



SPOT CHECK EVALUATION

FCC ID : UZ7MC27AJ
Equipment : Mobile computer
Brand Name : Zebra
Model Name : MC27AJ
Applicant : Zebra Technologies Corporation
1 Zebra Plaza, Holtsville, NY 11742
Manufacturer : Zebra Technologies Corporation
1 Zebra Plaza, Holtsville, NY 11742
Standard : FCC Part 15 Subpart C §15.247
FCC Part 15 Subpart E §15.407
FCC Part 22H/24E/27/90

The product was received on Dec. 06, 2019 and testing was started from Jan. 28, 2020 and completed on Mar. 04, 2020. We, SPORTON INTERNATIONAL INC., EMC & Wireless Communications Laboratory, would like to declare that the tested sample has been evaluated in accordance with the test procedures and has been in compliance with the applicable technical standards.

The report must not be used by the client to claim product certification, approval, or endorsement by TAF or any agency of government.

The test results in this spot check report apply exclusively to the tested model / sample. Without written approval of SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory, the test report shall not be reproduced except in full.

Approved by: Louis Wu

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1. Introduction Section

The FCC ID: UZ7MC27AK (original model) and FCC ID: UZ7MC27AJ (variant model) are HW identical except the NFC function and camera. Other than these two items, the RF and antenna design is the same. Based on their similarity, the FCC Part 22H/24E/27/90 (equipment class: PCB), FCC Part 15C (equipment class: DTS, DSS) and FCC Part 15E (equipment class: NII) reuse the original model's result and do spot-check, following the FCC KDB 484596 D01 v01.

The applicant takes full responsibility that the test data as referenced in this report represent compliance for this FCC ID (FCC ID: UZ7MC27AJ).



2. Difference Section

The difference between UZ7MC220K and UZ7MC220J are NFC function and camera.

Other than these two items, the RF and antenna design is the same.

The details of similarity and difference can be found in Operation Description.



3. Spot Check Verification Data Section

Conducted power test and 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. Detail spot check test result can be found in the variant model reports, please refer to detail section table in section 4.

Summary of the spot check:

Test Item	Mode	UZ7MC27AK Worst Result	UZ7MC27AJ Worst Result	Difference (dB)
Conducted Power (dBm)	BT-3DH1	7.24	7.22	-0.02
	BLE5.0 (2Mbps)	7.6	7.4	-0.2
	WLAN 2.4G (SISO)	24.6	24.59	-0.01
	WLAN 5G B1-3 (SISO)	20	20	0
	WLAN 5G B4 (SISO)	18	17.9	-0.1
Radiated Spurious Emission (dBuV/m)	BT-3DH1	45.78	44.71	-1.07
	BLE5.0 (2Mbps)	55.04	57.42	2.38
	WLAN 2.4G (SISO)	64.09	61.09	-3
	WLAN 5G B1-3 (SISO)	66.86	65.19	-0.67
	WLAN 5G B4 (SISO)	78.17	80.94	2.77

Based on the same WWAN Chipset, the same conducted power of MC27AK was used for the following verification.

Summary of the spot check:

Test Item	Mode	UZ7MC27AK Worst Result	UZ7MC27AJ Worst Result	Difference (dB)
Radiated Spurious Emission (Harmonic) (dBuV/m)	WWAN WCDMA Band 2	-50.42	-46.54	3.88
	WWAN WCDMA Band 4	-51.34	-48.59	2.75
	WWAN WCDMA Band 5	-50.88	-49.02	1.86
	WWAN LTE Band 2	-40.21	-41.58	-1.37
	WWAN LTE Band 4	-43.15	-40.77	2.38
	WWAN LTE Band 5	-45.89	-42.79	3.1
	WWAN LTE Band 7	-43.99	-43.69	0.3
	WWAN LTE Band 12	-49.14	-50.91	-1.77
	WWAN LTE Band 13	-43.40	-47.34	-3.94
	WWAN LTE Band 14	-30.63	-29.06	1.57
	WWAN LTE Band 17	-46.8	-48.46	-1.66
	WWAN LTE Band 66	-44.9	-43.65	1.25



4. Reference detail Section

Rule Part	Equipment Class	Wireless Technology	Frequency Band (MHz)	Reference FCC ID (Parent)	Type Grant/ Permissive Change	Reference Title	FCC ID Filling (Variant)
15C	DTS	Bluetooth-LE Wi-Fi	2400~2483.5	UZ7MC27AK	Original Grant	FR052917-01B FR052917-01C	UZ7MC27AJ
	DSS	Bluetooth	2400~2483.5	UZ7MC27AK	Original Grant	FR052917-01A	UZ7MC27AJ
15E	NII	Wi-Fi	5150~5250 5250~5350 5470~5725 5725~5850	UZ7MC27AK	Original Grant	FR052917-01E FR052917-01F	UZ7MC27AJ
		DFS	5250~5350 5470~5725	UZ7MC27AK	Original Grant	FZ052917-01	UZ7MC27AJ
22H/24E/ 27/90	PCB	WCDMA	WCDMA B2/4/5	UZ7MC27AK	Original Grant	Part 22.24.27 (FG052917-01A)	UZ7MC27AJ
		LTE	LTE B2/4/5/7/ 12/13/14/17/66	UZ7MC27AK	Original Grant	Part 22.24.27.90 (FG052917-01B, FG052917-01C)	UZ7MC27AJ

END of this report