



Spot Check Evaluation

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REVISION HISTORY

| VERSION | DESCRIPTION | ISSUED DATE |
|---------|-------------------------|---------------|
| Rev. 01 | Initial issue of report | Mar. 12, 2019 |
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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)/ | 5150-5250 | |
| | 11ac(VHT80) | 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 |