May 20, 2020

Equipment Authorization Division
Federal Communications Commission
7435 Oakland Mills Road
Columbia, MD 21046

43 Erie Street
Victoria, BC
Canada V8V 1P8

FCC ID: H4JVT-4E150
Model Number: VT-4E150-00-800
Product Description: MT-4E VHF 8W Transmitter

To Whom It May Concern:

Please find attached supporting documentation for a **Class II Permissive Change Filing** on the VT-4E150-00-800 8W **Transmitter**, operating in the 136 - 174 MHz frequency band of the Land Mobile Services in accordance with 47 CFR§ Parts 22, 80 & 90. This Class II Permissive Change is for the replacement of components in the product Parts List which have been made obsolete by their respective manufacturers. **It is our assertion, supported by the attached test reports, that these component replacements do not materially alter or degrade the emissions or other relevant electrical characteristics of the product as reported in previous filings**.

A summary of the relevant changes follows:

Subassembly	Change Summary
UDB	- Replaced the obsolete Flash Memory IC (U2) with a functional equivalent. - Minor PCB trace layout changes were made to accommodate the pinout of the new Flash Memory. - Remove an unused LED & supporting circuitry (LED1, R31, R32, Q1).
8W PA	- Replaced the obsolete first gain stage amplifier (U1) with lower-noise equivalent & supporting circuitry. The following passive components were added (C73, L13, L14, R61), and the following changed (C63, C7, C8, R33, R34, R46, R47) to support the new amplifier. - Minor changes to the PCB layout were made in the required areas to support these changes.
Synthesizer	- Replaced obsolete clock resonator (X1) for the onboard microprocessor with a functionally equivalent part of different package style. - Replaced obsolete VCO gain amplifier (U17) with a lower noise equivalent and updated the supporting voltage regulator (U5). The following passive components were removed (C152, C153, C154, C168, C169, C174, C48, C49, C50, C51, C52, C53, L13, R35), the following added (C144, L9, R47, R48, R71, R72), and the following changed (C35, C36, C37, C38, C39, C40, C41, C42, C46 , C47, L14, R23, R54, R55) to support the above changes. - Minor changes to the PCB layout were made in the required areas to support the component changes.
Main Board	- Removed an obsolete capacitor (C107) from an unused realtime clock section

The following updated technical exhibit files are provided in support of this application, replacing the noted old exhibit submissions.

Updated Exhibit Filename	Old Exhibit Filename
H4JVT-4E150 – Schematics – Main Board (60013-02) (CONFIDENTIAL).pdf	H4JVT-4E150 – Schematics – Main Board (50156-03) (CONFIDENTIAL).pdf
H4JVT-4E150 – Schematics – Synthesizer (60011-03) (CONFIDENTIAL).pdf	H4JVT-4E150 – Schematics – Synthesizer (50154-03) (CONFIDENTIAL).pdf
H4JVT-4E150 – Schematics – UDB (60013-02) (CONFIDENTIAL).pdf	H4JVT-4E150 – Schematics – UDB (50149-03) (CONFIDENTIAL).pdf
H4JVT-4E150 – Schematics – VHF 8W PA (60010-03) (CONFIDENTIAL).pdf	H4JVT-4E150 – Schematics – VHF 8W PA (50118-08) (CONFIDENTIAL).pdf
H4JVT-4E150 – BOM – Main Board (60012-02) (CONFIDENTIAL).pdf	H4JVT-4E150 – BOM – Main Board (50156-03) (CONFIDENTIAL).pdf
H4JVT-4E150 – BOM – Synthesizer (60011-03) (CONFIDENTIAL).pdf	H4JVT-4E150 – BOM – Synthesizer (50154-03) (CONFIDENTIAL).pdf
H4JVT-4E150 – BOM – UDB (60013-02) (CONFIDENTIAL).pdf	H4JVT-4E150 – BOM – UDB (50149-03) (CONFIDENTIAL).pdf
H4JVT-4E150 – BOM – VHF 8W PA (60010-03) (CONFIDENTIAL).pdf	H4JVT-4E150 – BOM – VHF 8W PA (50118-08) (CONFIDENTIAL).pdf
H4JVT-4E150 – Photos – VHF_2020-05.pdf	H4JVT-4E150 – Photos – VHF.pdf

All other technical exhibits previously submitted against this product remain valid.

Yours Sincerely,

Nathan Wren
Engineering Operations Manager

Codan Communications Ltd.
43 Erie Street
Victoria, BC, Canada V8V 1P8
Phone: (778) 747-0466
Fax: (250) 382-6139

E-mail: nathan.wren@codancomms.com