



PY7-PM0954

Test Report reusing data

Reviewed by: Joseph Lin / Supervisor

Approved by: Jones Tsai / Manager



SPORTON INTERNATIONAL INC.

No. 52, Hwa Ya 1st Rd., Hwa Ya Technology Park, Kwei-Shan District, Tao Yuan City, Taiwan, R.O.C.



TABLE OF CONTENTS

REVISION HISTORY	3
1. INTRODUCTION SECTION	4
2. DIFFERENCE SECTION	5
3. SPOT CHECK VERIFICATION DATA SECTION	6
4. REFERENCE DETAIL SECTION	9
APPENDIX A. SPOT CHECK TEST RESULT	



REVISION HISTORY

VERSION	DESCRIPTION	ISSUED DATE
Rev. 01	Initial issue of report	May. 30, 2016



1. Introduction Section

FCC ID: PY7-PM0952, which is the reference FCC ID, and FCC ID: PY7-PM0954, have the same physical PCB layout and most of the same components, PY7-PM0954 has some different population/depopulation of filters for different LTE bands support.

The Bluetooth/Wi-Fi/NFC/GPS PCB layout/components/antenna/SW implementation and RF TX power level is identical between PY7-PM0952 and PY7-PM0954, PY7-PM0954 will re-use the FCC Part 15C (equipment class: DTS, DSS, DXX), Part 15E (equipment class: NII), and WLAN SAR test data of PY7-PM0952 application

For details concerning the similarity with respect to component placement, mechanical/electrical design etc., please refer to the Operational Description.

The applicant takes full responsibility that the test data as referenced in section 4 below represent compliance for this FCC ID (FCC ID: PY7-PM0954).



2. Difference Section

The original model (FCC ID: PY7-PM0952) and the variant model (FCC ID: PY7-PM0954) has identical PCB layout, antenna, SW implementation for Bluetooth/Wi-Fi/NFC/GPS. The details of similarity and difference can be found in the Operating Description.

The product specification is outlined in the following table:

FCC ID			PY7-PM0952	PY7-PM0954
Wireless Tech	Mode		Frequency (MHz)	
GSM	GSM Voice GPRS (GMSK) EDGE (8PSK)	Multi-Slot Class 12 DTM: No	850/1900	850/1900
UMTS	AMR/RCM12.2Kbps HSDPA/HSUPA/DC-HSDPA		B5/B2	B5/B4/B2
LTE	QPSK 16QAM		B5/B7/B41	B12/B13/B17/B5/B4/B2/ B7
Wi-Fi	11b/11g/11n(HT20)/11n(HT40)		2412-2462	
	11a/11n(HT20)/11n(HT40)		5180-5240 5260-5320 5500-5700 5745-5825 *5600-5650 notched	
Bluetooth	V4.1 LE		2402-2480 MHz	
NFC	ASK		13.56 MHz	



3. Spot Check Verification Data Section

Summary of the spot check Part15C and 15E:

Test Item	Mode	PY7-PM0952 Worst Result	PY7-PM0954 Worst Result	Difference (dB)
Average Conducted Power (dBm)	802.11b	17.81	17.72	0.09
	802.11g	14.78	14.66	0.12
	11n HT20	11.36	11.21	0.15
	11n HT40	11.43	11.18	0.25
	BT (1Mbps)	6.99	6.88	0.11
	BT (2Mbps)	4.97	4.79	0.18
	BT (3Mbps)	4.96	4.77	0.19
	BT-LE	0.57	0.35	0.22
	11a, 5.2GHz	13.90	13.71	0.19
	11n HT20, 5.2GHz	11.42	11.23	0.19
	11n HT40, 5.2GHz	11.49	11.33	0.16
	11a, 5.3GHz	13.73	13.54	0.19
	11n HT20, 5.3GHz	11.34	11.15	0.19
	11n HT40, 5.3GHz	11.30	11.14	0.16
	11a, 5.5GHz	13.73	13.56	0.17
	11n HT20, 5.5GHz	11.31	11.12	0.19
	11n HT40, 5.5GHz	11.47	11.31	0.16
	11a, 5.8GHz	13.89	13.83	0.06
	11n HT20, 5.8GHz	11.44	11.38	0.06
	11n HT40, 5.8GHz	11.44	11.31	0.13
	S/N of test sample	WUJ01M8LEX	A201RYLB0201	
	Test date	2016/2/5 – 2016/3/04	2016/4/19 – 2016/4/20	
Peak Radiated Spurious Emission (Band Edge) (dBuV/m)	802.11b	55.73	56.21	-0.48
	802.11g	58.35	57.19	1.16
	11n HT40	59.96	58.33	1.63
	BT (2Mbps)	48.5	47.42	1.08
	BT-LE	56.99	56.01	0.98
	11n HT40, 5.2GHz	57.79	55.28	2.51
	11n HT40, 5.3GHz	61.02	60.03	0.99
	11n HT40, 5.5GHz	56.81	56.99	-0.18
	11n HT40, 5.8GHz	56.28	54.68	1.6
	11n HT40, 5.8GHz	62.75	61.05	1.7
	S/N of test sample	WUJ01M8BA5	A201RYLB0201	
	Test date	2016/2/23 – 2016/2/26	2016/5/08 – 2016/5/09	
Average Radiated Spurious Emission (Band Edge) (dBuV/m)	802.11b	45.29	45.26	0.03
	802.11g	47.45	46.62	0.83
	11n HT40	47.66	47.58	0.08
	BT (2Mbps)	23.71	22.63	1.08
	BT-LE	46.67	46.57	0.1
	11n HT40, 5.2GHz	47.36	46.4	0.96
	11n HT40, 5.3GHz	50.02	48.39	1.63
	11n HT40, 5.5GHz	49.05	50.9	-1.85
	11n HT40, 5.8GHz	47.55	46.02	1.53
	S/N of test sample	WUJ01M8BA5	A201RYLB0201	
	Test date	2016/2/23 – 2016/2/26	2016/5/08 – 2016/5/09	



FCC Test Report

Peak Radiated Spurious Emission (Harmonic) (dBuV/m)	802.11b	53.19	52.04	1.15
	802.11g	44.96	43.5	1.46
	11n HT40	40.52	40.92	-0.4
	BT (2Mbps)	40.97	40.65	0.32
	BT-LE	40.72	41.08	-0.36
	11n HT40, 5.2GHz	43.81	44.15	-0.34
	11n HT40, 5.3GHz	43.65	44.61	-0.96
	11n HT40, 5.5GHz	45.49	46.21	-0.72
	11n HT40, 5.8GHz	45.83	46.81	-0.98
	S/N of test sample	WUJ01M8BA5	A201RYLB0201	
	Test date	2016/2/23 – 2016/2/26	2016/5/08 – 2016/5/09	

Average Radiated Spurious Emission (Harmonic) (dBuV/m)	802.11b	50.74	48.69	2.05
	S/N of test sample	WUJ01M8BA5	A201RYLB0201	
	Test date	2016/2/23 – 2016/2/26	2016/5/08 – 2016/5/09	

Summary of the spot check for SAR:

Test Item	Mode	PY7-PM0952 Result Report 1g SAR (W/kg)	PY7-PM0954 Result Report 1g SAR (W/kg)	Deviation (%)
Head Condition	2.4GHz WLAN	1.085	0.908	19.23
	5.2GHz WLAN	NA	NA	NA
	5.3GHz WLAN	0.636	0.699	-9.14
	5.5GHz WLAN	1.196	1.061	12.83
	5.8GHz WLAN	1.043	0.855	21.28
Hotspot Condition	2.4GHz WLAN	0.326	0.324	1.88
	5.2GHz WLAN	NA	NA	NA
	5.3GHz WLAN	NA	NA	NA
	5.5GHz WLAN	NA	NA	NA
	5.8GHz WLAN	NA	NA	NA
Body-worn Condition	2.4GHz WLAN	0.158	0.126	21.54
	5.2GHz WLAN	NA	NA	NA
	5.3GHz WLAN	0.071	0.078	-11.25
	5.5GHz WLAN	0.202	0.185	6.32
	5.8GHz WLAN	0.224	0.198	12.00
General Information	S/N	0123456789ABCDEFA201RXP10202	0123456789ABCDEF-A201RYLB0201	
	Test Date	2016/3/1 ~ 2016/3/12	2016/3/1 ~ 2016/3/10	



Test Item	Mode	PY7-PM0952 Result Report 10g SAR (W/kg)	PY7-PM0954 Result Report 10g SAR (W/kg)	Deviation (%)
Product Specific Condition	2.4GHz WLAN	Na	NA	NA
	5.2GHz WLAN	Na	NA	NA
	5.3GHz WLAN	0.343	0.339	0.88
	5.5GHz WLAN	0.580	0.549	5.45
	5.8GHz WLAN	0.444	0.421	5.71
General Information	S/N	0123456789ABCDEF A201RXP10202	0123456789ABCDEF-A201RYLB0201	
	Test Date	2016/3/1 ~ 2016/3/12	2016/3/1 ~ 2016/3/10	

Conclusion:

Radiated spurious emission test against the variant model for non-cellular part based on the worst-case condition from the original model was performed in this filing to demonstrate the test data from original model remains representative for the variant model.

Based on the spot check test result (power levels measured are within 0.5dB, and the worst case of RSE spot check verification based on the worst condition from the original model is within 3dB, and are compliance with the limits), the test data from the original model is representative for the variant model.

The unwanted, harmonics, radiated spurious emission is reported peak measurement only due to spurious lower than 20dB than the limit.

Spot Check Results for SAR within one expanded STD uncertainty of reference device.

The detail test results can be found in this document, Appendix A, hereafter.



4. Reference detail Section

Equipment Class	Reference FCC ID	Folder Test/RF Exposure	Report Title / Section
DTS	PY7-PM0952	15C Test Report	FR620405B FCC RF Report DTS BLE / All sections FR620405C FCC RF Report DTS WLAN / All sections
		RF Exposure	FA620405 FCC SAR Report / Only sections related to DTS are applicable
NII	PY7-PM0952	15E Test Report	FR620405E FCC RF Report NII B1-B3 / All sections FR620405F FCC RF Report NII B4 / All sections FR620405Z FCC RF Report NII DFS / All sections
		RF Exposure	FA620405 FCC SAR Report / Only sections related to NII are applicable
DSS	PY7-PM0952	15C Test Report	FR620405A FCC RF Report DSS / All sections
		RF Exposure	FA620405 FCC SAR Report / Only sections related to DSS are applicable
DXX	PY7-PM0952	15C Test Report	FR620405D FCC RF Report DXX / All sections

Appendix A. Spot Check Test Result

1.1 Conducted power

<2.4GHz WLAN>

	Mode	Channel	Frequency (MHz)	Data Rate	Tune-Up Limit	FCC ID PY7-PM0952 Average power (dBm)	FCC ID PY7-PM0954 Average power (dBm)
2.4GHz WLAN	802.11b	CH 1	2412	1Mbps	18.0	17.73	17.64
		CH 6	2437			17.81	17.72
		CH 11	2462			17.65	17.56
	802.11g	CH 1	2412	6Mbps	15.0	14.63	14.51
		CH 6	2437			14.78	14.66
		CH 11	2462			14.68	14.56
	802.11n-HT20	CH 1	2412	MCS0	11.5	11.29	11.14
		CH 6	2437			11.36	11.21
		CH 11	2462			11.19	11.04
	802.11n-HT40	CH 3	2422	MCS0	11.5	11.19	11.01
		CH 6	2437			11.36	11.18
		CH 9	2452			11.25	11.07

<Bluetooth>

Mode	Channel	Frequency (MHz)	Tune-Up Limit	FCC ID PY7-PM0952 Average power (dBm)	FCC ID PY7-PM0954 Average power (dBm)
Bluetooth (1Mbps)	CH 00	2402	7.0	6.73	6.54
	CH 39	2441		6.99	6.88
	CH 78	2480		6.84	6.44
Bluetooth (2Mbps)	CH 00	2402	5.0	4.30	4.03
	CH 39	2441		4.97	4.79
	CH 78	2480		4.51	4.11
Bluetooth (3Mbps)	CH 00	2402	5.0	4.33	3.99
	CH 39	2441		4.96	4.77
	CH 78	2480		4.52	4.08
BLE (GFSK)	CH 00	2402	1.0	-0.57	-0.78
	CH 19	2440		0.57	0.35
	CH 39	2480		-0.31	-0.68


<5GHz WLAN>

	Mode	Channel	Frequency (MHz)	Data Rate	Tune-Up Limit	FCC ID PY7-PM0952 Average power (dBm)	FCC ID PY7-PM0954 Average power (dBm)
5.2GHz WLAN	802.11a	CH 36	5180	6Mbps	14.0	13.90	13.71
		CH 44	5220			13.83	13.64
		CH 48	5240			13.87	13.68
	802.11n-HT20	CH 36	5180	MCS0	11.5	11.42	11.23
		CH 44	5220			11.38	11.19
		CH 48	5240			11.34	11.15
	802.11n-HT40	CH 38	5190	MCS0	11.5	11.49	11.33
		CH 46	5230			11.47	11.31
5.3GHz WLAN	Mode	Channel	Frequency (MHz)	Data Rate	Tune-Up Limit	FCC ID PY7-PM0952 Average power (dBm)	FCC ID PY7-PM0954 Average power (dBm)
	802.11a	CH 52	5260	6Mbps	14.0	13.67	13.48
		CH 60	5300			13.68	13.49
		CH 64	5320			13.73	13.54
	802.11n-HT20	CH 52	5260	MCS0	11.5	11.25	11.06
		CH 60	5300			11.26	11.07
		CH 64	5320			11.34	11.15
	802.11n-HT40	CH 54	5270	MCS0	11.5	11.30	11.14
		CH 62	5310		10.5	10.42	10.26
5.5GHz WLAN	Mode	Channel	Frequency (MHz)	Data Rate	Tune-Up Limit	FCC ID PY7-PM0952 Average power (dBm)	FCC ID PY7-PM0954 Average power (dBm)
	802.11a	CH 100	5500	6Mbps	14.0	13.73	13.56
		CH 116	5580			13.65	13.46
		CH 140	5700			13.60	13.41
	802.11n-HT20	CH 100	5500	MCS0	11.5	11.31	11.12
		CH 116	5580			11.22	11.03
		CH 140	5700			11.10	10.91
	802.11n-HT40	CH 102	5510	MCS0	11.5	11.47	11.31
		CH 126	5630			11.34	11.18
		CH 134	5670			11.30	11.14
5.8GHz WLAN	Mode	Channel	Frequency (MHz)	Data Rate	Tune-Up Limit	FCC ID PY7-PM0952 Average power (dBm)	FCC ID PY7-PM0954 Average power (dBm)
	802.11a	CH 149	5745	MCS0	10.0	9.77	9.71
		CH 157	5785		14.0	13.74	13.68
		CH 165	5825			13.89	13.83
	802.11n-HT20	CH 149	5745	MCS0	11.5	11.28	11.22
		CH 157	5785			11.36	11.30
		CH 165	5825			11.44	11.38
	802.11n-HT40	CH 151	5755	MCS0	9.5	9.21	9.08
		CH 159	5795		11.5	11.44	11.31



1.2 Radiated Spurious Emission

2.4GHz BT/WLAN

Mode	Ch	Freq. (MHz)	Peak /Avg.	FCC ID PY7-PM0952						FCC ID PY7-PM0954					
				Band edge			Harmonic			Band edge			Harmonic		
				Frequency	Level	Limit	Frequency	Level	Limit	Frequency	Level	Limit	Frequency	Level	Limit
				(MHz)	(dBuV/m)	(dBuV/m)	(MHz)	(dBuV/m)	(dBuV/m)	(MHz)	(dBuV/m)	(dBuV/m)	(MHz)	(dBuV/m)	(dBuV/m)
BT(2Mbps)	CH 78	2480	P	2486.21	48.5	74	4960	40.97	74	2493.63	47.42	74	4962	40.65	74
			A	2486.21	23.71	54				2493.63	22.63	54			
BLE	CH 19	2440	P	2497.4	56.99	74	7320	40.72	74	2487.56	56.01	74	7320	41.08	74
			A	2489.68	46.67	54				2491.04	46.57	54			
802.11b	CH 11	2462	P	2498.04	55.73	74	4924	53.19	74	2491.56	56.21	74	4924	52.04	74
			A	2486.88	45.29	54	4924	50.74	54	2485.6	45.26	54	4924	48.69	54
802.11g	CH 11	2462	P	2484	58.35	74	4924	44.96	74	2484.68	57.19	74	4924	43.5	74
			A	2483.56	47.45	54				2483.8	46.62	54			
802.11n-HT40	CH 09	2452	P	2483.52	59.96	74	7356	40.52	74	2483.52	58.33	74	7356	40.92	74
			A	2483.6	47.66	54				2483.52	47.58	54			

5.2GHz WLAN

Mode	Ch	Freq. (MHz)	Peak /Avg.	FCC ID PY7-PM0952						FCC ID PY7-PM0954					
				Band edge			Harmonic			Band edge			Harmonic		
				Frequency	Level	Limit	Frequency	Level	Limit	Frequency	Level	Limit	Frequency	Level	Limit
				(MHz)	(dBuV/m)	(dBuV/m)	(MHz)	(dBuV/m)	(dBuV/m)	(MHz)	(dBuV/m)	(dBuV/m)	(MHz)	(dBuV/m)	(dBuV/m)
802.11n-HT40	CH 38	5190	P	5149.85	57.79	74	15570	43.81	74	5146.7	55.28	74	15570	44.15	74
			A	5149.25	47.36	54				5149.85	46.4	54			

**5.3GHz WLAN**

Mode	Ch	Freq. (MHz)	Peak /Avg.	FCC ID PY7-PM0952						FCC ID PY7-PM0954					
				Band edge			Harmonic			Band edge			Harmonic		
				Frequency	Level	Limit	Frequency	Level	Limit	Frequency	Level	Limit	Frequency	Level	Limit
				(MHz)	(dBuV/m)	(dBuV/m)	(MHz)	(dBuV/m)	(dBuV/m)	(MHz)	(dBuV/m)	(dBuV/m)	(MHz)	(dBuV/m)	(dBuV/m)
802.11n-HT40	CH 62	5310	P	5350.99	61.02	74	15930	43.65	74	5351.1	60.03	74	15930	44.61	74
			A	5352.31	50.02	54				5350.88	48.39	54			

5.5GHz WLAN

Mode	Ch	Freq. (MHz)	Peak /Avg.	FCC ID PY7-PM0952						FCC ID PY7-PM0954					
				Band edge			Harmonic			Band edge			Harmonic		
				Frequency	Level	Limit	Frequency	Level	Limit	Frequency	Level	Limit	Frequency	Level	Limit
				(MHz)	(dBuV/m)	(dBuV/m)	(MHz)	(dBuV/m)	(dBuV/m)	(MHz)	(dBuV/m)	(dBuV/m)	(MHz)	(dBuV/m)	(dBuV/m)
802.11n-HT40	CH 102	5510	P	5467.28	56.81	74	16530	45.49	74	5467.12	56.99	74	16530	46.21	74
			A	5469.84	49.05	54				5469.52	50.9	54			

5.8GHz WLAN

Mode	Ch	Freq. (MHz)	Peak /Avg.	FCC ID PY7-PM0952						FCC ID PY7-PM0954					
				Band edge			Harmonic			Band edge			Harmonic		
				Frequency	Level	Limit	Frequency	Level	Limit	Frequency	Level	Limit	Frequency	Level	Limit
				(MHz)	(dBuV/m)	(dBuV/m)	(MHz)	(dBuV/m)	(dBuV/m)	(MHz)	(dBuV/m)	(dBuV/m)	(MHz)	(dBuV/m)	(dBuV/m)
802.11n-HT40	CH 151	5755	P	5713.56	56.28	74	17268	45.83	74	5713.4	54.68	74	17265	46.81	74
			P	5719.24	62.75	78.3				5719.48	61.05	78.3			
			A	5715	47.55	54				5712.44	46.02	54			

BLE (Band Edge @ 3m)

BLE	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
BLE CH 19 2440MHz		2386.95	55.83	-18.17	74	50.95	31.93	7.31	34.36	100	5	P	H
		2382	46	-8	54	41.16	31.89	7.31	34.36	100	5	A	H
	*	2440.247	93.1	-	-	87.94	32.07	7.36	34.27	100	5	P	H
	*	2439.997	92.59	-	-	87.43	32.07	7.36	34.27	100	5	A	H
		2487.56	56.01	-17.99	74	50.6	32.2	7.4	34.19	100	5	P	H
		2491.04	46.57	-7.43	54	41.16	32.2	7.4	34.19	100	5	A	H
		2326.29	55.09	-18.91	74	50.6	31.75	7.18	34.44	354	171	P	V
		2375.07	45.92	-8.08	54	41.15	31.89	7.24	34.36	354	171	A	V
	*	2440.331	88.68	-	-	83.52	32.07	7.36	34.27	354	171	P	V
	*	2439.997	88.08	-	-	82.92	32.07	7.36	34.27	354	171	A	V
		2497.28	56.8	-17.2	74	51.35	32.2	7.4	34.15	354	171	P	V
		2495.2	46.52	-7.48	54	41.07	32.2	7.4	34.15	354	171	A	V

BLE (Harmonic @ 3m)

BLE	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
BLE CH 19 2440MHz		4880	40.86	-33.14	74	54.04	34.23	11.53	58.94	100	0	P	H
		7320	40.89	-33.11	74	49.44	35.6	13.81	57.96	100	0	P	H
		4880	40.14	-33.86	74	53.32	34.23	11.53	58.94	100	0	P	V
		7320	41.08	-32.92	74	49.63	35.6	13.81	57.96	100	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												


2.4GHz 2400~2483.5MHz
BT (Band Edge @ 3m)

BT	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
BT CH 78 2480MHz	*	2479.84	96.78	-	-	91.41	32.16	7.4	34.19	341	208	P	H
	*	2479.84	71.99	-	-	-	-	-	-	-	-	A	H
		2484.32	47.09	-26.91	74	41.72	32.16	7.4	34.19	341	208	P	H
		2484.32	22.3	-31.7	54	-	-	-	-	-	-	A	H
	*	2479.84	96.49	-	-	91.12	32.16	7.4	34.19	185	72	P	V
	*	2479.84	71.7	-	-	-	-	-	-	-	-	A	V
		2493.63	47.42	-26.58	74	41.97	32.2	7.4	34.15	185	72	P	V
		2493.63	22.63	-31.37	54	-	-	-	-	-	-	A	V

BT (Harmonic @ 3m)

BT	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
BT CH 78 2480MHz		4962	40.65	-33.35	74	53.92	34.28	11.22	58.77	100	0	P	H
		4962	15.86	-38.14	54	-	-	-	-	-	-	A	H
		7440	40.46	-33.54	74	48.94	35.6	14.05	58.13	100	0	P	H
		7440	15.67	-38.33	54	-	-	-	-	-	-	A	H
		4962	40.19	-33.81	74	53.46	34.28	11.22	58.77	100	0	P	V
		4962	15.4	-38.6	54	-	-	-	-	-	-	A	V
		7440	40.44	-33.56	74	48.92	35.6	14.05	58.13	100	0	P	V
		7440	15.65	-38.35	54	-	-	-	-	-	-	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												


2.4GHz 2400~2483.5MHz
WIFI 802.11b (Band Edge @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11b CH 11 2462MHz	*	2460.71	105.42	-	-	100.14	32.11	7.4	34.23	100	324	P	H
	*	2460.87	102.94	-	-	97.66	32.11	7.4	34.23	100	324	A	H
		2491.56	56.21	-17.79	74	50.8	32.2	7.4	34.19	100	324	P	H
		2485.6	45.26	-8.74	54	39.89	32.16	7.4	34.19	100	324	A	H
	*	2460.79	100.48	-	-	95.2	32.11	7.4	34.23	356	97	P	V
	*	2460.79	97.93	-	-	92.65	32.11	7.4	34.23	356	97	A	V
		2496.44	56.21	-17.79	74	50.76	32.2	7.4	34.15	356	97	P	V
		2488	45.02	-8.98	54	39.61	32.2	7.4	34.19	356	97	A	V

WIFI 802.11b (Harmonic @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11b CH 11 2462MHz		4924	52.04	-21.96	74	65.25	34.26	11.37	58.84	100	300	P	H
		4924	48.69	-5.31	54	61.9	34.26	11.37	58.84	100	300	A	H
		7386	40.5	-33.5	74	49.01	35.6	13.95	58.06	100	0	P	H
		4924	45.69	-28.31	74	58.9	34.26	11.37	58.84	100	0	P	V
		7386	40.22	-33.78	74	48.73	35.6	13.95	58.06	100	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



2.4GHz 2400~2483.5MHz
WIFI 802.11g (Band Edge @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11g CH 11 2462MHz	*	2464.46	105.04	-	-	99.76	32.11	7.4	34.23	100	310	P	H
	*	2460.87	97.42	-	-	92.14	32.11	7.4	34.23	100	310	A	H
		2484.68	57.19	-16.81	74	51.82	32.16	7.4	34.19	100	310	P	H
		2483.8	46.62	-7.38	54	41.25	32.16	7.4	34.19	100	310	A	H
	*	2461.21	100.84	-	-	95.56	32.11	7.4	34.23	352	169	P	V
	*	2460.96	93.44	-	-	88.16	32.11	7.4	34.23	352	169	A	V
		2489.68	55.84	-18.16	74	50.43	32.2	7.4	34.19	352	169	P	V
		2485.68	45.97	-8.03	54	40.6	32.16	7.4	34.19	352	169	A	V

WIFI 802.11g (Harmonic @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11g CH 11 2462MHz		4924	43.5	-30.5	74	56.71	34.26	11.37	58.84	100	0	P	H
		7386	40.68	-33.32	74	49.19	35.6	13.95	58.06	100	0	P	H
		4924	42.22	-31.78	74	55.43	34.26	11.37	58.84	100	0	P	V
		7386	40.6	-33.4	74	49.11	35.6	13.95	58.06	100	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												


2.4GHz 2400~2483.5MHz
WIFI 802.11n HT40 (Band Edge @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT40 CH 09 2452MHz		2386.77	55.61	-18.39	74	50.73	31.93	7.31	34.36	100	5	P	H
		2369.4	45.8	-8.2	54	41.03	31.89	7.24	34.36	100	5	A	H
	*	2452	100.26	-	-	95.06	32.07	7.36	34.23	100	5	P	H
	*	2452	91.82	-	-	86.62	32.07	7.36	34.23	100	5	A	H
		2483.52	58.33	-15.67	74	52.96	32.16	7.4	34.19	100	5	P	H
		2483.52	47.58	-6.42	54	42.21	32.16	7.4	34.19	100	5	A	H
		2371.74	55.09	-18.91	74	50.32	31.89	7.24	34.36	352	176	P	V
		2390.01	45.85	-8.15	54	40.93	31.93	7.31	34.32	352	176	A	V
	*	2452	97.04	-	-	91.84	32.07	7.36	34.23	352	176	P	V
	*	2452	88.67	-	-	83.47	32.07	7.36	34.23	352	176	A	V
		2497.44	55.27	-18.73	74	49.82	32.2	7.4	34.15	352	176	P	V
		2496.8	46.53	-7.47	54	41.08	32.2	7.4	34.15	352	176	A	V

WIFI 802.11n HT40 (Harmonic @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT40 CH 09 2452MHz		4904	39.91	-34.09	74	53.16	34.25	11.37	58.87	100	0	P	H
		7356	40.92	-33.08	74	49.45	35.6	13.88	58.01	100	0	P	H
		4904	39.84	-34.16	74	53.09	34.25	11.37	58.87	100	0	P	V
		7356	40.78	-33.22	74	49.31	35.6	13.88	58.01	100	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												


Band 1 5150~5250MHz
WIFI 802.11n HT40 (Band Edge @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT40 CH 38 5190MHz		5147.9	50.4	-23.6	74	39.75	34.66	11.21	35.22	364	310	P	H
		5148.95	42.15	-11.85	54	31.5	34.66	11.21	35.22	364	310	A	H
	*	5190	91.52	-	-	80.75	34.74	11.25	35.22	364	310	P	H
	*	5190	83.54	-	-	72.77	34.74	11.25	35.22	364	310	A	H
		5442.84	50.88	-23.12	74	38.89	35.34	11.89	35.24	364	310	P	H
		5457.58	42	-12	54	29.97	35.38	11.89	35.24	364	310	A	H
		5146.7	55.28	-18.72	74	44.63	34.66	11.21	35.22	200	231	P	V
		5149.85	46.4	-7.6	54	35.75	34.66	11.21	35.22	200	231	A	V
	*	5190	98.22	-	-	87.45	34.74	11.25	35.22	200	231	P	V
	*	5190	89.07	-	-	78.3	34.74	11.25	35.22	200	231	A	V
		5366.94	49.65	-24.35	74	37.94	35.18	11.76	35.23	200	231	P	V
		5445.37	41.94	-12.06	54	29.95	35.34	11.89	35.24	200	231	A	V

Band 1 5150~5250MHz
WIFI 802.11n HT40 (Harmonic @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n		10380	43.52	-30.48	74	48.16	37.38	17.17	59.19	100	0	P	H
HT40		15570	44.15	-29.85	74	41.26	40.42	19.63	57.16	100	0	P	H
CH 38		10380	41.77	-32.23	74	46.41	37.38	17.17	59.19	100	0	P	V
5190MHz		15570	43.8	-30.2	74	40.91	40.42	19.63	57.16	100	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



Band 2 5250~5350MHz
WIFI 802.11n HT40 (Band Edge @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT40 CH 62 5310MHz		5081	50.62	-23.38	74	40.19	34.5	11.14	35.21	312	324	P	H
		5093.45	41.94	-12.06	54	31.48	34.54	11.14	35.22	312	324	A	H
	*	5310	91.63	-	-	80.17	35.06	11.63	35.23	312	324	P	H
	*	5310	83.87	-	-	72.41	35.06	11.63	35.23	312	324	A	H
		5352.31	50.6	-23.4	74	38.93	35.14	11.76	35.23	312	324	P	H
		5350.33	44.27	-9.73	54	32.6	35.14	11.76	35.23	312	324	A	H
		5128.55	49.98	-24.02	74	39.4	34.62	11.18	35.22	200	266	P	V
		5075.3	41.93	-12.07	54	31.5	34.5	11.14	35.21	200	266	A	V
	*	5310	97.97	-	-	86.51	35.06	11.63	35.23	200	266	P	V
	*	5310	89.16	-	-	77.7	35.06	11.63	35.23	200	266	A	V
		5351.1	60.03	-13.97	74	48.36	35.14	11.76	35.23	200	266	P	V
		5350.88	48.39	-5.61	54	36.72	35.14	11.76	35.23	200	266	A	V

WIFI 802.11n HT40 (Harmonic @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT40 CH 62 5310MHz		10620	42.69	-31.31	74	46.85	37.6	17.17	58.93	100	0	P	H
		15930	43.89	-30.11	74	39.91	41.08	19.84	56.94	100	0	P	H
		10620	42.67	-31.33	74	46.83	37.6	17.17	58.93	100	0	P	V
		15930	44.61	-29.39	74	40.63	41.08	19.84	56.94	100	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



Band 3 - 5470~5725MHz

WIFI 802.11n HT40 (Band Edge @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT40 CH 102 5510MHz		5468.08	52.26	-21.74	74	40.19	35.42	11.89	35.24	300	310	P	H
		5470	45.1	-8.9	54	33.03	35.42	11.89	35.24	300	310	A	H
	*	5510	93.46	-	-	81.32	35.5	11.89	35.25	300	310	P	H
	*	5510	85.22	-	-	73.08	35.5	11.89	35.25	300	310	A	H
		5762.92	50.62	-23.38	74	38.26	35.55	12.11	35.3	300	310	P	H
		5764.36	42.64	-11.36	54	30.28	35.55	12.11	35.3	300	310	A	H
		5467.12	56.99	-17.01	74	44.92	35.42	11.89	35.24	200	250	P	V
		5469.52	50.9	-3.1	54	38.83	35.42	11.89	35.24	200	250	A	V
	*	5510	99.97	-	-	87.83	35.5	11.89	35.25	200	250	P	V
	*	5510	91.83	-	-	79.69	35.5	11.89	35.25	200	250	A	V
		5733.16	50.43	-23.57	74	38.12	35.54	12.06	35.29	200	250	P	V
		5736.28	42.68	-11.32	54	30.36	35.55	12.06	35.29	200	250	A	V

Band 3 - 5470~5725MHz

WIFI 802.11n HT40 (Harmonic @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT40 CH 102 5510MHz		11020	43.51	-30.49	74	46.78	37.92	17.17	58.36	100	0	P	H
		16530	45.46	-28.54	74	39.65	41.64	20.25	56.08	100	0	P	H
		11020	44.42	-29.58	74	47.69	37.92	17.17	58.36	100	0	P	V
		16530	46.21	-27.79	74	40.4	41.64	20.25	56.08	100	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												


Band 4 5725~5850MHz
WIFI 802.11n HT40 (Band Edge @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT40 CH 151 5755MHz		5689.56	50.26	-23.74	74	38	35.54	12	35.28	300	334	P	H
		5724.76	56.83	-21.47	78.3	44.51	35.54	12.06	35.28	300	334	P	H
		5714.92	43.36	-10.64	54	31.04	35.54	12.06	35.28	300	334	A	H
	*	5755	90.59	-	-	78.22	35.55	12.11	35.29	300	334	P	H
	*	5755	82.55	-	-	70.18	35.55	12.11	35.29	300	334	A	H
		5855.36	50.66	-27.64	78.3	38.12	35.57	12.28	35.31	300	334	P	H
		5886.16	51.76	-22.24	74	39.11	35.58	12.39	35.32	300	334	P	H
		5882.08	43.33	-10.67	54	30.68	35.58	12.39	35.32	300	334	A	H
		5713.4	54.68	-19.32	74	42.36	35.54	12.06	35.28	200	246	P	V
		5719.48	61.05	-17.25	78.3	48.73	35.54	12.06	35.28	200	246	P	V
		5712.44	46.02	-7.98	54	33.7	35.54	12.06	35.28	200	246	A	V
	*	5755	98.53	-	-	86.16	35.55	12.11	35.29	200	246	P	V
	*	5755	89.8	-	-	77.43	35.55	12.11	35.29	200	246	A	V
		5859.76	52.7	-25.6	78.3	40.17	35.57	12.28	35.32	200	246	P	V
		5867.6	50.48	-23.52	74	37.84	35.57	12.39	35.32	200	246	P	V
		5866.64	43.44	-10.56	54	30.8	35.57	12.39	35.32	200	246	A	V

Band 4 5725~5850MHz
WIFI 802.11n HT40 (Harmonic @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT40 CH 151 5755MHz		11510	42.31	-31.69	74	44.05	38.4	17.16	57.3	100	0	P	H
		17265	46.81	-27.19	74	39.89	42.04	20.79	55.91	100	0	P	H
		11510	42.49	-31.51	74	44.23	38.4	17.16	57.3	100	0	P	V
		17265	45.85	-28.15	74	38.93	42.04	20.79	55.91	100	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



Note symbol

*	Fundamental Frequency which can be ignored. However, the level of any unwanted emissions shall not exceed the level of the fundamental frequency.
!	Test result is over limit line.
P/A	Peak or Average
H/V	H orizontal or V ertical
-L	L ow channel location
-R	H igh channel location



2.4GHz 2400~2483.5MHz

BT (Band Edge @ 3m)

BT	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	BT CH78 2480MHz	
1	Horizontal	Vertical
Peak	Site : 03CH07.HY Condition : FCC CLASS-B 3m HF-ANT, 130029 HORIZONTAL Detector : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto Project : 620411 Mode : 1	Site : 03CH07.HY Condition : FCC CLASS-B 3m HF-ANT, 130029 VERTICAL Detector : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto Project : 620411 Mode : 1



2.4GHz 2400~2483.5MHz

BT (Harmonic @ 3m)

BT	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	BT CH78 2480MHz	
1	Horizontal	Vertical
Peak Avg.	Site : 83CH07-HY Condition : FCC CLASS-B 3m SHF-EHF_131029 HORIZONTAL Detector : Peak Project : 620411 Mode : 1	Site : 83CH07-HY Condition : FCC CLASS-B 3m SHF-EHF_131029 VERTICAL Detector : Peak Project : 620411 Mode : 1



2.4GHz 2400~2483.5MHz

BLE (Band Edge @ 3m)

BLE	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	BLE CH19 2440MHz - L	
1	Horizontal	Vertical
Peak	Site : 03CH07-HY Condition : FCC CLASS-B 3m HF-ANT_130829 HORIZONTAL Detector : Peak Project : 620411 Mode : 2	Site : 03CH07-HY Condition : FCC CLASS-B 3m HF-ANT_130829 VERTICAL Detector : Peak Project : 620411 Mode : 2
Avg.	Site : 03CH07-HY Condition : FCC CLASS-B (AVG) 3m HF-ANT_130829 HORIZONTAL Detector : Peak Project : 620411 Mode : 2	Site : 03CH07-HY Condition : FCC CLASS-B (AVG) 3m HF-ANT_130829 VERTICAL Detector : Peak Project : 620411 Mode : 2



BLE	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	BLE CH19 2440MHz - R	
1	Horizontal	Vertical
Peak	Site : 03CH07-HY Condition : FCC CLASS-B 3m HF-ANT_130829 HORIZONTAL RBW:1000.000kHz VBW:3000.000kHz SWT:Auto Detector : Peak Project : 620411 Mode : 2	Site : 03CH07-HY Condition : FCC CLASS-B 3m HF-ANT_130829 VERTICAL RBW:1000.000kHz VBW:3000.000kHz SWT:Auto Detector : Peak Project : 620411 Mode : 2
Avg.	Site : 03CH07-HY Condition : FCC CLASS-B (AVG) 3m HF-ANT_130829 HORIZONTAL RBW:1000.000kHz VBW:3.000kHz SWT:Auto Detector : Peak Project : 620411 Mode : 2	Site : 03CH07-HY Condition : FCC CLASS-B (AVG) 3m HF-ANT_130829 VERTICAL RBW:1000.000kHz VBW:3.000kHz SWT:Auto Detector : Peak Project : 620411 Mode : 2



2.4GHz 2400~2483.5MHz

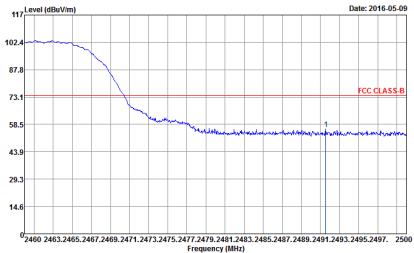
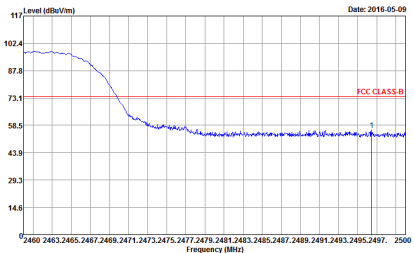
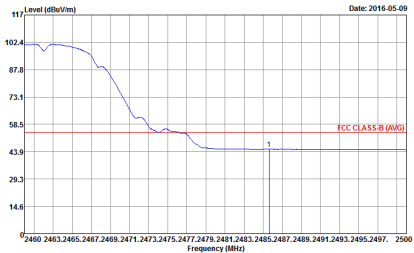
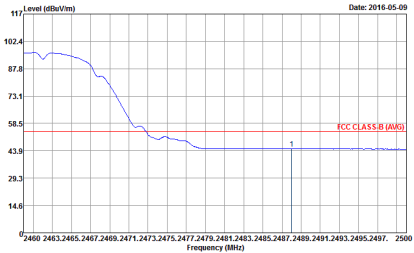
BLE (Harmonic @ 3m)

BLE	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	BLE CH19 2440MHz	
1	Horizontal	Vertical
Peak Avg.	Site : 03CH07-HY Condition : FCC CLASS-B 3m SHF-EHF_131029 HORIZONTAL Detector : Peak Project : 620411 Mode : 2	Site : 03CH07-HY Condition : FCC CLASS-B 3m SHF-EHF_131029 VERTICAL Detector : Peak Project : 620411 Mode : 2



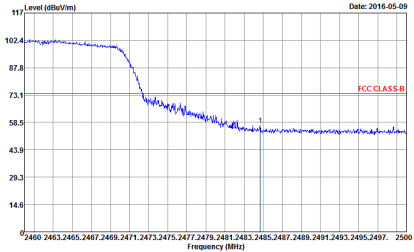
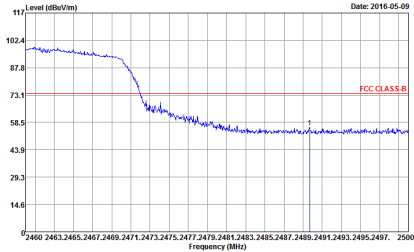
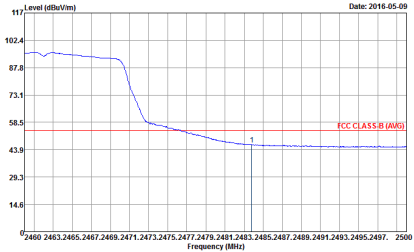
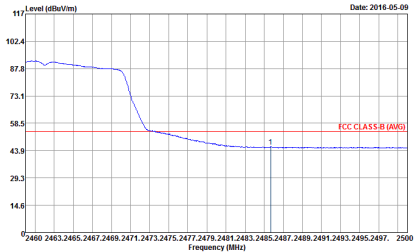
2.4GHz 2400~2483.5MHz

WIFI 802.11b (Band Edge @ 3m)

WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH11 2462MHz	
1	Horizontal	Vertical
Peak	 Site : 03CH07-HY Condition : FCC CLASS-B 3m HF-ANT_130829 HORIZONTAL Detector : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto Project : 620411 Mode : 3	 Site : 03CH07-HY Condition : FCC CLASS-B 3m HF-ANT_130829 VERTICAL Detector : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto Project : 620411 Mode : 3
Avg.	 Site : 03CH07-HY Condition : FCC CLASS-B (AVG) 3m HF-ANT_130829 HORIZONTAL Detector : RBW:1000.000kHz VBW:0.010kHz SWT:Auto Project : 620411 Mode : 3	 Site : 03CH07-HY Condition : FCC CLASS-B (AVG) 3m HF-ANT_130829 VERTICAL Detector : RBW:1000.000kHz VBW:0.010kHz SWT:Auto Project : 620411 Mode : 3



2.4GHz 2400~2483.5MHz
WIFI 802.11g (Band Edge @ 3m)

WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH11 2462MHz	
1	Horizontal	Vertical
Peak	 Site : 03CH07-HY Condition : FCC CLASS-B 3m HF-ANT_130829 HORIZONTAL Detector : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto Project : 620411 Mode : 4	 Site : 03CH07-HY Condition : FCC CLASS-B 3m HF-ANT_130829 VERTICAL Detector : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto Project : 620411 Mode : 4
Avg.	 Site : 03CH07-HY Condition : FCC CLASS-B (AVG) 3m HF-ANT_130829 HORIZONTAL Detector : RBW:1000.000kHz VBW:1.000kHz SWT:Auto Project : 620411 Mode : 4	 Site : 03CH07-HY Condition : FCC CLASS-B (AVG) 3m HF-ANT_130829 VERTICAL Detector : RBW:1000.000kHz VBW:1.000kHz SWT:Auto Project : 620411 Mode : 4

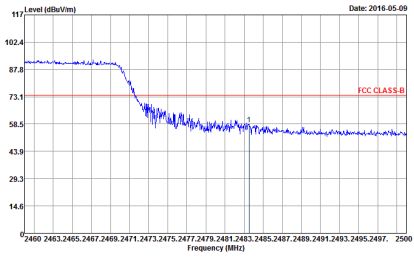
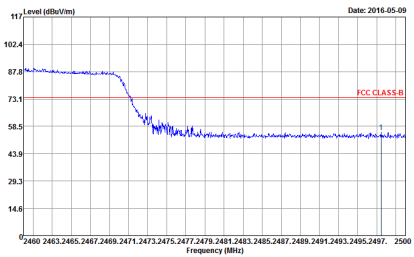
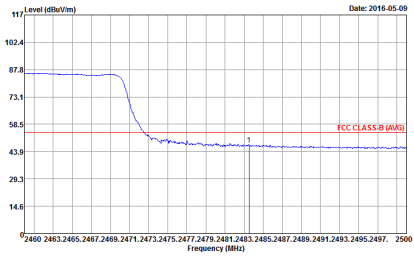
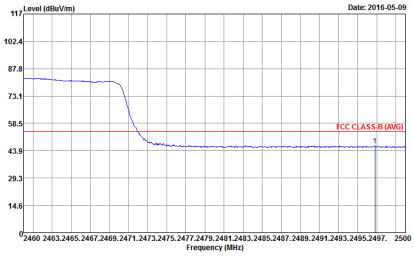


2.4GHz 2400~2483.5MHz

WIFI 802.11n HT40 (Band Edge @ 3m)

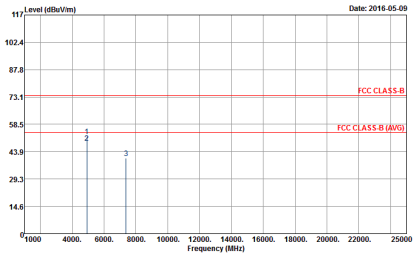
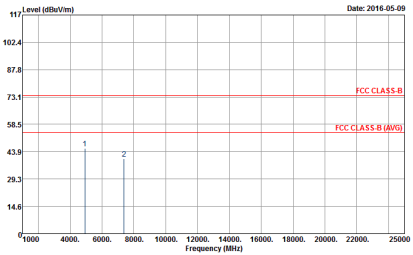
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT40 CH09 2452MHz - L	
1	Horizontal	Vertical
Peak	Site : 03CH07-HY Condition : FCC CLASS-B 3m HF-ANT_130829 HORIZONTAL Detector : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto Project : 620411 Mode : 5	Site : 03CH07-HY Condition : FCC CLASS-B 3m HF-ANT_130829 VERTICAL Detector : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto Project : 620411 Mode : 5
Avg.	Site : 03CH07-HY Condition : FCC CLASS-B (AVG) 3m HF-ANT_130829 HORIZONTAL Detector : RBW:1000.000kHz VBW:3.000kHz SWT:Auto Project : 620411 Mode : 5	Site : 03CH07-HY Condition : FCC CLASS-B (AVG) 3m HF-ANT_130829 VERTICAL Detector : RBW:1000.000kHz VBW:3.000kHz SWT:Auto Project : 620411 Mode : 5



WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT40 CH09 2452MHz - R	
1	Horizontal	Vertical
Peak	 Site : 03CH07-HY Condition : FCC CLASS-B 3m HF-ANT_130829 HORIZONTAL Detector : Peak Project : 620411 Mode : 5	 Site : 03CH07-HY Condition : FCC CLASS-B 3m HF-ANT_130829 VERTICAL Detector : Peak Project : 620411 Mode : 5
Avg.	 Site : 03CH07-HY Condition : FCC CLASS-B (AVG) 3m HF-ANT_130829 HORIZONTAL Detector : Peak Project : 620411 Mode : 5	 Site : 03CH07-HY Condition : FCC CLASS-B (AVG) 3m HF-ANT_130829 VERTICAL Detector : Peak Project : 620411 Mode : 5



2.4GHz 2400~2483.5MHz
WIFI 802.11b (Harmonic @ 3m)

WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11b CH11 2462MHz	
1	Horizontal	Vertical
Peak Avg.	 Site : 03CH074HY Condition : FCC CLASS-B 3m SHF-EHF_131029 HORIZONTAL Detector : Peak Project : 620411 Mode : 3	 Site : 03CH074HY Condition : FCC CLASS-B 3m SHF-EHF_131029 VERTICAL Detector : Peak Project : 620411 Mode : 3

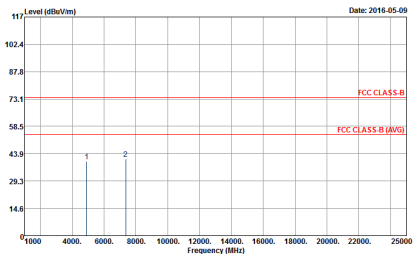
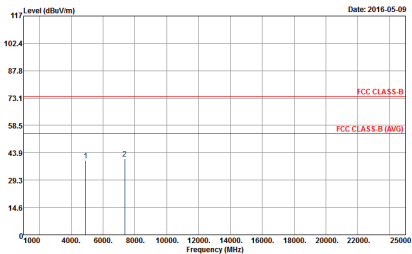


2.4GHz 2400~2483.5MHz
WIFI 802.11g (Harmonic @ 3m)

WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11g CH11 2462MHz	
1	Horizontal	Vertical
Peak Avg.	Site : 03CH674HY Condition : FCC CLASS-B 3m SHF-EHF_131029 HORIZONTAL Detector : Peak Project : 620411 Mode : 4	Site : 03CH674HY Condition : FCC CLASS-B 3m SHF-EHF_131029 VERTICAL Detector : Peak Project : 620411 Mode : 4



2.4GHz 2400~2483.5MHz
WIFI 802.11n HT40 (Harmonic @ 3m)

WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11n HT40 CH09 2452MHz	
1	Horizontal	Vertical
Peak Avg.	 Site : 03CH07-HY Condition : FCC CLASS-B 3m SHF-EHF_131029 HORIZONTAL Detector : Peak Project : 020411 Mode : 5	 Site : 03CH07-HY Condition : FCC CLASS-B 3m SHF-EHF_131029 VERTICAL Detector : Peak Project : 020411 Mode : 5



Band 1 - 5150~5250MHz
WIFI 802.11n HT40 (Band Edge @ 3m)

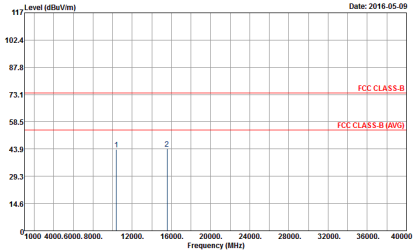
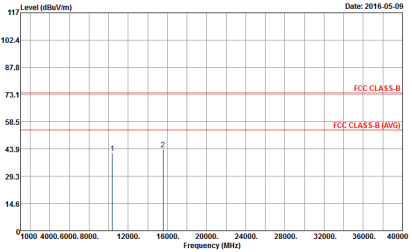
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT40 CH38 5190MHz - L	
1	Horizontal	Vertical
Peak	Site : 03CH07-HY Condition : FCC CLASS-B 3m HF-ANT_130829 HORIZONTAL Detector : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto Project : 620411 Mode : 1	Site : 03CH07-HY Condition : FCC CLASS-B 3m HF-ANT_130829 VERTICAL Detector : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto Project : 620411 Mode : 1
Avg.	Site : 03CH07-HY Condition : FCC CLASS-B (AVG) 3m HF-ANT_130829 HORIZONTAL Detector : RBW:1000.000kHz VBW:3.000kHz SWT:Auto Project : 620411 Mode : 1	Site : 03CH07-HY Condition : FCC CLASS-B (AVG) 3m HF-ANT_130829 VERTICAL Detector : RBW:1000.000kHz VBW:3.000kHz SWT:Auto Project : 620411 Mode : 1



WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT40 CH38 5190MHz - R	
1	Horizontal	Vertical
Peak	Site : 03CH07-HY Condition : FCC CLASS-B 3m HF-ANT_130829 HORIZONTAL Detector : Peak Project : 620411 Mode : 1	Site : 03CH07-HY Condition : FCC CLASS-B 3m HF-ANT_130829 VERTICAL Detector : Peak Project : 620411 Mode : 1
Avg.	Site : 03CH07-HY Condition : FCC CLASS-B (AVG) 3m HF-ANT_130829 HORIZONTAL Detector : Peak Project : 620411 Mode : 1	Site : 03CH07-HY Condition : FCC CLASS-B (AVG) 3m HF-ANT_130829 VERTICAL Detector : Peak Project : 620411 Mode : 1



Band 1 - 5150~5250MHz
WIFI 802.11n HT40 (Harmonic @ 3m)

WIFI	Band 1 5150~5250MHz Harmonic @ 3m	
ANT	802.11n HT40 CH38 5190MHz	
1	Horizontal	Vertical
Peak Avg.	 Site : 03CH07-HY Condition : FCC CLASS-B 3m SHF-EHF_131029 HORIZONTAL Detector : Peak Project : 620411 Mode : 1	 Site : 03CH07-HY Condition : FCC CLASS-B 3m SHF-EHF_131029 VERTICAL Detector : Peak Project : 620411 Mode : 1



Band 2 - 5250~5350MHz
WIFI 802.11n HT40 (Band Edge @ 3m)

WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11n HT40 CH62 5310 - L	
1	Horizontal	Vertical
Peak	Site : 03CH07-HY Condition : FCC CLASS-B 3m HF-ANT_130829 HORIZONTAL Detector : Peak Project : 620411 Mode : 2	Site : 03CH07-HY Condition : FCC CLASS-B 3m HF-ANT_130829 VERTICAL Detector : Peak Project : 620411 Mode : 2
Avg.	Site : 03CH07-HY Condition : FCC CLASS-B (AVG) 3m HF-ANT_130829 HORIZONTAL Detector : Peak Project : 620411 Mode : 2	Site : 03CH07-HY Condition : FCC CLASS-B (AVG) 3m HF-ANT_130829 VERTICAL Detector : Peak Project : 620411 Mode : 2



WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11n HT40 CH62 5310 - R	
1	Horizontal	Vertical
Peak	Site : 03CH07-HY Condition : FCC CLASS-B 3m HF-ANT_130829 HORIZONTAL Detector : Peak Project : 620411 Mode : 2	Site : 03CH07-HY Condition : FCC CLASS-B 3m HF-ANT_130829 VERTICAL Detector : Peak Project : 620411 Mode : 2
Avg.	Site : 03CH07-HY Condition : FCC CLASS-B (AVG) 3m HF-ANT_130829 HORIZONTAL Detector : Peak Project : 620411 Mode : 2	Site : 03CH07-HY Condition : FCC CLASS-B (AVG) 3m HF-ANT_130829 VERTICAL Detector : Peak Project : 620411 Mode : 2

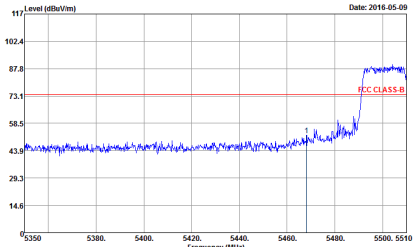
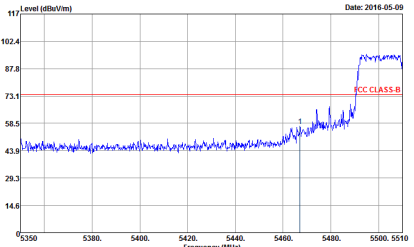
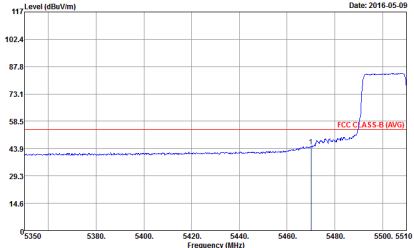
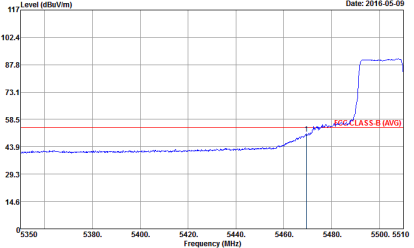


Band 2 - 5250~5350MHz
WIFI 802.11n HT40 (Harmonic @ 3m)

WIFI	Band 2 5250~5350MHz Harmonic @ 3m	
ANT	802.11n HT40 CH62 5310	
1	Horizontal	Vertical
Peak Avg.	Site : 03CH07-HY Condition : FCC CLASS-B 3m SHF-EHF_131029 HORIZONTAL Detector : Peak Project : 020411 Mode : 2	Site : 03CH07-HY Condition : FCC CLASS-B 3m SHF-EHF_131029 VERTICAL Detector : Peak Project : 020411 Mode : 2



Band 3 - 5470~5725MHz
WIFI 802.11n HT40 (Band Edge @ 3m)

WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11n HT40 CH102 5510MHz - L	
1	Horizontal	Vertical
Peak	 Site : 03CH07-HY Condition : FCC CLASS-B 3m HF-ANT_130829 HORIZONTAL Detector : RBW 1000.000kHz VBW 3000.000kHz SWT:Auto Project : 620411 Mode : 3	 Site : 03CH07-HY Condition : FCC CLASS-B 3m HF-ANT_130829 VERTICAL Detector : RBW 1000.000kHz VBW 3000.000kHz SWT:Auto Project : 620411 Mode : 3
Avg.	 Site : 03CH07-HY Condition : FCC CLASS-B (AVG) 3m HF-ANT_130829 HORIZONTAL Detector : RBW 1000.000kHz VBW 3.000kHz SWT:Auto Project : 620411 Mode : 3	 Site : 03CH07-HY Condition : FCC CLASS-B (AVG) 3m HF-ANT_130829 VERTICAL Detector : RBW 1000.000kHz VBW 3.000kHz SWT:Auto Project : 620411 Mode : 3



WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11n HT40 CH102 5510MHz - R	
1	Horizontal	Vertical
Peak	Site : 03CH07-HY Condition : FCC CLASS-B 3m HF-ANT_130829 HORIZONTAL Detector : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto Project : 620411 Mode : 3	Site : 03CH07-HY Condition : FCC CLASS-B 3m HF-ANT_130829 VERTICAL Detector : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto Project : 620411 Mode : 3
Avg.	Site : 03CH07-HY Condition : FCC CLASS-B (AVG) 3m HF-ANT_130829 HORIZONTAL Detector : RBW:1000.000kHz VBW:3.000kHz SWT:Auto Project : 620411 Mode : 3	Site : 03CH07-HY Condition : FCC CLASS-B (AVG) 3m HF-ANT_130829 VERTICAL Detector : RBW:1000.000kHz VBW:3.000kHz SWT:Auto Project : 620411 Mode : 3



Band 3 - 5470~5725MHz
WIFI 802.11n HT40 (Harmonic @ 3m)

WIFI	Band 3 5470~5725MHz Harmonic @ 3m	
ANT	802.11n HT40 CH102 5510MHz	
1	Horizontal	Vertical
Peak Avg.	Site : 03CH07-HY Condition : FCC CLASS-B 3m SHF-EHF_131029 HORIZONTAL Detector : Peak Project : 620411 Mode : 3	Site : 03CH07-HY Condition : FCC CLASS-B 3m SHF-EHF_131029 VERTICAL Detector : Peak Project : 620411 Mode : 3



Band 4 - 5725~5850MHz

WIFI 802.11n HT40 (Band Edge @ 3m)

WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11n HT40 CH151 5755MHz - L	
1	Horizontal	Vertical
Peak	Site : 03CH07-HY Condition : FCC CLASS-B BAND 4 3m HF-ANT_130829 HORIZONTAL Detector : RBW 1000.000kHz VSW 3.000kHz SWT Auto Project : 620411 Mode : 4	Site : 03CH07-HY Condition : FCC CLASS-B BAND 4 3m HF-ANT_130829 VERTICAL Detector : RBW 1000.000kHz VSW 3.000kHz SWT Auto Project : 620411 Mode : 4
Avg.	Site : 03CH07-HY Condition : FCC CLASS-B (AVG) 3m HF-ANT_130829 HORIZONTAL Detector : RBW 1000.000kHz VSW 3.000kHz SWT Auto Project : 620411 Mode : 4	Site : 03CH07-HY Condition : FCC CLASS-B (AVG) 3m HF-ANT_130829 VERTICAL Detector : RBW 1000.000kHz VSW 3.000kHz SWT Auto Project : 620411 Mode : 4



WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11n HT40 CH151 5755MHz - R	
1	Horizontal	Vertical
Peak	Horizontal Peak Spectrum Plot showing Level (dBuV/m) vs Frequency (MHz) for FCC CLASS-B, BAND 4. The plot shows a noisy baseline with two peaks labeled 1 and 2. Peak 1 is at approximately 5855 MHz and Peak 2 is at approximately 5885 MHz. The y-axis ranges from 14.6 to 117 dBuV/m. The x-axis ranges from 5810 to 5890 MHz. Site : 03CH07-HY Condition : FCC CLASS-B, BAND 4 3m HF-ANT, 130829 HORIZONTAL Detector : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto Project : 620411 Mode : 4	Vertical Peak Spectrum Plot showing Level (dBuV/m) vs Frequency (MHz) for FCC CLASS-B, BAND 4. The plot shows a noisy baseline with two peaks labeled 1 and 2. Peak 1 is at approximately 5855 MHz and Peak 2 is at approximately 5885 MHz. The y-axis ranges from 14.6 to 117 dBuV/m. The x-axis ranges from 5810 to 5890 MHz. Site : 03CH07-HY Condition : FCC CLASS-B, BAND 4 3m HF-ANT, 130829 VERTICAL Detector : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto Project : 620411 Mode : 4
Avg.	Horizontal Avg. Spectrum Plot showing Level (dBuV/m) vs Frequency (MHz) for FCC CLASS-B (AVG). The plot shows a relatively flat, noisy baseline. A single peak labeled 1 is visible at approximately 5855 MHz. The y-axis ranges from 14.6 to 117 dBuV/m. The x-axis ranges from 5810 to 5890 MHz. Site : 03CH07-HY Condition : FCC CLASS-B (AVG) 3m HF-ANT, 130829 HORIZONTAL Detector : RBW:1000.000kHz VBW:3.000kHz SWT:Auto Project : 620411 Mode : 4	Vertical Avg. Spectrum Plot showing Level (dBuV/m) vs Frequency (MHz) for FCC CLASS-B (AVG). The plot shows a relatively flat, noisy baseline. A single peak labeled 1 is visible at approximately 5855 MHz. The y-axis ranges from 14.6 to 117 dBuV/m. The x-axis ranges from 5810 to 5890 MHz. Site : 03CH07-HY Condition : FCC CLASS-B (AVG) 3m HF-ANT, 130829 VERTICAL Detector : RBW:1000.000kHz VBW:3.000kHz SWT:Auto Project : 620411 Mode : 4



Band 4 - 5725~5850MHz
WIFI 802.11n HT40 (Harmonic @ 3m)

WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11n HT40 CH151 5755MHz	
1	Horizontal	Vertical
Peak Avg.	Site : 83CH07-HY Condition : FCC CLASS-B 3m SHF-EHF_131029 HORIZONTAL Detector : Peak Project : 620411 Mode : 4	Site : 83CH07-HY Condition : FCC CLASS-B 3m SHF-EHF_131029 VERTICAL Detector : Peak Project : 620411 Mode : 4

SAR Test Results

General Note:

- 1st: original test results for PY7-PM0952
- 2nd: spot check results for PY7-PM0954

<Head Condition>

No.	Band	Modulation	Mode	Test Position	Gap (mm)	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
1st	WLAN2.4GHz	DSSS	802.11b 1Mbps	Right Cheek	0mm	1	2412	17.73	18.00	1.064	100	1.000	0.18	1.020	1.085
2nd	WLAN2.4GHz	DSSS	802.11b 1Mbps	Right Cheek	0mm	1	2412	17.64	18.00	1.086	100	1.000	0.18	0.836	0.908
1st	WLAN5GHz	OFDM	802.11a 6Mbps	Right Tilted	0mm	64	5280	13.73	14.00	1.064	97.2	1.029	0.15	0.581	0.636
2nd	WLAN5GHz	OFDM	802.11a 6Mbps	Right Tilted	0mm	64	5320	13.54	14.00	1.112	97.22	1.029	0.04	0.611	0.699
1st	WLAN5GHz	OFDM	802.11a 6Mbps	Right Tilted	0mm	132	5660	13.68	14.00	1.076	97.2	1.029	0.04	1.080	1.196
2nd	WLAN5GHz	OFDM	802.11a 6Mbps	Right Tilted	0mm	132	5660	13.68	14.00	1.076	97.22	1.029	0.14	0.958	1.061
1st	WLAN5GHz	OFDM	802.11a 6Mbps	Left Tilted	0mm	165	5825	13.89	14.00	1.026	97.2	1.029	-0.01	0.988	1.043
2nd	WLAN5GHz	OFDM	802.11a 6Mbps	Left Tilted	0mm	165	5825	13.83	14.00	1.040	97.22	1.029	-0.16	0.799	0.855

<Hotspot Condition>

No.	Band	Modulation	Mode	Test Position	Gap (mm)	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
1st	WLAN2.4GHz	DSSS	802.11b 1Mbps	Back	10mm	11	2462	17.65	18.00	1.084	100	1.000	-0.08	0.301	0.326
2nd	WLAN2.4GHz	DSSS	802.11b 1Mbps	Back	10mm	11	2462	17.56	18.00	1.107	100	1.000	-0.08	0.293	0.324

<Body-worn Condition>

No.	Band	Modulation	Mode	Test Position	Gap (mm)	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
1st	WLAN2.4GHz	DSSS	802.11b 1Mbps	Front	15mm	6	2437	17.81	18.00	1.045	100	1.000	0.08	0.151	0.158
2nd	WLAN2.4GHz	DSSS	802.11b 1Mbps	Front	15mm	6	2437	17.72	18.00	1.067	100	1.000	0.1	0.118	0.126
1st	WLAN5GHz	OFDM	802.11a 6Mbps	Front	15mm	64	5320	13.73	14.00	1.064	97.2	1.029	0.11	0.065	0.071
2nd	WLAN5GHz	OFDM	802.11a 6Mbps	Front	15mm	64	5320	13.54	14.00	1.112	97.22	1.029	-0.01	0.068	0.078
1st	WLAN5GHz	OFDM	802.11a 6Mbps	Front	15mm	132	5660	13.68	14.00	1.076	97.2	1.029	0.1	0.182	0.202
2nd	WLAN5GHz	OFDM	802.11a 6Mbps	Front	15mm	132	5660	13.68	14.00	1.076	97.22	1.029	-0.02	0.167	0.185
1st	WLAN5GHz	OFDM	802.11a 6Mbps	Front	15mm	165	5825	13.89	14.00	1.026	97.2	1.029	-0.06	0.212	0.224
2nd	WLAN5GHz	OFDM	802.11a 6Mbps	Front	15mm	165	5825	13.83	14.00	1.040	97.22	1.029	-0.18	0.185	0.198

<Product Specific Condition>

No.	Band	Modulation	Mode	Test Position	Gap (mm)	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 10g SAR (W/kg)	Reported 10g SAR (W/kg)
1st	WLAN5GHz	OFDM	802.11a 6Mbps	Top Side	0mm	64	5320	13.73	14.00	1.064	97.2	1.029	0.18	0.313	0.343
2nd	WLAN5GHz	OFDM	802.11a 6Mbps	Top Side	0mm	64	5320	13.54	14.00	1.112	97.22	1.029	0.14	0.296	0.339
1st	WLAN5GHz	OFDM	802.11a 6Mbps	Back	0mm	100	5500	13.73	14.00	1.064	97.2	1.029	-0.1	0.530	0.580
2nd	WLAN5GHz	OFDM	802.11a 6Mbps	Back	0mm	100	5500	13.56	14.00	1.107	97.22	1.029	0.18	0.482	0.549
1st	WLAN5GHz	OFDM	802.11a 6Mbps	Top Side	0mm	157	5785	13.74	14.00	1.062	97.2	1.029	-0.19	0.406	0.444
2nd	WLAN5GHz	OFDM	802.11a 6Mbps	Top Side	0mm	157	5785	13.68	14.00	1.076	97.22	1.029	0.18	0.380	0.421

End of this report