

Date: 10 Jan 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: AZ489FT5877

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. Due to global part shortage, there are various ICs replacement (listed below) which some of the components requires re-layout. The changes have similar basic function as the previous design and no change in radio parameters.
 - i. Radio Frequency IC (RFIC) Rodinia 2.3 replaced with new Rodinia 3.0 IC. There is no change to the radio electrically and the new part is pin-to-pin comparable with the current part. No layout impacts since it is drop-in part.
 - ii. Transmitter Javelin IC replaced with Javelin 2 IC and its supporting circuitries, with new replacement and supporting design optimization circuitries. However, it is not a pin-to-pin compatible with the previous IC. A re-layout was required to accommodate the new circuitry design and all meets the same specification as the previous part.
 - iii. Passive components (capacitor, inductor, and resistor) in Transmitter, RFIC Rodinia and FGU/VCO section drop-in part replacement due to End of Life (EOL).
 - iv. FGU/VCO SPDT RF Switch replacement part is a not pin-to-pin comparable to the current part hence need minor re-layout. The new part provides the same functionality as the previous part.
2. Other non-transmitter changes which do not impact the RF performance included:
 - i. Fall Alert (Mandown), Peripheral and Power Management parts replacement with minor re-layout due to End of Life (EOL).
 - ii. Peripheral and Power Management drop-in parts replacement due to End of Life (EOL).
 - iii. Frequency Stability's PPM correction for LMR 800MHz Transmitter's TMO and DMO section in Exhibit 12a.
3. Add in some of part components that missed out and correction on the application from previous filling in Exhibit 10.

4. PCB part number changed from PC001037A02_AB to PC003990A01_01 due to PCN changes which required re-layout and replacement parts.
5. BOM optimization by adjusting the feedback & forward resistor Reference Designator R917M2 from 51ohm to 75ohm, & R918M2 from 36ohm to 51ohm in the Javelin. The Tx RF path remains unchanged, with the same rated power output.
6. DFM spacing is fixed in the Digital Section, CPCAP Section, and CPCAP Audio Section. This change is to accommodate factory yield for the continuation of the assembly of the product line.

B. PERFORMANCE DIFFERENCES:

EME, EMC & RF has been assessed and no degradation found compared to the previous filing and still within 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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