Before the
Federal Communications Commission
WASHINGTON, D.C. 20554



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| In the Matter of | ) | |
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| Dell Inc. and LG Electronics USA, Inc. | ) | MB Docket No. 10-111 |
| Request for Waiver of Section 15.117 | ) | |
| of the Commission's Rules | ) | |

# ORDER

**Adopted: July 15, 2010** **Released: July 15, 2010**

By the Chief, Media Bureau:

## I. INTRODUCTION

1. Dell Inc. ("Dell") and LG Electronics USA, Inc. ("LG"), manufacturers and distributors of consumer electronics ("CE"), filed a petition seeking a limited waiver of Section 15.117 of the Commission's rules,[1] which specifies requirements for TV broadcast receivers.[2] Immediately thereafter, Hauppauge Computer Works, Inc. ("Hauppauge"), manufacturer of TV tuners and related products, filed a similar petition.[3] Specifically, petitioners seek a waiver of Section 15.117, on behalf of themselves and any other similarly situated responsible parties, to the extent necessary to manufacture, import, market, distribute, and sell television receivers designed for mobile use that exclude analog and, in some cases, standard non-mobile digital reception capability.[4] We consider the petitions jointly and conclude that a waiver is in the public interest because it would facilitate the introduction of television receivers with Mobile DTV tuners that are designed to be used in motion. As a condition of the waiver, however, we require that responsible parties clearly disclose to consumers that a specific device does not have the capability to receive analog signals, and, where applicable, standard non-mobile digital signals. Accordingly, we grant the waiver to the extent described below.

## II. BACKGROUND

2. Section 15.117 of the Commission's Rules requires, among other things, that television receivers be capable of receiving all of the channels allocated by the Commission to the broadcast television service.[5] Specifically, subsections (b), (h), and (i) require that all television receivers be capable of receiving signals in the analog and digital formats.[6] This section was initially adopted to ensure that analog televisions could receive UHF channels, pursuant to the All Channel Receiver Act of

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[1] 47 C.F.R. § 15.117.

[2] Dell Inc. and LG Electronics USA, Inc. Request for Waiver of Section 15.117 of the Commission's Rules (filed May 12, 2010) ("Dell & LG Petition").

[3] 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 (filed May 19, 2010) ("Hauppauge Petition").

[4] Dell & LG Petition at 1; Hauppauge Petition at 1.

[5] 47 C.F.R. § 15.117.

[6] 47 C.F.R. §§ 15.117(b), (h) and (i).

1962 (ACRA).[7] ACRA granted the Commission authority "to require that apparatus designed to receive television pictures broadcast simultaneously with sound be capable of adequately receiving all frequencies allocated by the Commission to television broadcasting."[8] The digital television ("DTV") tuner requirement was adopted in 2002, pursuant to ACRA, to ensure that manufacturers of TV broadcast receivers[9] would, after a brief phase-in period, include both analog and digital tuners.[10] In this regard, the analog tuner requirement is still relevant as the Commission's rules currently provide for Class A TV stations transmitting to operate in the analog format under Part 73 of the rules and for low power TV and TV translator stations to do so under Part 74 of the rules.[11] The Commission's Office of Engineering and Technology recently provided guidance that recapitulates the requirement to include both analog and digital tuners in a device that includes either.[12] The obligation to comply with this requirement falls on the "responsible party," which is often, although not always, the manufacturer and/or importer of a device.[13]

3. The Advanced Television System Committee's ("ATSC") Digital Television Standard (A/53) was the result of years of collaboration by a "Grand Alliance" of interested parties and organizations throughout the broadcast industry and was adopted by the Commission in 1996 as the nationwide mandatory standard for DTV.[14] ATSC adopted the Mobile/Handheld Digital Television Standard (A/153) in October of 2009. Use of the A/153 standard by broadcasters allows reception of digital broadcast television by compliant mobile devices, which are poorly served both by analog television signals[15] and A/53 digital television signals.[16] As a subsidiary element of the A/53 standard,

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[7] 47 C.F.R. § 15.117. *See also Review Of The Commission's Rules And Policies Affecting The Conversion To Digital Television*, MM Docket No. 00-39, Second Report and Order and Second Memorandum Opinion and Order, 17 FCC Rcd. 15978, 15999 n. 76 (2002) (*citing Amendment Of Part 15 Of The Rules And Regulations With Regards To All-Channel Television Broadcast Receivers*, Docket No. 18433, Report and Order, 18 R.R.2d 1577 (1970)) ("The requirements of Section 15.117 of the rules were originally adopted by the Commission in 1963 and have been amended numerous times over the years to reflect improvements in technology")). *See also* All Channel Receiver Act of 1962, P.L. No. 87-529, 76 Stat. 150) ("ACRA"), codified at 47 U.S.C. § 303(s).

[8] 47 U.S.C. §303(s). *See also* 47 C.F.R § 15.3(w) (defining TV broadcast receiver as a "device designed to receive television pictures that are broadcast simultaneously with sound on the television channels authorized under part 73 of this chapter").

[9] TV broadcast receivers also include other devices, such as TV interface devices that include a tuner but not a viewing screen, *e.g.*, devices that are intended to provide audio-video signals to a video monitor or antenna terminals that can be used for off-the-air TV reception. 47 C.F.R. § 15.117(a).

[10] *Review Of The Commission's Rules And Policies Affecting The Conversion To Digital Television*, 17 FCC Rcd. 15978 (2002). The timing and scope of the DTV tuner requirements were modified in 2005 to require all TV broadcast receivers and interface devices, regardless of screen size, to include both digital and analog tuners. *Requirements for Digital Television Receiving Capability*, Second Report and Order, ET Docket No. 05-24, 20 FCC Rcd 18607 (2005) ("DTV Tuner Order").

[11] *See* 47 C.F.R. § 73, Subpart J; 47 C.F.R. § 74, Subpart G.

[12] Office of Engineering and Technology Laboratory Division Knowledge Database (available at https://fjallfoss.fcc.gov/oetcf/kdb/index.cfm), Publication Number 218634 (rel. Dec. 17, 2009).

[13] 47 C.F.R. § 2.909.

[14] *Advanced Television Systems And Their Impact On The Existing Television Broadcast Service*, Fourth Report and Order, 11 FCC Rcd. 17771, 17774-75 (1996)

[15] National Television System Committee Analog Television Broadcast Standards ("ATSC" or "analog").

A/153 has not been formally adopted by the Commission, but its use is permitted under the flexible content provisions of the A/53 standard. Television broadcasters may offer A/53-compatible A/153 signals for mobile viewing, in addition to their mandated A/53 programming stream(s), but are not required to do so.

4. The National Association of Broadcasters ("NAB") states that A/153, and the Mobile DTV ("MDTV") devices designed to receive it, are "a critically important innovation" that "offers new, unique opportunities to expand viewing options," and that "[b]roadcasters are eager to provide a new array of services" using A/153.[17] In addition to greater opportunities for entertainment "on the go," a number of commenters note the important benefits of wireless, mobile access to emergency broadcast information that A/153 can provide, particularly during weather events that may arise when viewers are away from home or that cause a power loss.[18] Comments also note the value, from a spectrum scarcity perspective, of A/153's ability to deliver point-to-multipoint streaming video to large numbers of viewers simultaneously, which is valuable not only in times of emergency but also during any live video event that is widely watched.[19] Petitioners state that more than 70 stations have committed to launching "Mobile DTV" channels this year in addition to their existing programming streams, and more than 40 have already launched.[20]

5. Notwithstanding the implementation of the ATSC standards, and the end of analog broadcasting by full-power broadcast stations,[21] the NTSC analog standard is still widely used by low power broadcasters ("LPTV").[22] Nevertheless, the Commission expects to require LPTV television stations to cease broadcasting analog signals within the near future, and is no longer accepting applications for new analog LPTV facilities.[23]

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[16] Dell & LG Petition at 4. The A/153 standard and associated devices have developed rapidly since the Commission sought comment on the status of the service in April of last year. *Annual Assessment Of The Status Of Competition In The Market For The Delivery Of Video Programming*, MB Docket No. 07-269, Supplemental Notice of Inquiry, 24 FCC Rcd. 4401, 4415-16 ¶ 39 (MB 2009).

[17] Reply of Association for Maximum Service Television and the National Association of Broadcasters ("NAB") at 3.

[18] Reply of Gray Television Inc. ("Gray") at 1-2; Comments of Cox Media Group, Inc. ("Cox") at 2; Comments of Sinclair Broadcast Group ("Sinclair") at 1-2; Comments of Dell Inc. ("Dell") at 2.

[19] Hauppauge Petition at 4; Comments of Sinclair at 4.

[20] Dell & LP Petition at 3. Despite the availability of programming, however, there are few MDTV devices available. *Id.* at 5.

[21] *See* Digital Television and Public Safety Act of 2005 ("DTV Act"), which is Title III of the Deficit Reduction Act of 2005, Pub. L. No. 109-171, 120 Stat. 4 (2006) ("DRA") (*codified at* 47 U.S.C. §§ 309(j)(14) and 337(e)); *"Full-Power TV Broadcasters Go All-Digital,"* Press Release, FCC (June 13, 2009).

[22] Dell & LG Petition at 2 n.2 (stating that "more than half of the nation's LPTV stations have either commenced digital broadcasts or taken affirmative steps to do so"). We note that LPTV stations that have taken steps toward constructing their digital facility may still be broadcasting an analog broadcast signal, either exclusively or in conjunction with a digital signal. *See generally, Amendment of Parts 73 and 74 of the Commission's Rules to Establish Rules for Digital Low Power Television, Television Translator, and Television Booster Stations and to Amend Rules for Digital Class A Television Stations*, MB Docket No. 03-185, Report and Order, 19 FCC Rcd. 19331 (2004).

[23] *Commencement Of Rural, First-Come, First-Served Digital Licensing For Low Power Television And TV Translators Beginning August 25, 2009 And Commencement Of Nationwide, First-Come, First-Served Digital Licensing For Low Power Television And TV Translator Services Beginning January 25, 2010*, Public Notice, DA (continued....)

6. LG, Dell, and Hauppauge filed the instant petitions because they believe that analog tuning is inappropriate and unnecessary in mobile-oriented MDTV devices. They argue that mandated NTSC compatibility is, in these cases, a burdensome obligation that would actually diminish the value of these devices to consumers,[24] while providing little to no countervailing benefit due to the current "very limited utilization of analog,"[25] and its "imminent and irreversible elimination."[26] LG and Dell manufacture and distribute small devices designed for personal and mobile use, while Hauppauge manufactures and distributes TV tuners and related products for inclusion in such devices.[27] They plan, if possible, to include A/153 tuners in these devices and others. They seek a waiver for themselves, and similarly situated responsible parties, in order to exclude NTSC tuners from certain of these devices, arguing that this will stimulate the market for MDTV devices by speeding them to market and making them more attractive to consumers.[28] Specifically, Dell and LG limit their waiver request to MDTV receivers that have an A/153 compliant tuner, which may or may not contain an A/53 compliant tuner, and that are primarily powered by batteries and designed for nomadic and transient use,[29] while Hauppauge seeks a waiver for any "television receivers capable of mobile use by consumers" that contain only digital tuners.[30] LG notes that A/53 signals, like analog signals, are not well received by devices that are in motion, and it urges that manufacturers should have the flexibility to decide whether to include the A/53 compliant tuner as well as the A/153 compliant tuner.[31] All Petitioners seek specifically to offer these devices for sale during the 2010 holiday buying season, and indicate that they therefore need certainty regarding their regulatory requirements no later than mid-Summer 2010.[32] Recognizing the delays inherent in electronics manufacturing and distribution, and consumer electronics manufacturers' need for "sufficient lead time" to develop products for release to market,[33] we expedited the comment period in this case.[34] With strong support from Petitioners[35] and the Open Mobile Video Coalition and other commenters,[36] we have similarly expedited our review of the comments and our release of this

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09-1487 (rel. June 29, 2009); *Applicants For New Analog Low Power Television And TV Translator Stations Must Convert To Digital By May 24, 2010*, Public Notice, DA 10-496 (rel. Mar. 25, 2010). *See also, Connecting America: The National Broadband Plan*, FCC, at Recommendation 5.8.5(5) (March 16, 2010), *available at www.broadband.gov*.

[24] See infra ¶¶ 11-13.

[25] Hauppauge Petition at 2.

[26] Dell & LG Petition at 4.

[27] *See generally* Dell & LG Petition, Hauppauge Petition.

[28] Dell & LG Petition at 7, Hauppauge Petition at 6.

[29] Dell & LG Petition at 5.

[30] Hauppauge Petition at 1, 7.

[31] Dell & LG Petition at 3-4. *See also* Comments of ATSC at 4 and Harris at 6 (noting that additional reception capability can add weight to and increase the cost of the mobile devices).

[32] Dell & LG Petition at 7, Comments of the Consumer Electronics Association ("CEA") at 2.

[33] *Id.*

[34] *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, DA 10-873 at 2 (rel. May 20, 1979) ("May 20 Public Notice").

[35] Reply of LG Electronics USA, Inc. ("LG") at 3 (seeking action by early July).

[36] Comments of Open Mobile Video Coalition ("OMVC") at 4. *See also, e.g.*, Comments of CEA at 2.

Order.

## III. DISCUSSION

7. In analyzing the Petitioners' requests for waiver, we consider established legal standards for waiver pursuant to section 1.3 of the Commission's rules.[37] A waiver is appropriate where conduct is covered by our rules but there are sound public policy reasons to waive compliance in a particular case, and a waiver would not undermine the general policy served by the rule.[38] The Commission may waive a provision of its rules for "good cause shown."[39] The Commission must take a "hard look" at applications for waiver[40] and consider all relevant factors when determining if good cause exists.[41] The All Channel Receiver Act, codified at 47 U.S.C. § 303(s), authorizes, but does not require, the Commission to impose all-channel requirements.[42] Therefore, the Commission may waive Section 15.117's provisions regarding signal format reception capabilities for particular devices on public interest grounds.

8. The Commission received 31 comments in this proceeding, from manufacturers, retailers, broadcasters, and industry groups, and no commenter opposed the waiver request; indeed, virtually all vigorously supported it.[43] As discussed below, these supportive comments included several from LPTV station operators. It is the consensus of the commenters that "a grant of the waiver will serve the public interest by facilitating the rapid deployment of innovative mobile DTV products and services that consumers will value tremendously."[44] As discussed above, mobile DTV has the potential to be an extremely valuable service. Commenters and petitioners are concerned that, without this waiver, rollout of the technology and its concomitant benefits to a wide audience would be significantly delayed at substantial cost not only to mobile DTV manufacturers, distributors, and broadcasters, but also to the public.[45]

9. Finding that it is in the public interest, we grant the requested waiver, subject to the conditions discussed below. Specifically, we order that a device may, but is not required to, exclude analog and/or A/53 reception capabilities if it: (1) has A/153 reception capability; (2) is designed to be used in motion; and (3) provides notice on the packaging, and, when the responsible party is acting as a retailer, at the point of sale, of which types of television broadcast signals the device cannot receive.

### A. Basis and Scope of Waiver

10. The Petitioners seek waivers of Section 15.117 for two types of mobile devices: (1) a device that includes only A/153 digital reception capability; and (2) a device that contains both A/53 and

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[37] 47 C.F.R. § 1.3.

[38] *See WAIT Radio v. FCC*, 418 F.2d 1153, 1157 (D.C. Cir. 1969).

[39] 47 C.F.R. § 1.3.

[40] *FPC v. Texaco, Inc.*, 377 U.S. 33, 39 (1964).

[41] *Citizens to Preserve Overton Park, Inc. v. Volpe*, 401 U.S. 402, 416 (1971).

[42] 47 U.S.C. § 303(s) (establishing that the Commission shall "*[h]ave authority to require* that apparatus designed to receive television pictures broadcast simultaneously with sound be capable of adequately receiving all frequencies allocated by the Commission to television broadcasting") (emphasis added).

[43] Commenter Keith Leitch addressed a related issue, but neither opposed nor supported the waiver. Comments of Keith Leitch at 1. *See also infra* note 55.

[44] Reply of CEA at 2 (citing numerous comments).

[45] *See, e.g.*, Comments of the Association of Public Television Stations, the Corporation for Public Broadcasting, and the Public Broadcasting Service ("APTS") at 2, 3.

A/153 digital reception capabilities but no analog reception capability.

11. *Devices that include only A/153 digital reception capability.* The basic argument for granting a waiver for the first type of device, capable only of A/153 reception, is that neither the NTSC nor the A/53 standards were designed for use by a receiver in motion and, as a result, they can not match A/153's picture quality "on the go."[46] Furthermore, inclusion of these reception capabilities would be undesirable from a technical and consumer interest standpoint, because devices that include these capabilities would use more power, cost more, and be larger than devices with only A/153 reception capability, and yet the additional tuner(s) would not be well-suited for mobile use.[47] Several commenters emphasize that, whether or not other reception capabilities are included in a given device, granting this waiver to provide manufacturers with flexibility is the best way to ensure rapid deployment and significant innovation.[48] Cox Media Group, Inc. ("Cox Media") argues that grant of this waiver would not only benefit manufacturers and consumers, but would "critically promot[e] this nascent service"; and the consistent broadcaster support for the Petitions reflects wide agreement on this point.[49]

12. *Devices that contain both A/53 and A/153 digital reception capabilities.* Petitioners and commenters offer even more numerous arguments in support of granting the waiver to the second type of device, which lacks only analog reception capability. First, there is widespread agreement that, at a minimum, inclusion of analog reception capability would make MDTV devices less attractive to consumers. It would inevitably result in larger and heavier devices, a significant concern for devices designed for personal mobile use.[50] It would also require greater investment in research, development, and design of complex chipsets and MDTV products, delaying consumers' access to the products by at least a year[51] and increasing their final cost significantly.[52] This is in part due to the higher computational demands of analog-to-digital signal processing.[53] This signal processing operation drives, in part, a significantly greater power drain for analog reception than digital reception.[54] This is exacerbated by the fact that, as Nagravision explains, A/153 was designed to maximize battery life with careful power management, while devices based on standards designed for non-mobile use simply drain power

[46] Dell & LG Petition at 4; Comments of Kenwood USA Corp. ("Kenwood") at 3; Comments of Intel Corporation ("Intel") at 3 (stating that the use of A/53 or analog tuners while in motion results in an unstable picture).

[47] Comments of Harris Corp ("Harris") at 6.

[48] Reply Comments of the Advanced Television Systems Committee, Inc. ("ATSC") at 4; Reply of CEA at 2; Reply of Gray at 2; Comments of Sinclair at 4; Comments of Harris at 6.

[49] Comments of Cox Media Group, Inc. ("Cox Media") at 2; *see also, e.g.*, Comments of Fisher Communications, Inc. ("Fisher") at 2.

[50] Comments of Winegard Company ("Winegard") at 3; Comments of Cox Media at 3; Comments of OMVC at 3; Reply Comments of Hauppauge at 2.

[51] Comments of Dell at 3.

[52] Comments of Kenwood at 5; Comments of Hauppauge at 3; Comments of Elgato Systems Inc. ("Elgato") at 3; Comments of the Consumer Electronics Retailers Coalition ("CERC") at ;; Comments of CEA at 3; Comments of NAB at 2; Comments of Sinclair at ;; Comments of LG at 3-4 (anticipating a 50% increase in the cost of tuner electronics); Comments of Winegard at 3 (anticipating a 10% increase in the total cost of a sample product).

[53] Comments of Hauppauge at 5 (stating that displaying analog signals requires processing more than 10 times as many bits as displaying signals that are received in digital).

[54] Comments of APTS at 2.

constantly.[55] Furthermore, Petitioners emphasize that the "rapidly diminishing base of viewers served directly over-the-air by analog LPTV stations"[56] are the only consumers who could possibly benefit from inclusion of NTSC reception capability,[57] and that even they would not be able to benefit from that capability for the full lifetime of the devices.[58] More troubling is the consensus among commenters that, even if NTSC reception capability were included, it would be no guarantee that purchasers would be able to view analog programming.[59] Open Mobile Video Coalition states that "it is difficult, if not impossible, to receive analog signals on nomadic devices," and Winegard agrees that a moving analog receiver would "often be plagued by multipath interference."[60] Dell argues that the types of device at issue would receive analog signals poorly even when stationary, due to the limitations of their antennas and the high noise level of the device itself.[61] Furthermore, even were a viewer willing and able to watch analog programming on their MDTV device, commenters observe that availability of low power analog signals is very limited – not only because it is being phased out, but also because the signal strength of the remaining LPTV analog broadcasters is, by definition, comparatively low.[62]

13. LG argues that inclusion of analog reception capability would not only be unnecessary and burdensome, it would actually be directly detrimental to a mobile device's ability to receive A/153 signals. It argues that inclusion of a second, separate tuner for reception of NTSC signals would require splitting the input from the receiving antenna, decreasing the effective signal strength by 3 dB. This would "result in a considerable reduction to the coverage areas in which consumers should be able to adequately receive broadcasters' mobile DTV transmissions."[63] Of at least as much concern for a device intended for use while traveling, LG states that the time the receiver would need to scan for channels in a new area would be "greatly increased" due to the need to search for analog channels.[64] Intel argues that

[55] Comments of Nagravision at 2. *See also* Comments of Dell at 3 (explaining that its system designs are able to power down the A/53 tuner when the A/153 is in use, and vice versa, further minimizing the combined system's already reduced power consumption).

[56] Dell & LG Petition at 7.

[57] Reply Comments of Silicondust USA, Inc. ("Silicondust") at 6; Comments of Elgato at 1;, Comments of Kenwood at 5; Comments of Sinclair at 3; Comments of LG at 4. *See also*, Comments of Winegard at 3; Comments of CERC at 2; Comments of CEA at 3 (arguing that consumers in the target market for these devices will not see the NTSC tuners as an added benefit).

[58] Reply Comments of Elgato Systems, LLC ("Elgato") at 2; Comments of Cox Media at 3.

[59] Comments of NAB at 2; Comments of Fisher at 1-2; Comments of Cox Media at 3.

[60] Comments of OMVC at 3; Comments of Winegard at 2.

[61] Comments of Dell at 2-3. These problems are less severe in reception of A/53 signals, which need less sensitive receiving equipment to produce a good picture. Even with that lower need for sensitivity, however, as LPTV operator Keith Leitch notes, it is incumbent upon manufacturers to ensure that their devices can properly tune VHF signals as well as UHF signals. Comments of Keith Leitch at 1. We also note that at least one television broadcaster has indicated that VHF signals will be less effective at transmission of A/153 signals, which emphasizes the importance of antenna design. *Amendment Of Section 73.622(i), Post-Transition Table Of DTV Allotments, Television Broadcast Stations, Flagstaff, Arizona*, MB Docket No. 08-110, Notice of Proposed Rulemaking, 24 FCC Rcd. 10245 (MB 2009); Report and Order, 24 FCC Rcd. 11892 (MB 2009).

[62] Comments of CERC at 2; Comments of Winegard at 3; Comments of Dell at 3.

[63] Comments of LG at 3-4; Comments of Samsung Information Systems America, Inc. ("Samsung") at 2.

[64] Comments of LG at 4; *see also* Comments of Dell at 3 (noting that devices can't rely on channel tables to shorten process, since analog LPTV stations are commonly changing their channels as they convert to digital).

the sub-optimal experiences resulting from inclusion of analog reception capability could lead to negative consumer perceptions of MDTV technology generally, because consumers would not ascribe the poor performance of the receiver to the inclusion of the analog tuner. Intel maintains that this could result in a complete rejection of the technology,[65] an outcome clearly contrary to the public interest.[66]

14. *Devices to which the waiver may apply.* While commenters are unified in arguing that the waiver should be granted, there is some dispute about which devices should be eligible.[67] There are a few outlying comments seeking a broadening of the application to any device with A/153 reception capability,[68] but most commenters who addressed the question agree with the Petitioners that the devices which receive waivers should be designed for primarily "mobile and transient use."[69]

15. The Petitioners and numerous commenters advocate that eligible devices should be, in whole or in part, "battery powered."[70] This restriction is offered as a means of narrowing the scope of the proposed waiver, but we agree with Kenwood USA (Kenwood) that "battery powered" is an unnecessarily specific element,[71] most importantly because it is largely redundant. No portable receiver legitimately designed for use by mobile viewers will be reliant on household electrical current for operation. Second, if the waiver were conditioned on the device being "battery powered," we would need to address issues like the acceptability or primacy of alternative power sources and charging methods.[72] This would add needless complexity for the responsible parties who will be attempting to comply with the requirements of the waiver. Finally, we acknowledge Kenwood's point about the value of providing room for innovation within the terms of the waiver.[73]

16. As the comments make abundantly clear, devices that, as Hauppauge puts it, are "designed for nomadic use" must contain A/153 reception capability in order to provide a stable signal while moving.[74] We find that these two criteria – 1) a device designed to be used in motion as one of its

[65] Comments of Intel at 3-4.

[66] *See supra* ¶ 3.

[67] In part, this reflects the slight ambiguity of the original petitions. Both Hauppauge and LG recast their criteria for eligibility in their comments – Hauppauge adding reference to "TV tuner components of a digital TV receiver," and LG adopting Harris' extensive rephrasing of the "battery-powered" requirement. Comments of Hauppauge at 2; Reply of LG at 4.

[68] Comments of Kenwood at 4 (seeking to apply the waiver to any A/153 device that is not "fixed"); Comments of NAB at 1-2 (seeking to apply the waiver to any device containing an A/153 tuner whose manufacturer has self-certified to apply the "Mobile DTV" logo).

[69] Comments of Samsung at 3, Comments of Roundbox Inc. at 1, Reply of Nagravision at 2, Comments of Harris at 4, Comments of CEA at 3, Comments of CERC at 3, Comments of APTS at 3.

[70] *See, e.g.*, Comments of Hauppauge at 2 ("primarily battery powered") and Comments of Harris at 4 ("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)").

[71] Comments of Kenwood at 4.

[72] *See, e.g.*, Reply of ATSC at 2 (addressing issue of whether the source of power in a vehicle-mounted receiver is actually a battery, or is in fact the alternator).

[73] For instance, in the event that a manufacturer wished to develop an otherwise eligible solar or crank powered mobile DTV device that did not store the produced electricity, there is nothing in the record indicating that such a device would be less deserving of a waiver as a result.

[74] Comments of Hauppauge at 2. *See also supra* note 37.

primary modes, that 2) has A/153 reception capability – clearly delineate the types of devices for which Petitioners seek this waiver; they include cell phones; PDAs; laptops; netbooks; dongles;[75] and receivers used in cars and other vehicles.[76] Handheld devices, and things like dongles that work with them, are particularly sensitive to weight and power consumption. We are convinced by the comments that both weight and power consumption would be increased by inclusion of any non-mobile reception capability in a mobile device, and that inclusion of analog reception capability would be particularly problematic due to its greater power demand and higher computational needs. The small size of these devices, and the resulting limits on antenna design, also make them particularly susceptible to the problems associated with receiving analog signals via small, low power antennas close to other radiators, including the screens or cellular radios of some mobile devices and the tuning chipsets themselves.

17. Like handheld devices, devices intended for use in vehicles will have a great deal of difficulty getting any use out of non-mobile reception capabilities while on the go, because analog multipath interference is significant and A/53-compliant broadcasts were simply not designed for mobile reception.[77] Furthermore, any delay in scanning for new signals that the inclusion of analog reception capability would cause would be amplified significantly in the case of a fast-moving vehicle.[78] We are particularly concerned about the significant loss of signal strength that would result from the "splitting" of antenna input between a digital reception chip and an analog reception chip. This would reduce the area in which a Mobile DTV device could receive a given signal (a particular problem in a fast-moving vehicle) and could reduce the image and sound quality of any signal received. This issue in particular highlights Intel's valid concern that bad experiences with Mobile DTV as the result of included analog reception capability could damage the public image of this new technology to the detriment of the public interest.[79] Taken as a whole, we find Petitioners and commenters' arguments for extending the waiver to these types of devices compelling.

18. We note that there were comments from parties seeking to expand the proposed waiver to encompass at least some receivers without A/153 reception capability.[80] Hauppauge suggests, however, that we should "not prolong consideration of the Petitions in order to address other issues," in light of the time considerations discussed in paragraph 6, above.[81] After due consideration, we find these requests to be beyond the scope of this proceeding. The expansive waiver sought by Elgato Systems, LLC and Silicondust USA, Inc. would essentially constitute a revision of Section 15.117, removing analog reception requirements not only from devices intended for mobile use, but from all television receivers. That outcome would be more appropriately pursued through the rulemaking process, rather than in this docket. We do note, however, that there is still a need for analog reception capability for some viewers, at least in the near future, and the continuing availability of analog-capable receivers is one factor that

[75] Dongles, or "USB based digital TV tuner modules" as Hauppauge describes them, are largely intended for use with laptop or netbook computers, as an alternative to tuning devices built into the computers. Comments of Hauppauge at 4.

[76] Dell & LG Petition at 5; Hauppauge Petition at 5. This is merely a representative list of devices, not an exclusive one.

[77] Comments of Winegard at 2; Comments of Kenwood at 3.

[78] Comments of LG at 4.

[79] Comments of Intel at 3-4.

[80] *See* Comments of Elgato; Reply of Silicondust.

[81] Reply of Hauppauge at 3.

reassures us that this waiver will encourage new service while not causing any loss of existing service.[82]

19. *Effect of waiver on low-power broadcasters.* As noted above, LPTV broadcasters did not file comments objecting to this waiver.[83] As the only group of broadcasters still transmitting analog signals, LPTV broadcasters are arguably the parties that would be most negatively affected by the grant of this waiver, and the support of some (and lack of active opposition by any) is significant.[84] Nonetheless, we have carefully considered the potential impact of this waiver on the remaining NTSC LPTV licensees and their viewers. Some viewers rely primarily or even exclusively on analog signals, particularly in some rural Western areas that are largely served by translators.[85] For those viewers, there will be little or no potential benefit from this waiver. Nonetheless, Samsung correctly notes that "portable, battery-operated TVs without Mobile DTV tuners," but with A/53 and NTSC tuners, "are currently on the market and available" to any interested purchaser, and can serve to provide up-to-the-minute information in an emergency.[86] Mobile DTV, on the other hand, is unavailable to most potential viewers, even those in areas served with A/153 signals. Since the waiver will expand access to this new technology without reducing access to the old, LG argues, it should be granted.[87] We agree with LG, but emphasize that manufacturers may still choose to include all television tuners in MDTV devices that are, for instance, designed primarily for use as emergency receivers (when providing full service is essential). We strongly encourage the CE industry and broadcasters to make the benefits of mobile DTV available to viewers throughout the nation, by expanding the number of available signals and producing at least some MDTV devices that also include analog tuners.

### B. Labeling as a Condition of Waiver

20. In order to be eligible for this limited waiver of the requirements of Section 15.117 of our rules, responsible parties must also provide notice, on the packaging of the eligible device (and, when acting as a retailer, at the point of sale of the device), identifying the television broadcast signals that the device cannot receive. The waiver allows responsible parties, for the reasons described above, to omit reception capability that would otherwise be required. However, we find that parties that choose to take advantage of the waiver and exclude these capabilities must inform consumers about the absence of analog and standard non-mobile digital reception capabilities they otherwise might expect to be included in the device. The notice described below is essential in order for grant of this waiver to be consistent with the public interest. This notice will minimize consumer confusion not only regarding the specific device in question, but also the new Mobile DTV service as a whole.[88]

21. Because all of the MDTV devices proposed by the petitioners would be unable to receive some broadcast television signals, the Public Notice asked commenters to address "ways to identify and describe such devices to distinguish them from 'televisions' that can receive analog and digital

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[82] Comments of LG at 3.

[83] *See, supra* ¶ 8. We also note the filing by Keith Leitch, who states that he is the operator of an LPTV station, and who neither supported nor opposed the petition.

[84] In fact, three LPTV broadcasters filed in support of the waiver, at least one of whom operates LPTV stations that still broadcast using NTSC analog. Comments of Fisher at 2. *See also* Comments of Cox Media at 1. Reply of Gray at 1.

[85] *See* Broadcast Station Totals Index at http://www.fcc.gov/mb/audio/totals/index.html (last updated February 26, 2010).

[86] Comments of Samsung at 2.

[87] Comments of LG at 3, *see also* Dell & LG Petition at 7.

[88] Only entities that choose to take advantage of the waiver are required to provide the notice described herein.

broadcasts."[89] The majority of commenters who addressed this issue state that the devices will be marketed as "mobile DTV receivers."[90] They contend that this moniker, combined with display of the logo associated with the ATSC Mobile DTV self-certification process, will ensure that consumers "have no reasonable expectation of receiving traditional, stationary analog services on Mobile DTV receivers, and, therefore, no specific warning label to that effect is necessary."[91]

22. We agree with commenters about the value of distinctive and clear branding in providing guidance to consumers, but believe consumers benefit only when they are informed about the meaning of the branding. Commenters do not mention any consumer education efforts associated with the "MDTV" logo or the Mobile DTV rollout generally, which is a concern given that consumers have been extensively educated to understand that a "DTV" device receives all available television signals.[92] It is not at all clear that the simple addition of the word "mobile" before "DTV" will inform consumers of the more limited capabilities of these devices, particularly given the long history of small, portable televisions that could (in proper conditions) tune all available television signals. Furthermore, even if consumers did understand the "MDTV" logo to reflect the presence of A/153 reception capability, this logo-only approach (and the commenters supporting it) does not address the potential for confusion due to the presence or absence of certain other reception capabilities. Based on the Petitions and comments, some MDTV devices will be able to receive only A/153 signals; some will also be able to receive A/53 signals; and presumably yet others will also be able to receive NTSC signals. The presence of the MDTV logo on a "mobile DTV receiver," therefore, tells a consumer very little about the actual capabilities and limitations of the device. This could lead to consumer frustration, help desk calls, and returns, which as Dell acknowledges can severely limit the viability of a device.[93]

23. More importantly, if MDTV devices are marketed as valuable in emergencies,[94] it is critically important to convey to purchasers which television signals the devices can and can not receive. If every broadcaster planning to provide A/153 service this year does so, there will still only be 28 television markets, out of a total of 210, in which MDTV devices are usable without additional reception capabilities.[95] Purchasers who move or even travel outside of these few markets must be informed about the limitations of any device they intend to rely upon for emergency information on the road.

24. Some commenters acknowledge the need for more informative consumer labeling. Petitioners suggest voluntary inclusion of notices, but this may not be sufficient, particularly because a lack of consistency in consumer notices may result in an inability on the part of consumers to effectively compare devices.[96] Kenwood suggests the inclusion of the phrase "Digital Only" on MDTV devices lacking analog tuners, but this is insufficiently precise, as it could apply to devices with or without A/53

[89] May 20 Public Notice at 2.

[90] Comments of Sinclair at 3, Comments of CEA at 3, Comments of LG at 5, Reply of LG at 4.

[91] Comments of Samsung at 3; *see also* Reply of Hauppauge at 3.

[92] *See generally DTV Consumer Education Initiative* (MB Docket No. 07-148).

[93] Comments of Dell at 4.

[94] Both petitioners and commenters anticipate that these devices will be sold as emergency equipment. *See, e.g.*, Dell & LG Petition at 5, Comments of OMVC at 4, Comments of CEA at 3.

[95] Dell & LG Petition at 3 (also noting that, thus far, only 70 full-power broadcaster stations, out of more than 1,700 nationwide, have committed to broadcasting an A/153 signal by the end of 2010).

[96] Comments of Dell at 4-5, Comments of LG at 5.

reception capability.[97] Harris makes a more practical suggestion, that the Commission require eligible devices to provide notice to purchasers if they do not receive analog and/or A/53 digital signals.[98] After the close of comments, Dell and LG filed an ex parte with the Commission to address notice and labeling issues.[99] The Petitioners suggest that if a labeling requirement is imposed, it should provide some flexibility to responsible parties and require only a "short and concise" written notice.

25. We will adopt Harris' suggestion and require a notice stating which kind of television signal(s) each eligible device is unable to receive. Recognizing that it is essential to provide information in a consumer-accessible way in order for it to be of use, however, we decline to adopt Harris' specific recommendation to reference tuner types in the notice. Instead, we adopt Dell and LG's suggested "short and concise" minimum language. We will require any device that lacks NTSC analog reception capability to carry a notice that reads: "Cannot receive analog low power TV."[100] Similarly, if a device has no A/53 digital reception capability, it must carry a notice that reads: "Receives only stations broadcasting Mobile DTV."[101] A device without either analog or A/53 digital reception capability must include both statements in the notice. To be useful, it is essential that these notices be visible to consumers before they open an eligible device's packaging. Therefore, as described below, entities that choose to take advantage of the waiver must display the notice on the packaging of the device, and, when acting as a retailer, also at the point of sale.

26. The notice must be on the outside of the packaging, in a size of type large enough to be clear, conspicuous, and readily legible, consistent with the dimensions of the equipment and the notice. The notice may be either printed directly onto the packaging, or printed onto a label that is affixed to the packaging. If the responsible party sells the device directly to consumers, the notice must also be displayed at the point of sale. It must be in a size of type large enough to be clear, conspicuous, and readily legible and must be prominently displayed with the device or, in the case of electronic sales, in a prominent manner prior to completion of the sale.[102] Furthermore, text provided by the responsible party to a retailer for point-of-sale retail display with the device must include the notice. We recognize that responsible parties may provide related information on packaging or in instructional or marketing materials, such as information describing the use and potential limitations of these devices. In all events, the required notices, on the packaging and at the point of sale, must remain clear and conspicuous.

27. As for notices placed on packaging, we recognize that they may not always be visible at the point of sale. This may be of particular concern in online sales. Since the notices will be available to consumers before they open an eligible device's packaging, we expect and anticipate that retailers will accept returns of such unopened devices. Nonetheless, if there is no disclosure at the point of sale, consumers will have to wait until they get the device to determine whether they are dissatisfied with its limitations. Some will then return the device, possibly incurring delivery charges in both directions. We are concerned about the potential for consumer confusion in these situations, and encourage responsible parties to take steps to ensure point-of-sale notice even when they are not retailing directly to consumers.

[97] Comments of Kenwood at 4.

[98] Comments of Harris at 4.

[99] Ex Parte of Dell and LG (filed July 2, 2010) ("Ex Parte").

[100] *Id* at 2. Given the impending end of analog broadcasting (*see supra* ¶ 5), the NTSC label requirement will expire the first day after the conclusion of all analog broadcasting.

[101] Ex Parte at 2.

[102] A package label will be sufficient for "point of sale" display if the packaging of the device is available to be examined by consumers prior to sale.

## IV. CONCLUSION

28. As discussed above, we grant the requested waiver subject to prescribed conditions. Specifically, waiver of the Section 15.117 requirement that all TV broadcast receivers be capable of receiving signals in the analog and digital formats is available to a responsible party engaged in the manufacture, import, marketing, distribution, or sale of a device with A/153 reception capability, that is designed to be used in motion, and that provides the notice described above on the packaging, and, when acting as a retailer, at the point of sale.[103] Devices meeting those three conditions may, but are not required to, exclude analog or A/53 reception capabilities. Any individual device that does not comply with each of these three non-severable conditions is not eligible for the waiver established in this Order, and exclusion of analog or A/53 reception capability would be inconsistent with the public interest and in violation of the Commission's rules.

## V. ORDERING CLAUSES

29. Accordingly, **IT IS ORDERED** that, pursuant to Section 303(s) of the Communications Act of 1934, 47 U.S.C. § 303(s), and Sections 1.3 and 0.283 of the Commission's rules, 47 C.F.R. §§ 1.3, 0.283, a limited waiver of Section 15.117 of the Commission's rules, 47 C.F.R. § 15.117, **IS GRANTED** to the extent described herein. Petitioners and similarly situated responsible parties may manufacture, import, market, distribute, and sell television receivers that do not include analog or A/53 reception capability, provided those receivers contain an A/153 tuner, are designed to be used in motion, and provide the appropriate notice(s) as described in this Order.

FEDERAL COMMUNICATIONS COMMISSION

William T. Lake
Chief, Media Bureau

[103] *See generally* 5 C.F.R. § 1302.3(c)(2) (providing that mandatory disclosure requirements may take effect without approval under Paperwork Reduction Act where a federal agency supplies disclosure language).