

**Before the  
Federal Communications Commission  
Washington, DC 20554**

In the Matter of	)	
	)	
Amendment of Parts 1, 21, 73, 74 and 101 of the	)	WT Docket No. 03-66
Commission's Rules to Facilitate the Provision of	)	RM-11614
Fixed and Mobile Broadband Access, Educational	)	
and Other Advanced Services in the 2150-2162	)	
and 2500-2690 MHz Bands	)	

To: The Commission

**COMMENTS OF MAIN STREET BROADBAND LLC**

Main Street Broadband LLC, together with its affiliate MSB Spectrum Holdings Inc. and its wholly-owned subsidiary Broadband South LLC (collectively, "Main Street"), by counsel and pursuant to Section 1.415 of the Commission's Rules, in response to the Fourth Further Notice of Proposed Rulemaking in the above-captioned proceeding, hereby comment in support of the Petition for Rulemaking ("Petition") filed by the Wireless Communications Association International, Inc. ("WCAI").<sup>1</sup>

**Background**

Using WiMAX technology, Main Street operates 2.5 GHz wireless broadband systems in 46 communities in southern Georgia and northern Florida, in significant part through excess capacity leases with Educational Broadband Service ("EBS") licensees. In many cases, consumers and businesses in these communities have little or no choice in broadband providers. Main Street is expanding its services to other communities in the Southeast U.S., and plans to add mobile broadband and voice services as market conditions warrant.

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<sup>1</sup> Amendment of Parts 1, 21, 73, 74 and 101 of the Commission's Rules to Facilitate the Provision of Fixed and Mobile Broadband Access, Educational and Other Advanced Services in the 2150-2162 and 2500-2690 MHz Bands, *Fourth Further Notice of Proposed Rulemaking*, WT Docket No. 03-66, RM-11614, rel. May 27, 2011 ("FNPRM").

## Discussion

In its Petition, WCAI asked the Commission to amend the out-of-band emission restrictions to enable mobile operators in the 2.5 GHz band to utilize wider channel bandwidths. To implement this proposal, WCAI urged amendment of Section 27.53(m) to (1) relax the out-of-band emission limits for mobile digital stations from  $43 + 10 \log (P)$  dB to  $40 + 10 \log (P)$  dB at the channel edges, (2) impose a  $43 + 10 \log (P)$  dB attenuation factor beyond 5 megahertz from the channel edges, and (3) adopt a  $55 + 10 \log (P)$  dB attenuation factor at “X” megahertz from the channel edges where “X” is the greater of 6 megahertz and the actual channel bandwidth. WCAI also sought amendment of Section 27.53(m)(6) to allow a resolution bandwidth of two percent for mobile digital stations.

In the *FNPRM*, the Commission recognized the benefits of permitting wider channels, stating that “facilitating the use of wider channels in the 2.5 GHz spectrum band would greatly enhance spectrum efficiency and throughput in wireless broadband systems operating in the band.”<sup>2</sup> The Commission acknowledged that “the opportunity to harmonize the Commission’s rules with international standards could benefit both operators and consumers by encouraging the development of mobile broadband equipment for the 2.5 GHz band at lower cost.”<sup>3</sup>

MSB supports the rule changes proposed by WCAI for the reasons articulated in the *FNPRM*. By amending the out-of-band emission limits, operators will have the flexibility to deploy networks with wider channels of 20 megahertz and above to increase throughput and accommodate ever-increasing consumer demand for bandwidth-intensive applications. Without increasing the amount of available spectrum, changing Section 27.53(m) as WCAI requests

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<sup>2</sup> *Id.* at ¶ 11.

<sup>3</sup> *Id.*

would make the existing 2.5 GHz spectrum allocation more viable and efficient, for the benefit of consumers.

In addition to lowering the cost of mobile broadband equipment by harmonizing the rules with international standards, equipment manufacturers would be more likely to invest in and develop in technology that is more advanced. In facilitating investment and innovation, the ecosystem for 4G technologies can flourish in the 2.5 GHz band with enhanced competitive choice for operators.

The Commission asks whether it should adopt additional measures to prevent interference *within* the 2.5 GHz band and *outside* the 2.5 GHz band. Within the band, as the *FNPRM* points out, the complaint procedures contained in Section 27.53(m)(2)(i)-(iv) that require a stricter spectral mask can address any specific claims of interference from adjacent-channel licensees.<sup>4</sup> With respect to claims of increased interference outside the BRS/EBS band – MSS spectrum below 2496 MHz and BAS spectrum above 2590 MHz – it would be counterproductive for the Commission to impose any out-of-band emission standards that would be stricter than the spectral mask that would apply elsewhere in the band. Adopting a different standard would require two sets of equipment, one set that complies with the relaxed mask and the other set that would be necessary to comply with the tighter mask at the band edges. This would unnecessarily drive up the cost of deployment and diminish the benefits intended by WCAI’s well-conceived proposal. Moreover, this dual standard scheme would depart from WiMAX international standards, thereby requiring customized devices for the U.S. market and eliminating the economies of scope and scale in 2.5 GHz mobile devices.

The Commission indicates that IP Wireless, a 2.5 GHz equipment manufacturer, claims that it is not necessary to change the out-of-band emission standards to accommodate wider

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<sup>4</sup> See *id.* at ¶ 14.

channel bandwidths.<sup>5</sup> WCAI has pointed out some of the weaknesses in this claim.<sup>6</sup> In addition, Main Street believes that relaxing the mask will open up the equipment market to greater competition. Instead of only IP Wireless meeting the out-of-band emission standards, other companies will be better able to develop affordable equipment for mobile devices, promoting innovation and enhancing competition. This result would be consistent with the public interest.

### **Conclusion**

Main Street urges the Commission to adopt the changes to the out-of-band emission standards contained in Section 27.53(m) as proposed by WCAI to promote competition and innovation in mobile devices and spur the nationwide, rapid deployment of 4G mobile broadband services.

Respectfully submitted,

**MAIN STREET BROADBAND LLC  
MSB SPECTRUM HOLDINGS INC.  
BROADBAND SOUTH LLC**

Date: July 7, 2011

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<sup>5</sup> See *id.* at ¶ 13.

<sup>6</sup> See *id.*