

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

<b>In the Matter of</b>	)	
	)	<b>ET Docket No. 10-97</b>
<b>Amendment of Part 15 of the Commission's</b>	)	
<b>Rules Regarding Unlicensed Personal</b>	)	
<b>Communications Services in the 1920-1930</b>	)	
<b>MHz band</b>	)	
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To: The Commission

**COMMENTS OF THE  
TELECOMMUNICATIONS INDUSTRY ASSOCIATION**

The Telecommunications Industry Association (TIA) hereby submits comments to the Federal Communications Commission (Commission) in the above-captioned proceeding.<sup>1</sup> TIA, on behalf of its member companies, has a vested interest in preventing interference in the Unlicensed Personal Communications Service (UPCS) band, as many of its members produce cordless devices that operate in this band. TIA respectfully submits these comments in support of the Commission's proposal to change Part 15 of the Rules to enable UPCS devices operating in the 1920-1930 MHz band (known as the UPCS band) to make more efficient use of this spectrum.

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<sup>1</sup>See Amendment of Part 15 of the Commission's Rules Regarding Unlicensed Personal Communications Services in the 1920-1930 MHz Band, Notice of Proposed Rulemaking, ET Docket No. 1097 (rel. May 6, 2010) (UPCS NPRM).

TIA represents the global information and communications technology (ICT) industry through standards development, advocacy, tradeshow, business opportunities, market intelligence and world-wide environmental regulatory analysis. With roots dating back to 1924, TIA enhances the business environment for broadband, mobile wireless, information technology, networks, cable, satellite and unified communications. Members' products and services empower communications in every industry and market, including healthcare, education, security, public safety, transportation, government, the military, the environment and entertainment. TIA is accredited by the American National Standards Institute (ANSI).

## **SUMMARY**

The UPCS NPRM properly addresses the key goals of the Petition for Rulemaking filed by the Digital Enhanced Cordless Telecommunications Forum (DECT)<sup>2</sup> by proposing to increase the least-interfered channel access method threshold that a UPCS device must monitor to determine whether there is a channel available on which to transmit and reduce from 40 to 20 channels the number of duplex system access channels that a UPCS device must monitor and use under the least-interfered channel access method.<sup>3</sup> There is increasing demand for spectrum supporting UPCS services, and the Commission's proposal will go a long way toward the development of innovative cordless broadband devices.

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<sup>2</sup> See "Petition for Rulemaking to coordinate the service rules of the UPCS Band with those ultimately adopted for the AWS H Block," Petition for Rulemaking, filed Aug. 15, 2008, by DECT Forum, placed on Public Notice for comment on Sept. 4, 2008 (Report No. 2873; RM-11485) (DECT Petition).

<sup>3</sup> See UPCS NPRM at 1.

The Commission has historically promulgated rules to generate swift introduction of new, advanced UPCS technologies. Specifically, the Commission has made the 1920-1930 MHz band available to UPCS devices, and created flexible regulations to encourage UPCS technological advancement. As a result, TIA members are producing highly advanced cordless phones and will continue to do so in the proper regulatory environment. With these changes, DECT devices will not suffer interference and manufacturers will continue producing innovative DECT products that will provide access to broadband services.

## **DISCUSSION**

### **I. THE COMMISSION SHOULD ADOPT ITS PROPOSED CHANGES TO PART 15 RULES IN RECOGNITION OF INCREASING DEMAND FOR DECT TECHNOLOGY.**

#### **A. The Commission Has Advanced UPCS Technology Development Through Flexible Rules.**

DECT products hold the promise of maximizing spectrum designed for UPCS use for all Americans, including those with disabilities. DECT products, as noted by the Commission, have resulted in greater use of the UPCS band.<sup>4</sup> The Commission has stated:

The DECT technology is a flexible digital radio access standard for cordless communications in residential, corporate, and public environments. In addition to providing for voice and multimedia traffic, the DECT standard includes many forward-looking technical features that can allow DECT-based cordless systems to be used to facilitate new communications developments such as Internet access

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<sup>4</sup> See *id.* at 3.

and interworking with other fixed and wireless services such as Integrated Services Digital Network (ISDN) and Global System for Mobile Communications (GSM).<sup>5</sup>

These unique attributes of DECT have resulted in high demand for DECT products; DECT devices comprised a 70% share of the cordless telephone market in 2009.<sup>6</sup> The development of and ultimate demand for DECT products is a direct result of Commission rules for the UPCS band that are intended to ensure that UPCS device manufacturers were given a high level of flexibility to develop new products that meet consumer needs.<sup>7</sup> The Commission has emphasized that its policy goal was to permit “manufacturers to introduce new products without the delays associated with the licensing of a radio service” in hope that advanced cordless telephones would be developed.<sup>8</sup> Further, when it reallocated the 1915-1920/1995-2000 MHz band for licensed use, creating the AWS-2 H Block, the Commission noted that “there has been only limited use of the UPCS band,” and it amended Part 15 of its rules to give manufacturers increased flexibility to produce, among other things, advanced cordless telephone technologies.<sup>9</sup> Moreover, the Commission changed the UPCS rules to allow a bandwidth increase from 1.25 MHz to 2.5 MHz and to eliminate the packing rule. These changes were designed to minimize

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<sup>5</sup> *Id.* at n. 16 (citations omitted).

<sup>6</sup> See DECT Forum Ex Parte filing, dated Dec. 14, 2009, at 27.

<sup>7</sup> See *Amendment of the Commission’s Rules to Establish New Personal Communications Services*, GEN Docket No. 90-314, *Second Report and Order*, 8 FCC Rcd 7700, 7775 (1993).

<sup>8</sup> See *id.* at 7734.

<sup>9</sup> *Amendment of Part 2 of the Commission’s Rules to Allocate Spectrum Below 3 GHz for Mobile and Fixed Services to Support the Introduction of New Advanced Wireless Services, including Third Generation Wireless Systems et al.*, ET Docket No. 00-258 *et al.*, *Sixth Report and Order, Third Memorandum Opinion and Order and Fifth Memorandum Opinion and Order*, 19 FCC Rcd 20720, 20755 ¶ 79 (2004) (Sixth Report and Order).

interference by permitting devices to select from a greater number of frequencies in a manner more likely to avoid interference.<sup>10</sup>

**B. The Commission's Proposed Rules for the UPCS Band will Prevent UPCS Device Interference.**

As the DECT Forum makes clear, revisions to 47 CFR § 15.323(c)(5) should reduce the duplex system access channel minimum limit from 40 to 20 so that future UPCS broadband applications are viable.<sup>11</sup> As the UPCS rules now allow a bandwidth increase from 1.25 MHz to 2.5 MHz,<sup>12</sup> TIA agrees with the DECT Forum that the number of channels required for UPCS devices to utilize the least-interfered-channel procedure should be concurrently reduced by a factor of two. This level will not present interference concerns, is consistent with the change of maximum UPCS bandwidth promulgated by the FCC, and will allow future broadband UPCS products to function properly.

The Commission's proposed rules, as articulated in the UPCS NPRM, reflect the need to promote more efficient use of the UPCS band. The proposal to modify Section 15.323 to specify a least-interfered channel monitoring threshold of 65 dB above thermal noise will provide access to usable channels for more devices, including DECT products.

Moreover, as DECT has made clear, this threshold increase will increase use of the UPCS band by over 60%.<sup>13</sup> This increase will result in no additional interference concerns.

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<sup>10</sup> See *id.*; *Ex Parte* Letter from the DECT Forum to Marlene H. Dortch, ET Docket No. 00-258 (filed Dec. 10, 2003).

<sup>11</sup> See *id.* at 3-4.

<sup>12</sup> See Sixth Report and Order at ¶ 79.

<sup>13</sup> See DECT Petition, Annex I, at 19.

Further, the Commission's proposal to modify rule Section 15.323 to reduce from 40 to 20 channels the number of channels that a UPCS device must monitor and use in order to operate under the least-interfered channel access method in the 1920-1930 MHz band will allow UPCS broadband devices to operate under the least-interfered channel access method and access channels with a higher signal level.

**C. The Proposed Rule Changes Will Advance DECT Technologies and Speed the Development of Devices Providing Broadband Capacity.**

These two changes to the Commission's Part 15 rules, taken together, will greatly advance DECT and other cordless phone technologies and speed the development of devices providing broadband capacity and foster broadband adoption goals outlined the National Broadband Plan (NBP). The DECT standard contains many forward-looking features that utilize Internet access and interwork with other fixed and wireless services, such as ISDN and GSM, which can promote adoption of these technologies.<sup>14</sup> DECT phones can also be used for Voice over Internet Protocol (VoIP) and other Internet-based services such as streaming audio and video through the CAT-iq standard.<sup>15</sup> As cordless phones continue to become more advanced they will drive broadband adoption through the integration of Internet and telephony, and the rules proposed by the Commission will promote these technologies..

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<sup>14</sup> <http://www.dect.org/content.aspx?id=18>

<sup>15</sup> CAT-iq stands for Cordless Advanced Technology - Internet and Quality. CAT-iq is the global technology for wireless broadband home connectivity and is available in a protected frequency band almost worldwide. The CAT-iq technology supports new and exciting products for wireless home communication and infotainment. CAT-iq is a registered trademark owned by the DECT Forum and requires a certification program.

The standard also makes use of several advanced digital radio techniques to provide for high-speed quality and security, high system capacity, and maximum battery life.<sup>16</sup> Such features will be appealing to all consumers but the high-speed quality will be particularly useful to users with hearing impairment and the high system capacity is ideal for office environments, driving adoption by people with disabilities and small businesses, both goals outlined in the NBP. By allowing for flexible use of radio spectrum on the UPCS band, the proposed rules will foster development of more innovative and feature-rich devices that will drive broadband adoption.

## II. CONCLUSION.

For the foregoing reasons, TIA supports the Commission's proposed action as detailed in the UPCS NPRM.

Respectfully submitted,

TELECOMMUNICATIONS  
INDUSTRY ASSOCIATION

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<sup>16</sup> The DECT standard makes use of techniques including TDMA (Time Division Multiple Access), ADPCM (Adaptive Differential Pulse Code Modulation), and DCS/DCA (Dynamic Channel Selection/Allocation).

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