

**MOTOROLA**

Date: March 24, 1999.

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

Att: Frank Coperich, George Tannahill.

Re: Application for Certification of Transmitter with FCC ID: AZ489FT5792.

Gentlemen:

Motorola Inc., 8000 West Sunrise Boulevard, Fort Lauderdale, Florida 33322, herein submits its application for Certification of the subject transmitter.

This variable power (0.20—600 milliWatt) transmitter is part of a handheld transceiver used in a SMR and EA SMR trunking system operating in the 806-821/851-866 MHz frequency band. Characteristics of this system are described under the name DIMRS, as contributed by Canada, in International Telecommunications Union Report ITU-R M.2014 entitled *Spectrum Efficient Digital Land Mobile Systems for Dispatch Service*. This transceiver provides additional new capability to support packet data transmission using additional modulation capabilities described in attached Exhibit 6.2.

This transceiver is of the receive first type described in International Telecommunications Union Recommendation ITU-R M.1221 entitled *Technical And Operational Requirements For Cellular Multimode Mobile Radio Stations*. It must first find, acquire and lock onto a control channel from a predefined set of control channel frequencies assigned to a companion Authorized base station (e.g. – FCC ID: ABZ89FC5763 and ABZ89FC5772). Transmission is not possible until lock to a base station control channel has been achieved, then transmission is limited to digitally modulated service request bursts on the reverse control channel. Upon recognition of a proper request, the control channel base station transmitter will then assign the transceiver a traffic channel for transmission of digital voice, circuit-switched data, or packet-switched data from the set of frequencies for which the trunking system is licensed. Attached Exhibit 12.1 provides additional descriptive details.

It is expected that this handheld time division multiplexed transceiver marketed in the United States will also be used for itinerant operation with companion Authorized base stations by users requesting trunked radio and telephone interconnect service while roaming outside the United States. In some countries the companion base stations are licensed to operate at frequencies in the 821-825/866-870 MHz band in addition to some of those in the 806-821/851-856 MHz band normally used in United States SMR systems. Consequently, this transmitter has been designed to

meet FCC requirements for operation in the 806-821 MHz band over the more global band of 806 - 825 MHz when used with a companion Authorized base station. Thus, performance data is provided to substantiate FCC compliant operation with a companion base station over the broader 806 to 825 MHz band expected for global use of this handheld transceiver.

To facilitate global roaming it is kindly requested that a note be provided in the Grant of Authorization which states that this 'receive first' type of equipment is compliant for transmitter operation over the broader range 806-825 MHz when used with a compatible Authorized base station. This will aid equipment authorization in foreign countries which accept a United States FCC Grant of Authorization, yet not jeopardize United States public safety or cellular systems licensed to operate in the 821-825 MHz frequency band since no compatible base station may be authorized on those frequencies in the United States.

It is also expected that this transceiver type will be marketed outside the United States and brought into the United States for itinerant "roaming" operation on compatible 806 - 821 MHz base stations located within the United States. Consequently, upon receipt of Authorization, only those units of this equipment type authorized for marketing in countries outside the United states will also bear a label with the specified FCC identifier.

In accordance with 47 CFR 2.1093(c) this transmitter may be used in "covered" SMR service so it has been subjected to routine environmental evaluation for RF exposure and found to be compliant with the limits specified in 47 CFR 2.1093(d)(2) using measurements per methods stated in 47 CFR 2.1093(d)(3).

Motorola Inc. further requests that the Circuit Descriptions (Exhibit 4), Circuit Diagram (Exhibit 5), Internal Photographs (Exhibit 9) and Semiconductor/Active Device List (Exhibit 10.1) not be made routinely available for public inspection per Rule Part 0.457(d). These exhibits reflect new modulation techniques, new technologies, and pending Patent applications.

The subject transmitter complies with 47 CFR 90.203 of the rules in that the operator cannot directly program transmit frequencies using only the unit's normally accessible external controls.

Enclosed is a complete Certification Application comprised of 13 Exhibits. Contact me at (954) 723-5793 if you require any additional information.

Regards,

Mike Ramnath
FCC Liaison