

Date: June 14, 2024

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: AZ489FT7146

Dear Sir/Madam,

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

A. DESCRIPTION OF PRODUCT CHANGES:

Due to components End of Life (EOL) and Parts Shortage, various parts need to be replaced and to add for alternative sources. The changes includes:

- a) Transmit Pre-driver amplifier that has similar specifications.
 Since this component replacement is not a pin-to-pin compatible with the previous amplifier, minor re-layout is required.
- b) Bill of Material (BOM) optimization at the Controller section.
- c) Dual sources for the PCB boards (Multek and WUS).

Details of the replacement parts:

Old Part Number	New Part Number	Description	Use At
51009686002 (Supplier: GlobalFoundries)	IC001616A01 (Supplier: GlobalFoundries)	Rodinia Lite 2.1	RF IC
48012220001 (Supplier: Toshiba)	CR003002A01 (Supplier: Infineon)	Transistor	TX Pre-driver
5189139P01 (Supplier: On Semi)	LN001553A01 (Supplier: Maxim Integrated)	MUX/SPDT SWITCH	Controller

Table 1: Replacement Parts

Old Part Number	New Part Number	Description	Use At
IC000240A01 (Supplier: On Semi)	IC002367A01 (Supplier: On Semi, Analog Devices)	INTERFACE IC	TX Op Amp
93009318001 (Supplier: Swatch)	4809995L15 (Swatch, Epson)	XTAL 32 KHz	Controller
PC002979A03 (Supplier: Multek)	PC002979A03 (Supplier: Multek, WUS)	PCB	PCB

Table 2: Alternative Parts

Old Part Number	New Part Number	Description	Use At
0613952R66 (Supplier: KOA, Panasonic)	0613952Q73 (Supplier: KOA)	Resistor 1K OHM	Peripherals
0613952R66 (Supplier: KOA, Panasonic)	Do Not Placed (DNP)	Do Not Placed (DNP)	Boost Regulator
Do Not Placed (DNP)	0613952R66 (Supplier: KOA, Panasonic)	Resistor 0 OHM	Boost Regulator
7688697V04 (Supplier: Murata)	HZ000770A01 (Supplier: Murata)	Ferrite Bead 470 OHM	1.8V Switching Regulator
CA000985A01 (Supplier: Murata)	CA000360A01 (Supplier: Murata)	Capacitor 22 UF	1.8V Switching Regulator

Table 3: Bill of Material (BOM) Optimization Parts


B. PERFORMANCE DIFFERENCES:

EMC and EME have been assessed and no degradation was found. Data continues to be compliant to the FCC limits. Since the changes made does not impact WIFI section, hence it is considered as low risk.

C. CONCLUSION:

This radio continues to meet all the FCC emissions requirements for which authorization was granted. This radio meets all the nine criteria listed in the KDB 388624 D02 (Notification 202109-001) to comply with the C2PCPX procedure.

Sincerely,



Arine Lee
 FCC/IC Certification Manager
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