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May 8, 2002

Andy Leimer
FCC Equipment Authorization Branch

Re: Correspondence Number 22799, FCCID: FRWRT-5000

Dear Mr. Leimer,

Wulfsberg Electronics herein submits its response to the May 3rd 2002 request for information in correspondence number 22799.

Q1. Section 87.173(b) prohibits operation at 8.33 kHz channel spacing.

R1. There is no 8.33 kHz channel spacing. We are only using 12.5 kHz and 25 kHz channel spacings. The confusion may be due to the 8K10 emission designators for the digital modulation of the Motorola integrated Transceiver Modules (TM), Transceivers 2 through 4.

Section 2.202(c) lists four methods of determining the Necessary Bandwidth, including the formulas in 2.202(g) and measurement in cases where the other methods of 2.202(c) do not apply. Motorola feels that the Necessary Bandwidth formulas in 2.202(g) do not apply to the high performance digital modulation employed by the TMs, because of the difficulties in determining values for factors K and M. They used the measurement method of 2.202(c)(4). Section 2.202(b) defines Necessary Bandwidth as the minimum value of the Occupied Bandwidth sufficient to ensure the transmission of information at the rate and with the quality required for the system employed. Section 2.202(a) defines Occupied Bandwidth as the frequency bandwidth that, below its lower and above it upper frequency limits, the mean powers radiated are each equal to 0.5% of the total mean power radiated by a given emission. 8K10 is the bandwidth that contains 99% of the total transmitted power.

Q2. Submit a FAA coordination letter for this device.

R2. The original RT-5000 transmitter was FCC authorized with FCC Identifier FRW4WJRT-5000 on 10/26/1992. The 118 – 137 MHz frequencies were on the original grant with the same emission designator as now. In addition, the version of the RT-5000 we are now trying to FCC certify has a FAA STC issued (STC SR09265RC-D issued on 2/21/2002). The STC is held by Eurocopter USA and they are in the process of transferring the STC to Wulfsberg Electronics through the FAA in Ft. Worth. Since the RT-5000 that we are requesting FCC certification of, has a FAA STC, a coordination letter is not required.

Q3. The line items on the application do not list the applicable Rule(s). Submit a list of all Rules you are applying for each frequency band listed.

R3. Below is the list of the Rules we are applying for each frequency band with the emission designators:

FCC Rule Parts	Frequency Range	Power Level	Frequency Tolerance	Emission Designators
90, 90.423	29.7 – 50 MHz	10W/1W	5.0 PPM	16K0F3E
87	118 – 137 MHz	15W/7.5W	7.0 PPM	6K00A3E

80.379, 87.187(l)	156 – 158 MHz	1W	2.5 PPM	16K0F3E
90, 90.423	136 – 174 MHz	10W/1W	2.5 PPM	16K0F3E, 11K0F3E, 20K0F1E, 8K10F1E, 8K0F1D
90, 90.423	403 – 520 MHz	10W/1W	2.5 PPM	16K0F3E, 11K0F3E
90, 90.423	450 – 520 MHz	4W/1W	2.5 PPM	16K0F3E, 11K0F3E, 20K0F1E, 8K10F1E, 8K0F1D
90, 90.423	806 – 870 MHz	10W/1W	1.5 PPM	16K0F3E, 11K0F3E
90, 90.423	806 – 870 MHz	3W/1W	1.5 PPM	16K0F3E, 11K0F3E, 20K0F1E, 8K10F1E, 8K0F1D
90, 90.423	896 – 940 MHz	10W/1W	1.5PPM	11K0F3E

For more information on the multiple transceivers contained in the RT-5000 and a breakdown of frequencies per transceiver, please refer to the Operational Description Exhibit.

Contact me at 928-708-1543 if you require any additional information.

Regards,
/s/ Mary Beaumont
Principal RF Engineer
Email: mary.beaumont@wulfsberg.com