

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554

In the Matter of

Service Rules for Advanced Wireless Services
in the 1.7 GHz and 2.1 GHz Bands

WT Docket No. 02-353

COMMENTS OF MOTOROLA, INC.

Motorola, Inc. (“Motorola”) hereby files its comments in response to the Petitions for Reconsideration of the Report and Order in the above-referenced proceeding filed by Powerwave Technologies, Inc. (“Powerwave”) and the Wireless Communications Association International, Inc. (“WCAI”).¹

As further discussed below, Motorola supports the position stated in the *Powerwave Petition* that the Commission should conform the Advanced Wireless Services (“AWS”) power limits with those established for broadband Personal Communications Services (“PCS”). In this regard, the Commission must coordinate its actions with the on-going *WRS Biennial Review* proceeding where the FCC is considering changes to such rules.² Further, Motorola opposes the notion expressed in the *WCAI Petition* that Multipoint Distribution Service (“MDS”) licensees in

¹ See Service Rules for Advanced Wireless Services in the 1.7 GHz and 2.1 GHz Bands, WT Docket No. 02-353, Report and Order, (rel. Nov. 25, 2003) (“AWS Order”). See also, Petition for Reconsideration, Powerwave Technologies, Inc., WT Docket No. 02-353 (filed Mar. 8, 2004) (“Powerwave Petition”) and Petition for Reconsideration of the Wireless Communications Association International, Inc., WT Docket No. 02-353 (filed Mar. 8, 2004) (“WCAI Petition”). See also, “Petitions for Reconsideration and Clarification of Action in Rulemaking Proceedings,” FCC Public Notice, Report No. 2652; 69 FR 19,184 (rel. Apr. 12, 2004).

² In the Matter of Biennial Regulatory Review – Amendment of Parts 1, 22, 24, 27, and 90 to Streamline and Harmonize Various Rules Affecting Wireless Radio Services, Notice of Proposed Rule Making, WT Docket No. 03-264, 69 Fed. Reg. 8132 (2004) (“WRS Biennial Review”).

the 2150-2162 MHz band receive “unqualified” interference protection from AWS and instead believes that relocation of the MDS incumbents from the 2150-2162 MHz band is the appropriate solution.

The *Powerwave Petition* seeks reconsideration of that portion of the *AWS Order* that establishes rule section 27.50(d)(1) governing the peak power output of AWS in the 2110-2155 MHz band.³ Noting the Commission’s stated intent was to adopt the same power limits for AWS that apply to PCS systems pursuant to Section 24.232 of the rules, Powerwave argues that the Commission instead adopted a rule that establishes a more restrictive standard for AWS.⁴ According to Powerwave, the broadband PCS rules limit peak output power of “base station transmitters” to 100 watts whereas the AWS rules establish the same limit to “the entire base station.”⁵ Since AWS base stations, like broadband PCS base stations, will be comprised of multiple transmitters, the actual wording of Section 27.50(d)(1) imposes a more restrictive power limitation than those in place for broadband PCS.⁶

The *Powerwave Petition* further notes that the FCC’s is considering changes to its broadband PCS power limits in the *WRS Biennial Review*. There, the Commission is considering whether to remove the maximum permitted transmitter output power of 100 watts applicable to broadband PCS and instead rely solely on the maximum 1640 watt EIRP limit which, in effect, would remove any ambiguity on the application of the output power requirement.⁷ Citing the Commission’s stated desire to harmonize the AWS and PCS power limits, Powerwave asks the

³ *Powerwave Petition* at 1.

⁴ *Id.*

⁵ *Id.* at 3.

⁶ *Id.*

⁷ *Id.* at 5-7.

FCC to hold the application of Section 27.50(d)(1) in abeyance pending action in the *WRS Biennial Review*.⁸

Motorola agrees with Powerwave that the power limits for AWS and PCS should be harmonized and that it does not serve the public interest to impose a more restrictive transmitter output power limit on AWS. In comments recently filed in the *WRS Biennial Review* proceeding, Motorola stated that it supports the elimination of the 100-watt transmitter output power limitation in Section 24.232(a) and urged the Commission to rely on a maximum EIRP limit.⁹ Motorola believes that the elimination of the output power limitation for both AWS and broadband PCS operations will provide for increased system flexibility while not increasing interference potential in real world system deployments.

In those same comments, Motorola also reiterated its recommendation that the FCC remove a bias against broader bandwidth technologies. This bias is the result of the Commission's policy of applying power limits for base station transmitters irrespective of the bandwidth utilized by the licensee's deployed technology.¹⁰ Motorola therefore urged the Commission to modify Section 24.232(a) to apply the EIRP limits on a per 1 MHz basis for bandwidths exceeding 1 MHz.¹¹ For example, the current Part 24 rules allow 1640 watts EIRP for transmitters of height above average terrain at or below 300 meters. Motorola's proposal would specify 1640 watts/MHz EIRP for base stations with emissions bandwidths greater than 1 MHz and, for carriers with bandwidth less than 1 MHz, the Section 24.232(a) limits would continue to be applied on a per carrier basis. Motorola argued that these recommended changes

⁸ *Id.* at 7.

⁹ Comments of Motorola, Inc., WT Docket No. 03-264 (submitted Apr. 23, 2004) at 2.

¹⁰ *Id.* at 2-3.

¹¹ *Id.* at 3.

would promote technology neutral rules and facilitate deployment of services in rural areas by allowing greater coverage with less infrastructure.¹² Finally, Motorola urged the FCC to consider these changes to the broadband PCS rules and to also apply any adopted rule modification to the AWS rules in Section 27.50(d)(1).¹³

Motorola is in agreement with the *Powerwave Petition's* request that the FCC hold this issue in abeyance pending further action in the *WRS Biennial Review*. Motorola agrees that the most efficient process is for the FCC to consider changes to both the broadband PCS and AWS rules in that proceeding and, if necessary, incorporate any necessary changes through the instant proceeding. Motorola urges the Commission to proceed expeditiously and remove the transmitter output power restriction and eliminate the power bias against broadband technologies for both broadband PCS and AWS.

On another matter, the *WCAI Petition* argues that the *AWS Order* failed to adequately protect MDS licensees operating in the 2150-2162 MHz band from interference received from AWS systems.¹⁴ WCAI argues that, at a minimum, the Commission should correct this situation by imposing on AWS licensees “an absolute obligation” to protect MDS from interference.¹⁵ Alternatively, WCAI urges the FCC to relocate MDS from the band.¹⁶

¹² *Id.* at 4.

¹³ *Id.*

¹⁴ *WCAI Petition* at i.

¹⁵ *Id.* at ii.

¹⁶ *Id.*

Motorola does not believe that an unqualified protection requirement is necessary to protect MDS from interference from AWS. By requiring AWS licensees to coordinate deployment with MDS licensees, the *AWS Order* provides an appropriate solution for a short-term issue that will ultimately be resolved by the relocation of MDS. To that end, Motorola agrees with the *WCAI Petition* and urges the FCC to expedite the identification of relocation spectrum so that the MDS migration can commence prior to AWS deployment.

Respectfully submitted,

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