BEFORE THE

Federal Communications Commission

WASHINGTON, D.C.

In the Matter of	)	
	)	
Motorola, Inc.	)	CSR-8251-Z
Request for Waiver of	)	
47 C.F.R. §76.640(b)(4)	)	
	)	
Implementation of Section 304 of the	)	
Telecommunications Act of 1996:	)	CS Dkt. No. 97-80
Commercial Availability of Navigation	)	
Devices	)	

REPLY COMMENTS OF MOTOROLA, INC.

Motorola, Inc. ("Motorola") respectfully files these reply comments in the above-captioned proceedings regarding its request for waiver of the IEEE 1394 requirement in Section 76.640(b)(4) of the Commission's rules ("1394 Rule") as applied to current and future Motorola set-top boxes that include an Internet Protocol ("IP") connector.[1] Motorola has made the requisite showing in support of its Request, and the Request has received strong support from commenters. The Request should be granted promptly.

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[1] *See In the Matter of Motorola, Inc.'s Request for Waiver of 47 C.F.R. § 76.640(b)(4)*, Request for Waiver, CSR-8251-Z, CS Dkt. No. 97-80 (Nov. 25, 2009) ("Motorola Request" or "Request").

I. COMMENTERS UNDERSCORE THE STRONG PUBLIC INTEREST BENEFITS JUSTIFYING GRANT OF MOTOROLA'S WAIVER REQUEST, AND TEXAS INSTRUMENTS' CLAIMS TO THE CONTRARY ARE WITHOUT MERIT.

Motorola explained in its Request that waiver was justified in light of the fact that the marketplace has already migrated to IP-based connectors and that the 1394 output, in contrast, is a costly and little-used technology.[2] Commenters agree.[3] Intel notes that "the 1394 protocol . . . has failed to win marketplace approval from consumers or device manufacturers for home networking applications" and that "[t]he world has migrated to IP-based networking."[4] Likewise, CEA states that the 1394 Rule is "an obsolete prescriptive measure" and "has not resulted in appreciable and continued use of the 1394 interface" and that "home networking has migrated to technologies based on Internet protocols."[5] In addition, Verizon observes that "the 1394 interface has gone largely unused, while a range of alternative technologies have been developed that equal or exceed the capabilities of IEEE 1394 and do so at much lower costs."[6]

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[2] *Id.* at 4-6.

[3] Four parties filed comments on the Request on February 22, 2010: Intel, Verizon, the Consumer Electronics Association ("CEA"), and Texas Instruments. Texas Instruments, which collects royalties on the 1394 technology and therefore has a direct financial interest in maintaining the 1394 Rule, was the only commenter to oppose the Request.

[4] Intel Comments at 2.

[5] CEA Comments at 2, 4.

[6] Verizon Comments at 2; *see also id.* ("The implementation costs of IP are a few cents per device, as compared to more than $5 for a chip that supports IEEE 1394."). 1394 has been a marketplace failure both in the U.S. *and* abroad. International trade press has listed 1394 as one of the top 10 most disappointing technologies. *See* Iain Thomson & Shaun Nichols, *Top 10 Disappointing Technologies*, PC Authority.Com, May 18, 2009, *at* http://www.pcauthority.com.au/News/145271,top-10-disappointing-technologies.aspx ("Outside of a few models of high-end video cameras, FireWire isn't seen much these days.").

Texas Instruments states in its opposition that the Waiver Request nonetheless fails to satisfy the Commission's public interest and navigation device waiver standards.[7] These assertions are baseless. As to the public interest standard, Motorola has demonstrated, and commenters have affirmed, that the costs associated with imposing the 1394 Rule on Motorola set-top boxes that include an IP connector far outweigh any public interest benefit, particularly as 1394 connectors have been superseded in the marketplace by IP connectors. Consequently, waiver of the 1394 Rule is fully justified.[8] It bears emphasis in this regard that the Commission -- *on its own motion* -- has already waived the 1394 Rule as applied to certain set-top boxes based on a similar weighing of the public interest costs and benefits.[9]

As to the navigation device waiver standard, Motorola showed in its Request that waiver would serve the pro-innovation goals of Section 629(c) and the Commission's

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[7] *See* Texas Instruments Opposition at 9-10. Texas Instruments states that TiVo filed its waiver request only under the Commission's public interest waiver standard. *See id.* at 10. That is incorrect. TiVo filed under Sections 1.3 and 76.7 (the public interest waiver standard) and under Section 76.1207 (the navigation device waiver standard). *See* TiVo Petition, CS Dkt. No. 97-80, CSR-8252-Z, at 1 (Nov. 6, 2009). Intel also filed its request under both standards. *See* Intel Petition, CS Dkt. No. 97-80, CSR-8229-Z, at 1 (Oct. 7, 2009).

[8] *See* Request at 3-6.

[9] *See In the Matter of Implementation of Section 304 of the Telecommunications Act of 1996: Commercial Availability of Navigation Devices; Cable One, Inc.'s Request for Waiver of Section 76.1204(a)(1) of the Commission's Rules*, Memorandum Opinion and Order, 24 FCC Rcd. 7882, ¶ 16 (2009) ("*Cable One Waiver Order*") ("Under the circumstances of this particular waiver request, however, we believe that the costs to consumers of imposing the IEEE 1394 output requirement would outweigh the potential benefits."); *id.* ¶ 16 n.42 ("Regardless of the precise cost of the 1394 requirement, we believe that the additional cost would be inconsistent with the purpose of this grant, *i.e.*, to provide a low-cost HD box for consumers.").

implementing rule.[10] Motorola noted, among other things, that grant of the Request "would enable Motorola to avoid the unnecessary costs associated with including the 1394 interface on its HD set-top boxes, and focus its efforts on deploying devices that include an IP connector[.]"[11] Motorola further noted that "IP has become the favored approach for home networking" and that Motorola is starting to include different IP connectors in its set-top boxes.[12] Verizon's comments support this pro-innovation point. In particular, Verizon explains that the 1394 Rule "hinders rather than promotes innovation, interoperability, and consumer benefit" and that "[m]anufacturers can provide consumers with a richer media experience at lower cost through the use of newer technologies."[13]

II. TEXAS INSTRUMENTS' OTHER CLAIMS REGARDING THE WAIVER REQUEST ARE WITHOUT MERIT AND SHOULD BE REJECTED.

Texas Instruments touts in its opposition the many purported benefits of the 1394 connector and further asserts that 1394 is widely deployed in the marketplace.[14] These statements, however, are beside the point. The large number of set-top boxes shipped with the 1394 interface is merely a function of the Commission's mandate, not of any

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[10] *See* 47 U.S.C. § 549(c); 47 C.F.R. § 76.1207. Congress instructed the Commission to "avoid actions which could have the effect of freezing or chilling the development of new technologies and services" in implementing the navigation device statute. S. Conf. Rep. No. 104-230, at 181 (1996).

[11] Request at 6.

[12] *Id.*

[13] Verizon Comments at 2; *see also* Intel Comments at 2 ("Intel further agrees with Motorola that the costs of implementing 1394 outputs have impeded the adoption of additional, more compelling, functionality in set-top boxes.").

[14] *See* Texas Instruments Opposition at 2, 4-6.

existing marketplace demand for, and consumer interest in, 1394.[15] In fact, as Verizon states in its comments, "virtually no home entertainment products that receive content from set-top boxes and other consumer electronics devices rely on the 1394 interface for recording or home networking."[16] To the extent that the 1394 interface continues to be used by consumers, such use is generally limited to the transport of data files from camcorders and other electronics devices to personal computers, and even in that context, the 1394 interface is being replaced with USB and other digital connectors.[17]

Texas Instruments further states that granting the Request will "fragment the market" for connectors.[18] If Texas Instruments means that denial of the Request will insulate 1394 from competition from other connectors, that may make good business

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[15] The number of 1394 ports shipped pales in comparison to deployments of commonly-used IP connectors. For example, over six billion USB devices have been sold to date. *See* http://en.wikipedia.org/wiki/Universal_Serial_Bus; *see also* Motorola Comments, CSR-8299-Z, CS Dkt. No. 97-80, at 2 (Dec. 22, 2009) ("Moreover, while IP can run over 1394 . . . that does not address the fact that the costs associated with 1394 far outweigh any consumer benefits. It is also worth noting that while 'out-of-the-box' Ethernet is an IP networking technology, 1394 needs the applicable drivers in order to support IP networking. Furthermore, it is unclear whether such drivers actually exist for legacy TVs that include 1394.").

[16] Verizon Comments at 2. Texas Instruments' claim that the failure of 1394 in the marketplace can be attributed to the lack of cable industry support for the port, *see* Texas Instruments Opposition at 2, does not withstand scrutiny. As Texas Instruments notes (at 2), the cable industry has deployed over 25 million 1394-equipped set-top boxes, so Texas Instruments cannot credibly argue that cable operators have not dedicated substantial resources in complying with the 1394 Rule. Moreover, NCTA recently advised the Commission that "[t]he cable industry included 1394 connectors in operator set-top boxes exactly as promised, as a video output with simple controls like on/off," but consumers have still shown little interest in the technology. NCTA Reply Comments, GN Dkt. Nos. 09-51, 09-47, 09-137, CS Dkt. No. 97-80, at 38 (Jan. 27, 2010). Texas Instruments does not explain, nor could it, how adding new and costly 1394 requirements, *see* Texas Instruments Opposition at 3, would alter the fundamental reality that the marketplace has migrated to IP-based solutions.

[17] *See* Request at 5; Verizon Comments at 3. *See also* Edward C. Baig, *Time to buy a computer? Tips for making the right choice*, USA Today, Dec. 17, 2009 (describing FireWire as "a port for hooking up older camcorders").

[18] Texas Instruments Opposition at 6.

sense for Texas Instruments, but it clearly would not be in the interests of consumers. There are numerous other connectors in the marketplace today, such as Ethernet, MoCA, and wireless IP, and grant of the Request and similar waiver requests would give manufacturers greater flexibility in assessing and meeting marketplace demand for such connectors.[19] It plainly would benefit the public interest if manufacturers could select connectors that consumers actually want and use in lieu of a mandated technology that is largely obsolete.[20]

There also is no support for Texas Instruments' claims that grant of the Request (and similar waiver requests) would "prejudge and preempt" the Commission's inquiry into video device issues[21] and that 1394-related issues would be "better addressed through notice-and-comment rulemaking than through the waiver process."[22] Motorola has stated in filings in the Commission's National Broadband Plan proceeding that it welcomes an inquiry on video device issues,[23] and fails to see how grant of its "narrow

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[19] Texas Instruments also argues, incredibly, that grant of the Request "would unfairly distort the competitive landscape, disadvantaging those consumer electronics manufacturers that have invested to integrate the IEEE-1394 port . . ." *Id.* at 3. As noted, grant of the waiver would foster competition, not impede it. Moreover, as one of those manufacturers who has expended considerable resources complying with the 1394 Rule, Motorola can attest that it would in no way be "disadvantaged" if the Request were granted.

[20] The main TV web page on the Best Buy web site notes that 19 TVs include Ethernet ports, 26 TVs are Internet connectable, 11 TVs include media card slots, 160 TVs have PC inputs, and 73 TVs have USB ports. There is no reference to any TVs with 1394 connectors. *See* http://www.bestbuy.com/site/TV-Video/Televisions/abcat0101000.c?id=abcat0101000 (listing of "Television Features") (last visited Feb. 26, 2010).

[21] Texas Instruments Opposition at 6.

[22] *Id.* at 7.

[23] *See, e.g.*, Motorola Comments, GN Dkt. Nos. 09-51, 09-47, 09-137, CS Dkt. No. 97-80 (Dec. 22, 2009) ("Motorola NBP Comments"); Motorola *Ex Parte*, GN Dkt. Nos. 09-51, 09-47, 09-137, CS Dkt. No. 97-80 (Feb. 18, 2010).

request for relief"[24] in this waiver proceeding prejudges such a broader policy debate. Motorola is *not* seeking to "rescind" the 1394 Rule.[25] Rather, it is seeking to waive application of the 1394 Rule to certain types of HD set-top boxes. Furthermore, far from "eviscerat[ing] the Commission's network output requirements,"[26] grant of the Request would advance the Commission's goal in adopting the 1394 Rule since it would facilitate the deployment of HD set-top boxes with widely-used IP connectors that enable home-networking and recording capabilities.[27]

In addition, it would plainly be contrary to the Communications Act, the Commission's rules, and court precedent for the Commission to suspend all waiver requests during the pendency of an inquiry on video device issues. Waiver requests are an integral part of the navigation device statute and the Commission's implementing rules,[28] and would be compelled by the courts had the Commission not already accommodated such requests in its regulations.[29] Motorola has emphasized the critical role that waivers have played in advancing technological innovation in broadband

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[24] CEA Comments at 4.

[25] *See* Texas Instruments Opposition at 7.

[26] *Id.*

[27] *See Cable One Waiver Order* ¶ 16 (explaining rationale for 1394 Rule); *see also* Intel Comments at 1 (noting that "[c]onnecting set-top boxes to an IP-based home network can better realize consumers' reasonable and customary expectations with respect to home and personal recording and networking of video programming").

[28] *See* 47 U.S.C. § 549(c); 47 C.F.R. § 76.1207.

[29] *See WAIT Radio v. FCC*, 418 F.2d 1153, 1157 (D.C. Cir. 1969) ("agency[ ] discretion to proceed in difficult areas through general rules is intimately linked to the … safety valve procedure for consideration of an application for exemption based on special circumstances"); *see also Northeast Cellular Tel. Co. v. FCC*, 897 F.2d 1164, 1166 (D.C. Cir. 1990); *KCST-TV, Inc. v. FCC*, 699 F.2d 1185, 1191-92 (D.C. Cir. 1983).

networks, and grant of the Request would provide similar consumer benefits.[30] Deferral of all waiver requests, in contrast, would impede innovation and harm consumers.

III. COMMENTERS UNDERSCORE THE IMPORTANCE OF GRANTING WAIVER REQUESTS ON AN EQUITABLE BASIS.

Motorola urged in its Request that the Commission should apply waiver relief even-handedly to all manufacturers of HD set-top boxes.[31] Commenters agree. Intel notes that the "reasons supporting the Motorola petition reflect the same policy benefits and concerns as those cited by Intel in its waiver request" and supports grant of both waivers (as well as the TiVo waiver).[32] Verizon supports broad waiver relief for all set-top boxes in all industry segments, adding that limiting waivers to retail set-top boxes would have a "discriminatory effect" and "would distort the market and hinder competition for video devices, ultimately harming consumers."[33] CEA does not oppose the Request or any of the other 1394 waiver requests filed to date.[34]

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[30] *See* Motorola NBP Comments at 6-8 (noting importance of DTA waivers to the digitization of cable networks and deployment of faster Internet speeds, more HD programming, and other public interest benefits). In fact, the Media Bureau continues to entertain and grant waivers of its set-top box rules while debate regarding video device issues is ongoing. *See In the Matter of FutureWei Technologies et al.*, Memorandum Opinion and Order, DA 10-227 (rel. Feb. 3, 2010) (granting waivers of the integration ban rule for certain DTA models).

[31] *See* Motorola Request at 8-9.

[32] Intel Comments at 1; *see also* Intel Comments, CSR-8252-Z, CS Dkt. No. 97-80, at 1 (Feb. 22, 2010) (supporting TiVo request).

[33] Verizon Comments at 4.

[34] *See* CEA Comments at 4; *see also* CEA Comments, CSR-8252-Z, CS Dkt. No. 97-80, at 2 (Feb. 22, 2010) (not opposing TiVo request); CEA Comments, CSR-8229-Z, CS Dkt. No. 97-80, at 2 (Dec. 10, 2010) (not opposing Intel request). ADB also just filed a request for waiver of the 1394 Rule. *See* ADB Petition for Waiver, CS Dkt. No. 97-80 (Feb. 19, 2010).

The Commission underscored the importance of regulatory parity in its waiver policies in its *Evolution Broadband Waiver Order*, where it established a streamlined process for DTA waiver requests to "ensure that other manufacturers with similar devices can enter and compete as quickly as possible."[35] It should take a similar approach with respect to the 1394 Rule. Given the fact that the 1394 interface imposes the *same* unnecessary cost on *all* HD set-top box manufacturers, there would be no justifiable basis for granting waivers to certain manufacturers but not others.

For the foregoing reasons, and those set forth in the Request, Motorola respectfully urges the Commission to grant the Request and similar requests for waiver of the 1394 Rule.

Respectfully submitted,

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[35] *In the Matter of Evolution Broadband, LLC's Request for Waiver of Section 76.1204(a)(1) of the Commission's Rules*, Memorandum Opinion and Order, 24 FCC Rcd. 7890, ¶ 15 (2009).