

**Before the
Federal Communications Commission
Washington, D.C. 20554**

In the Matter of)	
Request for Limited Waiver of Section)	
15.117 Of the Commission's Rules to)	MB Docket No. 10-111
Permit the Marketing of Digital-Only)	
Television Receivers Designed to Provide)	
Mobile Television Reception)	
)	

To: The Commission

Comments of Harris Corporation

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EXECUTIVE SUMMARY

Harris Corporation (“Harris”) supports the Petitions for Waiver submitted by Hauppauge Computer Works and Dell/LG Electronics on behalf of themselves and similarly situated manufacturers. Granting Hauppauge and Dell/LG’s request for limited waiver of Section 15.117 of the Federal Communications Commission’s (“Commission”) rules is crucial to promoting the successful nationwide rollout of Mobile digital television (“DTV”). When evaluating whether a device is subject to the limited waiver, the Commission must recognize that some degree of flexibility is needed in order to facilitate continued development of Mobile DTV devices and services. Harris does not believe that granting limited waiver to Mobile DTV device manufacturers would cause any undue harm to the broader broadcast marketplace, including classes of low power television stations.

Broadcasters’ Mobile DTV solution can offer wireless telecommunications providers a reprieve from growing network congestion, capacity constraints, and spectrum scarcity concerns. Broadcasters’ can utilize their licensed spectrum to deliver real-time, rich, unidirectional media streams. Mobile DTV also provides an additional source of mobile video competition, including entertainment, information, and access to emergency broadcasts and other important public safety programs. However, requiring devices manufactured for the primary purpose of receiving the A/153 Mobile DTV Standard to also receive analog and traditional digital signals would be impractical and counter to the public interest. Limited waiver of Section 15.117 of the Commission’s rules would serve the public interest by encouraging the deployment of a robust, mobile over-the-air digital broadcast service.

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Harris Corporation (“Harris”) respectfully submits these comments in response to the Federal Communications Commission’s (“Commission”) Public Notice¹ seeking comment on the Petition for Waiver of Hauppauge Computer Works² (“Hauppauge”) and the Joint Petition for Waiver of Dell and LG Electronics³ (“Dell/LG”). In summary, both Petitions request that the Commission grant limited waiver of Section 15.117 of the Commission’s rules⁴ to the petitioners and any other similarly situated manufacturers in order to permit the marketing, manufacturing, importation, distribution, and sale of mobile television receivers designed for nomadic use (such as in car television systems, smart phones, netbooks, and portable DVD players) without analog

¹ See Media Bureau Action Expedited Comment Dates Established For Requests for Waiver of Certain TV Tuner Requirements In Order To Import and Distribute Mobile DTV Receivers Without Analog Tuners, *Public Notice*, MB Docket Nos. 10-111, DA 10-873 (rel. May 20, 2010) (“Waiver Public Notice”).

² Hauppauge Computer works, Inc., Request for Waiver of Section 15.117 of the Commission’s rules to Permit the Manufacture, Importation, Marketing, Distribution and Sale of Digital Only Television Receivers for Mobile Devices, *Petition for Waiver*, MB Docket No. 10-111 (filed May 19, 2010).

³ Dell Inc. and LG Electronics USA, Inc., Request for Waiver of Section 15.117 of the Commission’s Rules, *Petition for Waiver*, MB Docket No. 10-111 (filed May 12, 2010) (“Dell/LG Petition for Waiver”).

⁴ 47 C.F.R. § 15.117 (2009).

tuners, but with the capability to receive mobile digital television (“Mobile DTV”) transmissions made using the A/153 ATSC Mobile DTV Standard (“A/153 MDTV Standard”) and, optionally, the A/53 Advanced Television Systems Committee (“ATSC”) DTV Standard (“A/53 DTV Standard”). Harris supports the Petitioner’s request and believes that limited waiver of Section 15.117 of the Commission’s rules is necessary to facilitate the rollout of Mobile DTV services and devices. Harris does not believe that granting limited waiver to Mobile DTV device manufacturers would cause any undue harm to the broader broadcast marketplace—including the various classes of low power television (“LPTV”) stations.

I. Harris Has Played an Instrumental Role in the Development and Deployment of Mobile DTV and Has an Acute Interest in the Platform’s Success.

Harris is an international communications and information technology company serving government and commercial markets in more than 150 countries. Harris Broadcast Communications, a division of Harris, is headquartered in Mason, Ohio, and operates the world’s largest transmitter factory in Quincy, Illinois. Harris is committed to facilitating technological advancement within the broadcast industry and focused on helping broadcasters succeed as they transition to the world of digital media. Harris Broadcast Communications is an active member of industry and standard setting organizations including the ATSC and National Association of Broadcasters.

Over the past four years Harris has played a leadership role in the development of Mobile DTV technology, devices, and service. In particular, Harris was instrumental in the creation of the A/153 MDTV Standard, which included two years of work co-developing the physical layer of the standard with LG and Zenith, and two years working with the ATSC Technical Standards Group. Currently, Harris is supporting the ATSC Mobile DTV “Model Station” program that placed reference stations on the air in Seattle and Atlanta using the Harris® MPH™ platform.

Harris is also supporting numerous Mobile DTV deployments, including the Washington D.C. OMVC Mobile DTV Consumer Showcase (“Consumer Showcase”) where six out of the nine broadcast stations participating in the Consumer Showcase are utilizing Harris’ Mobile DTV solution.⁵

II. Mobile DTV is on the Cusp of Nationwide Deployment.

Granting Hauppauge and Dell/LG’s request for limited waiver is crucial to promoting the successful nationwide rollout of Mobile DTV. Consumers increasingly demand the content they want, delivered when they want it, on their favorite devices, in a location of their choosing. Mobile DTV provides broadcasters the opportunity to meet these consumer demands and expand the reach of the public benefits broadcasters provide. On October 15, 2009, the ATSC adopted the A/153 MDTV Standard. The adoption of the A/153 MDTV Standard will provide broadcasters and equipment manufacturers the opportunity to find new innovative ways to utilize broadcasters’ existing digital spectrum. In particular, the A/153 MDTV Standard will provide broadcasters the ability to offer a number of new services to mobile devices including free over-the-air television, interactive services delivered in real-time, subscription-based TV, and non real-time file based delivery of content for playback at a later time. With the adoption of the A/153 MDTV Standard, the broadcast industry has reached a pivotal moment in the development of digital broadcast services.

III. The Commission Can Identify Which Devices Should be Subject to the Limited Waiver by Evaluating a Set of Straight Forward Characteristics.

A Mobile DTV device subject to the limited waiver requested by Hauppauge and Dell/LG should include any television reception device that: (i) possesses an A/153 tuner, including devices that, at the manufacturer’s option, incorporates both an A/153

⁵ Included with this filing is a Harris brochure that provides a general description of Mobile DTV solutions and a summary of Harris specific Mobile DTV offerings.

tuner and an A/53 tuner; (ii) is primarily powered by an internal or independent battery source (such as a power supply onboard a vehicle or a laptop battery), but can be recharged or, if necessary, powered through external means (such as through an AV adapter, USB cable, or car charger); (iii) is designed to be used in a nomadic and transient manner; and (iv) is marketed to consumers as including a “Mobile DTV Receiver” intended primarily for use with Mobile DTV services and includes a label on the mobile device’s packaging (or a removable sticker on the mobile device itself) that advises consumers that the device does not include an analog television tuner (and if applicable an A/53 digital tuner). The Commission can use these four characteristics to distinguish devices primarily manufactured for the receipt of Mobile DTV signals from conventional televisions designed primarily for viewing of analog and digital broadcasts on a stationary set or monitor.

Harris believes that these characteristics will afford the necessary degree of flexibility in order to facilitate continued development of Mobile DTV devices and services. However, limitations based on the screen size, or prohibiting the inclusion of composite video inputs in the device, would risk stifling innovation in the design of Mobile DTV devices and arbitrarily limit consumers’ use and enjoyment of Mobile DTV technology. The characteristics outlined above allow the Commission to effectively evaluate a device based on its intended use and take steps to address concerns over consumer confusion regarding the capability of Mobile DTV devices.

IV. Providing Limited Waiver to Permit the Marketing, Manufacturing, Importation, Distribution, and Sale of Mobile DTV Devices is in the Public Interest.

Limited waiver of Section 15.117 of the Commission’s rules, as the rule applies to Mobile DTV devices, would serve the public interest by encouraging the deployment of a robust,

mobile, over-the-air digital broadcast service. Courts have held that it is appropriate for the Commission to waive its rules when the underlying purpose of the rule at issue would not be served by enforcement and the public interest would otherwise be served by waiver of that rule.⁶ Although some Commission rules may serve the public interest on the whole, “a general rule, deemed valid because its overall objectives are in the public interest, may not be in the ‘public interest’ if extended to an applicant who proposes a new service that will not undermine the policy, served by the rule, that has been adjudged in the public interest.”⁷ Requiring television devices manufactured for the primary purpose of receiving the A/153 MDTV Standard to also receive NTSC Analog Standard and A/53 DTV Standard would be impractical and counter to the public interest. Furthermore, granting limited waiver would in no way harm the broader broadcast marketplace, most notably LPTV stations.

A. Requiring Mobile DTV Devices to Receive NTSC Analog and A/53 DTV Signals Would be Counter to the Public Interest.

Manufacturers of Mobile DTV devices should not be required to include tuners that receive the NTSC Analog Standard or A/53 DTV Standard in devices that were designed to primarily receive the A/153 MDTV Standard. The burden of requiring Mobile DTV devices to receive analog and traditional DTV signals would inhibit both the consumer electronic industry and broadcasters’ ability to manufacture devices and offer services that are desirable to consumers. There are numerous market and technical reasons why requiring analog and traditional DTV tuners to be placed in devices intended primarily for use with the A/153 MDTV Standard would be detrimental to the deployment of Mobile DTV services:

⁶ See *WAIT Radio v. FCC*, 413 F.2d 1153 (D.C. Cir. 1969), *aff’d*, 459 F.2d 1203 (1973), *cert. denied*, 409 U.S. 1027 (1972) (finding that the Commission may waive an existing rule if such action serves the public interest and waiver of the rule does not undermine the policy served by the rule).

⁷ *Id.* at 1157.

- Analog and traditional DTV tuners require a high level of power consumption. Such a power requirement would significantly cut mobile devices battery life and lessen the desirability of Mobile DTV enabled devices amongst consumers.
- Analog and traditional DTV tuners will increase the size and weight of devices, lessening the appeal of Mobile DTV devices amongst consumers.
- Requiring that analog and traditional DTV tuners be included in devices primarily manufactured for use with the A/153 MDTV Standard will add increased cost to the device manufacturing process, costs that will likely be passed along to consumers.
- Including analog and traditional DTV tuners will provide little, if any, added value to consumers as the NTSC Analog Standard and A/53 DTV Standard are not configured for nomadic viewing on mobile devices.
- By prolonging the deployment and development of Mobile DTV the economic viability of the service may be diminished amongst broadcasters, manufacturers, and consumers.

The A/153 MDTV Standard was developed to give viewers the maximum flexibility and enable them to access and view DTV content while on the go. However, the Commission's current interpretation of Section 15.117 would limit the full capabilities of the A/153 MDTV Standard from being realized by placing onerous restrictions on the design of mobile devices, which are intended for nomadic use. Enforcement of the rule, as currently interpreted by the Commission's Office of Engineering and Technology,⁸ would defeat the underlying purpose of the rule and be counter to the public interest by preventing a prompt deployment of Mobile DTV service.

B. Granting Limited Waiver Would be in the Public Interest by Enhancing Broadcast Television Services and Providing an Additional Source of Competition in the Mobile Video Marketplace.

The ability to deliver video to mobile devices is ultimately tied to a services infrastructure. Broadcasters' infrastructure is particularly well suited to support mobile video

⁸ Office of Engineering and Technology Knowledge Database, KDB Publication No. 218634 (Published Dec. 12, 20007).

service. The hallmark of the broadcast model is that it supports an unlimited number of viewers, typically within a large coverage area, from a single or small number of high power transmitter sites. As highlighted by NAB President and CEO, Senator Gordon Smith, broadcasting represents one of the most spectrally efficient ways to use spectrum:

Broadcasters generate tremendous efficiencies through their ability to serve “one-to-many” in small bandwidth segments—efficiencies that cannot otherwise be achieved. Indeed, with each additional viewer, a broadcaster’s use of spectrum becomes more efficient, because increasing the number of viewers places no additional incremental burden on the spectrum.⁹

In contrast, wireless telecommunications providers require a dedicated connection for each user in order to transmit a user’s side of the conversation back to the tower. Unlike broadcasting, the more users on a wireless or wired telecommunications network, the greater the burden that is placed on that networks spectrum or capacity. Today data, in particular video, is placing an unprecedented burden on many telecommunications networks. According to CTIA, “watching a YouTube video on a wireless device consumes almost on hundred times the data bandwidth of a voice conversation...”¹⁰

As the demand for mobile content continues to grow, existing wireless telecommunications systems will become overloaded and congested with traffic. CTIA has estimated that “wireless traffic volume is more than doubling each year”¹¹ and according to Cisco, by 2013 “nearly 64 percent of the world’s mobile traffic will be

⁹ Statement Senator Gordon Smith, CEO and President, National Association of Broadcasters, Before the United States House of Representatives Committee on Energy and Commerce, Subcommittee on Communications, Technology and the Internet, Hearing on “Spectrum Inventory and Relocation” (Dec. 15, 2009).

¹⁰ Comments of CTIA, A National Broadband Plan For Our Future, *Public Notice Number 6*, GN Docket Nos. 09-47, 09-137, 09-51, p. 9 (filed Oct. 23, 2009).

¹¹ *Id.* at 11.

video.”¹² This dramatic growth of data services, especially video, will make current wireless telecommunications spectrum allocations insufficient to meet users anticipated network needs.¹³ Fortunately, broadcasters’ Mobile DTV solution can offer wireless telecommunications providers a reprieve from growing network congestion, capacity constraints, and spectrum scarcity concerns. Broadcasters’ can utilize their licensed spectrum to address wireless telecommunications providers’ growing network congestion issues by delivering real-time, rich, unidirectional media streams, leaving bidirectional interactivity to the mobile and wired telecommunications networks.

Mobile DTV also provides an additional source of mobile video competition, including entertainment, information and access to emergency broadcasts and other important public safety programs. Currently wireless telecommunications providers offer a number of mobile video services through their networks. Mobile DTV offers a new competitive service in the mobile video marketplace by extending broadcasters traditional free over-the-air service to enabled mobile devices—an additional subscription based service is also planned to be available to Mobile DTV users.

The only barrier to entry for consumers is obtaining an enabled Mobile DTV device, which the Commission can help facilitate by granting the limited waiver requested by Hauppauge and Dell/LG. As shown through commitments provided by broadcasters, equipment manufacturers, and video content providers it is clear that these entities are committed to providing the content that consumers want through Mobile DTV services. These commitments have been demonstrated in several ways, including the

¹² Id.

¹³ Id. at 10-13.

formation of the Pearl Mobile DTV Company¹⁴ and industry wide support of the Open Mobile Video Coalition.¹⁵

C. Waiver Will Not Cause Undue Harm Within the Broader Broadcast Marketplace.

The marketplace for analog capable receivers—at least what is left of it, as well as the marketplace for mainstream digital receivers, will not be harmed by granting the limited waiver requests submitted by Hauppauge and Dell/LG. Now that full power broadcast stations have all converted to digital signals the only remaining television broadcasters that utilize analog signals are LPTV stations. As part of the National Broadband Plan, the Commission has called for a transition of all LPTV stations to digital operation by 2015.¹⁶ According to Dell/LG’s Petition for Waiver “more than half of the nation’s LPTV stations have either commenced digital broadcasts or taken affirmative steps to do so—*i.e.*, have filed applications seeking authorize to operation digitally or have received permits authorizing digital operations.”¹⁷ In fact, the Commission recently required that all pending analog LPTV license applications be updated to

¹⁴ Pearl Mobile DTV Company LLC is a standalone joint venture consisting of 12 major broadcast ownership groups including Belo, Cox, Fox, Gannett Broadcasting, Scripps, Hearst Television, ION Television, Media General Inc., Meredith Corp., NBC, Post-Newsweek Stations, and Raycom Media. Spectrum and content will come from the twelve member ownership groups. The service is expected to reach 150 million U.S. residents. See John Eggerton, “NAB 2010: Broadcasters Announce National Mobile DTV Joint Venture,” *Broadcasting and Cable* (Apr. 14, 2010) available at http://www.broadcastingcable.com/article/451430-NAB_2010_Broadcasters_Announce_National_Mobile_DTV_Joint_Venture.php.

¹⁵ The Open Mobile Video Coalition is made up of more than 900 commercial and public television stations nationwide and its activities are supported by non-members including the consumer electronic industry, video content providers, and broadcast equipment manufacturers.

¹⁶ Report to Congress, A National Broadband Plan For Our Future, Federal Communications Commission, p. 92 (March 16, 2009), available at <http://www.broadband.gov/download-plan/>.

¹⁷ Dell/LG Petition for Waiver, *supra* note 3, at 3.

specify digital operations or be dismissed.¹⁸ Additionally, the Commission has required that all new applications for LPTV stations, in either current or planned filing windows, be for digital-only operations.¹⁹ Over the next several years the percentage of LPTV stations transmitting analog signals will continue to diminish until all broadcasters have transitioned to digital signals.

Harris firmly believes that LPTV stations are an important part of the broadcast ecosystem and provide valuable services on a hyper local basis. However, as asserted by the Dell/LG Petition for Waiver, granting limited waiver of Section 15.117 will not prevent consumers from obtaining product receivers capable of receiving over-the-air analog LPTV stations.²⁰ In fact, Harris believes that granting the requested action may encourage LPTV stations to transition to digital by demonstrating the value of digital broadcasting and the promise of Mobile DTV.

The Hauppauge and Dell/LG Petitions for Waiver also call for the Commission to provide manufacturers the choice of whether to include tuners capable of receiving the A/53 DTV Standard. Harris believes that the marketplace should be left to decide whether devices, which are manufactured with the primary intention to receive the A/153 MDTV Standard, can also receive traditional, A/53, DTV signals. For the reasons previously stated, such as decreased battery life and increased device size, requiring devices to receive the A/53 DTV Standard would not be beneficial to facilitating the rapid deployment of Mobile DTV.

¹⁸ See Applicants for New Analog Low Power Television and TV Translator Stations Must Convert to Digital by May 24, 2010, *Public Notice*, 25 FCC Rcd. 2817 (rel. Mar. 25, 2010) (requiring pending applications for new analog LPTV and TV translator stations to modify their applications to specify digital operations by May 24, 2010, or be dismissed).

¹⁹ See Announcement of the Commencement of Rural and Nationwide First-Come, First-Served Digital Licensing for Low Power Television and TV Translator Filing Windows, *Public Notice*, 24 FCC Rcd. 8911 (rel. June 29, 2009) *modified by* Initiation of Nationwide, First come, First Served Digital Licensing for Low Power Television and TV Translator Services Postponed to July 26, 2010, *Public Notice*, 24 FCC Rcd. 14614 (rel. Dec. 22, 2009) (establishing filing windows for new, digital only applications for LPTV and TV translator stations).

²⁰ Dell/LG Petition for Waiver, *supra* note 17, at 7.

Harris notes that there may be other business models and broadcast offerings currently in development in which the A/53 DTV Standard would be appropriate. The Commission can continue to encourage innovation utilizing the A/53 DTV Standard while still granting the limited waiver request of Hauppauge and Dell/LG. The two pursuits are not mutually exclusive as the requested relief provides manufacturers the option of including tuners capable of receiving the A/53 DTV Standard. Manufacturers will likely do so if a service is developed using the A/53 DTV Standard that is appealing to consumers and is economically viable.

V. Conclusion

Harris respectfully requests that the Commission grant the Petitions for Waiver of Hauppauge and Dell/LG. Granting the limited relief for the petitioners and any other similarly situated manufacturers will help jumpstart Mobile DTV as a new and innovative information and entertainment medium. Harris is encouraged by the expedited timeline for comment set forth by the Commission's Public Notice and hopes that the Commission will quickly evaluate comments and grant the requested relief in order to allow manufacturers to rollout products in time for the 2010 holiday season.

Respectfully submitted,

HARRIS CORPORATION

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