

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of)
)
The Development of Operational, Technical) WT Docket No. 96-86
and Spectrum Requirements for Meeting)
Federal, State and Local Public Safety)
Communication Requirements Through)
the Year 2010)

**MOTOROLA REQUEST FOR CLARIFICATION OF THE
FOURTH REPORT AND ORDER**

Motorola hereby submits this request for clarification and, to the extent necessary, reconsideration of the FCC's *Fourth Report and Order* in the above-captioned proceeding.¹ Motorola believes that a subsequent *Erratum* to the *Fourth Report and Order* inadvertently added unnecessary and duplicative interoperability obligations on manufacturers of 700 MHz narrowband data devices.² Motorola hereby recommends further corrections to the appropriate rules to eliminate the unintended intent.

In the *Fourth Report and Order*, the FCC concluded that it will “adopt the data interoperability standard that is incorporated in the Project 25 suite of standards, as it is defined by one ANSI standard and four TIA/EIA standards.”³ The FCC based this decision on several

¹ *In the Matter of The Development of Operational, Technical and Spectrum Requirements for Meeting Federal, State and Local Public Safety Communication Requirements Through the Year 2010*, WT Docket No. 96-86, *Fourth Report and Order and Fifth Notice of Proposed Rule Making*, FCC 01-10, rel. Jan. 17, 2001 (*hereafter Fourth Report and Order*).

² *In the Matter of The Development of Operational, Technical and Spectrum Requirements for Meeting Federal, State and Local Public Safety Communication Requirements Through the Year 2010*, WT Docket No. 96-86, *Erratum*, rel. Feb. 13, 2001 (*hereafter Erratum*).

³ *Fourth Report and Order* at ¶86.

factors including the flexibility of the Project 25 Phase I Standard to support a variety of low-speed data applications while meeting the FCC's spectrum efficiency requirement of 9.6 kbps for a 12.5 kHz wide channel.⁴

The *Fourth Report and Order* codified this decision by adding new section 90.548 to the Commission's Rules. In pertinent part, the *Fourth Report and Order* adopted the rule to read as follows:⁵

§ 90.548 Interoperability Technical Standards

(a) Transmitters operating on those narrowband channels in the 764-776 and 794-806 MHz band designated for interoperability (*See* 90.531) shall conform to the following technical standards:

(i) * * *

(ii) Transmitters designed for data transmission within a 12.5 kHz or 6.25 kHz bandwidth shall conform to the following standards, as applicable: ANSI/TIA/EIA 102.BAEA (data overview); ANSI/TIA/EIA 102.BAEB (packet data specification); ANSI/TIA/EIA102.BAEC (circuit data description); ANSI/TIA/EIA 102.BAEA (radio control protocol); and ANSI/TIA/EIA 102.BABA (vocoder).

On February 13, 2001, the FCC released an *Erratum* in this proceeding that “corrects errors” in the rules specified in Appendix C of the *Fourth Report and Order*.⁶ There, the staff of the Wireless Telecommunications Bureau “corrected” Section 90.548(a)(ii) as it applies to the narrowband data interoperability standards to read as follows:⁷

⁴ *Id.* at ¶89.

⁵ *Fourth Report and Order* at Appendix C.

⁶ *Erratum* at ¶1.

⁷ *Erratum* at ¶15. Note that the *Erratum* changes the sub-paragraph numbering of this rule from (a)(i) and (a)(ii) to now read as (a)(1) and (a)(2).

§ 90.548 Interoperability Technical Standards

(a) * * *

(i) * * *

(2) Transmitters designed for data transmission shall include a 12.5 kHz bandwidth mode of operations conforming to the following standards: ANSI/TIA/EIA 102.BAEA (data overview); ANSI/TIA/EIA 102.BAEB (packet data specification); ANSI/TIA/EIA102.BAEC (circuit data description); ANSI/TIA/EIA 102.BAEA (radio control protocol); ANSI/TIA/EIA 102.BAAA (common air interface) for operation in the 12.5 kHz FDM mode.

As corrected by the *Erratum*, the rule now requires data devices to conform to all of the protocols listed in Section 90.548(a)(2). Under the previous wording adopted in the *Fourth Report and Order*, data devices only needed to conform to the necessary protocols “as applicable.” By deleting the “as applicable” phrase, manufacturers are now required to design devices to comply with both the packet data and the circuit data descriptions. Motorola believes that this unnecessary and duplicative obligation was not intended by either the FCC or by the recommendations of the National Coordinating Committee (NCC). Requiring manufacturers to support both formats within a single device will, in Motorola’s opinion, prohibit manufacturers from introducing any compliant data technologies on the narrowband interoperability channels.

The packet data standard defines and details the use of Internet Protocol over the Project 25 Phase I common air interface and uses “IP” connectivity to the mobile computer and wireline IP networks. The circuit data standard defines and details the implementation of an end-to-end circuit connection for asynchronous transfer of binary information over the Project 25 Phase I common air interface and uses EIA/TIA-602 AT Command Set connectivity to mobile computers and the “PSTN” gateway. It has never been contemplated that both platforms would

be part of a single data device. From a manufacturing perspective, it would be extremely difficult to support both protocols in a single device – regardless of cost – due to the lack of common components among the two platforms.

To correct this point, Motorola recommends the following minor revisions to Section 90.548(a)(2) as corrected by the *Erratum*. Motorola’s proposed additions to the text of the rule are shown as double underscores and proposed deletions are shown as strikethroughs:

§ 90.548 Interoperability Technical Standards

(a) * * *

(i) * * *

(2) Transmitters designed for data transmission shall include a 12.5 kHz bandwidth mode of operations conforming to the following standards: ANSI/TIA/EIA 102.BAEA (data overview); ANSI/TIA/EIA 102.BAEB (packet data specification); or ANSI/TIA/EIA102.BAEC (circuit data description); ANSI/TIA/EIA 102.BAEA (radio control protocol); and ANSI/TIA/EIA 102.BAAA (common air interface) for operation in the 12.5 kHz FDM mode.

As shown, Motorola proposes to remedy this situation by simply adding the word “or” between packet data specification and the circuit data description (the two other proposed revisions are editorial in nature). These very modest changes recapture the intent of the original version of this rule as adopted in the *Fourth Report and Order* and thus allow manufacturers to provide Project 25 compliant packet data or circuit data technologies as appropriate.

The FCC should be assured that this change will not reduce interoperability among data users. To the best of Motorola’s knowledge, all current land mobile public safety data applications use the packet mode and not the circuit mode and it is very unlikely that a user would purchase two different types of equipment. In other words, Motorola believes that packet

based systems will continue to be the predominant mode of operation for interoperability and every day data uses.

Motorola requests that the FCC address this request in expeditious fashion. Removing this ambiguity from the rules will allow Motorola and other manufacturers to continue developing compliant 700 MHz public safety equipment as quickly as possible.

Respectfully Submitted,

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