Response to FCC 9/11/02 Questions:

Re:	FCC ID BV8P801T
Applicant:	M/A Com Inc
Correspondence Reference Number:	23914
731 Confirmation Number:	EA313096

1) This application is for a Class II permissive change. The letter of modification indicates that there is ONLY software changes for the voice digital signal processing. The Test Report indicates that there is an additional frequency band (851 to 869 MHz). In addition the occupied BW has changed significantly. The line items listed are only for the 806 to 824 MHz with the same occupied BWs. Based on the date it appears that there might be significant changes to the RF circuitry. Verify that the there are no hardware changes to this device.

The letter of modification is correct in that there are only software changes. These changes effect the processing of the digitized voice stream and they also allow the radio to operate in a mode not permitted by the software used for the original authorization. This software upgrade allows the radio to operate in a simplex conventional FM mode commonly known as “talkaround”. In talkaround, the radio transmits on the same frequencies normally used for receiving, 851 to 869 MHz, thereby permitting direct communication between two portable radios. The hardware supporting operation in this mode was present in the original authorization; however, the software did not permit use of it.

The occupied bandwidth test data that accompanied the original change request was erroneous. The data has since been amended. We expect that this should clear up most of your questions.

There are no circuitry changes affecting RF performance. An examination of sheets 8,11 and 16 of the schematic will reveal that the LO switching and filtering to transmit in the 851 to 869 MHz band were also present in the original authorization. The transmitted signal comes out of the base band codec DAC as I and Q waveforms that then drive an I&Q modulator. This method supports either 4 level GFSK or analog FM equally well Almost all of the required filtering for is done digitally with only some clean up after the DAC to remove the component at the sampling frequency.

2) How was the use of the 851 to 869 MHz band in the original Grant controlled?

The software was hard coded to use the 806 to 821 MHz band, only, and no user intervention could have placed it into the 851 to 869 MHz band.

3) This device has an additional frequency band (851 to 869 MHZ). What line items are to be added to the Grant (frequencies, powers, tolerance, and emissions designator).

The Grant needs two lines added to it.

FCC Rule Parts	Frequency Range (MHz)	Output (Watts)	Frequency Tolerance (PPM)	Emission Designator
90	806 - 824	3	2.5	14K0F3E
90	851 - 869	3	2.5	14K0F3E

4) Submit external and internal photos.

See attached PDF files:
External Pictures.PDF
Internal Pictures.PDF