

**Before the
Federal Communications Commission
Washington, D.C. 20554**

In the Matter of)
)
MICROWAVE DATA SYSTEMS)
)
Request for Waiver of The Emission Mask)
Requirements of 47 C.F.R. § 90.210.)

ORDER

Adopted: January 26, 2007

Released: January 29, 2007

By the Deputy Chief, Mobility Division, Wireless Telecommunications Bureau:

1. *Introduction.* We have before us the above-captioned request for waiver filed by Microwave Data Systems (MDS) seeking waiver of the emission mask requirements contained in Part 90 of the Commission's Rules for one of its products.¹ For the reasons discussed herein, we deny MDS's waiver request.

2. *Background.* MDS seeks waiver of the 12.5 kHz emission mask requirements for equipment that already has received equipment certification from the Commission.² MDS indicates that it was able to obtain the equipment authorization by making reductions in the overall system performance in order to comply with the Commission's 12.5 kHz emission mask requirements.³ MDS indicates that it is now requesting a waiver to allow it to manufacture equipment that would have an adjacent channel attenuation limit of 50 dB in lieu of the required 70 dB of attenuation to allow for better system performance for its end users.⁴

3. *Discussion.* The Commission will grant a waiver of its rules if it is shown that (i) the underlying purpose of the rule(s) would not be served or would be frustrated by application to the instant case, and that a grant of the requested waiver would be in the public interest; or (ii) in view of unique or unusual factual circumstances of the instant case, application of the rule(s) would be inequitable, unduly burdensome or contrary to the public interest, or the applicant has no reasonable alternative.⁵ Based on the information before us, we find that MDS has not made the requisite showing to support grant of the requested waiver.

4. MDS indicates that it does not understand why the 12.5 kHz mask for Part 90 operations has a drastically different shape than the 12.5 kHz emission masks for Part 101 operations, or the Part 90 emission masks for 25 kHz and 6.25 kHz operations.⁶ MDS also indicates that the 12.5 kHz emission mask requires that an emission in or near the adjacent channel must be attenuated by 70 dB but at

¹ See Request for Waiver filed on June 3, 2004 by Microwave Data Systems (MDS waiver request) at 2. See also 47 C.F.R. § 90.210(d).

² See MDS waiver request at 2. See also equipment certification E5MDS-TRM450.

³ See MDS waiver request at 2.

⁴ *Id.*

⁵ See 47 C.F.R. § 1.925(b)(3).

⁶ See MDS waiver request at 3.

frequencies over a thousand channels the emission must be attenuated by only 50 dB. MDS argues that it is not logical to require attenuation to be so much greater for the adjacent channel than for the spectrum at large.⁷ To support its waiver request, MDS submits a mathematical analysis showing that one transmitter would only place 0.04 dB of additional power into the adjacent channel if the waiver was granted.⁸

5. Upon our review and analysis of the record before us, we find MDS's arguments to be unpersuasive. We note, as an initial matter, that the underlying purpose of the emission mask requirements contained in Section 90.210 of the Commission's rules⁹ is to ensure maximum spectrum efficiency by allowing reasonable information transfer while, at the same time, establishing acceptable adjacent channel protection.¹⁰ The Commission formed the 12.5 kHz emission mask in question by utilizing portions of separate emission masks suggested by the Telecommunications Industry Association (TIA) and Ericsson in a rule making proceeding.¹¹ Specifically, the Commission determined that the flat top portion of the suggested Ericsson emission mask allowed for an 11.25 kHz authorized bandwidth while the TIA emission mask provided better adjacent channel protection in the skirt region when compared with other emission masks. The Commission determined that this 12.5 kHz emission mask would provide regulatory flexibility by allowing several types of modulation while providing for the adjacent channel protections.¹² In this regard, we note that MDS's own technical analysis shows that one additional transmitter would place additional power into the adjacent channel and thus would increase the potential for interference to adjacent channel operations. Further, by extrapolation, it suggests that additional transmitters will place more power into the adjacent channel thereby greatly increasing the potential for interference to adjacent channel operations. Such a result would contravene the underlying purpose of the subject rule. Moreover, the record is devoid of any countervailing substantial public interest benefits associated with the grant of the requested waiver.

6. MDS requests, in essence, that equipment that has already been properly certified for compliance with the emission mask requirements of Section 90.210 of the Commissions Rules now be permitted to be modified in a manner inconsistent with the applicable emission mask requirements and, thereby, increase the potential for interference in the adjacent channel to allow for some "improved" system performance. Given these interference concerns, we conclude that grant of a waiver authorizing use of the subject MDS equipment is not warranted under the circumstances presented and would undermine the Commission's emission mask requirements of Section 90.210(d).¹³

7. Accordingly, pursuant to Section 4(i) of the Communications Act of 1934, as amended, 47 U.S.C. § 154(i), and Section 1.925 of the Commission's Rules, 47 C.F.R. § 1.925, the waiver request filed by Microwave Data Systems, on June 3, 2004 IS HEREBY DENIED.

⁷ *Id.*

⁸ *See id.* at 3-5.

⁹ *See* 47 C.F.R. § 90.210.

¹⁰ *See* Replacement of Part 90 by Part 88 to Revise the Private Land Mobile Radio Services and Modify the Policies Governing Them, *Report and Order and Further Notice of Proposed Rule Making*, PR Docket No. 92-235, 10 FCC Rcd 10,076, 10,117 ¶ 81 (1995) (*Refarming Report and Order*).

¹¹ *Id.* at 10117 ¶ 87.

¹² *Id.*

¹³ To the extent that MDS believes, as it suggests in its waiver request, that the emission mask requirements of Section 90.210 should be reexamined as a general matter, we believe that the more appropriate vehicle for such relief would be through a rulemaking proceeding, *see* 47 C.F.R. § 1.401, particularly given that the Commission last examined this type of issue in the context of a rulemaking. *See Refarming Report and Order*, 10 FCC Rcd at 10117 ¶ 81.

8. This action is taken under delegated authority pursuant to Sections 0.131 and 0.331 of the Commission's Rules, 47 C.F.R. §§ 0.131, 0.331.

FEDERAL COMMUNICATIONS COMMISSION

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