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VP, Regulatory Affairs  
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July 1, 2014

**VIA ELECTRONIC FILING**

Ms. Marlene H. Dortch  
Secretary  
Federal Communications Commission  
445 12<sup>th</sup> Street, SW  
Washington, DC 20554

Attn: Office of Engineering and Technology

Re: *Request for Waiver of Certain Technical Requirements for Operation in U-NII-1 Band; Revision of Part 15 of the Commission's Rules to Permit Unlicensed National Information Infrastructure (U-NII) Devices in the 5 GHz Band, ET Docket No. 13-49*

Dear Ms. Dortch:

Time Warner Cable Inc. ("TWC") hereby requests a waiver of certain technical requirements adopted in the above-referenced proceeding to permit the operation of TWC's existing 5 GHz U-NII-3 band Wi-Fi systems in the U-NII-1 band.<sup>1</sup>

In the *5 GHz Order*, the Commission modified the operational and technical requirements for Unlicensed National Information Infrastructure ("U-NII") devices operating in the 5.15-5.25 GHz band (referred to as the "U-NII-1 band") to enable the provision of mobile wireless broadband services in this band. The Commission opened the U-NII-1 band to outdoor operations, permitting transmitter power levels up to 1 W,<sup>2</sup> provided such operations meet a PSD of 17 dBm/MHz with an allowance for a 6 dBi antenna gain (*i.e.* a total 36 dBm EIRP), and a maximum EIRP above 30 degrees elevation of 125 mW (21 dBm) EIRP.<sup>3</sup> The modified rules for the U-NII-1 band are intended to harmonize the requirements with the current requirements for operations in the 5.725-5.825 GHz band (referred to as the "U-NII-3 band"). As the Commission acknowledged, unlicensed devices certified to operate in the U-NII-3 band that are currently in operation could potentially be reprogrammed to operate in the U-NII-1 band in accordance with the power limits and associated operational safeguards adopted in the *5 GHz Order*. For U-NII-3 band devices that are unable to comply with the U-NII-1 maximum EIRP limit (or for which the equipment manufacturers have not yet obtained the required permissive change to permit the up

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<sup>1</sup> *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, 29 FCC Rcd 4127 (2014) ("*5 GHz Order*").

<sup>2</sup> *Id.* at ¶ 34.

<sup>3</sup> *Id.* at ¶ 37.

to 1 W of conducted power operations), the Commission established a streamlined procedure to request a waiver of the technical requirements for operation in the U-NII-1 band to allow U-NII-3 outdoor devices to operate with up to 250 mW of conducted power and a PSD of 11 dBm/MHz with a 6 dBi gain antenna.<sup>4</sup> The Commission concluded that waiver requests meeting these technical parameters and made within a short period of time, *i.e.*, within 30 days of the effective date of the *5 GHz Order*, are likely to serve the public interest given the limited departure from the new technical requirements for the U-NII-1 band.<sup>5</sup> Moreover, the Commission concluded that it believes “a quick and likely favorable good cause determination sufficient to grant the waiver request” could be made if the waiver petitioner included four specific pieces of information regarding the existing U-NII-3 devices for which a waiver is sought.<sup>6</sup>

TWC hereby seeks a waiver to permit operation of its current U-NII-3 systems, to the extent necessary, 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 gain antenna. TWC has been in discussions with its vendors since the *5 GHz Order* was released and understands that for the majority of its U-NII-3 devices, compliance with the new U-NII-1 EIRP requirement will eventually be demonstrated to allow a permissive change with up to 1 W of conducted power. TWC nonetheless is seeking this waiver to provide it with the ability to operate its current U-NII-3 Wi-Fi systems at the lower 250 mW power level in the event its vendors have not yet filed for, and obtained the necessary permissive change at such time as TWC seeks to begin U-NII-1 operations, or in the event some models of existing devices in these systems are found to be unable to meet the new EIRP requirements. Consistent with the waiver requirement set forth in the *5 GHz Order*, as of June 2, 2014, there are a total of 19,913 TWC 5 GHz UN-II-3 outdoor APs for which TWC seeks to cover by this waiver (to the extent necessary). Attachment A to this letter includes the general location of TWC systems by state, as well as the total number of devices per state. Each of the devices identified in Attachment A can be reprogrammed for operation in U-NII-1 at the 250 Mw operational parameters by upgrading the firmware of the devices remotely. Finally, 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.

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<sup>4</sup> *Id.* at ¶ 41. TWC understands that before U-NII-1 operations pursuant to a waiver are permitted, the equipment must comply with the software security requirements set forth in § 2.1033(b)(13) and § 15.407(i)(1) of the rules to prevent unauthorized device modifications. *See 5 GHz Order* at ¶ 40.

<sup>5</sup> *Id.* at ¶ 41. The Commission has authority under its rules, *see 47 C.F.R. § 1.3*, to waive requirements not mandated by statute where strict compliance would not be in the public interest, provided that it articulates identifiable standards for exercising that authority. *See NetworkIP, LLC v. FCC*, 548 F.3d 116, 127 (D.C. Cir. 2008); *Ne. Cellular Tel. Co. v. FCC*, 897 F.2d 1164, 1166 (D.C. Cir. 1990); *WAIT Radio v. FCC*, 418 F.2d 1153, 1159 (D.C. Cir. 1969). That standard has been met in this case, and TWC has demonstrated the requisite good cause for and public interest in granting the instant waiver by meeting the prerequisites for such relief identified in the *5 GHz Order*. *See 5 GHz Order* at ¶ 40.

<sup>6</sup> *Id.* at ¶ 41.

In conclusion, as demonstrated herein, TWC respectfully submits that it satisfies the requirements for obtaining a waiver of the applicable 5 GHz U-NII-1 technical requirements as specified in the *5 GHz Order*, and respectfully requests that OET act promptly to grant TWC such a waiver. Finally, TWC acknowledges that the equipment subject to this waiver request, must, upon receiving such waiver, demonstrate compliance with the technical requirements through the equipment certification process by filing a permissive change request including the approved waiver.<sup>7</sup>

Should you have any questions about this waiver request or require more specific information about TWC's U-NII device operations, please do not hesitate to contact the undersigned at 202-370-4222 or at [terri.natoli@twcable.com](mailto:terri.natoli@twcable.com).

Respectfully submitted,



Terri B. Natoli

Attachment

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<sup>7</sup> *Id* at ¶ 42.

**Attachment A to TWC 5 GHz U-NII-1 Waiver  
July 1, 2014**

**REDACTED**

Confidential treatment requested under separate cover.