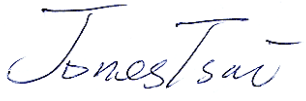
Spot Check Evaluation



Approved by: Jones Tsai

SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory
No. 52, Huaya 1st Rd., Guishan Dist., Taoyuan City, Taiwan (R.O.C.)

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REVISION HISTORY

VERSION	DESCRIPTION	ISSUED DATE
Rev. 01	Initial issue of report	Mar. 12, 2019

1. Introduction Section

The original model (FCC ID: UZ7MC930P) and the variant model (FCC ID: UZ7MC930B) has identical PCB layout, antenna, SW implementation for Bluetooth/Wi-Fi. Based on their similarity, the FCC Part 15C (equipment class: DTS, DSS) and Part 15E (equipment class: NII) test data issued test data of UZ7MC930B references the test data of UZ7MC930P

The applicant takes full responsibility that the test data as referenced in this report represent compliance for this FCC ID (FCC ID: UZ7MC930B)

2. Difference Section

The original model (FCC ID: UZ7MC930P) and the variant model (FCC ID: UZ7MC930B) has identical PCB layout, antenna, SW implementation for Bluetooth/Wi-Fi. The details of similarity and difference can be found in the Produce Equality Description.

The product specification is outlined in the following table:

FCC ID		UZ7MC930P	UZ7MC930B
Wireless Tech	**Mode**	**Frequency (MHz)**	
NFC	ASK	13.56	not supported
Wi-Fi	11b/11g/11n(HT20)/11n(HT40)/ 11ac(VHT20)/11ac(VHT40)	2412-2462	
	11a/11n(HT20)/11n(HT40)/ 11ac(VHT20)/11ac(VHT40)/ 11ac(VHT80)	5150-5250 5250-5350 5470-5725 5725-5850	
Bluetooth	BR/EDR/LE	2402-2480	

3. Spot Check Verification Data Section

Summary of the spot check:

Test Item	Mode	UZ7MC930P Worst Result	UZ7MC930B Worst Result	Difference (dB)
Average Conducted Power (dBm)	802.11b, CDD mode	25.12	24.86	0.26
	802.11g, CDD mode	22.45	22.41	0.04
	11n HT20, CDD mode	22.54	22.26	0.28
	11n HT40, CDD mode	18.96	18.66	0.3
	11ac VHT20, CDD mode	22.44	22.16	0.28
	11ac VHT40, CDD mode	18.94	18.56	0.38
	BT (1Mbps)	3.17	3.59	-0.42
	BT (2Mbps)	-0.26	-0.48	0.22
	BT (3Mbps)	-0.24	-0.68	0.44
	BT-LE (1Mbps)	5.85	6.00	-0.15
	BT-LE (2Mbps)	5.84	6.00	-0.16
	802.11a, 5.2GHz, CDD mode	20.60	20.32	0.28
	11n HT20, 5.2GHz, CDD mode	21.19	20.76	0.43
	11n HT40, 5.2GHz, CDD mode	21.78	21.47	0.31
	11ac VHT20, 5.2GHz, CDD mode	21.11	20.66	0.45
	11ac VHT40, 5.2GHz, CDD mode	21.73	21.27	0.46
	11ac VHT80, 5.2GHz, CDD mode	15.81	15.37	0.44
	802.11a, 5.3GHz, CDD mode	20.68	20.31	0.37
	11n HT20, 5.3GHz, CDD mode	20.85	20.47	0.38
	11n HT40, 5.3GHz, CDD mode	23.07	22.87	0.2
	11ac VHT20, 5.3GHz, CDD mode	20.80	20.37	0.43
	11ac VHT40, 5.3GHz, CDD mode	22.99	22.77	0.22
	11ac VHT80, 5.3GHz, CDD mode	14.67	14.21	0.46
	802.11a, 5.5GHz, CDD mode	20.82	20.71	0.11
	11n HT20, 5.5GHz, CDD mode	21.35	21.11	0.24
	11n HT40, 5.5GHz, CDD mode	22.39	22.26	0.13
	11ac VHT20, 5.5GHz, CDD mode	21.34	21.06	0.28
	11ac VHT40, 5.5GHz, CDD mode	22.29	22.16	0.13
	11ac VHT80, 5.5GHz, CDD mode	21.90	21.77	0.13
	802.11a, 5.8GHz, CDD mode	21.82	21.66	0.16
	11n HT20, 5.8GHz, CDD mode	21.79	21.52	0.27
	11n HT40, 5.8GHz, CDD mode	21.85	21.61	0.24
	11ac VHT20, 5.8GHz, CDD mode	21.77	21.31	0.46
	11ac VHT40, 5.8GHz, CDD mode	21.76	21.51	0.25
	11ac VHT80, 5.8GHz, CDD mode	21.33	21.16	0.17

Test Item	Mode	UZ7MC930P Worst Result	UZ7MC930B Worst Result	Difference (dB)
Peak Radiated Spurious Emission (Band Edge) (dBuV/m)	802.11b (CDD Mode) Ch11	58.4	58.03	0.37
	11n HT40 (CDD Mode) Ch06	62	60.87	1.13
	BT (1Mbps) Ch78	47.19	49.40	-2.21
	BT-LE (2Mbps) Ch39	55.54	56.04	-0.5
	802.11a, 5.2GHz, CDD mode	58.40	58.75	-0.35
	11n HT40, 5.3GHz, CDD mode	59.29	61.31	-2.02
	11ac VHT80, 5.5GHz, CDD mode	64.00	61.11	2.89
	11ac VHT80, 5.8GHz, CDD mode	66.02	65.96	0.06
Average Radiated Spurious Emission (Band Edge) (dBuV/m)	802.11b (CDD Mode) Ch11	51.85	51.84	0.01
	11n HT40 (CDD Mode) Ch06	52.77	51.43	1.34
	BT (1Mbps) Ch78	22.40	24.61	-2.21
	BT-LE (2Mbps) Ch39	48.10	47.95	0.15
	802.11a, 5.2GHz, CDD mode	52.58	51.42	1.16
	11n HT40, 5.3GHz, CDD mode	52.59	52.49	0.1
	11ac VHT80, 5.5GHz, CDD mode	52.86	52.56	0.3
	11ac VHT80, 5.8GHz, CDD mode	n/a	n/a	-
Peak Radiated Spurious Emission (Harmonic) (dBuV/m)	802.11b (CDD Mode) Ch11	48.16	49.88	-1.72
	11n HT40 (CDD Mode) Ch06	45.17	43.85	1.32
	BT (1Mbps) Ch78	44.43	44.28	0.15
	BT-LE (2Mbps) Ch39	44.71	43.63	1.08
	802.11a, 5.2GHz, CDD mode	49.95	50.38	-0.43
	11n HT40, 5.3GHz, CDD mode	50.43	50.58	-0.15
	11ac VHT80, 5.5GHz, CDD mode	52.89	52.03	0.86
	11ac VHT80, 5.8GHz, CDD mode	53.69	54.21	-0.52

Conclusion:

Radiated spurious emission test against the variant model 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.

4. Reference detail Section

Equipment Class	Reference FCC ID	Type Grant/Permissive Change	Reference Application	Folder Test/RF Exposure	Report Title
DTS	UZ7MC930P	Original Grant	FR8N2626B FR8N2626C	Part 15C	All sections applicable
DSS	UZ7MC930P	Original Grant	FR8N2626A	Part 15C	All sections applicable
NII	UZ7MC930P	Original Grant	FR8N2626E FR8N2626F FR8N2626G	Part 15E	All sections Applicable