

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

COMMENTS OF ALCATEL-LUCENT

Alcatel-Lucent submits these comments in support of the Commission's *Fourth Further Notice of Proposed Rulemaking* ("*Fourth Further Notice*"), seeking to change the out of band emissions limits for mobile Broadband Radio Service and Educational Broadband Service devices operating in the 2496-2690 MHz band (the "2.5 GHz band"). The changes proposed in this proceeding were first raised in a Petition for Rulemaking filed by the Wireless Communications Association International ("WCAI"),¹ which Alcatel-Lucent also supported.

Alcatel-Lucent agrees that 4G mobile broadband systems offer more efficient use of spectrum and provide greater throughput when implemented using channel bandwidths of 20 MHz or greater. As the WCAI correctly asserts, however, when considering the size, weight and power limitations in mobile devices, the technology used to control out of band emissions ("OOBE") from mobile stations using such wide channel bandwidths cannot easily meet the Commission's existing OOBE regulations. By allowing an attenuation of $40+10\log(P)$ (or emission power of -10 dBm), WCAI claims that its proposed rule change would solve that

¹ See *Wireless Communications Association Int'l Petition to Amend Section 27.53(m) of the Commission's Rules*, Public Notice, RM-11614 (rel. Nov. 4, 2010).

problem, allowing for wider-bandwidth channels in the 2.5 GHz band and unlocking the 4G potential within the band. Indeed, the Commission has found in the *Fourth Further Notice* that “facilitating the use of wider band channels in the 2.5 GHz spectrum band would greatly enhance spectrum efficiency and throughput in wireless broadband systems operating in the band.”² The Commission recognizes as well that the proposed rule change “would also promote greater harmonization of FCC requirements with global standards for mobile devices in the 2.5 GHz band”³ The potential economies of scale from such common global requirements would facilitate the establishment of a robust ecosystem of devices for this band.

The Commission now seeks further comment on concerns raised in response to WCAI’s Petition for Rulemaking that the proposed rule changes would increase the potential for harmful interference. Alcatel-Lucent agrees that such concerns do not outweigh the substantial potential benefits of the proposed modifications to the rules. As an initial matter, WCAI has provided analysis in response to concerns about interference and asserts that the likelihood of such interference is remote.⁴ Furthermore, Alcatel-Lucent agrees that it is important that primary licensees receive adequate protection in the event harmful interference occurs. As the Commission recognizes in the *Fourth Further Notice*, existing rules already address the rights of primary licensees by contemplating the potential for adjacent-channel and adjacent-band interference, and those rules include processes for mitigation and coordination.⁵

² *Fourth Further Notice* at ¶ 11.

³ *Id.* ¶ 1.

⁴ Reply Comments, Wireless Communications Association International (filed Dec. 16, 2010).

⁵ *See Fourth Further Notice* at ¶¶ 15-16 (citing 47 C.F.R. §§ 27.53(m)).

In sum, the proposed rule change will facilitate growth of mobile broadband in the 2.5 GHz band. For the foregoing reasons, Alcatel-Lucent supports the rule changes proposed in the *Fourth Further Notice*.

Respectfully submitted,

Alcatel-Lucent

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