

Date: June 12, 2023

Office of Engineering and Technology Laboratory Division Equipment Authorization Branch Federal Communications Commission Laboratory 7435 Oakland Mills Road Columbia, MD 21046

Subject: Application for Class 2 Permissive Change to FCC Authorized Transceiver with FCC ID: AZ489FT4953

Dear Sir/Madam,

A permissive change is requested for the subject transceiver which is marketed in the United States and elsewhere.

A. <u>DESCRIPTION OF PRODUCT CHANGES:</u>

- 1) Replacing active components below due to EOL (End of Life). The component changes are made within the RF circuitries as below:
 - i) RFIC

Replace Rodinia-Lite 1.3 with Rodinia-Lite 2.1. New part is pin-to-pin comparable with current part.

- ii) New transmitter pre-driver stage
- iii) New varactor diode at VCO section
- iv) New MLCC (Multi-Layer Chip Capacitor) passive components
- 2) Replacing the audio amplifier protection IC and its supporting circuitries on the controller section (non-RF), with new replacement and supporting design optimization circuitries.
- 3) Replacing the voltage detector IC on the Power Management section (non-RF) with new replacement and supporting design optimization circuitries.
- 4) Added as dual/multiple source with the existing parts due to multiple supply constraints with the current parts. There is no change to the radio electrically and the replacement parts are pin-to-pin comparable with the current parts

Old Part Number	New Part Number	Description	Where Used
4805656W76 (On Semi)	CR002401A01 (On Semi, MCC & Nexperia)	Zener Diode (Non RF)	Peripheral, as ESD Protection
4813977C23 (On Semi)	CR002049A01 (On Semi & Nexperia)	Zener Diode (Non RF)	Peripheral, as ESD Protection
4813979P10 (On Semi)	CR001956A01 (On Semi & Nexperia)	Transistor (Non RF)	Peripheral, as ESD Protection
4815040H01 (On Semi)	CR002561A01 (On Semi, MCC & Nexperia)	Zener Diode (Non RF)	Peripheral, as ESD Protection



MOTOROLA SOLUTIONS

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51009345001	LD000331A01	NOR Logic Gate (Non RF)	Power Management, as logic
(On Semi)	(On Semi & Nexperia)		circuit
51013555001 (Texas Instruments)	LD000409A01 (Texas Instruments & Nexperia)	Inverter Logic Gate (Non RF)	Microprocessor, as logic circuit
5115001H02	LD000316A01	Inverter Logic Gate (Non	Microprocessor, as logic circuit
(On Semi)	(On Semi & Nexperia)	RF)	
CR001439A01	CR002558A01	Zener Diode (Non RF)	Keypad Board, as ESD
(On Semi)	(On Semi & MCC)		Protection

B. <u>PERFORMANCE DIFFERENCES:</u>

EMC has been assessed and no degradation was found, however EME observed degradation as compared to the previous filing but the data continues to be compliant to the FCC limits.

C. CONCLUSION:

This radio continues to meet all FCC emissions requirements for which authorization was granted.

Sincerely,

Dearman Zakharia

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