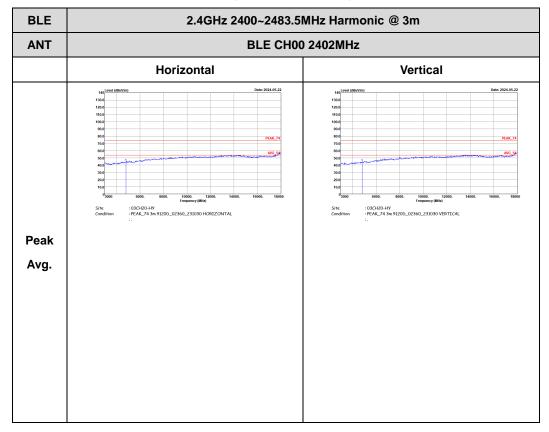
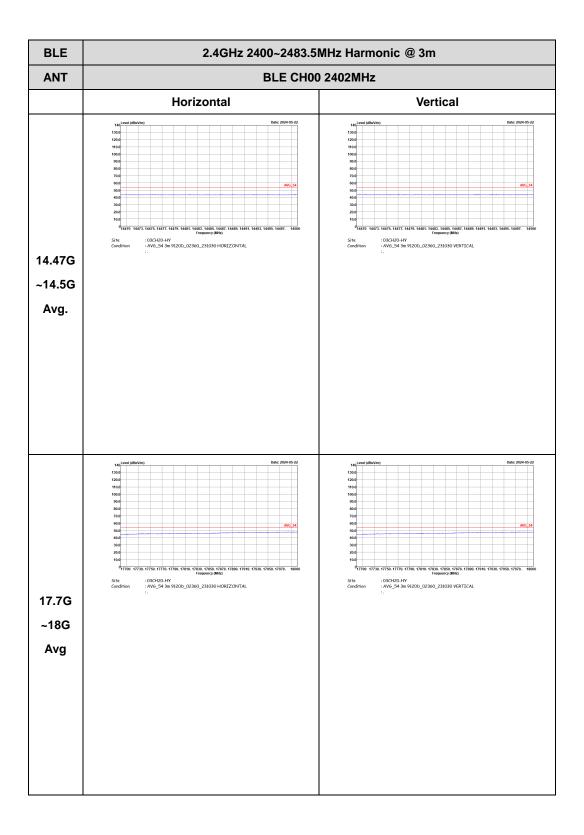
2.4GHz 2400~2483.5MHz

Report No.: FR470109B

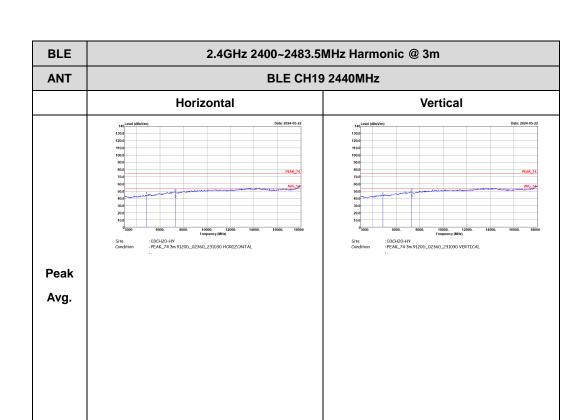
BLE (Harmonic @ 3m)



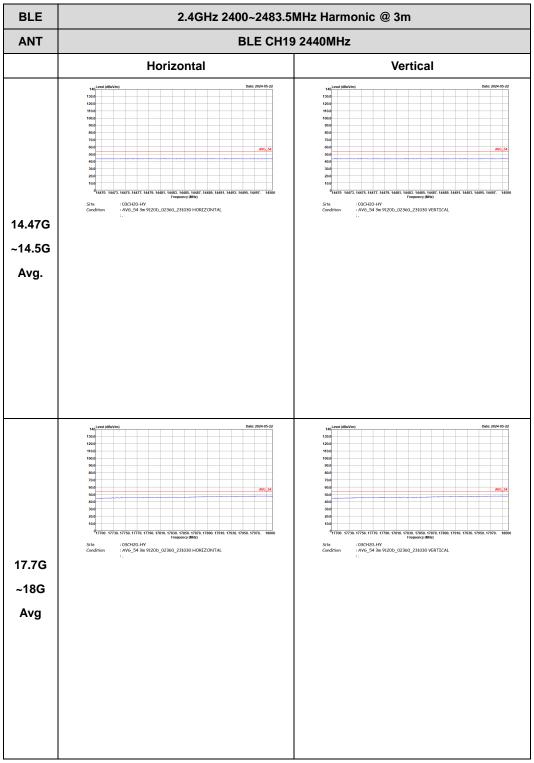
TEL: 886-3-327-0868 Page Number : D24 of D61



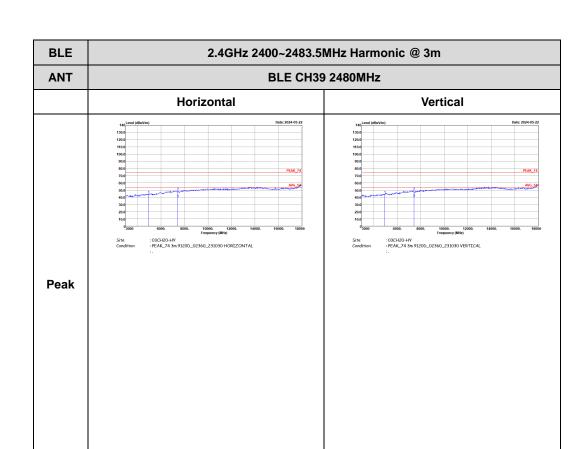
TEL: 886-3-327-0868 Page Number : D25 of D61



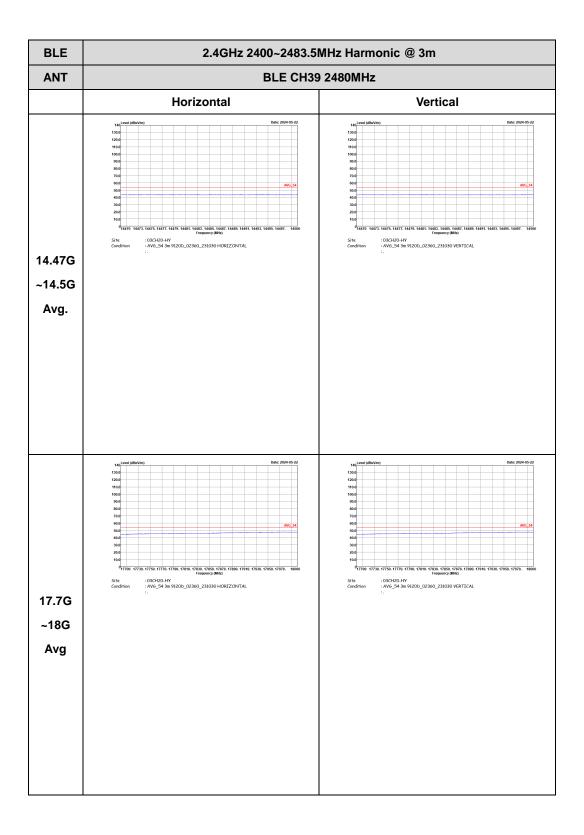
TEL: 886-3-327-0868 Page Number : D26 of D61



TEL: 886-3-327-0868 Page Number : D27 of D61



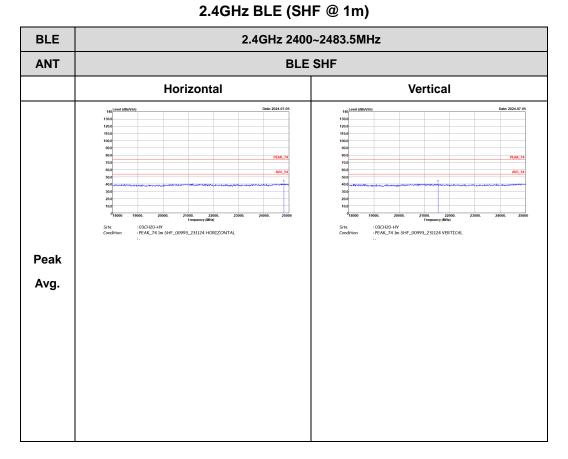
TEL: 886-3-327-0868 Page Number : D28 of D61



TEL: 886-3-327-0868 Page Number : D29 of D61

Emission above 18GHz

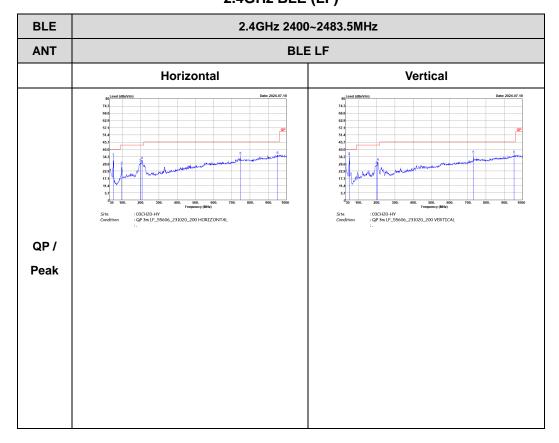
Report No.: FR470109B



TEL: 886-3-327-0868 Page Number : D30 of D61

Emission below 1GHz 2.4GHz BLE (LF)

Report No.: FR470109B



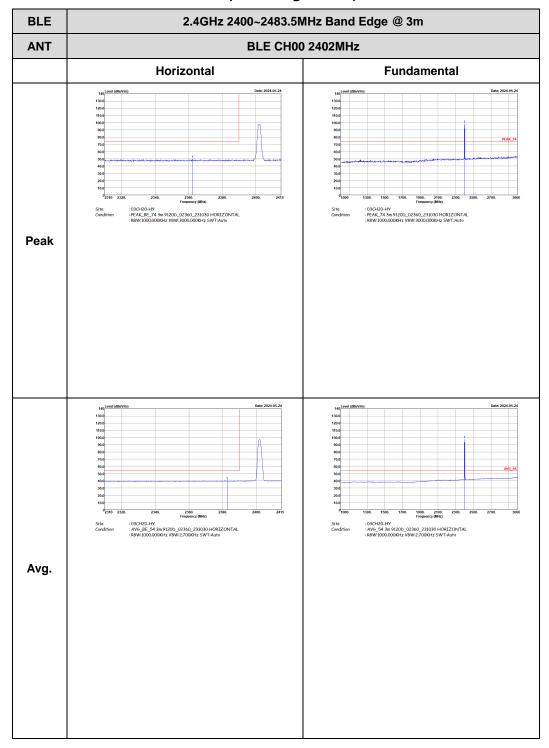
TEL: 886-3-327-0868 Page Number : D31 of D61

<Ant. 2_1Mbps>

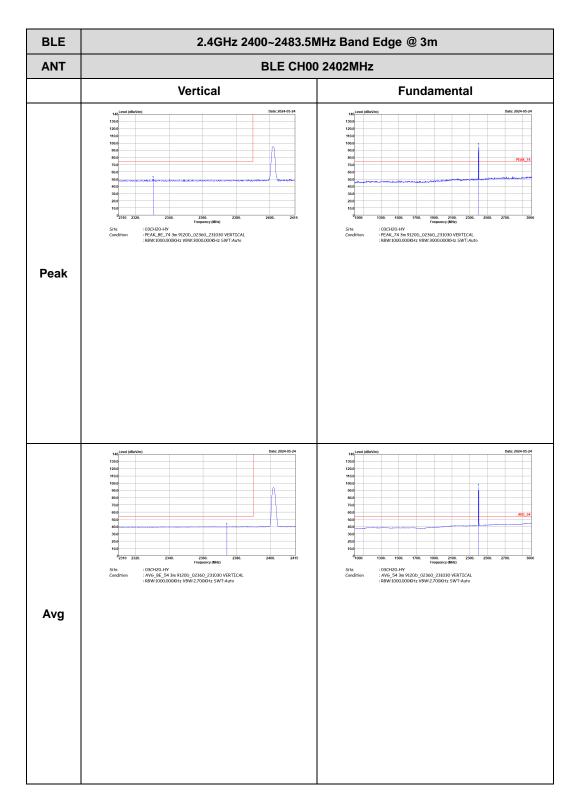
2.4GHz 2400~2483.5MHz

Report No.: FR470109B

BLE (Band Edge @ 3m)



TEL: 886-3-327-0868 Page Number : D32 of D61



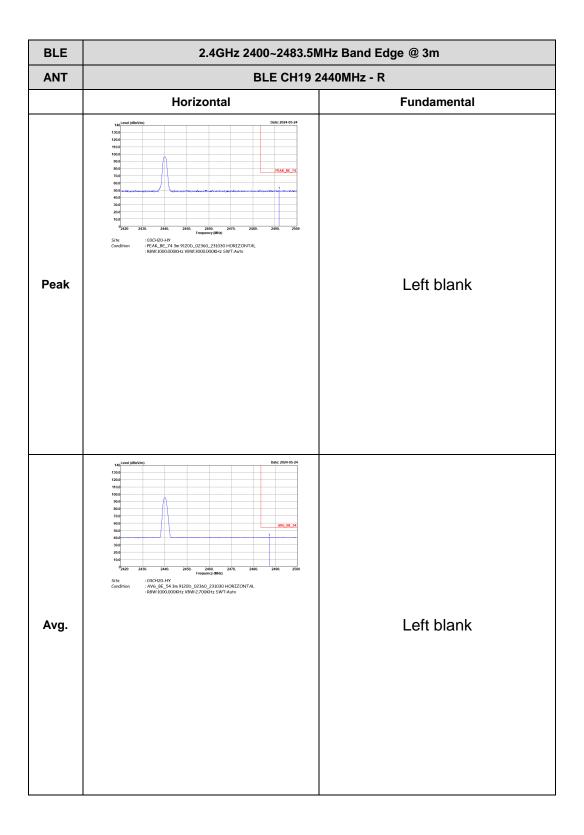
TEL: 886-3-327-0868 Page Number : D33 of D61



BLE 2.4GHz 2400~2483.5MHz Band Edge @ 3m **ANT** BLE CH19 2440MHz - L Horizontal **Fundamental** : 03CH20-HY : PEAK_BE_74 3m 9120b_02360_231030 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Peak : 03CH20-HY : AV6_54 3m 9120b_02360_231030 HORIZONTAL : RBW:1000.000KHz VBW:2.700KHz SWT:Auto : 03CH20-HY : AV6_BE_54 3m 9120D_02360_231030 HORIZONTAL : RBW:1000.000KHz VBW:2.700KHz SWT:Auto Avg.

Report No.: FR470109B

TEL: 886-3-327-0868 Page Number : D34 of D61



TEL: 886-3-327-0868 Page Number : D35 of D61

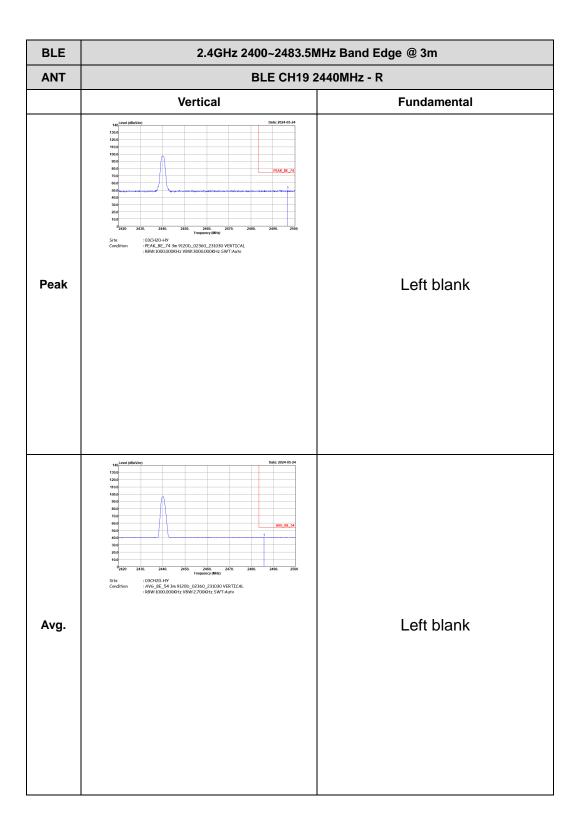
BLE 2.4GHz 2400~2483.5MHz Band Edge @ 3m ANT BLE CH19 2440MHz - L Vertical **Fundamental** : 03CH20-HY : PEAK_BE_74 3m 9120b_02360_231030 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto : 03CH20-HY : PEAK_74 3m 9120b_02360_231030 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Peak : 03CH20-HV : AVG_54 3m 9120D_02360_231030 VERTICAL : RBW:1000.000KHz VBW:2.700KHz SWT:Auto : 03CH20-HY : AV6_BE_54 3m 9120b_02360_231030 VERTICAL : RBW:1000.000KHz VBW:2.700KHz SWT:Auto

Report No.: FR470109B

Page Number

: D36 of D61

TEL: 886-3-327-0868 FAX: 886-3-327-0855 CC RADIO TEST REPORT Report No. : FR470109B



TEL: 886-3-327-0868 Page Number : D37 of D61

BLE 2.4GHz 2400~2483.5MHz Band Edge @ 3m ANT **BLE CH39 2480MHz** Horizontal **Fundamental** : 03CH20-HY : PEAK_74 3m 9120D_02360_231030 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Peak : 03CH20-HY : AV6_BE_54 3m 9120D_02360_231030 HORIZONTAL : RBW:1000.000KHz VBW:2.700KHz 5WT:Auto : 03CH20-HY : AV6_54 3m 9120b_02360_231030 HORIZONTAL : RBW:1000.000KHz VBW:2/700KHz SWT:Auto Avg.

Report No.: FR470109B

TEL: 886-3-327-0868 Page Number : D38 of D61

BLE 2.4GHz 2400~2483.5MHz Band Edge @ 3m ANT **BLE CH39 2480MHz** Vertical **Fundamental** : 03CH20-HY : PEAK_BE_74 3m 9120b_02360_231030 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz 5WT:Auto : 03CH20-HY : PEAK_74 3m 9120b_02360_231030 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Peak : 03CH20-HY : AV6_BE_54 3m 9120b_02360_231030 VERTICAL : RBW:1000.000KHz VBW:2.700KHz SWT:Auto : 03CH20-HV : AV6_54 3m 9120D_02360_231030 VERTICAL : RBW:1000.000KHz VBW:2.700KHz SWT:Auto Avg.

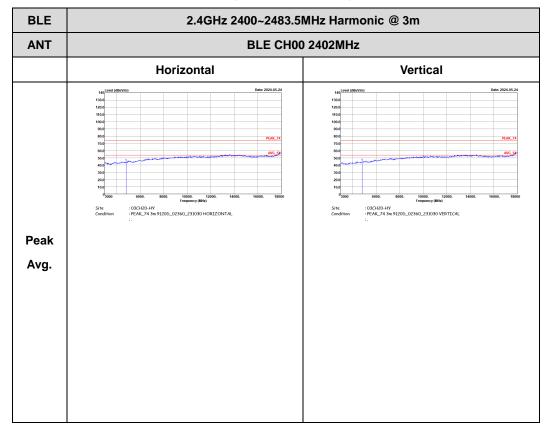
Report No.: FR470109B

TEL: 886-3-327-0868 Page Number : D39 of D61

2.4GHz 2400~2483.5MHz

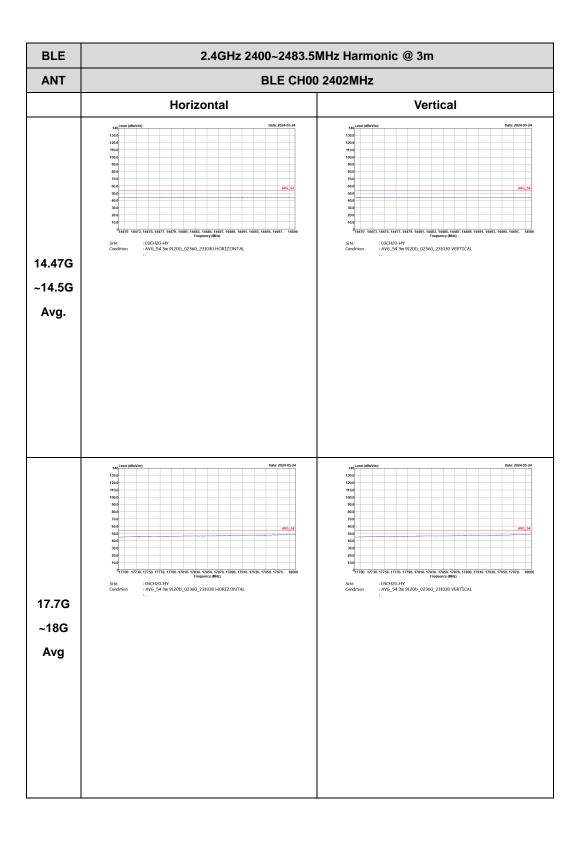
Report No.: FR470109B

BLE (Harmonic @ 3m)

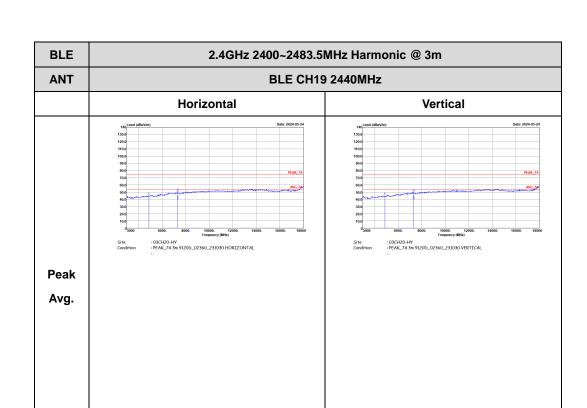


TEL: 886-3-327-0868 Page Number : D40 of D61

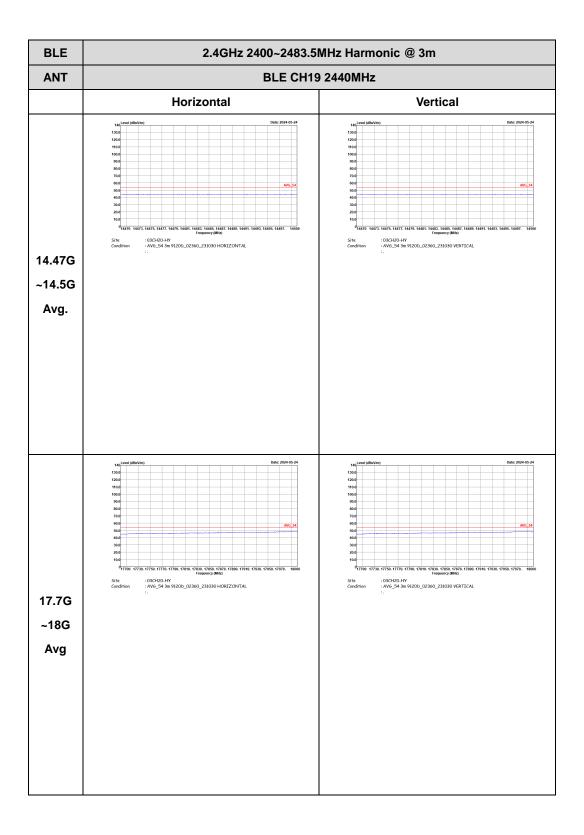




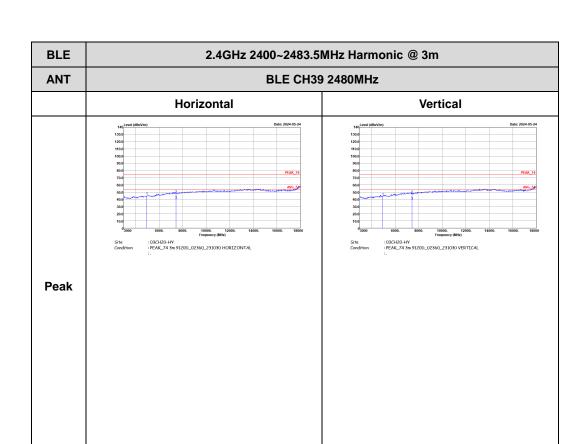
TEL: 886-3-327-0868 Page Number : D41 of D61



TEL: 886-3-327-0868 Page Number : D42 of D61

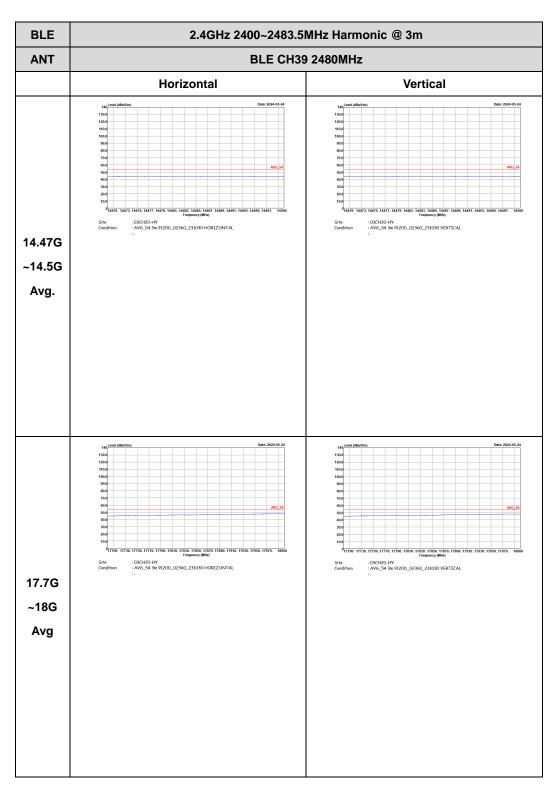


TEL: 886-3-327-0868 Page Number : D43 of D61



TEL: 886-3-327-0868 Page Number : D44 of D61

FCC RADIO TEST REPORT



Report No.: FR470109B

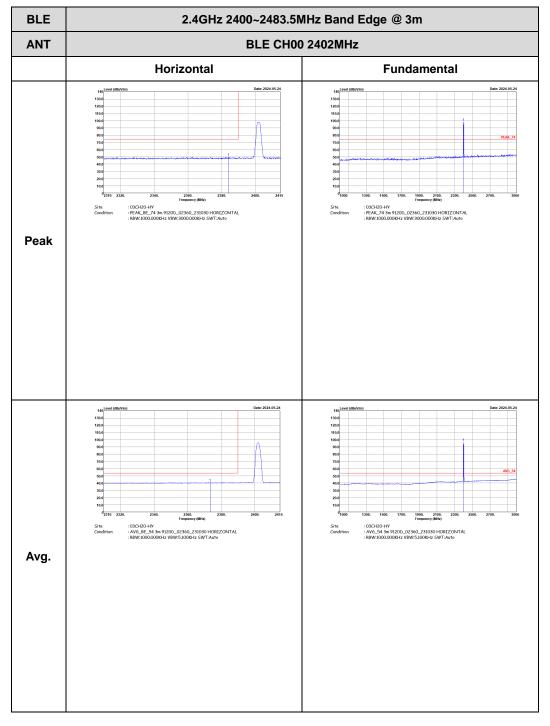
TEL: 886-3-327-0868 Page Number : D45 of D61

<Ant. 2_2Mbps>

2.4GHz 2400~2483.5MHz

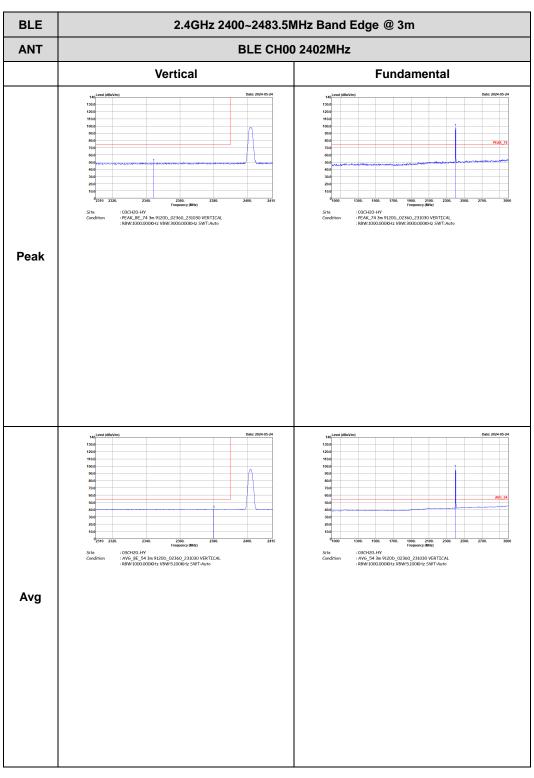
Report No.: FR470109B

BLE (Band Edge @ 3m)



TEL: 886-3-327-0868 Page Number : D46 of D61





TEL: 886-3-327-0868 Page Number : D47 of D61



BLE 2.4GHz 2400~2483.5MHz Band Edge @ 3m **ANT** BLE CH19 2440MHz - L Horizontal **Fundamental** Peak : 03CH20-HY : AV6_54 3m 9120b_02360_231030 HORIZONTAL : RBW:1000.000KHz VBW:5.100KHz SWT:Auto : 03CH20-HY : AV6_BE_54 3m 9120D_02360_231030 HORIZONTAL : RBW:1000.000KHz VBW:5.100KHz SWT:Auto Avg.

Report No.: FR470109B

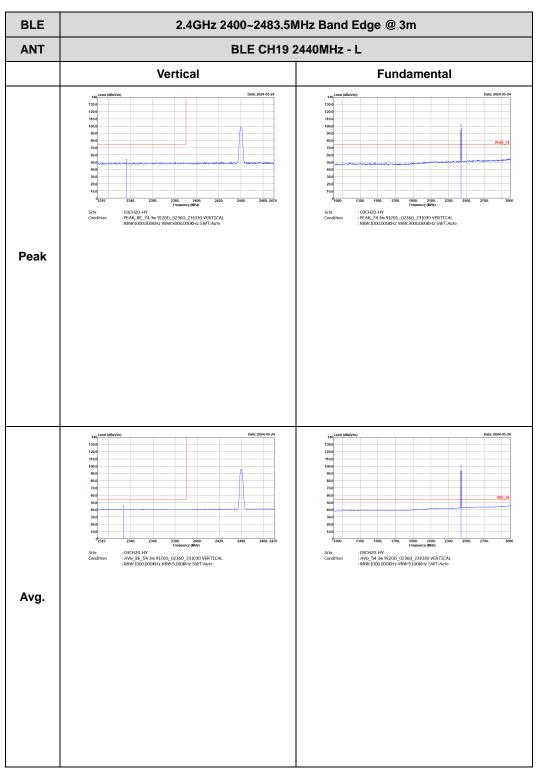
TEL: 886-3-327-0868 Page Number : D48 of D61

BLE 2.4GHz 2400~2483.5MHz Band Edge @ 3m ANT BLE CH19 2440MHz - R Horizontal **Fundamental** : 03CH20-HY : PEAK_BE_74 3m 9120b_02360_231030 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Peak Left blank : 03CH20-HY : AVG_BE_54 3m 9120D_02360_231030 HORIZONTAL : RBW:1000.000KHz VBW:5.100KHz 5WT:Auto Left blank Avg.

Report No.: FR470109B

TEL: 886-3-327-0868 Page Number : D49 of D61



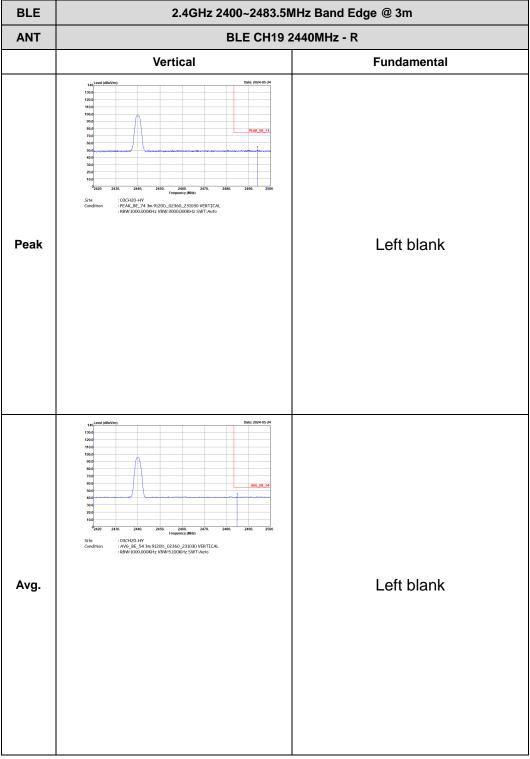


TEL: 886-3-327-0868 Page Number : D50 of D61

DIO TEST REPORT

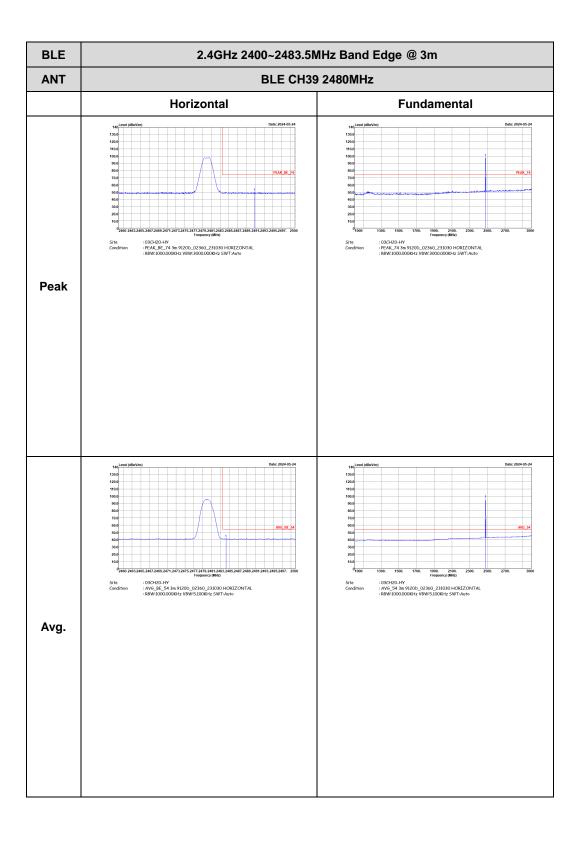
Report No.: FR470109B

2.4GHz 2400~2483.5MHz Band Edge @ 3m



TEL: 886-3-327-0868 Page Number : D51 of D61





TEL: 886-3-327-0868 Page Number : D52 of D61

BLE 2.4GHz 2400~2483.5MHz Band Edge @ 3m ANT **BLE CH39 2480MHz** Vertical **Fundamental** : 03CH20-HY : PEAK_BE_74 3m 9120b_02360_231030 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto : 03CH20-HY : PEAK_74 3m 9120b_02360_231030 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Peak : 03CH20-HY : AV6_BE_54 3m 9120b_02360_231030 VERTICAL : RBW:1000.000KHz VBW:5.100KHz SWT:Auto : 03CH20-HV : AVG_54 3m 9120D_02360_231030 VERTICAL : RBW:1000.000KHz VBW:5.100KHz SWT-Auto Avg.

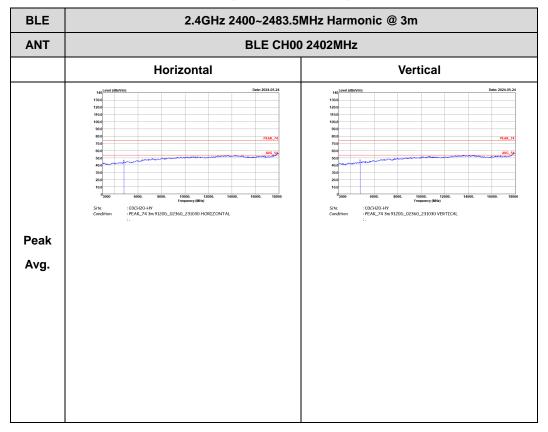
Report No.: FR470109B

TEL: 886-3-327-0868 Page Number : D53 of D61

2.4GHz 2400~2483.5MHz

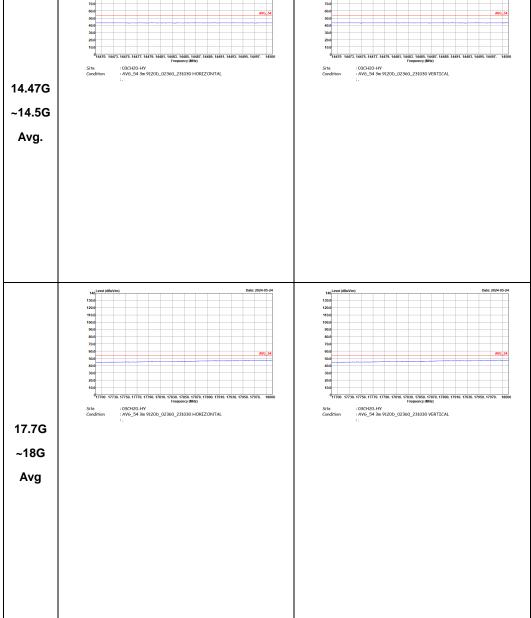
Report No.: FR470109B

BLE (Harmonic @ 3m)

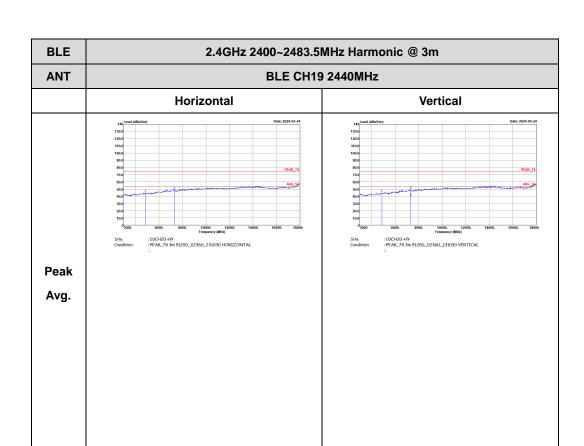


TEL: 886-3-327-0868 Page Number : D54 of D61

Report No.: FR470109B **BLE** 2.4GHz 2400~2483.5MHz Harmonic @ 3m ANT BLE CH00 2402MHz Horizontal Vertical 14.47G ~14.5G Avg.

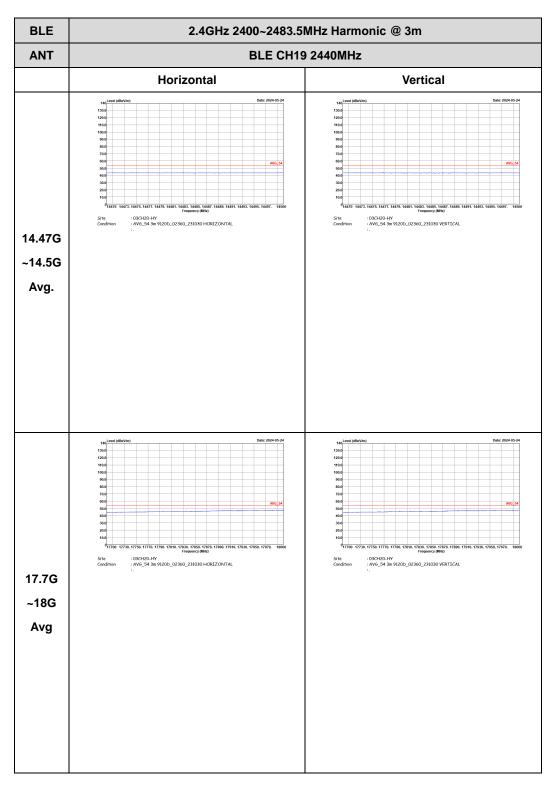


TEL: 886-3-327-0868 Page Number : D55 of D61

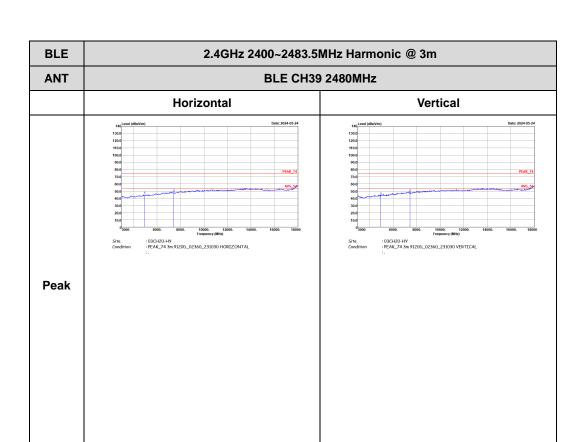


TEL: 886-3-327-0868 Page Number : D56 of D61



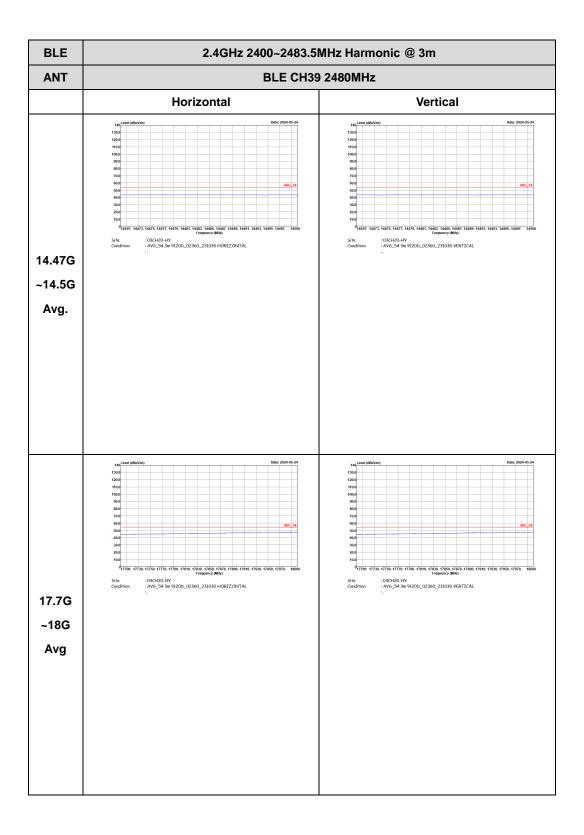


TEL: 886-3-327-0868 Page Number : D57 of D61



TEL: 886-3-327-0868 Page Number : D58 of D61

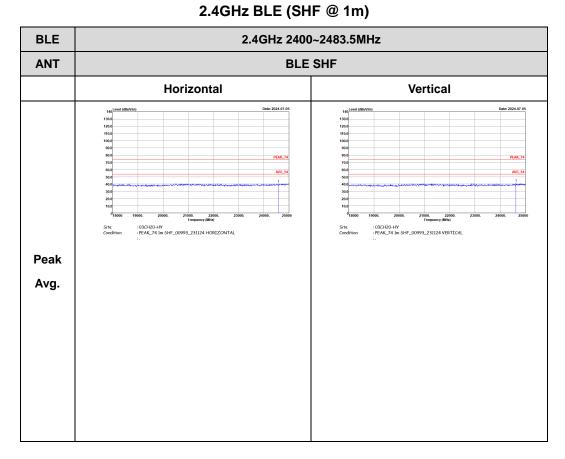




TEL: 886-3-327-0868 Page Number : D59 of D61

Emission above 18GHz

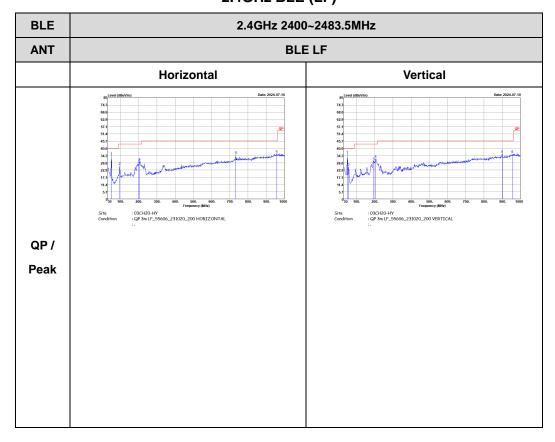
Report No.: FR470109B



TEL: 886-3-327-0868 Page Number : D60 of D61

Emission below 1GHz 2.4GHz BLE (LF)

Report No.: FR470109B



TEL: 886-3-327-0868 Page Number : D61 of D61

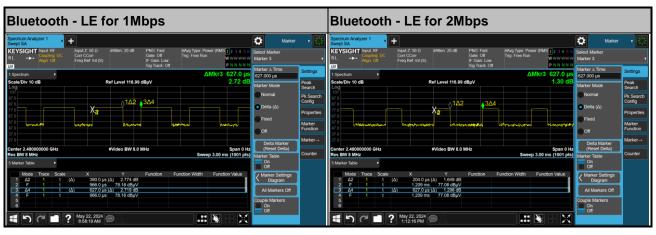


Appendix E. Duty Cycle Plots

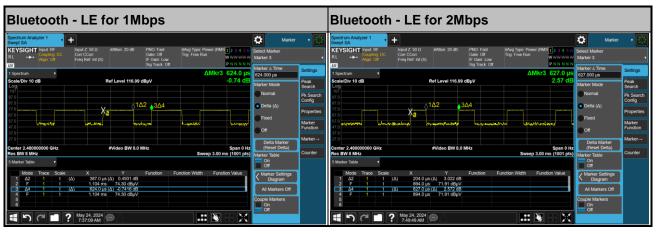
Antenna	Band	Duty Cycle(%)	T(us)	1/T(kHz)	VBW Setting	
1	Bluetooth - LE for 1Mbps	62.20	390	2.56	2.7kHz	
1	Bluetooth - LE for 2Mbps	32.54	204	4.90	5.1kHz	
2	Bluetooth - LE for 1Mbps	62.02	387	2.58	2.7kHz	
2	Bluetooth - LE for 2Mbps	32.54	204	4.90	5.1kHz	

Report No.: FR470109B

<Ant. 1>



<Ant. 2>



TEL: 886-3-327-0868 Page Number : E1 of E1

Appendix G. Spot Check Evaluation on KC50E15

Conducted power test and radiated spurious emission test configurations were selected from the worst cases identified in the parent model and tested to demonstrate the test data from original model remains representative for the variant model.

Report No.: FR470109B

The deviation between the spot check and the referenced values is within 3dB, therefore data referencing is justified according to the guidance in the ECR inquiry

Mode	Test Item	UZ7KC50A15 Reference Worst mode Test Result	UZ7KC50E15 Variant Check Test Result	Deviation	Limit (dB)	
	Number of Channels	79	79	0	Within the authorized block	
	Hopping Channel Separation	1.298	0.994	0.304	Within the authorized block	
	Dwell Time of Each Channel	0.31	0.31	0	Within the authorized block	
	20dB Bandwidth	0.895	0.943	0.048	Within the authorized frequency block	
Bluetooth	99% Bandwidth	0.829	0.835	0.006	Within the authorized frequency block	
	Conducted Band Edges	-40.99	-41.96	0.97	Deviation (ddB) < 3 dB	
	Conducted Spurious Emission	-31.60	-31.83	0.23	Deviation (ddB) < 3 dB	
	Peak Output Power	5.51	6.55	1.04	Deviation (ddB) < 3 dB	
	Radiated Band Edges and Radiated Spurious Emission	29.69	30.55	0.86	Deviation (ddB) < 3 dB	
	AC Conducted Emission	40.20	42.89	2.69	Deviation (ddB) < 3 dB	
	6dB Bandwidth	1.152	1.145	0.007	Within the authorized frequency block	
	99% Bandwidth	2.002	1.998	0.004	Within the authorized frequency block	
	Power Spectral Density	-12.50	-12.91	0.41	Deviation (ddB) < 3 dB	
Bluetooth-LE	Conducted Band Edges	-41.12	-42.06	0.94	Deviation (ddB) < 3 dB	
	Conducted Spurious Emission	-31.67	-31.99	0.32	Deviation (ddB) < 3 dB	
	Power Output Measurement	4.9	4.8	0.1	Deviation (ddB) < 3 dB	
	Radiated Band Edges and Spurious Emission	35.09	32.18	2.91	Deviation (ddB) < 3 dB	
	AC Conducted Emission	40.20	42.89	2.69	Deviation (ddB) < 3 dB	
	6dB Bandwidth	8.05	8.08	0.03	Within the authorized frequency block	
	99% Bandwidth	19.33	19.33	0	Within the authorized frequency block	
	Power Spectral Density	3.48	3.54	0.06	Deviation (ddB) < 3 dB	
WIFI 2.4G	Conducted Band Edges	-41.60	-41.47	0.13	Deviation (ddB) < 3 dB	
	Conducted Spurious Emission	-42.45	-42.79	0.34	Deviation (ddB) < 3 dB	
	Output Power	26.47	26.37	0.1	Deviation (ddB) < 3 dB	
	Radiated Band Edges and Spurious Emission	52.42	52.41	0.01	Deviation (ddB) < 3 dB	
	AC Conducted Emission	40.20	42.89	2.69	Deviation (ddB) < 3 dB	

TEL: 886-3-327-0868 Page Number : G1 of G4



UZ7KC50A15 UZ7KC50E15 Variant Limit Reference Mode **Test Item** Deviation Worst mode **Check Test** (dB) **Test Result** Result Within the authorized 26dB Bandwidth 165.46 166.13 0.67 frequency block Within the authorized 0.00 99% Bandwidth 156.56 156.56 frequency block **Power Spectral Density** 10.06 10.01 0.05 Deviation (ddB) < 3 dBWIFI 5G Maximum Conducted Output 23.14 22.68 0.46 Deviation (ddB) < 3 dBPower **Unwanted Emissions** 52.91 52.13 0.78 Deviation (ddB) < 3 dBAC Conducted Emission 41.22 42.43 1.21 Deviation (ddB) < 3 dBWithin the authorized 26dB Emission Bandwidth 166.37 166.94 0.57 frequency block Within the authorized 0.24 99% Occupied Bandwidth 156.56 156.32 frequency block Contention Based Protocol -66.39 -63.16 3.23 Within the authorized block Fundamental Maximum EIRP 20.18 20.13 0.05 Deviation (ddB) < 3 dBWIFI 6G (Indoor Client) Fundamental Power Spectral -1.14 -1.11 0.03 Deviation (ddB) < 3 dBDensity In-Band Emissions (Channel -44.97 -43.14 1.83 Deviation (ddB) < 3 dBMask) 2.32 **Unwanted Emissions** 66.75 64.43 Deviation (ddB) < 3 dB AC Conducted Emission 40.50 37.56 2.94 Deviation (ddB) < 3 dB

Report No.: FR470109B

TEL: 886-3-327-0868 Page Number : G2 of G4

List of Measuring Equipment

Instrument	Brand Name	Model No.	Serial No.	Characteristics	Calibration	Test Date	Due Date	Remark
AC Power	ACPOWER	AFC-11003G	F317040033	N/A	Date N/A	Jul. 16, 2024	N/A	Conduction
Source Software	Rohde & Schwarz	EMC32 V10.30	N/A	N/A	N/A	Jul. 16, 2024	N/A	(CO07-HY) Conduction (CO07-HY)
Pulse Limiter	SCHWARZBE CK	VTSD 9561-F N	9561-F N00373	9kHz-200MHz	Oct. 20, 2023	Jul. 16, 2024	Oct. 19, 2024	Conduction (CO07-HY)
RF Cable	HUBER + SUHNER	RG 214/U	1358175	9kHz~30MHz	Mar. 14, 2024	Jul. 16, 2024	Mar. 13, 2025	Conduction (CO07-HY)
Two-Line V-Network	TESEQ	NNB 51	45051	N/A	Mar. 10, 2024	Jul. 16, 2024	Mar. 09, 2025	Conduction (CO07-HY)
Four-Line V-Network	TESEQ	NNB 52	36122	N/A	Mar. 07, 2024	Jul. 16, 2024	Mar. 06, 2025	Conduction (CO07-HY)
EMI Test Receiver	Rohde & Schwarz	ESR3	102317	9kHz~3.6GHz	Sep. 20, 2023	Jul. 16, 2024	Sep. 19, 2024	Conduction (CO07-HY)
EMI Test Receiver	Keysight	N9038A(MXE)	MY54130085	N/A	Oct. 06, 2023	Aug. 28, 2024~ Aug. 30, 2024	Oct. 05, 2024	Radiation (03CH20-HY)
Loop Antenna	Rohde & Schwarz	HFH2-Z2	100488	9 kHz~30 MHz	Sep. 12, 2023	Aug. 28, 2024~ Aug. 30, 2024	Sep. 11, 2024	Radiation (03CH20-HY)
Preamplifier	EMEC	EM18G40G	060801	18GHz~40GHz	May 27, 2024	Aug. 28, 2024~ Aug. 30, 2024	May 26, 2025	Radiation (03CH20-HY)
Controller	ChainTek	3000-1	N/A	Control Turn table & Ant Mast	N/A	Aug. 28, 2024~ Aug. 30, 2024	N/A	Radiation (03CH20-HY)
Antenna Mast	ChainTek	MBS-520-1	N/A	1m~4m	N/A	Aug. 28, 2024~ Aug. 30, 2024	N/A	Radiation (03CH20-HY)
Turn Table	ChainTek	T-200-S-1	N/A	0~360 Degree	N/A	Aug. 28, 2024~ Aug. 30, 2024	N/A	Radiation (03CH20-HY)
Signal Analyzer	Keysight	N9010B	MY60240520	N/A	Dec. 12, 2023	Aug. 28, 2024~ Aug. 30, 2024	Dec. 11, 2024	Radiation (03CH20-HY)
Bilog Antenna	TESEQ	CBL 6111D&00802 N1D01N-06	55606 & 08	30MHz~1GHz	Oct. 20, 2023	Aug. 28, 2024~ Aug. 30, 2024	Oct. 19, 2024	Radiation (03CH20-HY)
Horn Antenna	SCHWARZBE CK	BBHA 9120 D	02360	1GHz-18GHz	Oct. 30, 2023	Aug. 28, 2024~ Aug. 30, 2024	Oct. 29, 2024	Radiation (03CH20-HY)
SHF-EHF Horn Antenna	SCHWARZBE CK	BBHA 9170	1223	18GHz-40GHz	Jun. 24, 2024	Aug. 28, 2024~ Aug. 30, 2024	Jun. 23, 2025	Radiation (03CH20-HY)
Preamplifier	COM-POWER	PAM-103	18020201	1MHz-1000MHz	Jan. 01, 2024	Aug. 28, 2024~ Aug. 30, 2024	Dec. 31, 2024	Radiation (03CH20-HY)
Amplifier	EMCI	EMC118A45S E	980792	N/A	Nov. 13, 2023	Aug. 28, 2024~ Aug. 30, 2024	Nov. 12, 2024	Radiation (03CH20-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	519229/2,804 015/2,804027 /2	N/A	Jan. 17, 2024	Aug. 28, 2024~ Aug. 30, 2024	Jan. 16, 2025	Radiation (03CH20-HY)
Hygrometer	TECPEL	DTM-303A	TP211382	N/A	Mar. 27, 2024	Aug. 28, 2024~ Aug. 30, 2024	Mar. 26, 2025	Radiation (03CH20-HY)
Software	Audix	N/A	RK-002156	N/A	N/A	Aug. 28, 2024~ Aug. 30, 2024	N/A	Radiation (03CH20-HY)

Report No.: FR470109B

TEL: 886-3-327-0868 Page Number : G3 of G4



Instrument	Brand Name	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Hygrometer	TECPEL	DTM-303A	TP201996	N/A	Nov. 07, 2023	Jul. 20, 2024	Nov. 06, 2024	Conducted
								(TH05-HY)
Power Sensor	DARE	RPR3006W	15I00041SNO 10 (NO:248)	10MHz~6GHz	Jan. 10, 2024	Jul. 20, 2024	Jan. 09, 2025	Conducted
								(TH05-HY)
Signal	Rohde &	FSV40	101566	10Hz~40GHz	Aug. 23, 2023	Jul. 20, 2024	Aug. 22, 2024	Conducted
Analyzer	Schwarz				3 -, -	., .		(TH05-HY)
Switch Control	Burgeon	ETF-058	EC1300485	N/A	Apr. 08, 2024	Jul. 20, 2024	Apr. 07, 2025	Conducted
Mainframe	Bargoon	211 000	(BOX4)	14/71	7 pr. 00, 2024	5di. 25, 2024		(TH05-HY)
Software	Sporton	Sporton BTWIFI_Final_ version_24041 1	N/A	Conducted Other Test Item	N/A	Jul. 20, 2024	N/A	Conducted
			IN/A					(TH05-HY)



TEL: 886-3-327-0868 Page Number : G4 of G4