



November 25, 2009

**VIA COURIER**

Federal Communications Commission  
Media Bureau  
P.O. Box 979089  
St. Louis, MO 63197

**Re: In the Matter of Motorola, Inc.'s Request for Waiver of 47 C.F.R. § 76.640(b)(4).**

Dear Sir or Madam:

On behalf of Motorola, Inc., I hereby transmit an original and four (4) copies of the above-referenced Request for Waiver. Also transmitted herewith are a completed FCC Form 159 and a check in the amount of one thousand three hundred and ten dollars (\$1,310) to cover the required filing fee.

Please call me if you have any questions regarding this matter.

Sincerely,

A handwritten signature in black ink, appearing to read 'Jason Friedrich', written over a horizontal line.

Jason Friedrich  
Director, Broadband Policy  
Motorola Global Government Affairs

cc: William Lake, Chief, Media Bureau  
Steve Broeckaert, Media Bureau  
Brendan Murray, Media Bureau

BEFORE THE  
Federal Communications Commission  
WASHINGTON, D.C.

In the Matter of	)	
	)	
Motorola, Inc.'s	)	CSR- _____
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	)	

**REQUEST FOR WAIVER**

Pursuant to Sections 1.3, 76.7, and 76.1207 of the Commission's rules and Section 629(c) of the Communications Act,<sup>1</sup> Motorola, Inc. ("Motorola") respectfully requests a 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 high-definition ("HD") set-top box models that include an Internet Protocol ("IP") connector.<sup>2</sup> Approval of the requested waiver is in the public interest and will advance the pro-innovation goals of Section 629.

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<sup>1</sup> See 47 C.F.R. §§ 1.3, 76.7(i), & 76.1207. See also 47 U.S.C. § 549(c).

<sup>2</sup> Section 76.640(b)(4) of the Commission's rules requires that all cable operator-supplied HD set-top boxes include an IEEE 1394 interface. See 47 C.F.R. § 76.640(b)(4).

**I. THE COMMISSION'S WAIVER STANDARDS AIM TO PROMOTE INNOVATION AND OTHER PRO-CONSUMER BENEFITS.**

The Commission has general authority to waive regulatory requirements when it would result in substantial consumer and other public interest benefits without any countervailing harms.<sup>3</sup> This general waiver authority provides a basis for the Commission to grant waivers of its cable equipment rules where the required public interest benefits and lack of countervailing harms are demonstrated. The Commission has relied on this authority in granting waivers of its set-top box rules to Motorola and other manufacturers.<sup>4</sup>

The Commission also has special authority under Section 629(c) of the Communications Act and Section 76.1207 of its rules to waive regulations adopted under the Commission's Section 629 authority. Section 629(c) directs the Commission to waive such rules whenever "necessary to assist the development or introduction of new

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<sup>3</sup> 47 C.F.R. § 76.7(i) ("The Commission, after consideration of the pleadings, may determine whether the public interest would be served by the grant, in whole or in part, or denial of the request . . . ."); *id.* § 1.3 ("Any provision of the rules may be waived by the Commission on its own motion or on petition if good cause therefor is shown."). See also *WALT Radio v. FCC*, 418 F.2d 1153, 1157 (D.C. Cir. 1969) ("[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."); *Northeast Cellular Tel. Co. v. FCC*, 897 F.2d 1164, 1166 (D.C. Cir. 1990).

<sup>4</sup> See *In the Matter of Motorola, Inc. et al. Requests for Waiver of Section 76.1204(a)(1) of the Commission's Rules*, Memorandum Opinion and Order, 24 FCC Rcd. 10939 (2009) (granting waivers of the Commission's integration ban for digital transport adapters manufactured by Motorola, Cisco, Pace, and Thomson); *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) ("*Evolution Broadband Waiver Order*") (granting waivers of the integration ban for low-cost Evolution devices); *In the Matter of NagraVision USA Request for Waiver of Section 76.1204(a)(1) of the Commission's Rules*, Memorandum Opinion and Order, 24 FCC Rcd. 12242 (2009) (granting waiver of the integration ban for a low-cost NagraVision device).

or improved [services].”<sup>5</sup> Underscoring the importance Congress ascribed to this protection, Section 629(c) further directs the Commission to act on waiver requests promptly and extend waiver relief to similarly situated products and service providers.<sup>6</sup> Congress emphasized the pro-innovation purpose of Section 629(c) in the legislative history accompanying the navigation device statute. In particular, Congress instructed the Commission to “avoid actions which could have the effect of freezing or chilling the development of new technologies and services.”<sup>7</sup>

## **II. WAIVER IS JUSTIFIED GIVEN THE LACK OF MARKETPLACE DEMAND FOR THE 1394 INTERFACE AND THE COSTS OF COMPLIANCE WITH THE 1394 RULE.**

In its recent *Cable One Waiver Order*, the Commission -- on its own motion -- waived the 1394 Rule as applied to the one-way HD set-top boxes at issue in that proceeding. In reaching that conclusion, the Commission weighed the potential benefits of applying the rule to those devices against the costs to consumers, and determined that waiver was justified.<sup>8</sup> Applying a similar balancing here, the Commission should

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<sup>5</sup> 47 U.S.C. § 549(c); *see also* 47 C.F.R. § 76.1207 (“The Commission may waive a regulation adopted under this subpart for a limited time, upon an appropriate showing by a provider of multichannel video programming and other services offered over multichannel video programming systems, or an equipment provider that such a waiver is necessary to assist the development or introduction of a new or improved multichannel video programming or other service offered over multichannel video programming systems, technology, or products. Such waiver requests should be made pursuant to Sec. 76.7. Such a waiver shall be effective for all service providers and products in the category in which the waiver is granted.”).

<sup>6</sup> 47 U.S.C. § 549(c).

<sup>7</sup> S. Conf. Rep. No. 104-230 at 181 (1996).

<sup>8</sup> *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) (“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.* ¶ (footnote continued...)

conclude that waiver is justified for the Motorola HD set-top boxes that include an IP connector. In sum, the costs associated with the 1394 Rule with respect to these devices far outweigh any potential consumer benefits.

The Commission adopted the 1394 Rule as part of 2003 Plug-and-Play Order.<sup>9</sup> At the time, the 1394 interface was the only digital connector in the marketplace for enabling the recording of copy-protected digital cable content. Since the 1394 Rule became effective, Motorola has manufactured millions of HD-capable devices that include the 1394 interface. These include HD set-top boxes with and without digital video recording (“DVR”) functionality.

However, as the cable industry has previously reported to the Commission, “[a]lthough the rule seemed to make some sense when it was adopted [in 2003], the 1394 output is largely unused today and imposes substantial costs that are borne by cable customers.”<sup>10</sup> Most home networks today rely on commonly-used IP connectors, such as Ethernet and wireless IP, rather than 1394.<sup>11</sup> Network routers, PCs, and networked

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(...footnote continued)

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.”).

<sup>9</sup> See *In the Matter of Implementation of Section 304 of the Telecommunications Act of 1996: Commercial Availability of Navigation Devices; Compatibility Between Cable Systems and Consumer Electronics Equipment*, Second Report and Order and Second FNPRM, 18 FCC Rcd. 20885, ¶ 24 (2003).

<sup>10</sup> See Letter from Kyle McSlarrow, President & CEO, NCTA, to Marlene H. Dortch, Secretary, FCC, CS Dkt. No. 97-80, at 3 (Aug. 13, 2008).

<sup>11</sup> See Letter from Dee May, Vice President, Regulatory Affairs, Verizon, to Marlene H. Dortch, Secretary, FCC, CS Dkt. No. 97-80, PP Dkt. No. 00-67, at 2 (July 31, 2008) (noting that Ethernet “is generally accepted as the universal standard for computers, home networking equipment, and other CE equipment”).

consumer electronics devices all use IP.<sup>12</sup> As Intel recently advised the Commission, “[v]irtually none of the other home entertainment products that receive content from [set-top boxes] and other consumer electronics entertainment products relies on IEEE 1394 ports for recording or home networking.”<sup>13</sup> Likewise, TiVo explained to the Commission that the HD DVRs it sells at retail do not include a 1394 interface.<sup>14</sup> 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 digital cameras and other electronics devices to personal computers, and even in that context, the 1394 interface is being replaced with USB and other digital connectors.<sup>15</sup>

Beyond these marketplace developments, the 1394 interface imposes significant costs on set-top box manufacturers, their cable customers, and consumers, as compared to the costs of the most commonly used IP connectors, such as Ethernet. Intel reported to the Commission that “the implementation costs of IP are a few cents per device, as

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<sup>12</sup> In light of this marketplace evolution, CableLabs added IP protection by DTCP-IP to each of its agreements as an approved digital output protection technology for UDCP, tru2way, and DCAS products. See CableLabs News Release, *CableLabs Approves DTCP-IP Content Protection for Digital Cable Products* (Aug. 23, 2007), at [http://www.cablelabs.com/news/pr/2007/07\\_pr\\_dtla\\_082307.html](http://www.cablelabs.com/news/pr/2007/07_pr_dtla_082307.html).

<sup>13</sup> *In the Matter of Intel Corporation's Petition for Waiver of 47 C.F.R. § 76.640(b)(4)*, Petition for Waiver, CS Dkt. No. 97-80, CSR-8229-Z, at 6 (Oct. 7, 2009) (“Intel Petition”); see also *id.* at 5 (“IEEE 1394 is not used as a networking technology on common consumer electronics products intended for the living room.”).

<sup>14</sup> *In the Matter of TiVo Inc.'s Petition for Clarification or Waiver of 47 C.F.R. § 76.640(b)(4)*, Petition for Clarification or Waiver, CS Dkt. No. 97-80, at 2 (Nov. 6, 2009) (“TiVo Petition”).

<sup>15</sup> See Scott Stein, *Does Losing FireWire on a MacBook Bother You?* CNET, Oct. 21, 2009 (noting that “USB 2.0 is pretty much the universal standard for all data transfer, and it’s hard to find any peripheral that doesn’t use it”); see also Steven Levy, *An Ode to Vintage Ports*, Wired, at 40-41 (March 2009) (“In retrospect, FireWire was doomed when Apple dropped the technology from its video iPods several years ago, embracing the high-speed version of USB.”).

compared to more than \$5 for a chip that supports IEEE 1394.”<sup>16</sup> TiVo noted that complying with the 1394 Rule would add significant costs to its DVR products, which currently utilize Ethernet and optional Wi-Fi interfaces.<sup>17</sup>

Based on a weighing of the costs and benefits of applying the 1394 Rule to the subject boxes, the Commission should conclude that waiver of the rule is justified with respect to Motorola’s HD set-top boxes that include an IP connector. The Commission has frequently granted waivers to promote the introduction or advancement of new or enhanced services and technologies for consumers,<sup>18</sup> and should do so here.

### **III. WAIVER WILL PROVIDE CLEAR PUBLIC INTEREST BENEFITS.**

Waiver of the 1394 Rule 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, consistent with the pro-innovation goals of the Commission’s waiver policies.<sup>19</sup> As noted, IP has become the favored approach for home networking, and Motorola has started to include different IP connectors on its HD set-top boxes, including Ethernet and MoCA, which is an emerging

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<sup>16</sup> Intel Petition at 5.

<sup>17</sup> See TiVo Petition at 6.

<sup>18</sup> See, e.g., *In re Elastic Networks Petition for Waiver of the Signal Power Limitations Contained in Section 68.308(e)(1) of the Commission’s Rules for the EtherLoop/Stormport 400 Modem*, Memorandum Opinion and Order, 16 FCC Rcd 13974, ¶ 10 (2001) (waiving Part 68 rule based on determination that Elastic’s Stormport Modem “would increase consumer access to advanced telecommunications services”); *In re Part 68 Waiver Requests of U.S. Robotics Corporation*, Order, 16 FCC Rcd 4552, ¶ 5 (2001) (concluding that a waiver of Part 68 rule “would facilitate the market availability of [ADSL modems], thus serving the public interest through increased innovation, consumer choice, and value.”).

<sup>19</sup> These cost savings are not limited to 1394 hardware and licensing costs. For example, grant of the waiver could result in energy savings (since the HD set-top box would no longer have to power the 1394 interface) and a smaller box design (since the HD set-top box would no longer have to accommodate the 1394 interface and associated circuitry).

home networking technology.<sup>20</sup> For example, Motorola's all-digital, CableCARD-enabled HD and HD DVR set-top box models -- the DCX 3200 and DCX 3400 -- include Ethernet and an optional MoCA capability.<sup>21</sup> Likewise, Motorola's hybrid QAM/IP set-top boxes have similar functionality.<sup>22</sup>

As with the Intel Petition,<sup>23</sup> Motorola is asking that its waiver be granted as applied to HD-enabled set-top boxes that support IP, but does not specify a particular connector. As Intel explained in its petition and as Motorola describes herein, there are numerous IP connectors in the marketplace today, including Ethernet, MoCA, and wireless IP, and any waiver relief should give Motorola flexibility to meet marketplace demand and avoid specific technology mandates. The 1394 Rule is proof positive of costs associated with technology mandates, particularly in a communications marketplace characterized by rapid innovation. In other proceedings, the Commission has avoided taking steps that would effectively "pick winners or losers," instead recognizing that its most effective role is "to ensure that the marketplace is conducive to investment,

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<sup>20</sup> IP-based connectors also are suitable for supporting recording functionality. However, for those customers who have a Motorola HD DVR (*i.e.*, a device with built-in recording capability), there may be no need for an external recording device.

<sup>21</sup> See Motorola, "All Digital QAM Set-Tops," at <http://www.motorola.com/Business/US-EN/Business+Product+and+Services/TV+Video+Distribution/Customer+Premises+Equipment+%28Set-tops%29/All-Digital+QAM+Set-tops> (last visited Nov. 18, 2009).

<sup>22</sup> See Motorola, "Hybrid QAM-IP Set-Tops," at <http://www.motorola.com/Business/US-EN/Business+Product+and+Services/TV+Video+Distribution/Customer+Premises+Equipment+%28Set-tops%29/ch.Hybrid+QAM-IP+Set-tops.print> (last visited Nov. 18, 2009).

<sup>23</sup> See Intel Petition at 1 n.3.

innovation, and meeting the needs of consumers.”<sup>24</sup> The Commission should follow the same policies with respect to waivers of the 1394 Rule.

#### **IV. GRANT OF THE WAIVER REQUEST WILL CAUSE NO PUBLIC INTEREST HARMS.**

Approval of this waiver will cause no public interest harms because, as detailed above and in other pending waiver requests relating to the 1394 Rule, the 1394 interface has been superseded by other technologies in the marketplace. Grant of this waiver also would create no public interest harms with respect to competing set-top box manufacturers. TiVo and Intel have already filed separate waiver requests, and Motorola strongly believes that any waiver policy pursued by the Commission in this area should be applied even-handedly to all manufacturers of HD set-top boxes.<sup>25</sup> The Commission underscored the importance of such regulatory parity in its recent *Evolution Broadband Waiver Order*, which granted a waiver of the integration ban for Evolution’s one-way, standard-definition set-top box and established a streamlined process for follow-on waiver requests to “ensure that other manufacturers with similar devices can enter and

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<sup>24</sup> *In the Matter of Deployment of Wireline Services Offerings Advanced Telecommunications Capability*, Memorandum Opinion & Order & Notice of Proposed Rulemaking, 13 FCC Rcd. 24011 ¶ 2 (1998); see also *Implementation of Section 304 of the Telecommunications Act of 1996: Commercial Availability of Navigation Devices*, Second Report and Order, 20 FCC Rcd. 6794 ¶ 30 (2005) (“It is not our intent to force cable operators to develop and deploy new products and services in tandem with consumer electronics manufacturers. Cable operators are free to innovate and introduce new products and services without regard to whether consumer electronics manufacturers are positioned to deploy substantially similar products and services.”); *In the Matter of Deployment of Wireline Services Offering Advanced Telecommunications Capability*, Fourth Report and Order, 16 FCC Rcd. 15435 ¶ 7 (2001) (“Indeed, we have previously recognized that, in adopting the 1996 Act, Congress consciously did not try to pick winners or losers, or favor one technology over another.”).

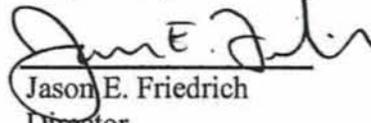
<sup>25</sup> There are numerous set-top box suppliers to cable operators today, including, among others, Pace, Cisco, Thomson, Nagravision, Evolution Broadband, Huawei, Panasonic, Samsung, and, now, TiVo.

compete as quickly as possible.”<sup>26</sup> The Commission 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.

**V. CONCLUSION**

For the foregoing reasons, Motorola respectfully urges the Commission to grant its request for waiver of the 1394 Rule as applied to Motorola HD set-top box models that include an IP connector.

Respectfully submitted,



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November 25, 2009

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<sup>26</sup> *Evolution Broadband Waiver Order* ¶ 15.