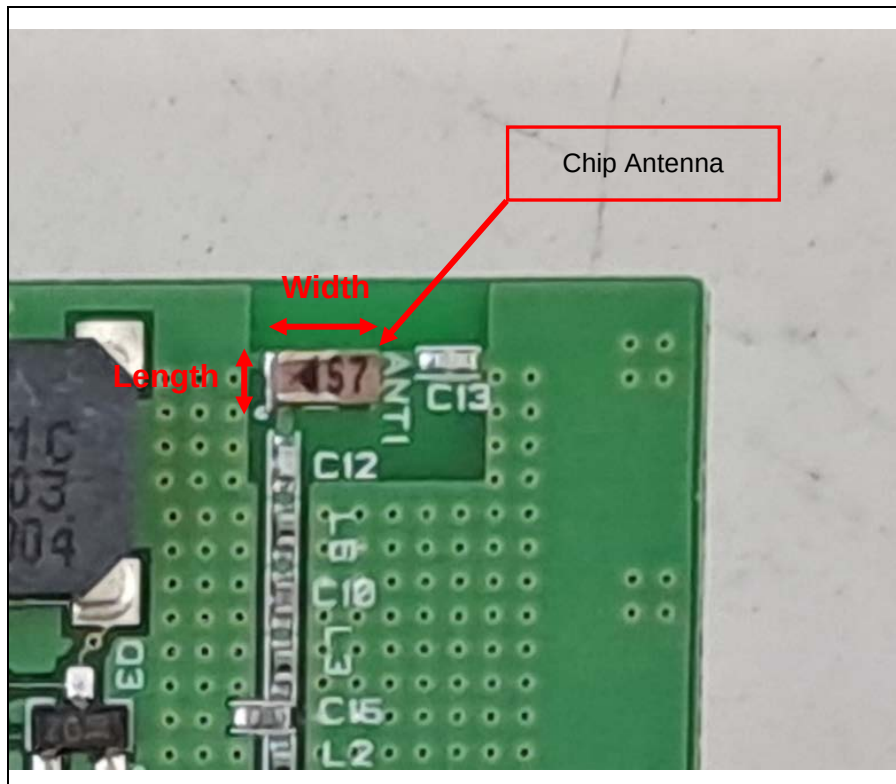


Antenna Information

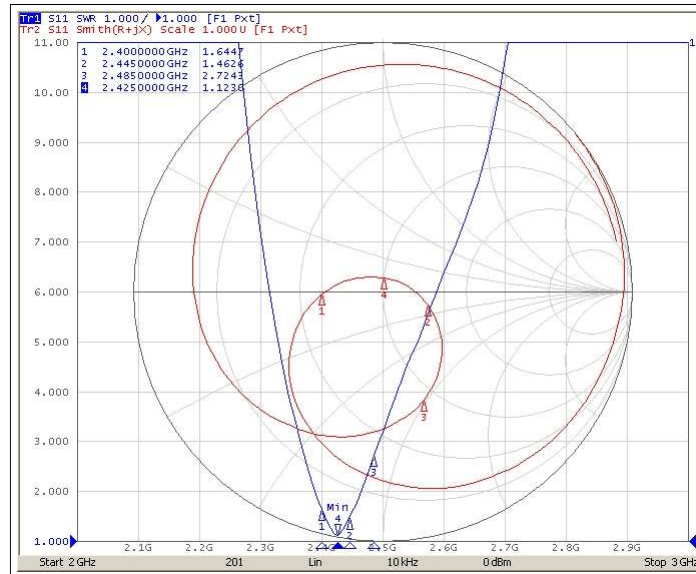
Item	Contents
Frequency	2400 MHz ~ 2485 MHz
Antenna Type	Chip Antenna
Antenna peak gain	5.06 dBi
Manufacturer / Model name	Partron / SDBTPTR3015
Address of manufacturer	22, Samsung 1-ro 2-gil, Hwaseong-si, Gyeonggi-do, Republic of Korea
Test Laboratory	Partron
Antenna Length	1.5 mm
Antenna Width	3 mm



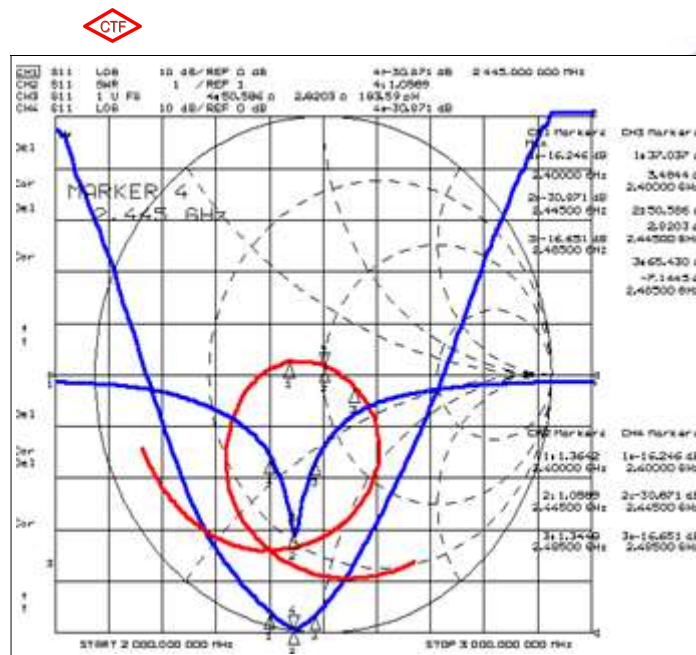
Model name: InbodyFit

Technical specification

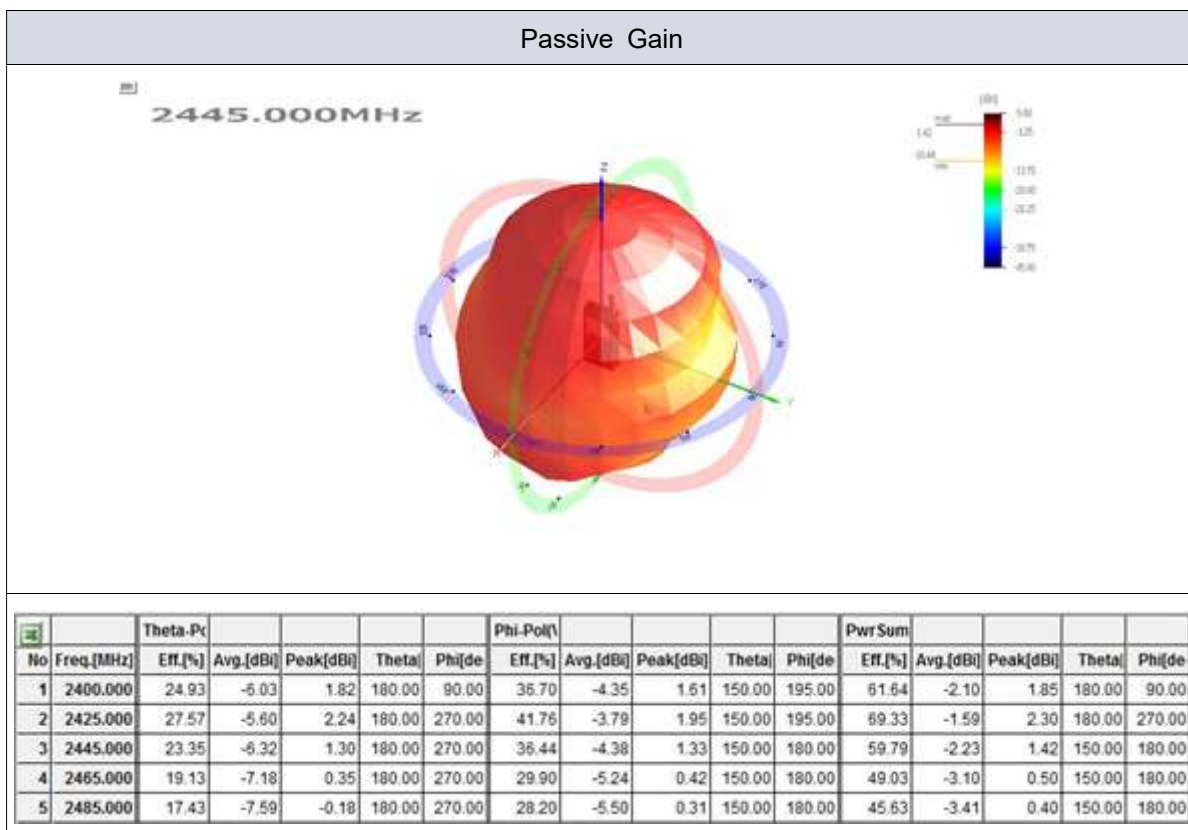
Item				Value
Frequency Range [MHz]				2400 ~ 2485
SWR [Max]				2.8 : 1 (Typ 2.3 : 1)
Input Impedance [Ω]				50 Ohm
Polarization				Linear
Gain [dBi]	Total Gain (Peak / Avg) [dBi]			0.2 / -6.0
	Azimuth	Theta	Peak	-3.66
			Average	-8.40
		Phi	Peak	5.06
			Average	-2.59
	Elevation 1	Theta	Peak	-0.13
			Average	-6.29
		Phi	Peak	0.84
			Average	-4.31
	Elevation 2	Theta	Peak	-5.00
			Average	-9.78
		Phi	Peak	-6.64
			Average	-10.37



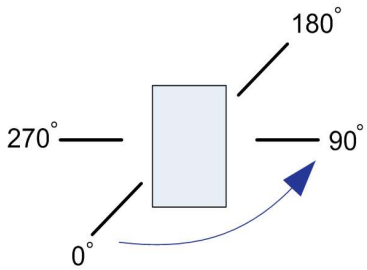
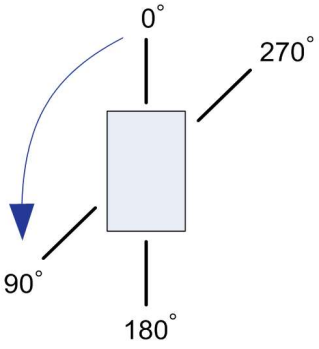
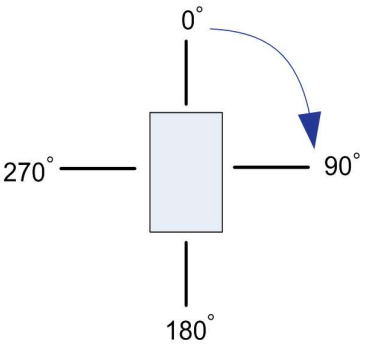
항 목	특 성
Frequency Range [MHz]	2400 ~ 2485
Lower frequency(2400MHz) SWR [Min~Max]	1.0 ~ 2.5 : 1 (Typ 2.0 : 1)
Upper frequency(2485MHz) SWR [Min~Max]	1.0 ~ 2.5 : 1 (Typ 2.0 : 1)

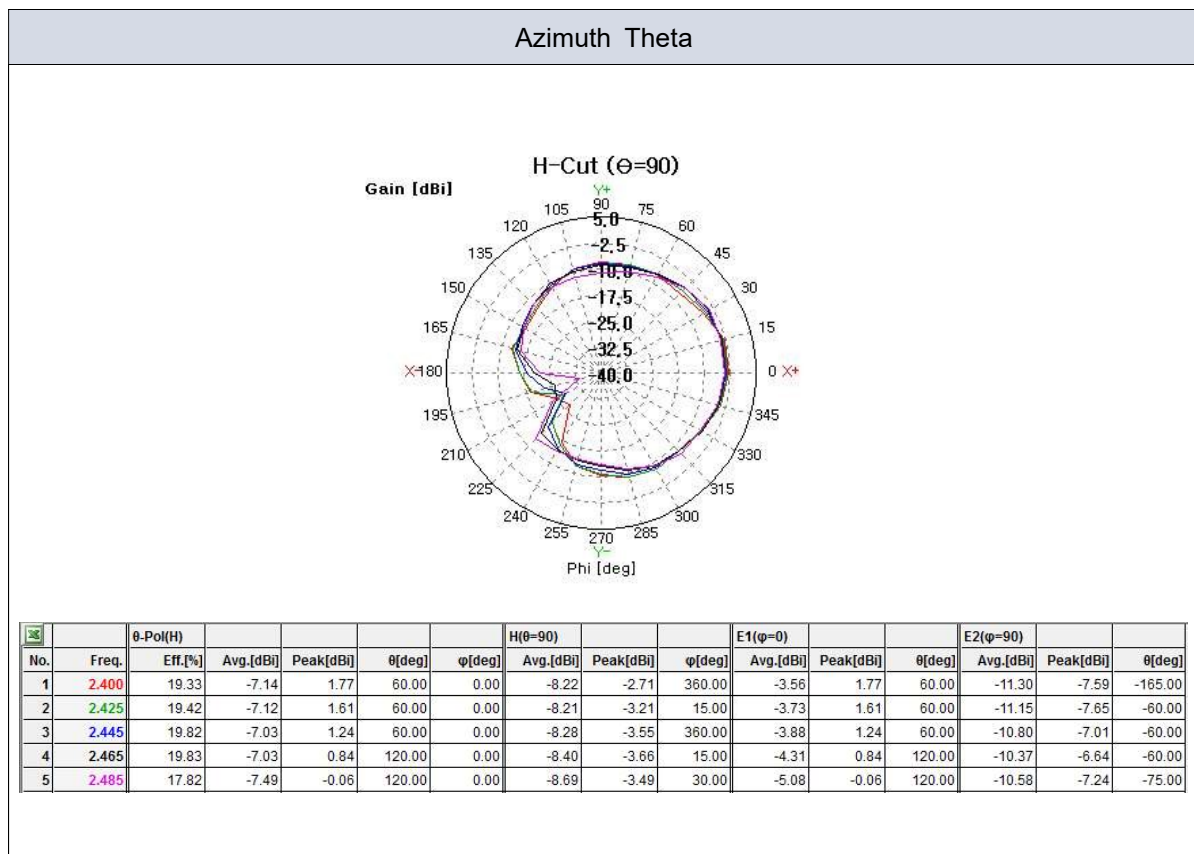


4.5 Antenna Passive Gain

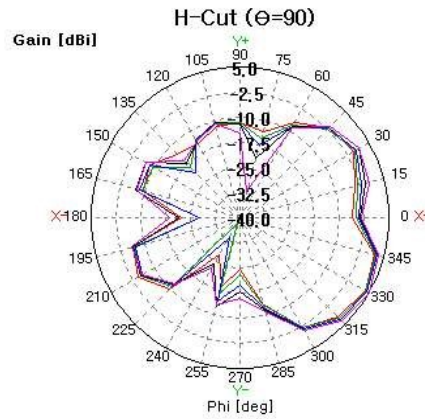


4.6 방사 패턴

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

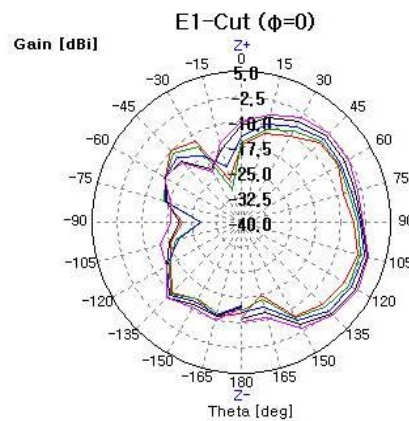


Azimuth Phi



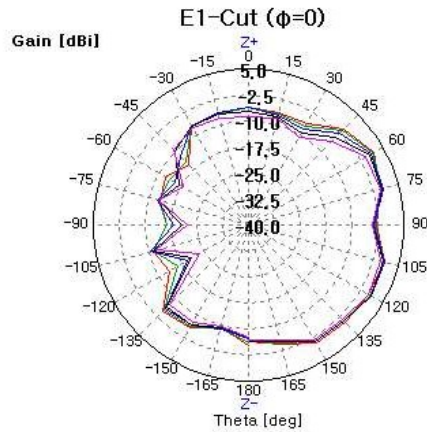
No.	Freq.	Φ -Pol(V)	Eff.[%]	Avg.[dBi]	Peak[dBi]	Θ [deg]	Φ [deg]	H($\Theta=90$)	Peak[dBi]	Φ [deg]	E1($\Phi=0$)	Peak[dBi]	Θ [deg]	E2($\Phi=90$)	Peak[dBi]	Θ [deg]
1	2.400		25.47	-5.94	3.63	90.00	330.00	-3.91	3.63	330.00	-9.22	-3.74	105.00	-10.25	-6.08	15.00
2	2.425		25.91	-5.87	3.92	90.00	330.00	-3.78	3.92	330.00	-8.35	-2.42	120.00	-10.20	-5.81	0.00
3	2.445		28.14	-5.51	4.39	90.00	330.00	-3.29	4.39	330.00	-7.50	-1.49	120.00	-9.97	-5.59	15.00
4	2.465		31.46	-5.02	5.06	90.00	330.00	-2.59	5.06	330.00	-6.29	-0.13	120.00	-9.78	-5.00	15.00
5	2.485		32.00	-4.95	4.99	90.00	330.00	-2.55	4.99	330.00	-5.54	0.45	120.00	-9.82	-5.18	15.00

Elevation1 Theta



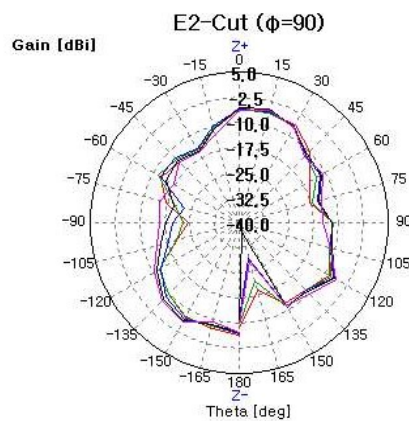
No.	Freq.	Φ -Pol(V)	Eff.[%]	Avg.[dBi]	Peak[dBi]	Θ [deg]	Φ [deg]	H($\Theta=90$)	Peak[dBi]	Φ [deg]	E1($\Phi=0$)	Peak[dBi]	Θ [deg]	E2($\Phi=90$)	Peak[dBi]	Θ [deg]
1	2.400		25.47	-5.94	3.63	90.00	330.00	-3.91	3.63	330.00	-9.22	-3.74	105.00	-10.25	-6.08	15.00
2	2.425		25.91	-5.87	3.92	90.00	330.00	-3.78	3.92	330.00	-8.35	-2.42	120.00	-10.20	-5.81	0.00
3	2.445		28.14	-5.51	4.39	90.00	330.00	-3.29	4.39	330.00	-7.50	-1.49	120.00	-9.97	-5.59	15.00
4	2.465		31.46	-5.02	5.06	90.00	330.00	-2.59	5.06	330.00	-6.29	-0.13	120.00	-9.78	-5.00	15.00
5	2.485		32.00	-4.95	4.99	90.00	330.00	-2.55	4.99	330.00	-5.54	0.45	120.00	-9.82	-5.18	15.00

Elevation1 Phi



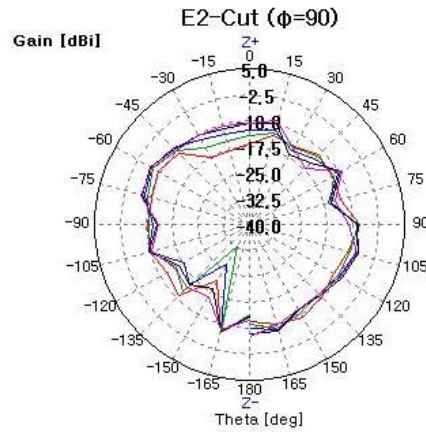
No.	Freq.	Eff. [%]	Avg. [dBi]	Peak [dBi]	θ [deg]	ϕ [deg]	H($\theta=90$) Avg. [dBi]	H($\theta=90$) Peak [dBi]	ϕ [deg]	E1($\phi=0$) Avg. [dBi]	E1($\phi=0$) Peak [dBi]	θ [deg]	E2($\phi=90$) Avg. [dBi]	E2($\phi=90$) Peak [dBi]	θ [deg]
1	2.400	19.33	-7.14	1.77	60.00	0.00	-8.22	-2.71	360.00	-3.56	1.77	60.00	-11.30	-7.59	-165.00
2	2.425	19.42	-7.12	1.61	60.00	0.00	-8.21	-3.21	15.00	-3.73	1.61	60.00	-11.15	-7.65	-60.00
3	2.445	19.82	-7.03	1.24	60.00	0.00	-8.28	-3.55	360.00	-3.88	1.24	60.00	-10.80	-7.01	-60.00
4	2.465	19.83	-7.03	0.84	120.00	0.00	-8.40	-3.66	15.00	-4.31	0.84	120.00	-10.37	-6.64	-60.00
5	2.485	17.82	-7.49	-0.06	120.00	0.00	-8.69	-3.49	30.00	-5.08	-0.06	120.00	-10.58	-7.24	-75.00

Elevation2 Theta



No.	Freq.	Eff. [%]	Avg. [dBi]	Peak [dBi]	θ [deg]	ϕ [deg]	H($\theta=90$) Avg. [dBi]	H($\theta=90$) Peak [dBi]	ϕ [deg]	E1($\phi=0$) Avg. [dBi]	E1($\phi=0$) Peak [dBi]	θ [deg]	E2($\phi=90$) Avg. [dBi]	E2($\phi=90$) Peak [dBi]	θ [deg]
1	2.400	25.47	-5.94	3.63	90.00	330.00	-3.91	3.63	330.00	-9.22	-3.74	105.00	-10.25	-6.08	15.00
2	2.425	25.91	-5.87	3.92	90.00	330.00	-3.78	3.92	330.00	-8.35	-2.42	120.00	-10.20	-5.81	0.00
3	2.445	28.14	-5.51	4.39	90.00	330.00	-3.29	4.39	330.00	-7.50	-1.49	120.00	-9.97	-5.59	15.00
4	2.465	31.46	-5.02	5.06	90.00	330.00	-2.59	5.06	330.00	-6.29	-0.13	120.00	-9.78	-5.00	15.00
5	2.485	32.00	-4.95	4.99	90.00	330.00	-2.55	4.99	330.00	-5.54	0.45	120.00	-9.82	-5.18	15.00

Elevation2 Phi



No.	Freq.	θ-Pol(H)	Eff.[%]	Avg.[dBi]	Peak[dBi]	θ[deg]	φ[deg]	H(θ=90)	Peak[dBi]	φ[deg]	E1(φ=0)	Peak[dBi]	θ[deg]	Avg.[dBi]	Peak[dBi]	θ[deg]
1	2.400		19.33	-7.14	1.77	60.00	0.00	-8.22	-2.71	360.00	-3.56	1.77	60.00	-11.30	-7.59	-165.00
2	2.425		19.42	-7.12	1.61	60.00	0.00	-8.21	-3.21	15.00	-3.73	1.61	60.00	-11.15	-7.65	-60.00
3	2.445		19.82	-7.03	1.24	60.00	0.00	-8.28	-3.55	360.00	-3.88	1.24	60.00	-10.80	-7.01	-60.00
4	2.465		19.83	-7.03	0.84	120.00	0.00	-8.40	-3.66	15.00	-4.31	0.84	120.00	-10.37	-6.64	-60.00
5	2.485		17.82	-7.49	-0.06	120.00	0.00	-8.69	-3.49	30.00	-5.08	-0.06	120.00	-10.58	-7.24	-75.00

5. 시험 방법

5.1 SWR / Return Loss

Network Analyzer를 이용하여 SWR / Return Loss를 측정하며 표본 샘플을 선별 수동 측정 지그 또는 자동화 검사장비를 이용하여 양품과 불량품을 선별한다.

	시료 측정 조건	수동 지그 측정 조건
Network Analyzer	Agilent HP8753E or Advantest R3765CH	Agilent HP8753E or Advantest R3765CH
Cable	RF cable (300 mm)	RF cable (300 mm)
Test condition	