

Date: October 7, 2025

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: AZ489FT7144

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:

1. PCB board changes to Wus Printed Circuit Co Ltd.
2. Adding an alternative source for electrical parts to ensure continuity of supply; these will be dual-source parts. Several dual-source drop-in parts have been added, including the NPN digital transistor, speaker switch, LMR & BT/WiFi 38.4 MHz TCXO, eMMC and Schottky diodes in power and audio circuits.
3. Transmitter section changes include the implementation of a new transistor for the PCB re-layout TX PA, and a change of operational amplifiers in the TX power control section.
4. Controller section changes include removing Zener diodes and the low battery circuit for cost reduction; adding new skip mode circuitry and a new RTC chipset; adding a current limiter switch; changing the voltage regulator and replacing a resistor with a capacitor to support layout changes; implementing a new audio PA design with a new audio IC and two replaced transistors; adding an ESD protection diode at the supply line in the peripheral section for ESD enhancement and a capacitor to fix the interaction between the battery data line and antenna performance; and adding a capacitor to the microprocessor section.
5. Connectivity section changes include a new triplexer in the BT/WiFi section and the addition of a resistor in the GNSS section for reset purposes; capacitor changes in the BT/WiFi/GNSS sections; and replacement of the LNA amplifier in the GNSS section due to EOL, along with inductor changes to match the new LNA amplifier.
6. RFIC changes include a part change of ferrite beads due to downsizing, and addition of two beads for UL distance clearance, the replacement of a resistor with a capacitor, and the addition of two varactor diodes.

7. Receiver side changes include removing the capacitor of RXFE WB AGC FLAG circuitry and the circuitry of the external RF detector, as well as reducing the values of the capacitor and inductor at the pre-filter side to improve performance.
8. Part changes involve eight types of resistors across the Microprocessor, Tx, RX, VCO, Power Management and Audio, Peripheral, BT/WIFI/GNSS, RFIC.
9. Software version (FVIN) has changed from R02.25.01.1002 to I02.25.03.0031. The I-tag version is a development version, as the R-tag will only be launched in November 2025. This change does not impact RF performance.

B. PERFORMANCE DIFFERENCES:

EMC and EME have been assessed and no degradation was found compared to the previous filing and 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,



Arine Lee
FCC/IC Certification Manager
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