

21<sup>st</sup> August 2014

Mr. D. Crowder  
 Elite Electronic Engineering Inc  
 1516 Centre Circle Downers Grove  
 Illinois 60515-1082  
 United States of America

Dear Dan,

**Subject: C2PC Services on a Mobile Transceiver\_FCC ID: CASTMAH5B**

The purpose of this C2PC exercise is to correct two emission designators on the Grant of Authorisation and remove the wide band emission designators.

1. Please remove wide band emission designators 16K0F3E, 9K60F2D,12K6F1D
2. Please change the incorrectly labelled Emission designators:
  - From 4K80F2D to 6K60F2D (Narrow Band FFSK 1200bps)
  - From 8K40F2D to 9K60F2D (Wide Band FFSK 1200bps)

The calculations in the original test report incorrectly factored the baud rate of 600Hz instead of correctly using the upper FFSK audio frequency of 1800 Hz. The incorrect and corrected workings are copied below for clarification.

Incorrect workings:

**Fast Frequency Shift Keying (FFSK) 12.5kHz Channel Spacing**

Necessary bandwidth

Emission Designator

M = 0.6 (Baud rate = 1200)  
 D = 1.5kHz (60% of peak deviation)

**4k80F2D**

F2D represents a FM data transmission with the use of a modulating sub carrier

Bn = 1.2 + 3 x 1.2  
 =4.8kHz

**Fast Frequency Shift Keying (FFSK) 25kHz Channel Spacing**

Necessary bandwidth

Emission Designator

M = 0.6 (Baud rate = 1200)  
 D = 3kHz (60% of peak deviation)

**8k40F2D**

F2D represents a FM data transmission with the use of a modulating sub carrier

Bn = 1.2 + 6 x 1.2  
 =8.4kHz

Corrected Workings:

**Fast Frequency Shift Keying (FFSK – 1200 bps) 12.5 kHz Channel Spacing**

Necessary bandwidth

Emission Designator

$$M = 1.8 \text{ kHz}$$

$$D = 1.5 \text{ kHz (60\% of peak deviation)}$$

$$B_n = (2 \times 1.8) + (2 \times 1.5) \times 1 \\ = 6.6 \text{ kHz}$$

**6K60F2D**

F2D represents a FM data transmission with the use of a modulating sub carrier

**Fast Frequency Shift Keying (FFSK – 1200 bps) 25.0 kHz Channel Spacing**

Necessary bandwidth

Emission Designator

$$M = 1.8 \text{ kHz}$$

$$D = 3 \text{ kHz (60\% of peak deviation)}$$

$$B_n = (2 \times 1.8) + (2 \times 3.0) \times 1 \\ = 9.6 \text{ kHz}$$

**9K60F2D**

F2D represents a FM data transmission with the use of a modulating sub carrier

Note: This does not affect the measured performance of the radio as originally submitted.

Will you please add grant Notes category EF to the Grant of Approval.

I will upload the files that will be required by the FCC, to you.

Upon completion, please invoice us for this work; we will pay by Telegraphic Transfer.

Yours sincerely,



Des Fox  
Compliance Coordinator