

June 8, 2016

Via Electronic Filing

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

Re: Petition for Rulemaking to Permit MVDDS Use of the 12.2-12.7 GHz Band for Two-Way Mobile Broadband Service

Dear Ms. Dortch:

The Computer & Communications Industry Association (“CCIA”)¹ respectfully submits this letter in support of the above-referenced petition for rulemaking. The global race to 5G is on. Carriers around the world are seeking to speed their deployment of Fifth Generation (“5G”) mobile broadband technology as consumers increasingly demand more data at faster speeds. Regulators from various different countries are investigating new ways to facilitate the transition to 5G. The above-referenced petition for a rulemaking provides an ideal opportunity for the Federal Communications Commission (“Commission”) to open up new avenues of spectrum that can accommodate the needs of 5G. The Commission should grant the petition and initiate a rulemaking proceeding to update its rules to enable sharing in the 12.2-12.7 GHz band.

Industry analysis projects that IP traffic will triple from 2015 to 2020, representing an annual growth rate of about 22 percent.² During that same period, Internet video traffic will quadruple, and 30 percent of all IP traffic will come from

¹ CCIA represents large, medium, and small companies in the high technology products and services sectors, including computer hardware and software, electronic commerce, telecommunications, and Internet products and services. Our members employ more than 750,000 workers and generate annual revenues in excess of \$540 billion.

² Press Release, Cisco, Cisco Visual Networking Index Predicts Near-Tripling of IP Traffic by 2020 (June 7, 2016), <https://newsroom.cisco.com/press-release-content?type=webcontent&articleId=1771211>.

smartphones by 2020.³ The rapid increase in data consumption and consumer demand catalyzed the deployment of 3G and 4G LTE technologies. Indeed, the Commission has initiated another proceeding to identify new, higher bands of spectrum to support these emerging demands.⁴ Moreover, the Chairman and all four commissioners have noted the necessity of more spectrum to facilitate 5G.⁵

As consumer demand for data from mobile phones intensifies, network operators will require more spectrum in higher bands. The Commission should seriously consider the significant potential of the 12.2-12.7 GHz band for two-way mobile broadband. Currently, this block of spectrum is licensed for use for Multichannel Video Distribution and Data Service (“MVDDS”). The Commission held two auctions in January 2004 and December 2005 for licenses for this band.⁶ However, the rules for using that spectrum prohibited two-way communications, including mobile service. Although licensees have pursued a number of ways for utilizing that spectrum, it has not become fully operational. As the petitioners explained, the combination of regulatory restrictions and the lack of development for the equipment necessary to facilitate use of the band have left this spectrum “underutilized.”⁷ However, the Commission now has an opportunity to maximize the utility of this band.

³ *Id.*

⁴ *In the Matter of Use of Spectrum Bands Above 24 GHz for Mobile Radio Services*, GN Docket No. 14-177, Notice of Proposed Rulemaking (rel. Oct. 23, 2015) (“*Spectrum Frontiers NPRM*”).

⁵ *See generally id.*

⁶ *Multichannel Video Distribution and Data Service*, FED. COMM’NS COMM’N, http://wireless.fcc.gov/services/index.htm?job=service_home&id=mvdds (last visited June 6, 2016).

⁷ *In the Matter of MVDDS 5G Coalition Petition for Rulemaking to Permit MVDDS Use of the 12.2-12.7 GHz Band for Two-Way Mobile Broadband Service at 5-6* (filed April 26, 2016) (“*Petition*”).

As the petitioners noted, “MVDDS spectrum squarely fits the bill”⁸ regarding the four criteria that the Commission developed for evaluating spectrum bands for 5G in the *Spectrum Frontiers NPRM*.⁹ The factors were as follows:

1. “[Focusing] on bands with at least 500 megahertz of contiguous spectrum”;
2. Identifying “bands that are being considered internationally for mmW mobile service”;
3. “[M]obile use in mmW bands should be compatible with existing incumbent license assignments and uses”;
4. “[Establishing] a flexible regulatory framework that accommodates as wide a variety of services as possible.”¹⁰

Updating the Commission’s rules to allow for two-way mobile communication in the MVDDS spectrum would meet the first factor because currently “[e]ach licensee receives one spectrum block of 500 megahertz per geographic area.”¹¹ The second factor would be satisfied because such use “would be consistent with current international frequency allocations.”¹² The third factor would be met as the Commission could establish rules to ensure compatibility with existing uses. In addition, the fourth factor would be met based on the five principles that petitioners proposed for a flexible, regulatory framework that would enhance private sector development.¹³

The 12.2-12.7 GHz band is ideally suited for 5G. By updating its rules and promoting sharing with existing DBS services, the Commission will help carriers meet ever-increasing demands placed on their networks. 5G systems will require greater density to meet high data rates. Not only will carriers have to build more cell sites (*e.g.*, more small cells in urban areas), but they will also have to increase their capacity with

⁸ *Id.* at 4.

⁹ *Spectrum Frontiers NPRM* at ¶¶20-23.

¹⁰ *Id.*

¹¹ *Multichannel Video Distribution and Data Service*, *supra* note 6.

¹² *Petition* at 6.

¹³ *See id.* at 7 (proposing five principles in an NPRM that would facilitate a “flexible regulatory environment”).

higher bands of spectrum. Updating the rules for the 12.2-12.7 GHz band could also facilitate spectrum sharing, which will help promote competition in the wireless market.

The Commission should take this opportunity to open up new avenues for 5G. By modernizing its rules and enabling two-way mobile communications, the Commission can ensure that the United States continues to lead the world in wireless. The Commission should adopt a flexible regulatory framework to allow this block of spectrum to be used more efficiently.

June 8, 2016

Respectfully submitted,
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