



Federal Communications Commission
Washington, D.C. 20554

June 18, 2015

DA 15-700
ET Docket No. 13-49

Ms. Terri Natoli
Vice President, Regulatory Affairs Government Relations
Time Warner Cable Inc.
901 F Street NW, Suite 800
Washington, D.C. 20004

Dear Ms. Natoli:

The Office of Engineering and Technology (OET) is granting the request of Time Warner Cable Inc. (TWC) for a waiver of Section 15.407(a)(1)(i)¹ of the Commission's rules to allow its yet-to-be deployed systems that were previously certified for operation in the 5725-5850 MHz (U-NII-3) band to obtain FCC certification for operation in the 5150-5250 MHz (U-NII-1) band.

In your letter filed July 1, 2014, you state that you seek a waiver to permit the operation of TWC's yet-to-be deployed U-NII-3 systems in the U-NII-1 band with up to 250 mW of conducted power and a power spectral density (PSD) of 11 dBm/MHz with a 6 dBi gain antenna.² In addition, you state that there are a total of 10,000 TWC U-NII-3 outdoor access points which you seek to cover by this waiver. You provide the general location of TWC systems by state, as well as the total number of devices per state, and request confidential treatment for this information under separate cover.³ You also confirm that each of the access points can be reprogrammed for operation in the U-NII-1 band at the 250 mW operational parameters by upgrading the firmware of the devices remotely. You further state the operating power of these devices can be adjusted through central network management systems currently managed by each of TWC's individual vendors, each of which currently support centralized power adjustment features as required by the FCC.⁴

In the *First Report and Order (First R&O)* in U-NII 5 GHz proceeding, the Commission adopted rule Section 15.407(a)(1)(a) which allows fixed outdoor access points in the U-NII-1

¹ See 47 C.F.R. § 15.407 (a)(1)(i).

² See Time Warner Cable Inc. Supplemental Request for Waiver of Certain Technical Requirements for Operation of New In U-NII-3 Devices in the U-NII-1 Band (Request) dated July 1, 2014, from Terri Natoli, Time Warner Cable Inc.

³ See Time Warner Cable Inc. Request for Waiver of Certain Technical Requirements for Operation in UNII-1 Band – Request for Confidential Treatment, dated July 1, 2014, from Terri Natoli, Time Warner Cable Inc.

⁴ See Request at 2.

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band at a maximum conducted output power level not to exceed 1 W and a PSD not to exceed 17 dBm/MHz with an allowance for a 6 dBi antenna gain; the rule limits the maximum EIRP to 125 mW (21 dBm) at any elevation angle above 30 degrees measured from the horizon.⁵ In other words, each outdoor access point must limit the energy directed upward so that, in the aggregate, they would avoid causing interference to satellites operating in the U-NII-1 band.⁶ The Commission recognized that some U-NII-3 fixed access points already deployed could potentially be reprogrammed to meet the new U-NII-1 power limits and thus quickly begin more flexible operation in the U-NII-1 band using this existing equipment.⁷ The Commission stated that, if outdoor U-NII-3 band systems installed prior to the effective date of the new rules were not able to comply with the 125 mW EIRP requirements of Section 15.407(a)(1)(i) to limit energy directed upward, manufacturers or equipment operators could file for a waiver of this provision for operation in the U-NII-1 band,⁸ no later than 30 days after of the effective date of the new rules. The Commission stated that if the waiver is designed to enable existing deployments to operate with up to 250 mW of conducted power and a PSD of 11 dBm/MHz with a 6 dBi gain antenna, the Commission could make a quick and likely favorable good cause determination sufficient to grant the waiver request.

The Commission asked for the following information about the petitioner's existing deployments to assess the waiver requests: the number of devices installed, general location of each deployment, ability to reprogram the devices, and ability to adjust operating power from a central network management system. The Commission concluded that waiver requests meeting these parameters and made within a short period of time are likely to serve the public interest because granting them is highly unlikely to create any risk of harmful interference, given the small numbers involved and the limited departure from the new technical requirements for the U-NII-1 band.⁹ While posing only a negligible risk of harmful interference the expedient approval of such waivers would benefit the public by promptly and efficiently expanding broadband use in this band.¹⁰ The Commission delegated authority to the Office of Engineering and Technology to consider and act on all such waiver petitions received within 30 days of the effective date of the new rules, which period expired July 2, 2014.¹¹ OET subsequently granted TWC a waiver under the streamlined provisions

⁵ See, *Revision of Part 15 of the Commission's Rules to Permit Unlicensed National Information Infrastructure (U-NII) Devices in the 5 GHz Band, First Report and Order*, ET Docket No. 13-49, 29 FCC Rcd. 4127 (2014) (*First R&O*) at 4138.

⁶ *Id.* at 4138.

⁷ *Id.* at 4139.

⁸ *Id.* at 4139 – 4140. See also 47 C.F.R. § 1.3. See also *WAIT Radio v. FCC*, 418 F.2d 1153 (1969).

⁹ See *First R&O* at 4139.

¹⁰ *Id.* at 4140.

¹¹ *Id.*

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described above to allow already deployed U-NII-3 systems to obtain certification for operation in the U-NII-1 band.¹²

On December 11, 2014 the Commission issued a Public Notice seeking comment regarding your request for a waiver of yet-to-be deployed devices.¹³ The sole commenter, Globalstar, Inc stated that it did not object to a waiver grant for this limited number of compliant outdoor U-NII-1 devices given the narrow scope of this waiver request.¹⁴

We find that the information you provide regarding the yet-to-be deployed systems satisfies the technical requirements the Commission outlined in the *First R&O* for OET to act on your waiver request, and we conclude that a waiver of Section 15.407 (a)(1)(i) is in the public interest. That is, these yet-to-be deployed systems are well under the volume anticipated in the Commission's decision and should not pose a threat of harmful interference to the incumbent services in the U-NII-1 band because, as you represent, these systems can be reprogrammed for operation in the U-NII-1 band at the 250 mW operational parameters by upgrading the firmware of the devices remotely and the operating power can be adjusted through central network management systems managed by your individual vendors. This waiver applies only to the 10,000 outdoor access point systems at the locations that you identify in your letter, and does not apply to any future deployments. If you need to change the location, but not the total number, of your deployments, you must provide OET with the modified deployment information. You must demonstrate compliance with the technical requirements through the equipment certification process by filing a permissive change request along with a copy of the approved waiver.

Accordingly, pursuant to the delegated authority in Sections 0.31 and 0.241 of the Commission's rules and Section 1.3 of the Commission's rules, 47 C.F.R. §§ 0.31, 0.241, 1.3, we waive the requirements of Section 15.407(a)(1)(i) of our rules to allow Time Warner Cable Inc. to obtain FCC certification, consistent with the terms of this waiver, for the U-NII-3 band outdoor access points you have identified to operate in the U-NII-1 band with up to 250 mW of conducted power and a PSD of 11 dBm/MHz with a 6 dBi antenna gain.

Sincerely,

Julius P. Knapp
Chief
Office of Engineering and Technology

¹² See, Letter from Julius P. Knapp, Chief, OET to Ms. Terri Natoli, Time Warner Cable Inc. dated August 20, 2014, DA 14-1197, ET Docket No. 13-49, 29 FCC Rcd. 10008 (2014).

¹³ See, *Office of Engineering and Technology Declares the Time Warner Cable Inc. and the Comcast Corporation Requests for Waiver of Rules to be a "Permit-But-Disclose" Proceeding for Ex Parte" Purposes and Requests Comment, Public Notice*, ET Docket No. 13-49, 29 FCC Rcd. 14792 (2014).

¹⁴ See Globalstar, Inc Comments at 2.