

21st August 2014

Mr. D. Crowder
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Dear Dan,

Subject: C2PC Services on a Mobile Transceiver_FCC ID: CASTBBH5B

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 = $1.2 + 3 \times 1.2$
=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 = $1.2 + 6 \times 1.2$
=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.

FCC ID: CASTBBH5B Grant was originally obtained by 2.933 Change of Equipment Identification process using the FCC ID: CASTMAH5B Mobile Transceiver.

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