Antenna Information

ltem	Contents					
Antenna Type	PCB pattern antenna					
Antonno pock goin	Bluetooth Low Energy	1.72 dB i				
Аптенна реак уаш	WLAN 2.4G	1.70 dB i				
Manufacturer / Model name	RADINA Co., Ltd / T206					
Address of manufacturer	606-2 Edgineering Cel Seongdong-gu, Seoul,	nter Annex Bldg., 222, Wangsimni-ro, , Republic of Korea, 04763				
Test laboratory	RADINA Co., Ltd					
Antenna Length	1.9 cm					
Antenna Width	0.9 cm					

Length



Model name: LCWB-006



Ohsung T206

RADINA Co., Ltd MobiAn Inc. TEL: 82-2-463-0373 FAX: 82-2-463-0374 E- mail: RADINA@radina.co.kr

Seongdong-gu, Seoul 133-112, Korea



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Antenna Measurement Data









Efficiency

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Frequency [MHz]	2400	2405	2410	2415	2420	2425	2430	2435	2440	2445	2450	2455	2460	2465	2470	2475	2480	2485	2490	2497
Efficiency [dB]	-1.99	-1.99	-1.84	-1.87	-1.86	-2.12	-1.72	-1.95	-1.97	-1.63	-1.61	-1.59	-1.90	-1.91	-1.79	-1.67	-1.41	-1.81	-2.18	-2.01
Efficiency [%]	63.2	63.2	65.5	65.1	65.1	61.3	67.3	63.9	63.6	68.7	69.1	69.3	64.6	64.3	66.3	68.1	72.2	65.9	60.6	63.0
TRG _e [dB]	-2.35	-2.35	-2.20	-2.24	-2.24	-2.53	-2.11	-2.35	-2.38	-2.05	-2.03	-2.02	-2.33	-2.37	-2.23	-2.12	-1.86	-2.28	-2.64	-2.47
Gain _{∂ Peak} [dB]	1.08	1.08	1.44	1.17	1.30	0.91	1.44	0.97	0.95	1.51	1.52	1.56	1.27	1.16	1.23	1.23	1.62	0.91	0.74	0.84
Gain _{θ Min} [dB]	-25.71	-25.71	-23.70	-25.24	-22.23	-23.28	-23.14	-22.94	-21.09	-21.13	-20.88	-17.54	-19.73	-20.14	-18.00	-16.32	-15.20	-16.25	-17.14	-19.14
TRG _{\varphi} [dB]	-13.00	-13.00	-12.77	-12.68	-12.63	-12.64	-12.67	-12.51	-12.35	-12.00	-11.96	-11.90	-12.07	-11.94	-11.96	-11.73	-11.51	-11.73	-12.07	-12.00
Gain _{φ Peak} [dB]	-6.56	-6.56	-6.15	-6.09	-6.05	-6.08	-6.02	-5.84	-5.80	-5.51	-5.32	-5.28	-4.87	-5.59	-5.23	-5.04	-4.48	-5.08	-5.36	-4.98
Gain _{@ Min} [dB]	-30.79	-30.79	-35.55	-38.51	-37.26	-34.38	-34.52	-30.93	-30.72	-27.68	-27.56	-26.85	-26.38	-30.12	-27.82	-25.43	-23.53	-25.81	-25.38	-30.55
UHRG [dB]	-5.39	-5.39	-5.25	-5.27	-5.28	-5.52	-5.15	-5.38	-5.41	-5.06	-5.04	-5.03	-5.29	-5.34	-5.23	-5.11	-4.89	-5.31	-5.70	-5.58
UHRG/TRG [%]	45.7	45.7	45.5	45.7	45.6	45.7	45.4	45.3	45.2	45.4	45.3	45.3	45.8	45.5	45.2	45.3	44.9	44.7	44.4	43.9
H-Plane	-0.45	-0.45	-0.26	-0.36	-0.33	-0.63	-0.22	-0.39	-0.51	-0.22	-0.12	-0.14	-0.47	-0.48	-0.41	-0.27	0.00	-0.41	-0.82	-0.65
E1-Plane, AVG [dB]	-3.50	-3.50	-3.31	-3.38	-3.38	-3.70	-3.37	-3.51	-3.57	-3.26	-3.25	-3.14	-3.42	-3.56	-3.39	-3.23	-3.00	-3.26	-3.81	-3.59
E2-Plane, AVG [dB]	-3.41	-3.41	-3.27	-3.29	-3.24	-3.57	-3.09	-3.47	-3.45	-3.07	-2.98	-3.00	-3.32	-3.37	-3.25	-3.14	-2.81	-3.42	-3.72	-3.53
Peak Gain [dB]	1.25	1.25	1.62	1.35	1.45	1.11	1.61	1.12	1.12	1.70	1.65	1.69	1.35	1.29	1.37	1.40	1.72	1.00	0.81	0.90
Directivity [dB]	3.24	3.24	3.45	3.22	3.31	3.23	3.33	3.07	3.08	3.34	3.26	3.28	3.25	3.21	3.15	3.06	3.13	2.81	2.99	2.91
Minimum Gain [dB]	-18.00	-18.00	-18.61	-17.93	-18.12	-17.78	-18.24	-18.19	-17.35	-16.03	-14.70	-14.00	-14.97	-13.62	-14.14	-12.70	-11.98	-11.99	-13.73	-13.40
Test Condition	FS																			
Antenna Type																				

Average Efficiency -1.62 dB 68.80 %

NGUNIN

2023.11.10	
RA-N2208-0	02

APPROVAL SHEET

MODEL: T206 Antenna layout

Review	Consent	Approval

Messrs. OHSUNG ELECTRONICS Co., Ltd



RadiNa Co. ,Ltd TEL:+82-2-463-0373 FAX:+82-2-463-0374



REV.

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GRO822023WF81

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MODEL NAME

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1. Revision History

NO.	Before	After	Reason	Date
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				



2. Product Information

2.1 General Features

PART NUMBER	GradiANT (AT206-RADINA)
ANTENNA TYPE	PCB Pattern Antenna
APPLICATIONS	Wi-Fi & BLE

2.2 Electrical Specifications

Frequency Range1 (TX)		2400MHz~2	2485MHz			
Frequency Range1 (RX)		2400MHz~2485MHz				
IMPEDAN	ICE	50 Ω				
	τV	2400MHz	2485MHz			
VSWD	IA	3↓	3↓			
V.S.W.K	DV	2400MHz	2485MHz			
	КЛ	3↓	3↓			
Average	Gain	-1.62 dBi				
Peak Ga	ain	1.72 dBi				
RADIATION PATTERN		Omni-directional				
POLARIZATION		Linear				
Measuren	nent	RADINA. C	o., LTD			

RADINA. Co., LTD / CONFIDENTIAL

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_	PRODUCT A	PPROVAL SHEET		GRO822023	3WF81	
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3. Pattern Specifications



4. Matching Network

Capacitor value can be changed depending on different situation





5. Electrical Characterristics



5.1 VSWR

5.2 SMITH CHART



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<u>adi.Na</u>	MODEL NAME	T206	REV.	1.0	Page	7 / 10	







6. Passive Measurement

	1	2	3	4	5	6	7	8	9	10
Frequency [MHz]	2400	2405	2410	2415	2420	2425	2430	2435	2440	2445
Efficiency [dB]	-1.99	-1.99	-1.84	-1.87	-1.86	-2.12	-1.72	-1.95	-1.97	-1.63
Efficiency [%]	63.2	63.2	65.5	65.1	65.1	61.3	67.3	63.9	63.6	68.7
TRG _θ [dB]	-2.35	-2.35	-2.20	-2.24	-2.24	-2.53	-2.11	-2.35	-2.38	-2.05
Gain _{@ Peak} [dB]	1.08	1.08	1.44	1.17	1.30	0.91	1.44	0.97	0.95	1.51
Gain _{e Min} [dB]	-25.71	-25.71	-23.70	-25.24	-22.23	-23.28	-23.14	-22.94	-21.09	-21.13
TRG _p [dB]	-13.00	-13.00	-12.77	-12.68	-12.63	-12.64	-12.67	-12.51	-12.35	-12.00
Gain	-6.56	-6.56	-6.15	-6.09	-6.05	-6.08	-6.02	-5.84	-5.80	-5.51
Gain _{ø Min} [dB]	-30.79	-30.79	-35.55	-38.51	-37.26	-34.38	-34.52	-30.93	-30.72	-27.68
UHRG [dB]	-5.39	-5.39	-5.25	-5.27	-5.28	-5.52	-5.15	-5.38	-5.41	-5.06
UHRG/TRG [%]	45.7	45.7	45.5	45.7	45.6	45.7	45.4	45.3	45.2	45.4
H-Plane	-0.45	-0.45	-0.26	-0.36	-0.33	-0.63	-0.22	-0.39	-0.51	-0.22
E1-Plane, AVG [dB]	-3.50	-3.50	-3.31	-3.38	-3.38	-3.70	-3.37	-3.51	-3.57	-3.26
E2-Plane, AVG [dB]	-3.41	-3.41	-3.27	-3.29	-3.24	-3.57	-3.09	-3.47	-3.45	-3.07
Peak Gain [dB]	1.25	1.25	1.62	1.35	1.45	1.11	1.61	1.12	1.12	1.70
Directivity [dB]	3.24	3.24	3.45	3.22	3.31	3.23	3.33	3.07	3.08	3.34
Minimum Gain [dB]	-18.00	-18.00	-18.61	-17.93	-18.12	-17.78	-18.24	-18.19	-17.35	-16.03
	11	12	13	14	15	16	17	18	19	20
Frequency (MHz)	11 2450	12 2455	13 2460	14 2465	15 2470	16 2475	17 2480	18 2485	19 2490	20 2497
Frequency [MHz] Efficiency (dB)	11 2450 -1.61	12 2455 -1.59	13 2460 -1.90	14 2465 -1.91	15 2470 -1.79	16 2475 -1.67	17 2480 -1.41	18 2485 -1.81	19 2490 -2.18	20 2497 -2.01
Frequency [MHz] Efficiency [dB] Efficiency [%]	11 2450 -1.61 69.1	12 2455 -1.59 69.3	13 2460 -1.90 64.6	14 2465 -1.91 64.3	15 2470 -1.79 66.3	16 2475 -1.67 68.1	17 2480 -1.41 72.2	18 2485 -1.81 65.9	19 2490 -2.18 60.6	20 2497 -2.01 63.0
Frequency [MHz] Efficiency [dB] Efficiency [%]	11 2450 -1.61 69.1	12 2455 -1.59 69.3	13 2460 -1.90 64.6	14 2465 -1.91 64.3	15 2470 -1.79 66.3	16 2475 -1.67 68.1	17 2480 -1.41 72.2	18 2485 -1.81 65.9	19 2490 -2.18 60.6	20 2497 -2.01 63.0
Frequency [MHz] Efficiency [dB] Efficiency [%] TRG _@ [dB]	11 2450 -1.61 69.1 -2.03	12 2455 -1.59 69.3 -2.02	13 2460 -1.90 64.6 -2.33	14 2465 -1.91 64.3 -2.37	15 2470 -1.79 66.3 -2.23	16 2475 -1.67 68.1 -2.12	17 2480 -1.41 72.2 -1.86	18 2485 -1.81 65.9 -2.28	19 2490 -2.18 60.6 -2.64	20 2497 -2.01 63.0 -2.47
Frequency [MHz] Efficiency [dB] Efficiency [%] TRG ₀ [dB] Gain _{0 Peak} [dB]	11 2450 -1.61 69.1 -2.03 1.52	12 2455 -1.59 69.3 -2.02 1.56	13 2460 -1.90 64.6 -2.33 1.27	14 2465 -1.91 64.3 -2.37 1.16	15 2470 -1.79 66.3 -2.23 1.23	16 2475 -1.67 68.1 -2.12 1.23	17 2480 -1.41 72.2 -1.86 1.62	18 2485 -1.81 65.9 -2.28 0.91	19 2490 -2.18 60.6 -2.64 0.74	20 2497 -2.01 63.0 -2.47 0.84
Frequency [MHz] Efficiency [dB] Efficiency [%] TRG ₀ [dB] Gain _{0 Min} [dB]	11 2450 -1.61 69.1 -2.03 1.52 -20.88	12 2455 -1.59 69.3 -2.02 1.56 -17.54	13 2460 -1.90 64.6 -2.33 1.27 -19.73	14 2465 -1.91 64.3 -2.37 1.16 -20.14	15 2470 -1.79 66.3 -2.23 1.23 -18.00	16 2475 -1.67 68.1 -2.12 1.23 -16.32	17 2480 -1.41 72.2 -1.86 1.62 -15.20	18 2485 -1.81 65.9 -2.28 0.91 -16.25	19 2490 -2.18 60.6 -2.64 0.74 -17.14	20 2497 -2.01 63.0 -2.47 0.84 -19.14
Frequency [MHz] Efficiency [dB] Efficiency [%] TRG ₀ [dB] Gain _{0 Peak} [dB] Gain _{0 Min} [dB] TRG ₀ [dB]	11 2450 -1.61 69.1 -2.03 1.52 -20.88 -11.96	12 2455 -1.59 69.3 -2.02 1.56 -17.54 -11.90	13 2460 -1.90 64.6 -2.33 1.27 -19.73 -19.73 -12.07	14 2465 -1.91 64.3 -2.37 1.16 -20.14 -11.94	15 2470 -1.79 66.3 -2.23 1.23 -18.00 -11.96	16 2475 -1.67 68.1 -2.12 1.23 -16.32 -11.73	17 2480 -1.41 72.2 -1.86 1.62 -15.20 -11.51	18 2485 -1.81 65.9 -2.28 0.91 -16.25 -11.73	19 2490 -2.18 60.6 -2.64 0.74 -17.14 -12.07	20 2497 -2.01 63.0 -2.47 0.84 -19.14 -12.00
Frequency [MHz] Efficiency [dB] Efficiency [%] TRG ₀ [dB] Gain _{0 Peak} [dB] Gain _{0 Min} [dB] TRG ₀ [dB] Gain _{0 Peak} [dB]	11 2450 -1.61 69.1 -2.03 1.52 -20.88 -11.96 -5.32	12 2455 -1.59 69.3 -2.02 1.56 -17.54 -11.90 -5.28	13 2460 -1.90 64.6 -2.33 1.27 -19.73 -19.73 -12.07 -4.87	14 2465 -1.91 64.3 -2.37 1.16 -20.14 -11.94 -5.59	15 2470 -1.79 66.3 -2.23 1.23 -18.00 -11.96 -5.23	16 2475 -1.67 68.1 -2.12 1.23 -16.32 -11.73 -5.04	17 2480 -1.41 72.2 -1.86 1.62 -15.20 -11.51 -4.48	18 2485 -1.81 65.9 -2.28 0.91 -16.25 -11.73 -5.08	19 2490 -2.18 60.6 -2.64 0.74 -17.14 -12.07 -5.36	20 2497 -2.01 63.0 -2.47 0.84 -19.14 -12.00 -4.98
Frequency [MHz] Efficiency [dB] Efficiency [%] TRG _θ [dB] Gain _{θ Peak} [dB] Gain _{θ Min} [dB] TRG _φ [dB] Gain _{φ Nin} [dB]	11 2450 -1.61 69.1 -2.03 1.52 -20.88 -11.96 -5.32 -27.56	12 2455 -1.59 69.3 -2.02 1.56 -17.54 -11.90 -5.28 -26.85	13 2460 -1.90 64.6 -2.33 1.27 -19.73 -12.07 -4.87 -26.38	14 2465 -1.91 64.3 -2.37 1.16 -20.14 -11.94 -5.59 -30.12	15 2470 -1.79 66.3 -2.23 1.23 -18.00 -11.96 -5.23 -27.82	16 2475 -1.67 68.1 -2.12 1.23 -16.32 -11.73 -5.04 -25.43	17 2480 -1.41 72.2 -1.86 1.62 -15.20 -11.51 -4.48 -23.53	18 2485 -1.81 65.9 -2.28 0.91 -16.25 -11.73 -5.08 -25.81	19 2490 -2.18 60.6 -2.64 0.74 -17.14 -12.07 -5.36 -25.38	20 2497 -2.01 63.0 -2.47 0.84 -19.14 -12.00 -4.98 -30.55
Frequency [MHz] Efficiency [dB] Efficiency [%] TRG _θ [dB] Gain _{θ Peak} [dB] Gain _{θ Min} [dB] TRG _φ [dB] Gain _{φ Min} [dB]	11 2450 -1.61 69.1 -2.03 1.52 -20.88 -11.96 -5.32 -27.56 -5.04	12 2455 -1.59 69.3 -2.02 1.56 -17.54 -11.90 -5.28 -26.85 -5.03	13 2460 -1.90 64.6 -2.33 1.27 -19.73 -12.07 -4.87 -26.38 -5.29	14 2465 -1.91 64.3 -2.37 1.16 -20.14 -11.94 -5.59 -30.12 -5.34	15 2470 -1.79 66.3 -2.23 1.23 -123 -18.00 -11.96 -5.23 -27.82 -5.23	16 2475 -1.67 68.1 -2.12 1.23 -16.32 -11.73 -5.04 -25.43 -5.11	17 2480 -1.41 72.2 -1.86 1.62 -15.20 -11.51 -4.48 -23.53 -4.89	18 2485 -1.81 65.9 -2.28 0.91 -16.25 -11.73 -5.08 -25.81 -5.31	19 2490 -2.18 60.6 -2.64 0.74 -17.14 -12.07 -5.36 -25.38 -5.70	20 2497 -2.01 63.0 -2.47 0.84 -19.14 -12.00 -4.98 -30.55 -5.58
Frequency [MHz] Efficiency [dB] Efficiency [%] TRG _θ [dB] Gain _{θ Peak} [dB] Gain _{θ Min} [dB] TRG _φ [dB] Gain _{θ Min} [dB] Gain _{φ Min} [dB] Gain _{φ Min} [dB] Gain _{φ Min} [dB] UHRG [dB] UHRG/TRG [%]	11 2450 -1.61 69.1 -2.03 1.52 -20.88 -11.96 -5.32 -27.56 -5.04 45.3	12 2455 -1.59 69.3 -2.02 1.56 -17.54 -17.54 -11.90 -5.28 -26.85 -26.85 -5.03 45.3	13 2460 -1.90 64.6 -2.33 1.27 -19.73 -19.73 -12.07 -4.87 -26.38 -5.29 45.8	14 2465 -1.91 64.3 -2.37 1.16 -20.14 -11.94 -5.59 -30.12 -5.34 45.5	15 2470 -1.79 66.3 -2.23 1.23 -18.00 -11.96 -5.23 -27.82 -5.23 45.2	16 2475 -1.67 68.1 -2.12 1.23 -16.32 -11.73 -5.04 -25.43 -5.11 45.3	17 2480 -1.41 72.2 -1.86 1.62 -15.20 -15.20 -11.51 -4.48 -23.53 -4.89 44.9	18 2485 -1.81 65.9 -2.28 0.91 -16.25 -11.73 -5.08 -25.81 -5.31 44.7	19 2490 -2.18 60.6 -2.64 0.74 -17.14 -12.07 -5.36 -25.38 -5.70 44.4	20 2497 -2.01 63.0 -2.47 0.84 -19.14 -19.14 -12.00 -4.98 -30.55 -5.58 43.9
Frequency [MHz] Efficiency [dB] Efficiency [%] TRG _θ [dB] Gain _{θ Peak} [dB] Gain _{θ Min} [dB] TRG _φ [dB] Gain _{φ Peak} [dB] Gain _{φ Min} [dB] UHRG [dB] UHRG [dB] UHRG [K]	11 2450 -1.61 69.1 -2.03 1.52 -20.88 -11.96 -5.32 -27.56 -5.04 45.3 -0.12	12 2455 -1.59 69.3 -2.02 1.56 -17.54 -11.90 -5.28 -26.85 -5.03 45.3 -0.14	13 2460 -1.90 64.6 -2.33 1.27 -19.73 -12.07 -4.87 -26.38 -5.29 45.8 -5.29	14 2465 -1.91 64.3 -2.37 1.16 -20.14 -11.94 -5.59 -30.12 -5.34 45.5 -0.48	15 2470 -1.79 66.3 -2.23 1.23 -18.00 -11.96 -5.23 -27.82 -5.23 45.2 -0.41	16 2475 -1.67 68.1 -2.12 1.23 -16.32 -11.73 -5.04 -25.43 -5.11 45.3 -0.27	17 2480 -1.41 72.2 -1.86 1.62 -15.20 -15.20 -11.51 -4.48 -23.53 -4.89 44.9 0.00	18 2485 -1.81 65.9 -2.28 0.91 -16.25 -11.73 -5.08 -25.81 -5.31 44.7 -0.41	19 2490 -2.18 60.6 -2.64 0.74 -17.14 -12.07 -5.36 -25.38 -5.70 44.4 -0.82	20 2497 -2.01 63.0 -2.47 0.84 -19.14 -12.00 -4.98 -30.55 -5.58 43.9 -0.65
Frequency [MHz] Efficiency [dB] Efficiency [%] TRG _θ [dB] Gain _{θ Peak} [dB] Gain _{θ Min} [dB] TRG _φ [dB] Gain _{φ Min} [dB] Gain _{φ Min} [dB] Gain _{φ Min} [dB] UHRG [dB] UHRG/TRG [%] H-Plane E1-Plane, AVG [dB]	11 2450 -1.61 69.1 -2.03 1.52 -20.88 -11.96 -5.32 -27.56 -5.04 45.3 -0.12 -3.25	12 2455 -1.59 69.3 -2.02 1.56 -17.54 -11.90 -5.28 -26.85 -5.03 45.3 -0.14 -3.14	13 2460 -1.90 64.6 -2.33 1.27 -19.73 -12.07 -4.87 -26.38 -5.29 45.8 -5.29 45.8 -0.47 -3.42	14 2465 -1.91 64.3 -2.37 1.16 -20.14 -11.94 -5.59 -30.12 -5.34 45.5 -0.48 -3.56	15 2470 -1.79 66.3 -2.23 1.23 -18.00 -11.96 -5.23 -27.82 -5.23 45.2 -5.23 45.2 -0.41 -3.39	16 2475 -1.67 68.1 -2.12 1.23 -16.32 -11.73 -5.04 -25.43 -5.11 45.3 -0.27 -3.23	17 2480 -1.41 72.2 -1.86 1.62 -15.20 -11.51 -4.48 -23.53 -4.89 44.9 0.00 -3.00	18 2485 -1.81 65.9 -2.28 0.91 -16.25 -11.73 -5.08 -25.81 -5.31 44.7 -0.41 -3.26	19 2490 -2.18 60.6 -2.64 0.74 -17.14 -12.07 -5.36 -25.38 -5.70 44.4 -0.82 -3.81	20 2497 -2.01 63.0 -2.47 0.84 -19.14 -12.00 -4.98 -30.55 -5.58 43.9 -0.65 -3.59
Frequency [MHz] Efficiency [dB] Efficiency [%] TRG _θ [dB] Gain _{θ Peak} [dB] Gain _{θ Min} [dB] TRG _φ [dB] Gain _{φ Min} [dB] Gain _{φ Min} [dB] UHRG [dB] UHRG/TRG [%] H-Plane E1-Plane, AVG [dB] E2-Plane, AVG [dB]	11 2450 -1.61 69.1 -2.03 1.52 -20.88 -11.96 -5.32 -27.56 -5.04 45.3 -0.12 -3.25 -2.98	12 2455 -1.59 69.3 -2.02 1.56 -17.54 -11.90 -5.28 -26.85 -5.03 45.3 -0.14 -3.14 -3.00	13 2460 -1.90 64.6 -2.33 1.27 -19.73 -12.07 -4.87 -26.38 -5.29 45.8 -5.29 45.8 -0.47 -3.42 -3.32	14 2465 -1.91 64.3 -2.37 1.16 -20.14 -11.94 -5.59 -30.12 -5.34 45.5 -0.48 -3.56 -3.37	15 2470 -1.79 66.3 -2.23 1.23 -18.00 -11.96 -5.23 -27.82 -5.23 45.2 -5.23 45.2 -0.41 -3.39 -3.25	16 2475 -1.67 68.1 -2.12 1.23 -16.32 -11.73 -5.04 -25.43 -5.11 45.3 -0.27 -3.23 -3.14	17 2480 -1.41 72.2 -1.86 1.62 -15.20 -11.51 -4.48 -23.53 -4.89 44.9 0.00 -3.00 -2.81	18 2485 -1.81 65.9 -2.28 0.91 -16.25 -11.73 -5.08 -25.81 -5.31 44.7 -0.41 -3.26 -3.42	19 2490 -2.18 60.6 -2.64 0.74 -17.14 -12.07 -5.36 -25.38 -5.70 44.4 -0.82 -3.81 -3.72	20 2497 -2.01 63.0 -2.47 0.84 -19.14 -12.00 -4.98 -30.55 -5.58 43.9 -0.65 -3.59 -3.53
Frequency [MHz] Efficiency [dB] Efficiency [%] TRG _θ [dB] Gain _{θ Peak} [dB] Gain _{θ Min} [dB] TRG _φ [dB] Gain _{φ Min} [dB] Gain _{φ Min} [dB] UHRG [dB] UHRG [dB] UHRG/TRG [%] H-Plane E1-Plane, AVG [dB] E2-Plane, AVG [dB] Peak Gain [dB]	11 2450 -1.61 69.1 -2.03 1.52 -20.88 -11.96 -5.32 -27.56 -5.04 45.3 -0.12 -3.25 -2.98 1.65	12 2455 -1.59 69.3 -2.02 1.56 -17.54 -11.90 -5.28 -26.85 -5.03 45.3 -0.14 -3.14 -3.00 1.69	13 2460 -1.90 64.6 -2.33 1.27 -19.73 -12.07 -4.87 -26.38 -5.29 45.8 -5.29 45.8 -0.47 -3.42 -3.32 1.35	14 2465 -1.91 64.3 -2.37 1.16 -20.14 -5.59 -30.12 -5.34 45.5 -0.48 -3.56 -3.37 1.29	15 2470 -1.79 66.3 -2.23 1.23 -18.00 -11.96 -5.23 -27.82 -5.23 45.2 -5.23 45.2 -0.41 -3.39 -3.25 1.37	16 2475 -1.67 68.1 -2.12 1.23 -16.32 -11.73 -5.04 -25.43 -5.11 45.3 -5.11 45.3 -0.27 -3.23 -3.14 1.40	17 2480 -1.41 72.2 -1.86 1.62 -15.20 -11.51 -4.48 -23.53 -4.89 44.9 0.00 -3.00 -3.00 -2.81 1.72	18 2485 -1.81 65.9 -2.28 0.91 -16.25 -11.73 -5.08 -25.81 -5.31 44.7 -0.41 -3.26 -3.42 1.00	19 2490 -2.18 60.6 -2.64 0.74 -17.14 -12.07 -5.36 -25.38 -5.70 44.4 -0.82 -3.81 -3.72 0.81	20 2497 -2.01 63.0 -2.47 0.84 -19.14 -12.00 -4.98 -30.55 -5.58 43.9 -0.65 -3.59 -3.53 0.90
Frequency [MHz] Efficiency [dB] Efficiency [%] TRG ₀ [dB] Gain _{0 Peak} [dB] Gain _{0 Min} [dB] TRG ₀ [dB] Gain _{0 Min} [dB] UHRG [dB] UHRG [dB] UHRG [dB] UHRG [dB] UHRG [dB] E1-Plane E1-Plane, AVG [dB] E2-Plane, AVG [dB] Peak Gain [dB] Directivity [dB]	11 2450 -1.61 69.1 -2.03 1.52 -20.88 -11.96 -5.32 -27.56 -5.04 45.3 -0.12 -3.25 -2.98 1.65 3.26	12 2455 -1.59 69.3 -2.02 1.56 -17.54 -17.54 -11.90 -5.28 -26.85 -5.03 45.3 -0.14 -3.14 -3.00 1.69 3.28	13 2460 -1.90 64.6 -2.33 1.27 -19.73 -19.73 -12.07 -4.87 -26.38 -5.29 45.8 -5.29 45.8 -5.29 45.8 -3.42 -3.32 1.35 3.25	14 2465 -1.91 64.3 -2.37 1.16 -20.14 -11.94 -5.59 -30.12 -5.34 45.5 -0.48 -3.56 -3.37 1.29 3.21	15 2470 -1.79 66.3 -2.23 1.23 -18.00 -11.96 -5.23 -27.82 -5.23 45.2 -5.23 45.2 -0.41 -3.39 -3.25 1.37 3.15	16 2475 -1.67 68.1 -2.12 1.23 -16.32 -11.73 -5.04 -25.43 -5.11 45.3 -5.11 45.3 -0.27 -3.23 -3.14 1.40 3.06	17 2480 -1.41 72.2 -1.86 1.62 -15.20 -15.20 -11.51 -4.48 -23.53 -4.89 44.9 0.00 -3.00 -2.81 1.72 3.13	18 2485 -1.81 65.9 -2.28 0.91 -16.25 -11.73 -5.08 -25.81 -5.31 44.7 -0.41 -3.26 -3.42 1.00 2.81	19 2490 -2.18 60.6 -2.64 0.74 -17.14 -12.07 -5.36 -25.38 -5.70 44.4 -0.82 -3.81 -3.72 0.81 2.99	20 2497 -2.01 63.0 -2.47 0.84 -19.14 -12.00 -4.98 -30.55 -5.58 43.9 -0.65 -3.59 -3.53 0.90 2.91

Average Efficiency	-1.62dBi	68.80%
Peak Gain	1.7	2dBi



T206

7.Measurement Process

MODEL NAME

7.1 SWR / Return loss

	Set Condition
Network Analyzer	Agilent 8753ES
Cable	Semi-ridid (40mm, 60mm)
Test condition	

7.2 Gain

Antenna gain is measured in the anechoic chamber of this company.



RadiNa	PRODUCT APPROVAL SHEET		GRO822023WF81			
	Model Name	T206	REV.	1.0	Page	10 / 10

7.3 Gain test block diagram

