

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

In the Matter of:)	
)	
Wireless Communications Association)	RM-11614
Int'l Petition to Amend Section 27.53(m))	
of the Commission's Rules)	
)	
)	
)	

**STATEMENT IN SUPPORT OF PETITION FOR RULEMAKING
MOTOROLA, INC.**

Motorola, Inc. (“Motorola”) respectfully submits the following comments in support of the Petition for Rulemaking of the Wireless Communications Association International (“WCAI”) seeking changes to the out-of-band emissions (“OOBE”) limits applicable to digital mobile stations authorized under the Broadband Radio Service (“BRS”) and the Educational Broadband Service (“EBS”) on frequencies near 2.5 GHz.¹

The 2.5 GHz band is an important component of the United States’ wireless broadband spectrum inventory. Wireless broadband providers are currently upgrading their wireless infrastructures and expanding network buildout as part of their transition to next generation wireless broadband network technologies. These investments will ultimately make available substantial additional broadband capacity with increased throughput, which will help the nation realize the important social and economic goals of the Commission’s National Broadband Plan. In order to promote these developments and

¹ Wireless Communications Association Int’l Petition to Amend Section 27.53(m) of the Commission’s Rules, RM-11614 (filed Oct. 22, 2010) (“WCAI Petition”).

to satisfy future growth in demand, the Commission should promptly initiate a rulemaking proceeding to consider the proposals raised by the WCAI Petition.

In its petition, WCAI urges the Commission to consider relaxing OOB limits for BRS and EBS digital mobile stations. More specifically, WCAI asks the Commission to revise Sections 27.53(m)(4) and 27.53(m)(6) to reduce the required OOB attenuation factor from $43 + 10 \log (P)$ dB to $40 + 10 \log (P)$ dB at the channel edge. WCAI's further proposes to set OOB attenuation factors of $43 + 10 \log (P)$ dB for frequencies more than 5 MHz beyond the channel edge and of $55 + 10 \log (P)$ dB at frequencies that lie at the greater of 6 MHz beyond the channel edge or a width equal to the actual channel bandwidth from the channel edge.² WCAI asserts that these rule changes are "necessary to realize the full benefits of 4G technologies and better align the Commission's rules with the approach of the global 3rd Generation Partnership Project (3GPP) and future WiMAX standards applicable to the 2.5 GHz band."³

In support of its petition, the WCAI argues that the current OOB limits for the 2.5 GHz band functionally restrict the ability of network operators to deploy wireless broadband services using the wider channel bandwidths necessary to gain all the benefits of next generation mobile broadband technologies.⁴ As the Commission recognized in the National Broadband Plan, "[t]he progression to 4G technologies may require appropriately sized bands, including larger blocks to accommodate wider channel sizes."⁵ Although there is sufficient spectrum in the 2.5 GHz band for network operators to

² WCAI Petition at 2.

³ *Id.*

⁴ *Id.* at 3.

⁵ *See* Connecting America: The National Broadband Plan 78 (2010).

operate with channel bandwidths of 20 MHz or wider, WCAI asserts that the OOB limits applicable to mobile devices prevent such use.

WCAI explains that the current OOB rules were crafted based on an assumption of 5.5 MHz channel widths in the 2.5 GHz band. Although this was reasonable at the time, 4G mobile broadband technologies like WiMAX and LTE also support operations with greater channel widths. As WCAI explains, developing 4G mobile devices within the confines of the current rules would require compromises in device size, power consumption, heat dissipation, and other characteristics that could create significant challenges in terms of price and marketability of these devices.

For domestic operations, the 2.5 GHz band is well suited to accommodate 20 MHz wide channel bandwidths or greater. Technologies designed to operate over such bandwidths will offer much higher data rates than those confined to a 5.5 MHz channel and will open the door to a much greater variety of broadband services and applications. While any interference concerns should be fully vetted and considered in the rulemaking process, it would be unfortunate if out-dated OOB restrictions deny carriers the opportunity to pursue that future.

The National Broadband Plan emphasized the importance of making additional spectrum resources available for mobile broadband use, and, indeed, the Plan identified the 2.5 GHz band as “providing a foundation for the nation’s 4G wireless networks.”⁶ In addition to its laudable goal of identifying 500 MHz of additional wireless broadband spectrum over the next five years, the Commission must also continue to explore ways to promote increased efficient and effective use of existing mobile broadband resources.

⁶ *Id.*

WCAI's proposal to modify the 2.5 GHz OOBE limits to accommodate next generation mobile broadband technologies represents one potential avenue of exploration. As such, the Commission should consider this proposal in a rulemaking proceeding.

Respectfully submitted,

/s/ Barry Lambergman
Barry Lambergman
Director, Government Affairs
Motorola, Inc
1455 Pennsylvania Avenue, NW
Washington, DC 20004
TEL: 202.371.6900

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