

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

In the Matter of:	)	
	)	
Amendment of Parts 1, 2, 22, 24, 27, 90 and 95	)	WT Docket No. 10-4
of the Commission’s Rules to Improve Wireless	)	
Coverage Through the Use of Signal Boosters	)	
	)	

**REPLY COMMENTS OF CTIA**

CTIA respectfully submits these reply comments in response to the Second Further Notice of Proposed Rulemaking seeking input on balancing the use of signal boosters to improve access to wireless service while preventing unacceptable interference to the operations of wireless providers.<sup>1</sup>

**I. INTRODUCTION.**

In the *Signal Boosters Second FNPRM*, the Federal Communications Commission (“Commission”) proposes modifications to the well-established regulatory framework that has proven reliable for both signal booster users and wireless providers. While CTIA generally supports the use of Consumer Signal Boosters under an appropriately tailored framework, some commenters have made suggestions that would reverse the well-settled policy that booster manufacturers and operators are responsible for managing interference to primary licensed users.

Specifically, some booster manufacturers have urged the Commission to: (1) require the wireless industry to fund and manage a registration system for wideband Consumer Signal Boosters and (2) permit boosters in commercial wireless spectrum bands—even those without

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<sup>1</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*, Second Report and Order and Second Further Notice of Proposed Rulemaking, WT Docket No. 10-4, FCC 18-35 (rel. Mar. 23, 2018) (“*Signal Boosters Second FNPRM*”).

defined technical licensing and service rules—without further notice and comment rulemaking proceedings. The Commission should reject both of these requests.

The Commission’s rules governing the deployment and use of consumer boosters have been successful largely due to the measured rollout of these products and the established framework designed to allow consumers to use and register these products without causing harmful interference to wireless networks. Consumer Signal Booster manufacturers and operators should be the responsible parties for managing interference either through participation in a Commission-managed database or through a mandated obligation to register wideband Consumer Signal Boosters with all potentially affected wireless providers. Additionally, as the record has established, it is vitally important that all potentially affected license holders have the opportunity to comment on the effect a Consumer Signal Booster may have on their protected operations prior to the Commission authorizing booster use in new spectrum bands.

**II. THE WIRELESS INDUSTRY SHOULD NOT BE RESPONSIBLE FOR MANAGING WIDEBAND CONSUMER SIGNAL BOOSTER REGISTRATION.**

Some commenters in this proceeding have suggested that CTIA manage or fund a registration system for wideband Consumer Signal Boosters.<sup>2</sup> Surecall argues a single organization (such as CTIA) should manage a wideband Consumer Signal Booster database rather than having each individual carrier manage the process.<sup>3</sup> Ad Hoc asserts that wireless licensees are the primary beneficiaries of the registration process and should therefore be

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<sup>2</sup> Comments of Surecall, WT Docket No. 10-4, at 7 (filed May 18, 2018) (“Surecall Comments”); Comments of The Ad Hoc Telecommunications Users Committee, WT Docket No. 10-4, at 6 (filed May 18, 2018) (“Ad Hoc Comments”).

<sup>3</sup> Surecall Comments at 7.

required to pay for the creation and management of the wideband Consumer Signal Booster registration database.<sup>4</sup>

The Commission should reject both of these proposals. The benefits of boosters primarily accrue to the booster manufacturers who are selling these products. As the Commission has previously determined, signal boosters operate on a secondary, non-interference basis to co-channel or adjacent channel primary services that may be affected by their operation, and a booster operator is solely responsible for remedying any interference.<sup>5</sup> Proposing that wireless carriers be burdened with managing a database is simply an attempt by booster operators to evade their own obligations by foisting them on third parties. The obligation to manage booster interference is not the responsibility of the wireless industry, but of the booster manufacturers and operators.

Instead, the Commission should either (1) create a centralized, one-step registration system administered by the Commission or (2) require individual booster operators to register with all potentially affected wireless providers.<sup>6</sup> Either of these possible approaches would provide notice to providers and allow them to identify the specific source of any potential interference that may occur as the result of the use of a wideband Consumer Signal Booster.

### **III. CONSUMER SIGNAL BOOSTERS SHOULD NOT BE PERMITTED IN COMMERCIAL WIRELESS SPECTRUM WITHOUT A NOTICE AND COMMENT PROCEEDING.**

Some parties have suggested that all commercial wireless spectrum (even some bands

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<sup>4</sup> Ad Hoc Comments at 6.

<sup>5</sup> 47 C.F.R. § 20.21(d).

<sup>6</sup> Comments of CTIA, WT Docket No. 10-4, at 10 (filed May 18, 2018) (“CTIA Comments”).

that do not have technical licensing or service rules established) should be immediately available for use by Consumer Signal Boosters.<sup>7</sup> These proposals would undermine the careful approach implemented by the Commission to provide protections to primary licensed services from interference from secondary booster uses and should be rejected. As CTIA noted in its initial comments, a notice and comment rulemaking process should be followed to consider any future proposed authorizations to ensure that the technical restrictions on noise and gain limits provide adequate protections for each band where a signal booster may operate.<sup>8</sup>

The threat that indiscriminate use of boosters poses to licensed services is well-documented. As part of this ongoing rulemaking process, the Commission sought comment on extending the booster regime to the Wireless Communications Service (“WCS”) and 600 MHz bands and received significant feedback from affected parties noting concerns about booster use. The Aerospace and Flight Test Radio Coordinating Council (“AFTRCC”) noted that Consumer Signal Booster use in the WCS spectrum band would “risk undoing the careful coordination regime” that exists in the band and that “AFTRCC is unaware of any effective means of coordinating consumer boosters to ensure flight test operations in the adjacent band would not experience harmful interference.”<sup>9</sup> Sirius XM noted that “it would be unthinkable to allow

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<sup>7</sup> Comments of the Enterprise Wireless Alliance, WT Docket No. 10-4, at 4 (filed May 18, 2018) (arguing that the 2.496-2.690 GHz, 3.5-3.7 GHz, 3.7-4.2 GHz, 4.9 GHz, 5.925-6.425 GHz, 6.425-7.125 GHz, and other higher spectrum bands should be authorized without conducting additional rulemakings for each allocation or have allocation-specific rules to accommodate them) (“EWA Comments”); Surecall Comments at 9-10 (urging the Commission to create a blanket rule that Consumer Signal Boosters are authorized to operate using any frequency bands that are authorized for use by CMRS providers).

<sup>8</sup> CTIA Comments at 4.

<sup>9</sup> Comments of The Aerospace and Flight Test Radio Coordinating Council, Inc., WT Docket 10-4, at 3 (filed May 18, 2018).

Consumer Signal Booster use in the WCS band at this time” and allowing their use in the WCS band “would upset the delicate balance that the Commission established in adopting rules for the 2.3 GHz band and further complicate the coordination challenges that WCS and SDARS stakeholders address every day.”<sup>10</sup> And T-Mobile expressed concerns about Consumer Signal Booster use in the 600 MHz band and argued that it “is concerned that the introduction of signal boosters during this repacking process may create unanticipated interference issues.”<sup>11</sup>

Wireless operators should be provided the opportunity to comment on the authorization of signal boosters, particularly in the bands within which they operate. A rulemaking proceeding will also allow adjacent spectrum licensees the opportunity to review and comment upon the effects of the introduction of Consumer Signal Boosters may have to their protected operations. Moreover, for commercial wireless spectrum bands that have no technical licensing or service rules, it is not possible for booster manufacturers to know what is required to protect licensed users. In addition, as licensee consent is a requirement prior to Consumer Signal Booster use, allowing booster use in spectrum without a licensee would be premature as licensees have yet to be identified to provide or reject consent. Therefore, the Commission should continue to ensure that proper consideration is given to the impact of booster operations through a notice and comment rulemaking process prior to authorizing Consumer Signal Booster use in any new spectrum bands.

#### **IV. CONCLUSION.**

CTIA appreciates the Commission’s efforts to advance the use of Consumer Signal Boosters. The Commission should not rush headlong into changes that may result in unintended

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<sup>10</sup> Comments of Sirius XM Radio Inc., WT Docket No. 10-4, at 3 (filed May 18, 2018).

<sup>11</sup> Comments of T-Mobile USA, Inc., WT Docket No. 10-4, at 3 (filed May 18, 2018).

consequences for wireless providers. As the Commission itself recognized, the current regulatory framework “allows consumers to realize the benefits of using Consumer Signal Boosters while preventing, controlling, and, if necessary, resolving interference to wireless networks.”<sup>12</sup> Consequently, the Commission should reject booster manufacturer requests that (1) would require the wireless industry to fund and manage a registration system for wideband Consumer Signal Boosters and (2) would permit boosters in commercial wireless spectrum bands without a notice and comment rulemaking. Any proposed modifications to the signal booster rules should maintain the principles of the existing framework, which balances both consumer and wireless provider interests, are incorporated into these changes.

Respectfully Submitted,

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<sup>12</sup> *Signal Boosters Second FNPRM* ¶ 4.