

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

In the Matter of:)

Amendment of Part 90 of the Commission's)
Rules to Improve Interference Protection in the) RM-11604
3650-3700 MHz Band)

COMMENTS OF MOTOROLA, INC.

Motorola, Inc. (“Motorola”) hereby respectfully submits the following comments in support of the Petition for Rulemaking of the Fixed Wireless Communications Coalition (“FWCC Petition”).¹

The 3650-3700 MHz band is well suited for wireless broadband, particularly for fixed point-to-point and point-to-multipoint broadband Internet access services. When the Commission crafted licensing rules to govern wireless operations in this band, it intentionally applied minimal regulatory burdens in an attempt to encourage broad adoption and innovation.² In large part, the Commission’s actions have proven successful and in some areas, the band is increasingly heavily used, especially by Wireless Internet Service Providers (“WISPs”). In Motorola’s experience, many licensees appreciate the speed and flexibility afforded by the Commission’s “license-lite” approach. However, as usage of the band has increased, these policies have not always been successful at promoting cooperation and fair spectrum sharing

¹ See Amendment of Part 90 of the Commission’s Rules to Improve Interference Protection in the 3650-3700 MHz Band, Petition for Rulemaking of the Fixed Wireless Communications Coalition, RM-11604 (filed Apr. 15, 2010) (“FWCC Petition”).

² See Wireless Operations in the 3650-3700 MHz Band, ET Docket No. 04-151, Rules for Wireless Broadband Services in the 3650-3700 MHz Band, WT Docket No. 05-96, *Report and Order*, 20 FCC Rcd 6502, 6508, 6512 ¶¶ 15-16, 28 (2005) (“3650-3700 MHz Order”).

within the band.³ Thus, the Commission should, based on the FWCC Petition, initiate a rulemaking to promote additional cooperation among licensees in the 3650-3700 MHz band.

Motorola supports cooperative use of the 3650-3700 MHz band and designs its wireless point-to-point and point-to-multipoint broadband solutions to balance, as best possible, the demands of reliability and capacity by one licensee and the needs for spectrum access by co-channel licensees. However, maintaining effective incentives for cooperation requires a framework that provides some level of certainty to licensees and that promotes efficiency and accountability. Yet, as described in the FWCC Petition, the current licensing rules in this band provide no real assurance to responsible and established operators that their networks will not experience harmful interference from newcomers who refuse to take reasonable steps to cooperate. To unleash the full potential of this band for wireless broadband, network operators will require some increased certainty that their substantial investments will produce a commercially viable service that is not crippled by interference.

In addition to stimulating cooperation in the 3650-3700 MHz band, the Commission should consider additional means of promoting innovation and development in this band through rule modifications. The potential for increased deployment of wireless broadband services in rural areas was a significant guiding principle for the Commission in crafting the current licensing rules in this band.⁴ However, the utility of this band to WISPs seeking to provide wireless broadband access in rural areas is limited by the relatively low power operations of 1

³ See, e.g., World Data PR Inc., *Memorandum Opinion and Order*, 24 FCC Rcd 14648 (WTB 2009).

⁴ See, e.g., *3650-3700 MHz Order* at ¶ 2 (“[T]he actions we take herein for the 3650 MHz band will allow further deployment of advanced telecommunications services and technologies to all Americans, especially in the rural heartland.”).

Watt per MHz EIRP, up to a total of 25 Watts per 25 MHz, approved for base and fixed stations.⁵

In modifying its rules to promote robust deployment in this band, the Commission should consider permitting higher power transmissions, particularly in rural areas where congestion is less of a concern and wireless broadband services are in high demand.

The Commission should also consider options for streamlining the operation of 3650-3700 MHz base and fixed stations within the satellite coordination zone. Currently, base stations are not permitted to operate within 150 kilometers of a grandfathered satellite earth station unless they reach a prior agreement with the satellite earth station licensee.⁶ The Commission acknowledged when adopting this rule that it “could result in prohibiting the use of transmitters in less-than-worst-case circumstances where, in reality, there would be no likelihood of interference to FSS earth stations.”⁷ Although protection of the grandfathered earth stations is important, the existing coordination rules have slowed the deployment of wireless broadband services in some areas where they are greatly needed. In any new rulemaking regarding the 3650-3700 MHz licensing rules, the Commission should be mindful of opportunities to streamline this process.

Although the modifications to the 3650-3700 MHz licensing regime discussed above will help relieve uncertainty and prevent conflicts between licensees in the band, ultimately, additional spectrum is required to support wireless broadband services. The success of cooperative regimes depends on an assumption that co-channel licensees’ operational requirements seldom demand that they communicate at the same instant within interference

⁵ See 47 C.F.R. § 90.1321(a).

⁶ See 47 C.F.R. § 90.1331(a).

⁷ *3650-3700 MHz Order* at ¶ 60.

distance of one another. However, as has been seen in the Land Mobile Radio (“LMR”) bands, a rise in demand for communications coupled with inadequate spectrum allocations increases the number of co-channel conflicts in the market, even in the face of technological advances designed to offer users higher levels of reliability and spectral efficiency.

The Commission’s National Broadband Plan goal of identifying 500 MHz of additional spectrum for wireless broadband services,⁸ which was recently bolstered by President Obama’s direction to Executive agencies to facilitate such an effort,⁹ is a promising step towards addressing the nation’s wireless broadband needs. Although all wireless broadband services have an increasingly dire need for additional spectrum, the Commission should, in particular, focus on making spectrum resources available for WISPs, which hold the promise of delivering robust broadband services to some of the highest-need communities.

In closing, Motorola praises the innovative steps the Commission has taken to promote wireless broadband development in the 3650-3700 MHz band. However, the current licensing regime in this band could be improved to provide better incentives for responsible and cooperative use of the band, and otherwise promote robust deployments across the nation. To this end, the Commission should grant the FWCC Petition and initiate a rulemaking proceeding to consider modifications to the Part 90 rules to stimulate efficient broadband deployment in the 3650-3700 MHz band.

⁸ See Connecting America: The National Broadband Plan, Recommendation 5.8, p.86 (FCC, 2010).

⁹ See Presidential Memorandum: Unleashing the Wireless Broadband Revolution (June 28, 2010) available at <http://www.whitehouse.gov/the-press-office/presidential-memorandum-unleashing-wireless-broadband-revolution>.

Respectfully submitted,

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