

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

In the Matter of)
)
Modification of Parts 2 and 15 of the) ET Docket No. 03-201
Commission's Rules for Unlicensed Devices)
and Equipment Approval)

**REPLY COMMENTS OF THE WIRELESS COMMUNICATIONS
ASSOCIATION INTERNATIONAL, INC.**

The Wireless Communications Association International, Inc. ("WCA") hereby submits its reply comments in response to the Commission's *Notice of Proposed Rulemaking* ("NPRM") in the above-captioned proceeding.

As the Commission is aware, WCA is the trade association of the wireless broadband industry. Its membership includes a wide variety of wireless broadband system operators, equipment manufacturers and consultants interested in the deployment of licensed and license-exempt spectrum for wireless broadband service. WCA is also the founder of the License-Exempt Alliance ("LEA"), a nationwide coalition of service providers, equipment vendors and others who offer or support the provision of wireless broadband service via the license-exempt 902-928 MHz, 2.4 GHz and 5 GHz bands under Part 15 of the Commission's Rules. Whether directly or under the auspices of the LEA, WCA has participated in virtually every major Commission proceeding affecting the deployment of licensed and license-exempt spectrum for

wireless broadband service. Accordingly, WCA has an immediate and substantial interest in the Commission's proposals to modify certain of its Part 15 Rules as set forth in the *NPRM*.¹

WCA is particularly interested in the *NPRM*'s treatment of Section 15.203 of the Commission's Rules, which states:

An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section.²

In the rulemaking proceeding where it adopted Section 15.203, the Commission described the policy rationale for the rule as follows: “[The unique connector requirement] was proposed because the antenna characteristics directly affect the field strength of the radio frequency emissions. . . [I]n order to ensure that only an antenna of the type originally furnished by the manufacturer is used and to preclude replacement of the original antenna with one that increases the radiated signals, we are prohibiting the use of a standard antenna jack or electrical connector, similar to the regulation presently applied to cordless telephones.”³ More recently, the Commission has confirmed that the unique connector requirement is designed to be a

¹ The LEA has already filed initial comments in this proceeding, addressing issues beyond those discussed herein. See Comments of License-Exempt Alliance, ET Docket No. 03-201 (filed Jan. 23, 2004).

² 47 C.F.R. § 15.203. The rule does not apply to, among other things, antennas that must be professionally installed. *Id.*

³ *Revision of Part 15 of the Rules Regarding the Operation of Radio Frequency Devices Without An Individual License*, 4 FCC Rcd 3493, 3517 (1989).

safeguard not only against unlawful in-band emissions but unlawful out-of-band emissions as well.⁴

Indeed, the Commission reaffirmed the value of the rule just three months ago by imposing a unique connector requirement on wireless assist video devices (“WAVDs”) that operate on a secondary, non-interference basis on unused television channels in the upper VHF and the UHF bands:

We note that our Part 15 rules contain a provision allowing either permanently attached antennas or devices with unique couplings to permit antennas to be more easily repaired. *This has worked well in preventing unintended antennas from being attached to low power unlicensed devices* and we believe a similar requirement would work here. Accordingly, we are adopting a requirement that WAVDs contain a permanently attached antenna or contain a unique connector that allows for easy antenna repair while preventing the use of unauthorized antenna.⁵

It therefore comes as no surprise that in the *NPRM* the Commission proposes no changes to the unique connector requirement, and that the text of its proposed revision to Section 15.203 leaves the unique connector language in the rule as is.⁶ Instead, the Commission has chosen another means of giving users more flexibility with respect to antennas, *i.e.*, by permitting

⁴ See, e.g., *Amendment of Parts 2 and 15 of the Commission’s Rules Regarding Spread Spectrum Transmitters*, 12 FCC Rcd 7488, 7516 (1997).

⁵ *Revisions to Broadcast Auxiliary Service Rules in Part 74 and Conforming Technical Rules for Broadcast Auxiliary Service, Cable Television Relay Service and Fixed Services in Parts 74, 78 and 101 of the Commission’s Rules*, 17 FCC Rcd 22979, 23039 (2003) (emphasis added). This requirement received the strong support of the Society of Broadcast Engineers. See Comments of Society of Broadcast Engineers, ET Docket No. 01-75, at 21 (filed July 9, 2001) (“An integral antenna is an important safeguard against uninformed parties using an external, high gain antenna to illegally boost the station’s EIRP, and the requirement for an integral antenna is an important part of why SBE no longer opposes WAVDs. . . . To allow the option for connecting an external antenna to a WAVD transmitter opens the door to mischief, and the Commission should decline to allow such a risk.”).

⁶ See *NPRM* at Appendix A.

systems to be tested only with the highest gain antenna of each type that would be used with the transmitter at the maximum output power of that transmitter.⁷ As a result, any antenna of a similar type that does not exceed the antenna gain of the tested antenna could be used without retesting.⁸ So long as the unique connector requirement is retained as proposed, WCA supports this rule change -- it will give users of Part 15 devices greater freedom to “mix and match” antennas according to their unique circumstances but without increasing the risk that those same users will illegally substitute their own higher-gain antennas (since permissible substitute antennas will be limited only to those that do not exceed the gain of the antenna tested and ultimately certified by the Commission).

Unfortunately, a number of commenting parties in this proceeding appear to have thrown this concept aside and asked the Commission to eliminate the unique connector requirement entirely, without giving due consideration to whether their proposal will expose cochannel or adjacent channel service providers to additional interference.⁹ At the outset, it must be emphasized that the Commission has not proposed in the *NPRM* to eliminate nor even questioned the continued need for the unique connector requirement. It is well settled that while a final rule need not precisely mirror the rule as proposed in a *Notice of Proposed Rulemaking*, the notice requirements of Section 553 of the Administrative Procedure Act require that an

⁷ See *id.* at ¶ 17.

⁸ *Id.*

⁹ See Comments of Cisco Systems, Inc., ET Docket No. 03-201, at 2-5 (filed Jan. 23, 2004) (“Cisco Comments”); Comments of Nortel Networks, ET Docket No. 03-201, at 8 (filed Jan. 23, 2004) (“Nortel Comments”); Comments of the Wi-Fi Alliance, ET Docket No. 03-201, at 9 (filed Jan. 23, 2004); Comments of Motorola, Inc., ET Docket No. 03-201, at 3 (filed Jan. 23, 2004) (“Motorola Comments”); (continued on next page)

agency alert interested parties to the possibility that the agency may adopt a rule different than the one proposed.¹⁰ The *NPRM* says nothing about eliminating the unique connector requirement, and thus any requests that the Commission do so are beyond the scope of this proceeding and should be rejected for that reason alone.

Even if the Commission were to overlook the procedural impropriety of eliminating the unique connector requirement under these circumstances (and it should not), none of the reasons offered by the rule's opponents justify such action at this time. First, the rule's opponents contend that the rule creates burdensome additional costs for manufacturers. Tellingly, these parties do not quantify those costs, instead favoring hyperbole and broad generalizations to make their case. One opponent, for example, alleges that "[t]he waste of economic resources" caused by the unique connector requirement is "enormous" but offers no quantification.¹¹ Another is similarly vague: without providing any specifics, it summarily asserts that "the unique connector requirement needlessly adds complexity to equipment design and unnecessarily increases hardware cost for the majority of users who have no intention of changing the antenna."¹² Given that the rule was created to protect wireless service providers from interference, not minimize the cost of equipment, those who oppose the rule must provide substantially more information as to why the cost of supplying a unique connector (a small piece of equipment relative to an entire

Comments of Hewlett-Packard Company, ET Docket No. 03-201, at 2-4 (filed Jan. 23, 2004) ("Hewlett-Packard Comments").

¹⁰ See, e.g., *Kooritzky v. Reich*, 17 F.3d 1509, 1513 (D.C. Cir. 1994).

¹¹ Cisco Comments at 3 n.4.

¹² Hewlett-Packard Comments at 3. See also Motorola Comments at 3 (stating that the unique connector requirement "imposes additional costs on manufacturers . . . with little benefit").

transmission system) is significant enough to warrant elimination of the requirement (and the protection it offers service providers) altogether.

Second, some argue that the unique connector requirement has become ineffective, citing the fact that users of intentional radiators can obtain and install standard connectors if they are sufficiently knowledgeable and motivated to do so.¹³ Of course, this argument simply is another way of saying that the rule is not a perfect deterrent to undesired behavior, an observation that could apply to virtually any rule adopted by any Federal agency. Yet notwithstanding its imperfections, the unique connector requirement has proven to be an effective deterrent that has served to minimize unlawful emissions from illegal antennas - the fact that certain antenna users may be of a mind to violate the rule is not a reason to declare it obsolete.¹⁴ Moreover, even those who oppose the rule admit that most users are unlikely to switch connectors in any case, even where they have the ability and opportunity to do so.¹⁵ If this is true, then retention of the unique connector requirement provides wireless services with at least some measure of interference protection against illegal antennas on intentional radiators. In other words, if the Commission remains properly focused on the interference-related policies that prompted it to

¹³ See, e.g., Cisco Comments at 3 (“[I]t has long been an open secret that the unique connector rule does not deter the determined – and technically competent – rule violator.”); Hewlett-Packard Comments at 3 (“[A]ny individual who feels he or she has a compelling need will always be able to obtain *any* commercially available connector, given enough time and persistence.”) (emphasis in original); Nortel Comments at 8 (“even if a non-standard connector is used, it is quite common for adapter-connectors to be marketed by third parties, thereby canceling the protection of the non-standard fitting”).

¹⁴ To use a simple analogy, the fact that certain drivers go through “Stop” signs is not a legitimate reason for removal of all “Stop” signs everywhere – enforcement of the law is the preferred alternative, and should be here as well.

¹⁵ See, e.g., Cisco Comments at 3 (“[F]ew consumers have any interest in changing the antennas on a properly operating unlicensed device, or would be bold enough to ignore warnings against making such a
(continued on next page)

adopt Section 15.203 in the first place, the arguments by the rule's opponents about consumer behavior militate in favor of retaining the unique connector requirement, not eliminating it.¹⁶

In fact, it is telling that service providers support retention of the rule. Specifically, a coalition of wireless Internet service providers ("WISPs") that use license-exempt spectrum has advised the Commission that half of its members have concluded that the requirement "helps to keep the general public from doing things that may harm our system reliability or functionality."¹⁷ This illustrates that the interference protection the unique connector requirement affords benefits not only licensed users but also those wireless providers who operate within the license-exempt bands and wish to preserve an environment in which all intentional radiators are operated in accordance with the Commission's Rules.

In sum, WCA reiterates that the Commission should retain the unique connector requirement, while adding the replacement antenna flexibility it has proposed in the *NPRM*. At the same time, however, in the event that those who oppose the unique connector requirement establish that it has a material adverse effect on equipment costs, WCA would not oppose the issuance of a *Further Notice of Proposed Rulemaking* in this proceeding to explore alternative rules and policies that will effectively deter

change."); Hewlett-Packard Comments at 3 ("Fortunately, the vast majority of unlicensed device consumers are not inclined to [switch to a non-unique connector].").

¹⁶ Since a unique connector is not required for any antenna that must be professionally installed, those who oppose the unique connector requirement may find relief in the Commission's proposal to more precisely define who qualifies as a "professional installer" and the extent to which a professional installer may "mix and match" equipment in a Part 15 system. See *NPRM* at ¶ 19.

¹⁷ Comments of WISPA, ET Docket No. 02-301, at 1 (filed Jan. 30, 2003). These comments also highlight the fact that WISPs are much closer to their customers than their equipment suppliers, and thus are in a better position to determine the risks associated with giving their customers free reign to install their own antennas on intentional radiators

the use of illegal antennas with intentional radiators, without imposing unreasonable costs on equipment manufacturers.

Respectfully submitted,

THE WIRELESS COMMUNICATIONS
ASSOCIATION INTERNATIONAL, INC.

By: /s/Paul J. Sinderbrand
Paul J. Sinderbrand

WILKINSON BARKER KNAUER, LLP
2300 N Street, N.W.
Suite 700
Washington, D.C. 20036-4001
(202) 783-4141

Its Attorneys

February 9, 2004