



23rd June 2004

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

Gentlemen;

Motorola Inc., 8000 West Sunrise Boulevard, Fort Lauderdale, Florida 33322, herein submits its application for Certification of the transmitter with FCC ID AZ489FT5831. This variable output power (0.088 to 700 milliwatt) transmitter is part of a handheld transceiver used in a SMR and EA SMR trunking system operating in the United States 806-821/851-866MHz and 896-901/935-940 MHz frequency band. It also possesses a transmitter that operates in the ISM band (902 – 927 MHz). The two transmitters are configured so that only one transmitter can operate at a time. Certification is sought for this transceiver, and performance data is provided for that purpose.

This transceiver possesses two distinct modes of operation. The operation mode is selected via the user menu. The two transceivers can only operate independent of each other and only one mode can operate at a time.

The first 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: ABZ89FC5792). 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 or circuit-switched data from the set of frequencies for which the trunking system is licensed. Attached Exhibit 12.1 provides additional descriptive details.

The second transceiver is frequency hopping spread spectrum operating in the unlicensed ISM (902-928 MHz) band. It uses an FSK (Frequency Shift Key) modulation, 50KHz spacing with output power less than EIRP 0.983 watt. The protocol is defined to have 10 interleaved hopsets of 50 frequencies each with 500 kHz separation between set members. All 10 hopsets span the entire ISM band.

In the ISM transceiver mode, conversations are held only via the speakerphone; the earpiece is disabled. In addition, the ISM transceiver mode does not function while plugged into a wall charger unit.

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 806-821/851-866 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 for Equipment 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 for Equipment 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).

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.

This transceiver can function as a Part 15.3(r) computer peripheral device when functioning as an RF modem when connected to a computer via a data cable (ref: Exhibit 12.1). For this reason a Declaration of Conformity has been prepared and is provided on Page 5 of the user Manual in the Exhibit 8.

Enclosed is a complete Certification Application comprised of 12 Exhibits. Contact me at (954) 723-5793 if you require any additional information.

Sincerely,

/s/ Mike Ramnath (signed)

Mike Ramnath

Manager, Regulatory Compliance

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