

September 21st, 2012

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

Att: JC Chen

Subject: Response to Correspondence 42591 for Certification of Transmitter with
FCC ID: AZ492FT3826, EA596340

Hello Mr. Chen,

Please see below for our responses:

Q1. Please clarify whether this application is seeking Part 90 certification only or Parts 80 and 90, or Parts 22, 74, 80 and 90? The submitted EMC report also supports Part 90 with all other bands/modes marked not for FCC review. However, the user's manual suggests the EUT is also Part 80 certified while one of the cover letters states that it is requesting certification for Parts 22, 74, 80 and 90. Please clarify the applicable rule parts and what frequency bands are being authorized and which are extended frequency listings. Keep in mind that FCC policy does not permit equipment for occupational/controlled RF exposure to mix with those for the general population. (It is not practical to claim both categories for the same device anyway.)

R1. This application is seeking FCC Rule parts 22, 74, 80, and 90. We will not be mix Occupational and General Population exposure limits. The FCC has approved several products under Rule Parts 22, 74, 80, and 90.

Q2. Please review grant notes. BF is used on Form 731 but EF and BE are suggested on the extended frequency justification letter.

R2. Please see the attached amended Ex13c. Please note that we had some difficulty to add the second Grant Notes symbol of EF on the FCC website. Could you include "EF" on the approval.

Q3. 25 kHz operation is not allowed for Part 90 VHF band. Therefore, 25 kHz modes should not be listed on the grant if this application is for Part 90 only. Please remove the last two listings (with emission designators 16K0F3E and 20K0F1E) on the specification page of Form 731. If you have trouble modifying Form 731, please send in request and specific instruction on what changes you would like me to do on your behalf.



FCC ID: AZ492FT3826

R3. Emission Designators, 16K0F3E and 20K0F1E are not for Rule Part 90. They are for Rule Part 80 and 22, as listed on the Form 731.

Q4. Similarly, for data and information associated with 25 kHz operations, the applicant should use the term "Not for FCC" instead of "Not for FCC Part 90" in the operational description (Exhibit 12-1). The latter could be interpreted as being applicable to other FCC rule parts which are not covered in this equipment authorization application.

R4. Please note that Emission Designators 16K0F3E and 20K0F1E are applicable to Rule parts 22 and 80.

Q5. Please remove the quotation marks around the sentence "as an alternative to listing the exact frequencies..." in the extended frequencies justification letter. The quotation marks make it appear that the applicant is quoting KDB 634817 and not attesting to the effect.

R5. We have removed the quotation marks, as request, in Exhibit 13c. Please note that the text was excerpted verbatim from an earlier version of this KDB.

Q6. EMC test report test equipment list shows a piece of equipment almost 6 months out of calibration at time of testing.
Arine to respond:

R6. This was a typo and the actual calibration due date is 2-Mar-2013. See the attached updated file ex 07.

Q7. Despite the applicant's claim that the transmitter is not capable of being programmed by station operators using external controls, user's manual in Pages 31-33 seem to suggest otherwise. In particular, please clarify the statement on Page 32 "If you select a channel that is not within the preprogrammed band, the radio indicates that it is on an unsupported frequency with both audio and visual warnings." In addition, please describe the default (before programming) radio zone and channel options available to users.

R7. The user manual states that "Any reference in this manual to a control that is "preprogrammed" means that the control must be programmed by a dealer or an authorized service personnel using the radio's programming software, in order to assign a feature to that control." Since all the channels available for the operator to select are preprogrammed, statement on Page 32 as mentioned in the question will be removed from the user's manual to avoid confusion. Please note that users must have a valid FCC license to use these radios.

The default frequency in the radio is 136.00 MHz.

Q8. The measured power levels in the EMC report at high power mode (60/59.8/60 Watts) exceed the number provided on Form 731 (50 Watts).

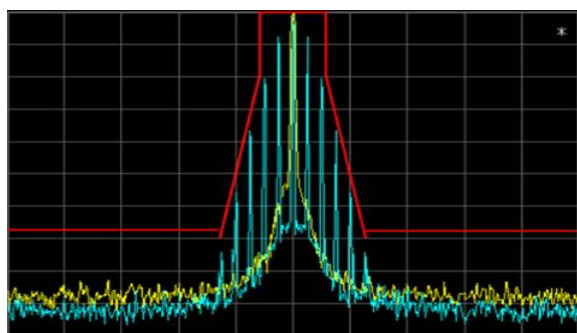
R8. The power listed on the Form 731 is the Nominal or Rated Power which is 50 Watts. Also, the max power is 60 Watts and is usually listed in the FCC Grant Notes. Also, the Nominal Power meets the FCC's Rule Part 90.203 (r) requirement of 20%.

Q9. The Emission Mask D shown in the occupied bandwidth plots do not appear to be correct. After 12.5 kHz removed from the center frequency, the mask should be at 50 dB lower than the reference level.

R9. Part 90.210 (d) (3) , "On any frequency removed from the center of the authorized bandwidth by a displacement frequency (f_d in kHz) of more than 12.5 kHz: At least $50 + 10 \log (P)$ dB or 70 dB, whichever is the lesser attenuation."

Attenuation after ± 12.5 kHz = $50 + 10 \log (P)$ dB. In this case $P = 60$ W, therefore attenuation after ± 12.5 kHz = $50 + 10 \log (60) = 67.78$ dB down from the reference level.

Reference level = 0dB.



If you require any additional information, please contact me at (954) 723-5793 (Phone).

Sincerely,



Mike Ramnath (signed above)

Manager, Regulatory Compliance

Email: Mike.Ramnath@motorolasolutions.com

EXHIBIT 13