

November 22, 2013

**VIA ELECTRONIC FILING**

Marlene H. Dortch  
Secretary  
Federal Communications Commission  
445 Twelfth Street, S.W.  
Washington, D.C. 20554

***Re: Ex Parte Communication – Technical Requirements Governing Signal Boosters Operating in the 700 MHz Public Safety Narrowband Spectrum – PS Docket No. 13-87; WT Docket No. 96-86; RM-11433; PS Docket No. 06-229; RM-11577***

Dear Ms. Dortch,

PCIA – The Wireless Infrastructure Association and the HetNet Forum (“PCIA”)<sup>1</sup> write in support of Axell Wireless’ November 14, 2013 letter<sup>2</sup> in the above-referenced proceeding regarding signal boosters operating in the 700 MHz public safety narrowband spectrum. In the instant proceeding, the Federal Communications Commission (“FCC” or “Commission”) seeks comment on rules that it asserts govern adjacent channel power (“ACP”) limits from wireless signal boosters operating in the 700 MHz public safety narrowband spectrum. However, the FCC’s request for comments fails to recall its recent and comprehensive re-regulation of signal boosters which has already contemplated this issue.<sup>3</sup> Further, the general technical requirements governing 700 MHz narrowband transmitters contained in Section 90.543 of the rules do not now apply to signal boosters.<sup>4</sup>

As reference, on February 20, 2013 the FCC released a comprehensive order establishing a new framework governing the operation of consumer and industrial signal boosters as well as revision of the technical operation requirements for Private Land Mobile Radio (“PLMR”) industrial signal boosters under Part 90 of the Commission’s rules.<sup>5</sup> These rules included the technical requirements in Section 90.219 and preempted the general technical rules of Section 90.543, which were not signal booster specific.<sup>6</sup> In fact, Section 90.543 does not even mention signal

---

<sup>1</sup> The HetNet Forum, formerly The DAS Forum, is a membership section of PCIA – The Wireless Infrastructure Association dedicated to the advancement of the heterogeneous network. HetNets utilize a variety of technologies to link to the macrocellular network enabling seamless voice and data communications.

<sup>2</sup> See Letter from Rami Hasarchi, Axell Wireless, to Marlene Dortch, Secretary, Federal Communications Commission (Nov. 14, 2013), available at <http://apps.fcc.gov/ecfs/document/view?id=7520957776> (“Axell Letter”).

<sup>3</sup> Amendment of Parts 1, 2, 22, 24, 27, 90 and 95 of the Commission’s Rules to Improve Wireless Coverage Through the Use of Signal Boosters, *Report & Order*, 28 FCC Rcd 1663, ¶ 2 (2013) (“*Signal Booster Order*”).

<sup>4</sup> See 47 C.F.R. § 90.543.

<sup>5</sup> *Signal Booster Order*, ¶ 2.

<sup>6</sup> See 47 C.F.R. § 90.219; 47 C.F.R. 90.543.

boosters. The new regulatory framework and the addition of Section 90.219 specifically details the operation of signal boosters and consequently effectively mitigate any interference concerns. Subsequent to the release of the *Signal Booster Order* the FCC issued the *700 MHz Narrowband Report & Order & NPRM* implementing and proposing changes to the rules governing signal boosters operating in the 700 MHz public safety narrowband spectrum.

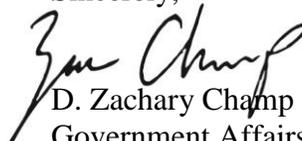
If, however, the FCC finds that signal boosters operating in the 700 MHz public safety narrowband spectrum constitute “transmitters” subject to 90.543, it should exempt Class B and Class A signal boosters from the ACP requirements in Section 90.543(a). Requiring Class B and Class A signal boosters to comply would be practically impossible or economically and technically infeasible.<sup>7</sup> The near overlap of these two events has created an exceptional and potentially harmful restructuring of established regulatory precedent governing the design, sale and operation of wireless signal boosters designed to service public safety applications.

### **Conclusion**

For the forgoing reasons, PCIA respectfully requests that the Commission subject signal boosters operating in the 700 MHz public safety narrowband spectrum to the requirements of Section 90.219 of the Commission’s rules that are directly applicable to signal boosters, rather than the requirements of Section 90.543. If the Commission nonetheless determines that signal boosters constitute “transmitters” subject to Section 90.543, it should exempt Class B and Class A signal boosters from its ACP requirements. Doing so will ensure signal boosters remain an asset to the operation of public safety services in the 700 MHz narrowband spectrum.

Pursuant to Section 1.1206 of the Commission’s rules, this letter is being filed via ECFS. Please do not hesitate to contact the undersigned with any questions.

Sincerely,



D. Zachary Champ  
Government Affairs Counsel  
PCIA - The Wireless Infrastructure Association  
500 Montgomery Street, Suite 500  
Alexandria, VA 22314

CC: Brian Marengo (via e-mail)

---

<sup>7</sup> See Axell Letter at 8. “A signal booster could *theoretically* attempt to comply by designing a signal booster with multiple amplifiers, using one amplifier for each individual signal. However, such a solution would be extremely costly, and such devices would consume significant amounts of power and dissipate significant amounts of heat.” Other options like a multicarrier amplifier (“MCPA”) “would require an enormous amplifier that would dissipate large amounts of heat, consume significant, power, require a huge battery back-up, and be very expensive. (*emphasis added*). Needless to say the increased cost would negate the benefit a wireless signal booster is designed to provide—efficient, cost effective service carriage.