



November 6, 2009

By Express Mail

Federal Communications Commission
Media Bureau Services
P.O. Box 979089
St. Louis, MO 63197-9000

Re: In the Matter of TiVo Inc. Petition for Clarification or Waiver of 47
C.F.R. § 76.640(b)(4)

Dear Sir or Madam:

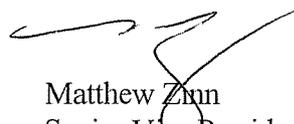
On behalf of TiVo Inc., enclosed is an original and four copies of the above-referenced Petition for Clarification or Waiver, which includes a completed FCC Form 159 indicating that the filing fee, in the amount of \$1,310.00 is to be paid by credit card.

Also enclosed is an additional copy of the first page of the petition, marked "DATE STAMP," which is submitted expressly for the purpose of serving as a receipt of this filing. Please date stamp this page and return it in the self-addressed, pre-paid overnight delivery envelope provided.

A copy of this Petition is also being filed electronically in CS Docket No. 97-80.

Please contact me with any questions regarding this matter.

Sincerely,

A handwritten signature in black ink, appearing to read "Matthew Zinn", is written over the typed name.

Matthew Zinn
Senior Vice President, General Counsel, Secretary & Chief Privacy Officer

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

| | | |
|---------------------------------------|---|---------------------|
| In the Matter of |) | |
| |) | |
| TiVo Inc. |) | |
| Petition for Clarification or Waiver |) | |
| of 47 C.F.R. § 76.640(b)(4) |) | |
| |) | CS Docket No. 97-80 |
| Implementation of Section 304 of the |) | |
| Telecommunications Act of 1996; |) | |
| Commercial Availability of Navigation |) | |
| Devices |) | |

**PETITION OF TIVO INC.
FOR CLARIFICATION OR WAIVER OF 47 C.F.R. § 76.640(b)(4)**

November 6, 2009

SUMMARY

TiVo Inc. (“TiVo”) respectfully requests that the Commission issue an order clarifying that the requirement that cable operator-distributed set-top boxes include an IEEE 1394 interface, which is found in Section 76.640(b)(4) of the Commission’s Rules, does not apply to models of set-top boxes that are widely available at retail. In the alternative, TiVo requests a waiver of this requirement as to the TiVo high definition DVR models sold at retail, applicable to any cable operator who distributes these models.

TiVo, the leading manufacturer of digital video recorders (“DVRs”) available at retail, is seeking to increase competition and expand consumer options by making its retail DVRs available through cable operators. This will help to fulfill major goals of the Commission’s rules under Section 76: to promote competition in video navigation devices, offer cable operators and consumers an alternative to the two incumbent set-top box manufacturers predominantly used by cable systems, and promote innovation by expanding the functionality of set-top boxes, including integrating Internet content with MVPD programming.

TiVo DVRs do not have an IEEE 1394 (“1394”) interface, but support home networking and Internet connectivity through Ethernet and optional Wi-Fi interfaces. The 1394 interface is not widely used today. Adding a 1394 port to TiVo DVRs would add to their cost without significant consumer benefit. As TiVo DVRs already contribute to expanding cable subscribers’ options and include other types of more current interface technology, and because they are available at retail and thus are subject to a market incentive to support home networking technologies, the Commission should provide this clarification or, in the alternative, grant the requested waiver.

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

In the Matter of)
)
TiVo Inc.)
Petition for Clarification or Waiver)
of 47 C.F.R. § 76.640(b)(4))
) CS Docket No. 97-80
Implementation of Section 304 of the)
Telecommunications Act of 1996;)
Commercial Availability of Navigation)
Devices)

**PETITION OF TIVO INC.
FOR CLARIFICATION OR WAIVER OF 47 C.F.R. § 76.640(b)(4)**

TiVo Inc. (“TiVo” or “Petitioner”) respectfully requests a clarification that the requirement to provide an IEEE 1394 (“1394”) interface, set forth in Section 76.640(b)(4) of the Commission’s Rules¹ does not apply to devices that are widely available at retail when the same devices are provided by a cable operator to its subscribers. In the alternative, TiVo requests a waiver of that requirement pursuant to sections 1.3, 76.7 and 76.1207 of the Commission’s rules² for the TiVo high definition DVR models sold at retail (both current and future models), applicable to any cable operator who distributes these models.

¹ 47 C.F.R. § 76.640(b)(4).

² 47 C.F.R. §§ 1.3, 76.7 and 76.1207, respectively.

Factual Background

I. TiVo's DVRs

TiVo introduced the first consumer digital video recorder (“DVR”) in 1999.³ Currently, TiVo is the leading maker of standalone DVRs for retail sale. TiVo’s current high definition DVRs, the TiVo HD and HD XL, receive and record digital cable and use CableCARDS to provide access to encrypted cable content.⁴ In addition to being fully functional Unidirectional Digital Cable Products, TiVo’s HD DVRs support interactive features, including program guides, broadband video on demand services (*e.g.*, Amazon.com, Blockbuster, and Netflix Instant Streaming), and remote scheduling, through an Internet connection.⁵ The HD DVRs also support home networking through an Ethernet port or optional wireless (Wi-Fi) adapter, but do not have a 1394 connection.⁶ When connected to a home network, the HD DVRs can send non-copy-protected high-definition video to another TiVo DVR, a PC, or a mobile device (using software on a PC). The HD DVRs can also accept video, music files, and photos from a PC on the home network.

TiVo DVRs compete with DVRs leased to cable subscribers by cable operators. Just two manufacturers supply the majority of leased DVRs to cable operators. Cable operators are seeking competitive alternatives to the current set-top box suppliers and TiVo is seeking to supply an alternative by providing the current HD DVR (and future models) to cable operators for deployment to subscribers. In August 2009, TiVo

³ “History of TiVo,” <http://www.TiVo.com/aboutTiVo/jobs/historyofTiVo/>.

⁴ “TiVo HD DVR Product Information,” <http://www.TiVo.com/dvr-products/TiVo-hd-dvr/index.html>.

⁵ *Id.*; “How to Get TiVo Anywhere,” <http://www.TiVo.com/myTiVo/howto/getTiVoanywhere>.

⁶ “Connect your TiVo DVR to the Network and the Internet,” http://www.TiVo.com/myTiVo/howto/getconnected/howto_connect_dvr_internet.html.

announced a partnership with RCN to provide HD DVRs as RCN's primary DVR offering in several markets, with distribution to begin in early 2010.⁷

II. The Regulatory Requirement of a 1394 Interface

Under section 76.640(b)(4), high definition set-top boxes distributed to subscribers by cable operators must have a functional IEEE 1394 interface.⁸ This rule was imposed as a result of the December 2002 Memorandum of Understanding between the cable and consumer electronics industries, in which consumer electronics companies insisted on a means of connecting digital recording devices and home networks to set-top boxes.⁹ At that time, 1394 was the only digital video interface available for consumer devices that supported recording devices and networking. Thus, the industry representatives agreed that set-top boxes would be required to include a 1394 port to enable networking and recording.

Since 2002, home networking devices and technologies for video have flourished, but primarily through Internet Protocol-based networking over Ethernet, Wi-Fi, and other media, rather than 1394. Nearly every computer sold today supports IP over Ethernet. Networked consumer electronics devices also use IP. The DLNA inter-industry standards, which are now in use by numerous manufacturers and devices, uses IP for home networking.¹⁰ The cable industry has also acknowledged the shift towards IP. Its research arm, CableLabs, has approved IP-based outputs protected by DTCP-IP for use in

⁷ Glen Diskson, *RCN Teams with TiVo*, *Broadcasting & Cable* (Aug. 4, 2009), http://www.broadcastingcable.com/article/326401-RCN_Teams_with_TiVo.php.

⁸ 47 C.F.R. 76.640(b)(4).

⁹ The Commission recently acknowledged the purpose of the 1394 requirement. "We recognize that the inclusion of an IEEE 1394 output would provide additional functionality for home-networking and recording capability." *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*, CS Dkt. No. 97-80, CSR-8080-Z, Memorandum Opinion and Order ¶ 16 (rel. May 28, 2009) (the "Cable One Order").

¹⁰ See "Network and Connectivity," http://www.dlna.org/industry/why_dlna/key_components/network/.

unidirectional, tru2way, and DCAS products. In August 2008, the president of the cable industry's major trade association, NCTA, stated that 1394 "is largely unused today and imposes substantial costs that are borne by cable customers."¹¹ He described Ethernet ports as being more "future proof."¹² Today, 1394 is most often used to connect video cameras and hard drives to PCs, though it may be declining in those uses as well. Indeed, Apple, an early adopter of 1394, has removed the interface from its most recent laptop.¹³

Argument

I. Legal Standard

Should the Commission find that waiver is necessary, the relevant standard is stated in Sections 1.3 and 76.7 of the Commission's Rules. Section 1.3 allows the Commission to waive any provision of its Rules for good cause shown, while Section 76.7 specifically allows the Commission to waive any part of Section 76 "[o]n petition by any interested party." Waiver is particularly appropriate where it will not undermine, but will in fact promote, the goals of the underlying rule. *See WAIT Radio v. F.C.C.*, 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.").

II. Petitioner's Interest

TiVo is seeking to promote competition by providing retail set-top boxes to cable operators for distribution to their subscribers. The applicability of Section 76.640(b)(4) to the TiVo HD DVRs affects TiVo's ability to sell its products to cable operators

¹¹ Letter from Kyle McSarrow, NCTA to Marlene H. Dortch, FCC, CS Dkt. 97-80 (Aug. 13, 2008).

¹² *Id.*

¹³ http://reviews.cnet.com/laptops/apple-macbook-fall-2009/4505-3121_7-33783917.html.

without modification and resulting cost increases. Therefore, TiVo is an “interested party” with standing to petition for clarification or waiver.¹⁴ The Commission has granted equipment-related waivers to set-top box manufacturers with the understanding that cable operators – the regulated entities – can rely on such waivers when distributing the specified equipment.¹⁵

III. Granting TiVo’s Request Will Advance the Goal of Section 629: Choice and Competition in Cable Navigation Devices.

The Commission’s cable navigation device compatibility rules were instituted to promote the goal mandated by Congress in Section 629 of the Telecommunications Act of 1996: to promote competition and consumer choice in cable devices by assuring retail availability.¹⁶ TiVo, since its inception, has provided cable subscribers with choice and empowerment, both benefitting from and furthering the goals of Section 629 and the Section 76 regulations. By providing DVRs to cable operators to distribute as leased devices to subscribers, TiVo will be able to enhance competition and choice even further, offering both cable operators and their subscribers a proven and popular alternative to DVRs from the duopoly manufacturers of most leased set-top boxes.

TiVo DVRs distributed through cable operators will also provide competition in the field of interactivity by introducing two-way features and applications based on an Internet connection, which enables video on demand as well as Internet-only content such as Web video. The ability to distribute TiVo DVRs gives cable operators an alternative to existing leased set-top boxes, which are not designed to display Internet content.

¹⁴ 47 C.F.R. § 76.7.

¹⁵ *In the Matter of Evolution Broadband, LLC’s Request for Waiver of Section 76.1204(a)(1) of the Commission’s Rules, Implementation of Section 304 of the Telecommunications Act of 1996, Commercial Availability of Navigation Devices*, CSR-7902-Z, CS Dkt. No. 97.80, Memorandum Opinion and Order ¶16 n.44 (rel. June 1, 2009).

¹⁶ 47 U.S.C. § 549.

TiVo HD DVRs comply with all relevant regulations for operator-distributed set-top boxes. Most importantly, they comply with the integration ban of Section 76.1204 by relying on CableCARDS for separable security. But for uncertainty over whether the 1394 interface requirement applies, the same TiVo HD DVRs that are sold to consumers at retail can be made available to cable operators, without any hardware changes, as a proven, successful home entertainment platform.¹⁷ Requiring TiVo to redesign and manufacture DVRs with a 1394 interface for the cable operator market would be wasteful and would not benefit any affected parties. Part of TiVo's value to cable operators is that it offers an existing, popular retail product for use as a leased set-top box with no hardware modification and thus lower cost to the operator. TiVo is offering its HD DVR at a substantially lower cost than DVRs sold to smaller operators by the incumbent providers,¹⁸ but adding a 1394 interface would defeat the efficiencies of providing the existing retail DVR to cable operators for deployment to their subscribers. The time, resources, and expense of having to develop, manage, and inventory a separate hardware product for cable-only deployment would have to be included in the cost of the product and would delay the introduction of competition into the cable set-top box market with no resulting benefit to the cable operator or consumers.

A redesign to add an unnecessary 1394 interface thus would make the TiVo DVR less cost-competitive against the incumbent DVRs and would reduce competition. The Commission has recognized that the 1394 requirement imposes a cost that is not always

¹⁷ TiVo retail DVRs can receive all of the cable operator's programming services, including switched digital and video-on-demand, using the Internet for upstream signaling, if the operator chooses to allow access to such programming services.

¹⁸ Todd Spangler, *Provider Aims To Launch HD DVRs By Start of 2010*, Multichannel News (Aug. 10, 2009), ("It's a pretty substantial savings as it relates to the upfront box' compared with the Motorola DVRs.") http://www.multichannel.com/article/326959-RCN_Will_Follow_TiVo_s_Path.php

justified by the goals of the rule.¹⁹ As the TiVo HD DVRs *and* the forthcoming distribution through cable operators both advance the goals of Section 629, this presents another circumstance in which the 1394 requirement should not apply.

IV. Granting TiVo's Request Will Advance Home Networking.

The requirement for a 1394 interface was added to Section 76 to advance a component of the overall goal of Section 629: ensuring that leased devices can interoperate with consumer-purchased equipment.²⁰ In other words, this requirement exists as an attempt to assure that MSO-provided devices would support and function reliably *with* a consumer's future home network. A TiVo DVR with Internet and WiFi connectivity that is available either from an MSO or at retail, however, is *already a part* of the consumer's open home network. There is no reason or rationale to impose this requirement on a product that embodies the Congress's core objective, and fulfills the Commission's specific goal. The IEEE 1394 interface was chosen for this purpose in 2002 because, at that time, it was the only interface available that supported home networking. Today, IP-based networking using Ethernet and other media are the mainstay of home networking, not least because many consumers are already familiar with this type of networking for personal computers, and because IP-based networks can be connected to the Internet. As described above, TiVo HD DVRs support networking to PCs, other TiVo DVRs, and the Internet, allowing video in, video out, and remote control – the same powerful features that the Commission sought to enable for as many subscribers as possible when it enacted the 1394 requirement. Thus, these products are

¹⁹ Cable One Order ¶ 16.

²⁰ *Id.*

already a part of the very network to which the FCC wanted to assure that set-top boxes would provide content.

Even if a 1394 port were necessary to enable home networking for the vast majority of cable subscribers, which is no longer the case if indeed it ever was, the rationale for a regulatory requirement does not hold for devices, like the TiVo HD DVR, that are already widely available at retail. For devices sold at retail, which must compete with operator-provided devices, consumer demand rather than regulation drives functionality, including home networking. As a retail product, the HD DVR already includes home networking compatible with the devices that its consumers use most, which today is IP-based devices.²¹ Because the market already provides a strong incentive to include the functionality that Section 76.640(b)(4) is intended to guarantee, it is not clear that the 1394 requirement applies to the TiVo HD DVR at all. If the Commission finds that the requirement applies to TiVo DVRs, then waiver of the requirement is appropriate for the same reasons.

V. Granting the Request Will Cause No Harm to Other Interested Parties.

The typical use of the 1394 interface on a set-top box is to connect a recording device.²² Because a TiVo DVR *is* a recording device, the need to connect an external DVR is much lower than for a non-DVR box. While 1394 can, in theory, be used to connect a television to a set-top box, TiVo is unaware of any televisions currently sold with a 1394 input, and none depend on it exclusively.

²¹ The importance of IP for connecting consumer devices has not been lost on the cable industry. “Imagine anyone building a consumer gadget without IP. It would be like building a home without plumbing. IP has made its way into every industry, and ours is no different.” Jeff Baumgartner, *SCTE Expo: MSOs Prep IPTV Push*, Light Reading’s Cable Digital News (Oct. 28, 2009), http://www.lightreading.com/document.asp?doc_id=183804&site=cdn&

²² See Letter from Scott Blake Harris, TI to Marlene H. Dortch, FCC, CS Dkt. No. 97-80 (Sep. 11, 2008).

In any case, clarifying that cable operators may distribute the TiVo HD DVR without modification does not mean ending support for existing 1394-compatible, retail-purchased devices. Cable operators can continue to deploy devices, including DVRs, from their incumbent providers to subscribers who request a 1394 port, if any should do so. Therefore, granting TiVo's request will cause no harm to cable subscribers or the operators who serve them.

VI. Conclusion

TiVo's plan to offer cable operators the option of providing consumers with the same HD DVRs that are available at retail stores presents a unique opportunity to offer some competition and choice in a market that has been virtually closed to meaningful competition. This opportunity will benefit cable subscribers and the public interest. To require the modification of this successful retail product to add a little-used interface will benefit no one. Therefore, TiVo respectfully requests that the Commission clarify that the requirement that cable operator-distributed set-top boxes include an IEEE 1394 interface, which is found in Section 76.640(b)(4) of the Commission's Rules, does not apply to models of set-top boxes that are widely available at retail, or waive the 1394

requirement for TiVo high-definition DVRs sold at retail (both current and future models), applicable to any cable operator who distributes these models.

Respectfully submitted,

TIVO INC.



Matthew Zinn
Senior Vice President, General Counsel,
Secretary & Chief Privacy Officer
2160 Gold Street
Alviso, CA 95002-2160
(408) 519-9131

Dated: November 6, 2009

EXHIBIT A

TiVo® HD DVR

Higher Intelligence for Your Home Entertainment System.

At last, a premium High-Definition product at an affordable price. Introducing the new TiVo® HD Digital Video Recorder, combining the intelligence of the TiVo service with the razor-sharp clarity of HD recording. Designed as a universal cable box to work with any cable provider, the TiVo HD box also offers network connectivity, delivering the best of broadcast and broadband TV, right to your living room. Get TiVo and raise your home theater I.Q.

Product Overview:

- Controls cable TV with Record, Pause, Rewind, and Fast-Forward in HD
- Records two HD channels at once, while watching another recorded show
- Records up to 20 hours in HD (or 180 hours capacity in Standard Definition)
- Designed specifically for cable customers†
- Video output modes include: 480i, 480p, 720p, 1080i
- Sources supported: Digital cable, Analog cable, Digital Antenna (ATSC), Analog antenna (Note: Satellite not supported)

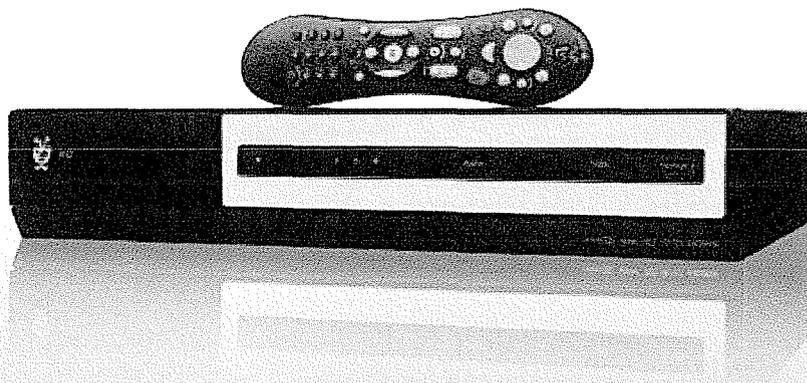
TiVo Service Features:

- Download thousands of movies directly to your TV**
- Share home movies with your friends and family on their TV**
- Get broadband videos, music and photos on your TV**
- Schedule shows online**
- Discover broadcast and broadband shows with universal Swivel Search**
- Easily pre-approve what your kids watch with TiVo KidZone

*Minimum 1yr TiVo service plan required

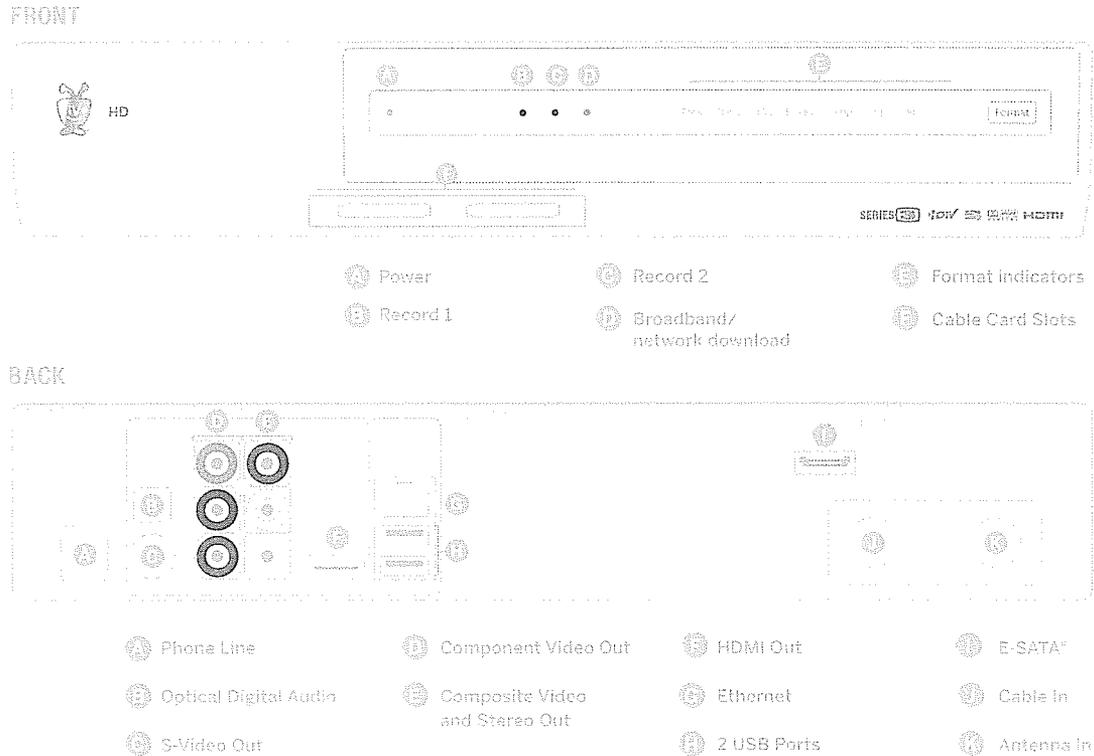
**Broadband internet connection required

† CableCard*** decoders may be required for digital cable use.



TiVo HD Specifications:

- Sources: Digital cable, Analog cable, Digital antenna (ATSC) and Analog antenna channels (satellite not supported)
- Outputs: HDMI, Component video, S-video, Composite video, Optical audio, Analog audio
- Video output modes include: 480i, 480p, 720p, 1080i
- Inputs: Dual CableCARD support (2 slots), Cable Coax, Antenna Coax
- Ethernet connection, USB 2.0 ports (2), phone line, E-SATA*
- TiVo Wireless G Network Adapter support
- TiVo Series3™ architecture



Product Name: TiVo[®] HD

TiVo HD Dimensions:

16.5" W x 12.625" D x 3.375" H

Weight: 12 lbs.

Supported Signal Sources:

- Digital cable
- Analog cable
- Digital over-the-air antenna (ATSC)
- Analog antenna

DOES NOT SUPPORT SATELLITE SERVICE

Model Number: TCD652160

Recommended Accessories:

- TiVo Wireless G Network Adaptor

Included in Box:

- TiVo HD box
- TiVo remote control
- Manual
- Quick Start guide
- Composite, Component, Power cables

Visit www.tivo.com/resources for more details.

*for future use only

TiVo service is required and sold separately. No functionality is represented or should be expected without a paid subscription to the TiVo service.

© 2007 TiVo Inc. All rights reserved. TiVo, Series3, Series2 and the TiVo logo are trademarks or registered trademarks of TiVo Inc. and its subsidiaries worldwide. All other trademarks are the property of their respective owners.