



**MOTOROLA**

Date: December 17, 1999

Mr. Frank Coperich  
Authorization & Evaluation Division  
Federal Communications Commission Laboratory  
7435 Oakland Mills Road  
Columbia, MD 21046

Dear Mr. Coperich;

Motorola Inc., 8000 West Sunrise Boulevard, Fort Lauderdale, Florida 33322, herein submits its response to the December 17 request for information on FCC ID: AZ489FT5797, EA95186 via correspondence number 11076.

- 1) This device is a "data only Mobile Transceiver", as noted in Exhibit 13-1 cover letter. Thus, we do not require the D7E emission designator for QAM voice mode, as recommended by the Commission.
- 2) We accept that the FCC's recommendation that the 4-QPSK data mode is covered by DXW. Please amend the form 731 and the application to reflect Emission Designator 18K3DXW.
- 3) In the data mode the radio subchannels may use 16-QAM or 64-QAM modulation as alternatives to 4-QPSK as clarified in Exhibit 6.2 which accompanied our application. Given the use of D as the first symbol for the class of emission, and since the modulation filter is the same for all three modulation methods, we trust that 18K3DXW would be applicable to those as well.
- 4) The necessary bandwidth calculation was included in Exhibit 6.2 which accompanied our application. We are listing it below for reference.

"... the necessary bandwidth of these subchannels is limited to 4.8 kHz by the pair of modulation low pass filters. The transfer response of these filters is depicted in Figure 6-1 where the filter excess bandwidth coefficient of 0.2 is shown. This excess bandwidth leads to the necessary bandwidth calculation of  $(1 + 0.2) \times (4 \text{ kHz}) = 4.8 \text{ kHz}$ . Since the sub-channels are spaced 4.5 kHz apart, the necessary bandwidth of the composite 4 sub-channel symbol streams is  $4.8 + (3 \times 4.5) = 18.3 \text{ kHz}$ ." We trust this adequately provides the information you requested. Please contact me at (954) 723-5793 if you require any additional information.

Sincerely,

Mike Ramnath

FCC Liaison  
Email: Mike.Ramnath@Motorola.com