theta



No.	Freq.
1	3200.000
2	4200.000
3	5200.000
4	6200.000
5	7200.000
6	10000.000

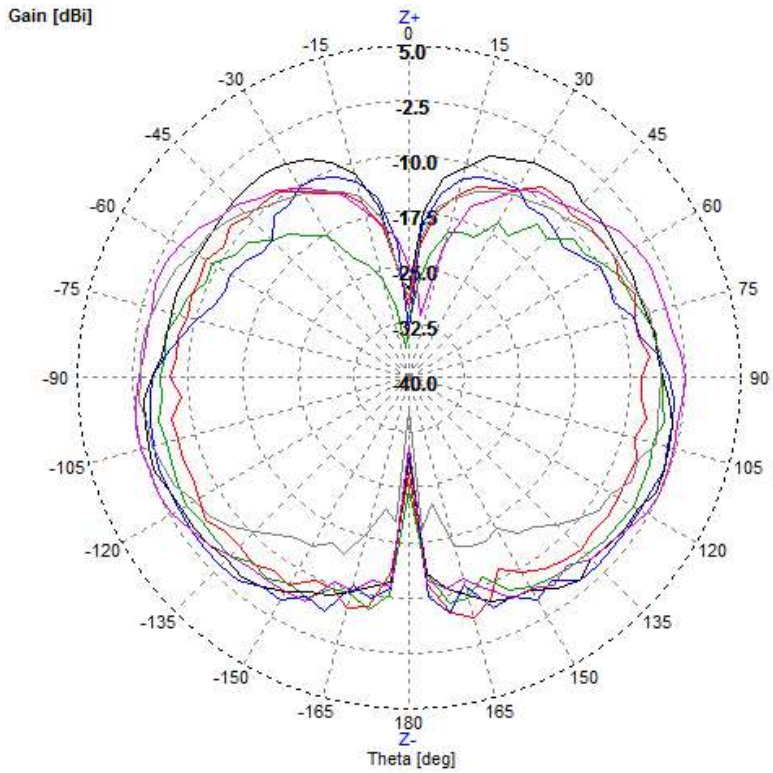
Elevation1 Phi



No.	Freq.
1	3200.000
2	4200.000
3	5200.000
4	6200.000
5	7200.000
6	10000.000

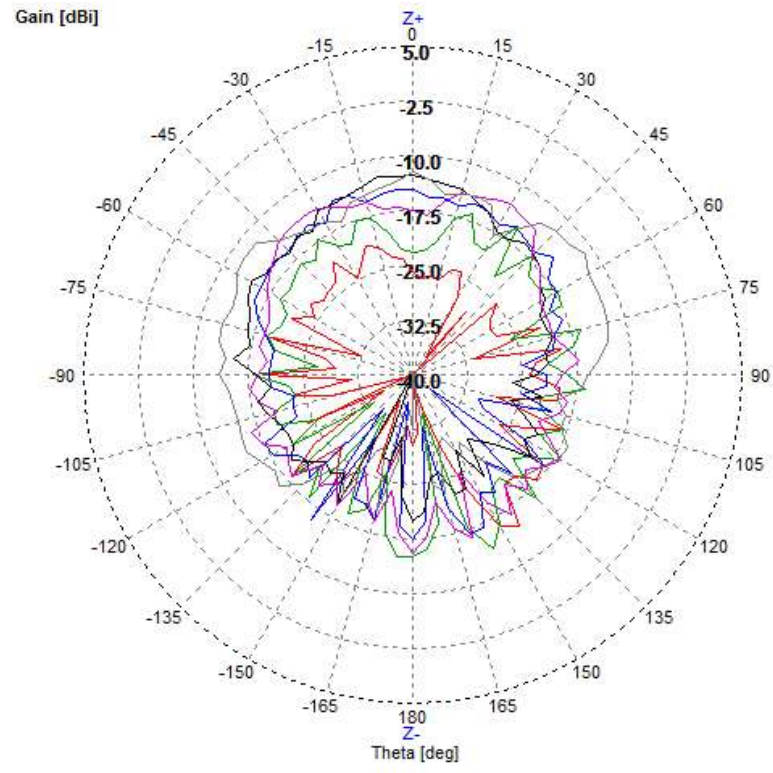
■ 2D RADIATION PATTERN

Elevation2 Theta



No.	Freq.
1	3200.000
2	4200.000
3	5200.000
4	6200.000
5	7200.000
6	10000.000

Elevation2 Phi

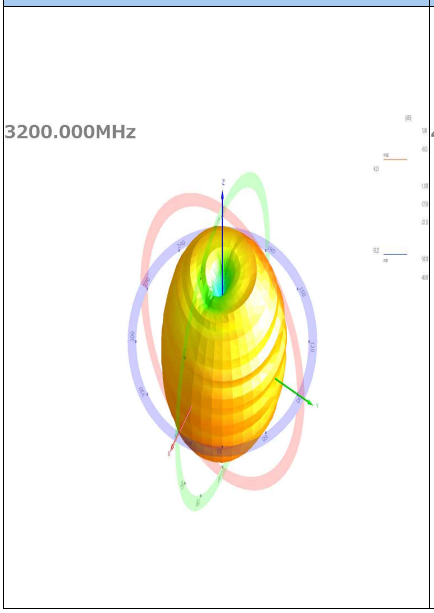
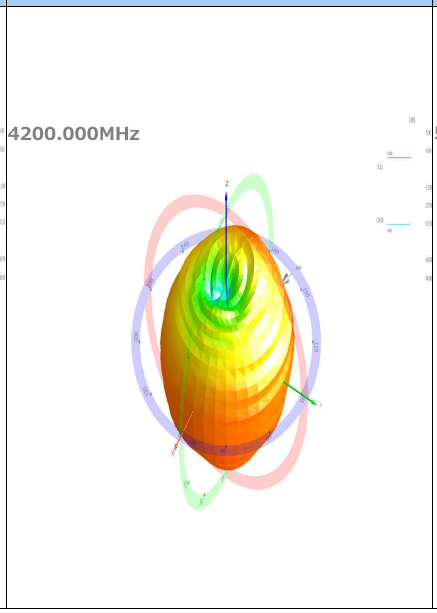
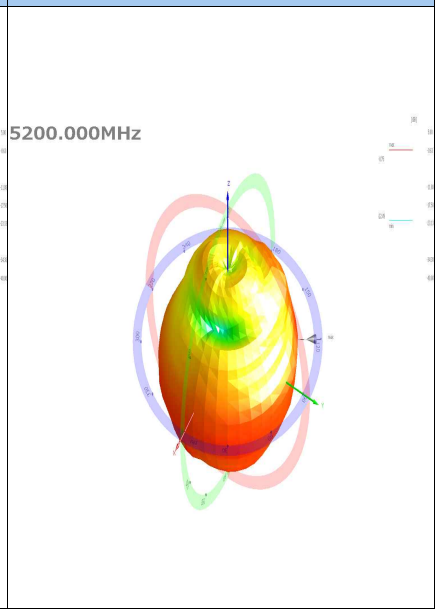


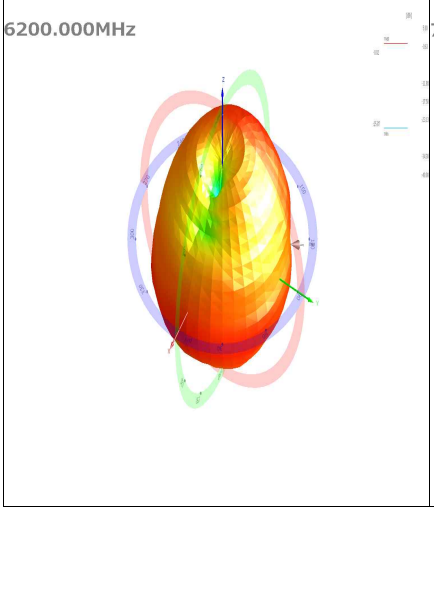
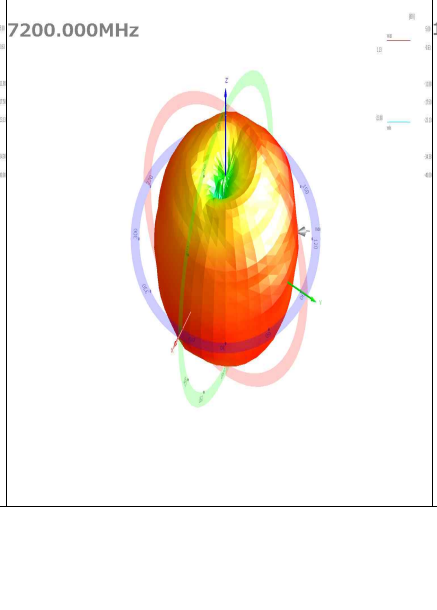
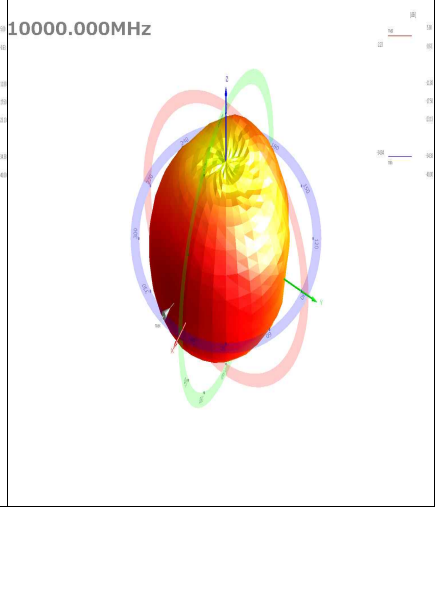
No.	Freq.
1	3200.000
2	4200.000
3	5200.000
4	6200.000
5	7200.000
6	10000.000

■ ELECTRICAL CHARACTERISTICS (3D)

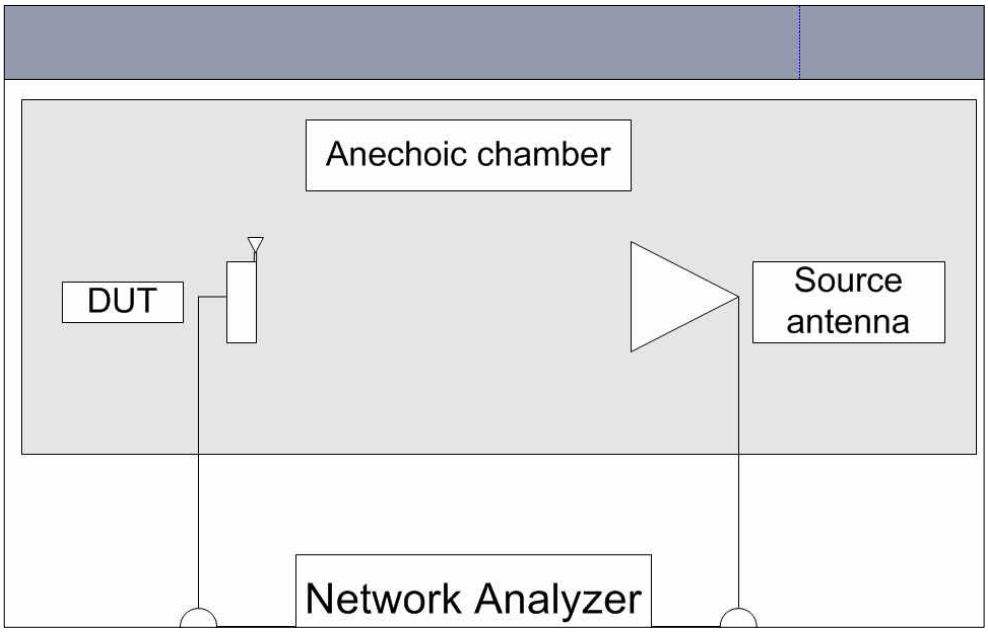
3D Measurement							
Frequency [MHz]		3200	4200	5200	6200	7200	10000
3D Average Gain	Average	-7.58	-6.43	-5.21	-4.20	-3.67	-4.35
	Efficiency	17.44	22.78	30.11	38.05	42.91	36.74

■ 3D RADIATION PATTERN

3200	4200	5200
		

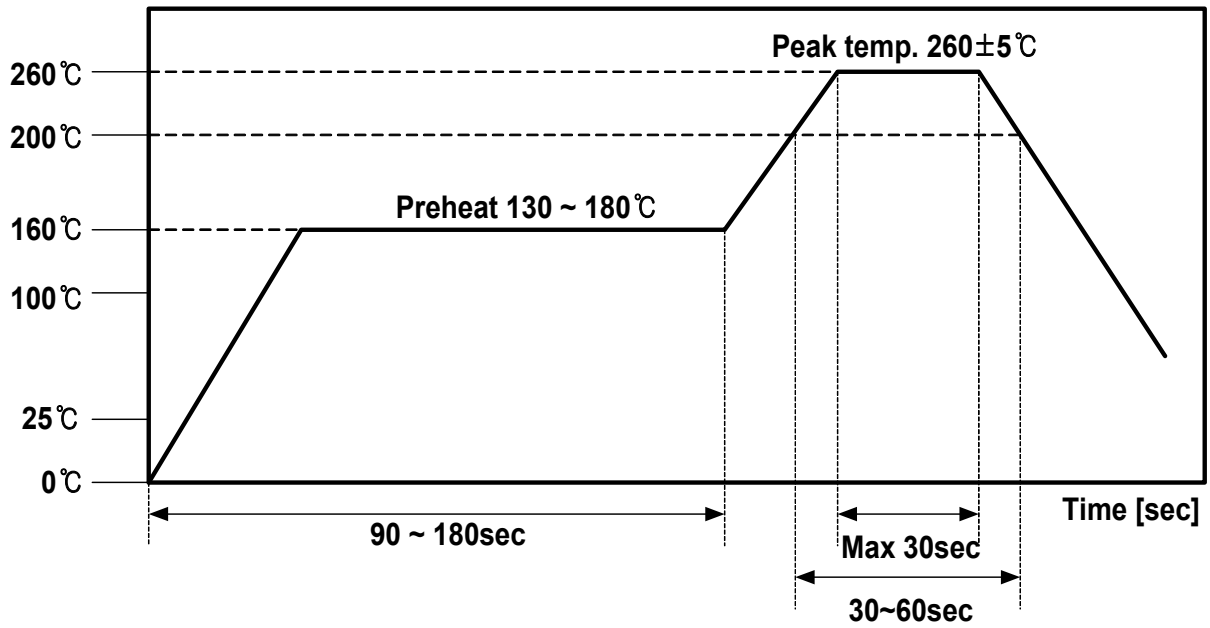
6200	7200	10000
		

■ Gain Measurement block diagram



■ Soldering Condition - Reflow Soldering

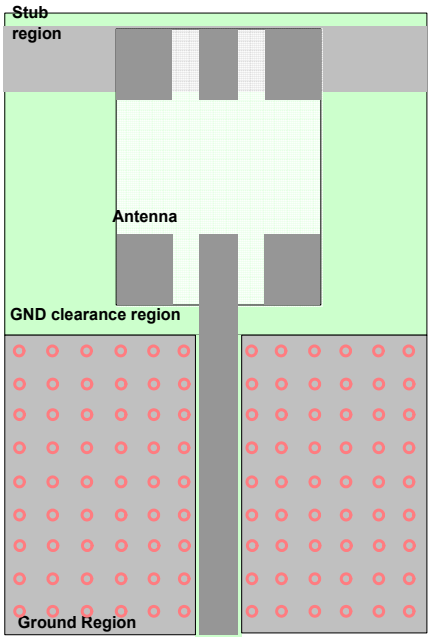
- Reflow Soldering



- Manual Soldering

	Condition
Pre-Heating Temperature	120℃ , 60 ~ 300 sec
Soldering Temperature	340℃ ± 5℃ , 5 sec max per each terminal

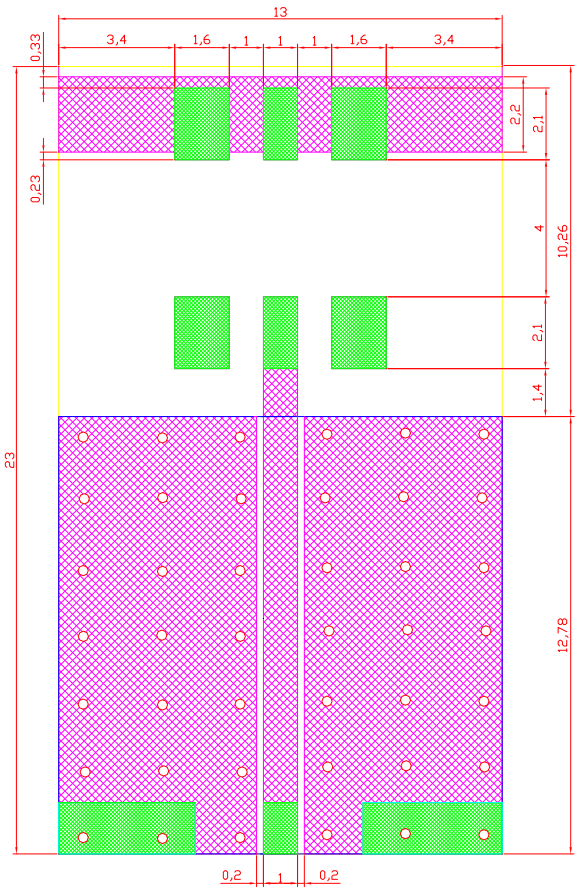
FEEDING METHOD (unit : mm, tolerance : ± 0.05)



< Top View >

< Bottom View >

Recommended Test Board(CAD)



Unit : mm

Board thickness : 1.0mm

■ LOT & Marking

◀ UWB 3 C
① ② ③ ④

① Feeding Direction

② Model

③ year : 0 - 2010, 1 - 2011, 2 - 2012, 3 - 2013, 4 - 2014, ····

④ Month : 1-January, 2-February,····,A-October, B-November, C-December

Marking View