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Federal Communications Commission
Washington, D.C. 20554

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FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

In the Matter of)
)
Implementation of Section 304 of the)
Telecommunications Act of 1996)
)
Commercial Availability of Navigation)
Devices)

CS Docket No. 97-80

**Comments of
Matsushita Electric Corporation of America/"Panasonic"**

Matsushita Electric Corporation of America (d.b.a. "Panasonic") respectfully submits these Comments in response to the September 24 Further Notice of Proposed Rulemaking ("NPRM") in this docket. Panasonic, through its subsidiaries, affiliates, and brands, manufactures and distributes a wide range of consumer electronics, information technology, and other electronic and electrical devices. Panasonic has over 150 business locations in North America, including 24 manufacturing facilities, with some \$9.2 billion in revenues in its most recent fiscal year; and it employs some 25,000 people. It is the principal U.S. subsidiary of Matsushita Electric Industrial Co., Ltd., of Japan, a world leader in electronics.

Panasonic applauds the Commission for issuing this Further Notice in this very important Docket. In response to the questions posed by the Commission as to progress toward achieving the goal of "design, production, and distribution of [OpenCable-compliant] devices for retail sale,"¹ we are pleased to share our experience. The OpenCable process, and adopted specifications and standards from it, are expected to result in cable systems fully supporting direct, interactive operation of both set-top and fully integrated consumer products, and that these products will be of full benefit to cable systems in serving their customers. Panasonic has worked diligently with CableLabs, participating cable operators, and other cable equipment and

¹ Further NPRM, par. 6.

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service vendors in the OpenCable process; and we are pleased to provide this report on that work.

(1) Panasonic's Participation In The OpenCable Process

Panasonic has been a strong supporter, from the outset, of the Commission's measures to speed the transition to digital television and to assure competitive availability of Navigation Devices. This is because Panasonic is keenly interested in providing a variety of digital television and digital cable-capable products to consumers as soon as possible, both in concert with cable service providers and directly in the retail market. These products could include cable-capable digital television receivers, digital cable set-top boxes, and a variety of related video and communications devices, all of which we believe would support and advance the growth and development of competitive digital television and information services.

Therefore, since the inception of the CableLabs "OpenCable" process, Panasonic has supported and participated actively, regularly, and fully. This is the process on which the Commission and industry rely in order to meet the requirements of the law and the rules of the Commission, and to create the conditions for a retail market for navigation devices. Indeed, in cooperation with CableLabs' exhibition at the 1999 Western Cable Show, Panasonic was the first to demonstrate, to the Commission attendees and others, a working prototype of the "POD security interface." Panasonic continues to demonstrate its progress in implementing OpenCable specifications as they are developed by participating in CableLabs-sponsored 'interoperability testing' sessions and by working with a number of cable system operators on development of innovative set-top box products designed to provide advanced digital services to their subscribers.

In addition, highlighting our company's commitment to developing a range of cable-compatible digital television receivers, Panasonic was deeply involved in helping the industry to design and conclude the NCTA-CEA Technical Agreements on cable-consumer electronics compatibility, submitted to the Commission February 22, 2000. Panasonic was also the first to include an IEEE 1394 connection on a DTV product (the

first consumer all-format ATSC receiver/decoder); in fact, Panasonic was the first to launch a DTV product in the United States in the fall of 1998.

Panasonic has worked interactively with CableLabs staff toward the goal of completing the suite of specifications that would support retail availability of both "set-top" boxes and a range of other DTV and multimedia products with navigation capability. In addition to providing comments and proposals in the OpenCable specification process itself, Panasonic is contributing in other ways. For example, Panasonic conducts internal testing (e.g., using "evaluation" keys provided for the DFAST interface), and is filing "Engineering Change Requests" ("ECRs"), based on our test results, to move the specification forward toward finalization for the benefit of all concerned manufacturers. Panasonic also is active in tracking the technical issues arising in such testing and ECRs and working to ensure these issues are incorporated into the voluntary, SCTE-DVS standards-making process, with the goal of more rapidly achieving complete and precise "build-to" standards for retail.² CableLabs staff has been entirely cooperative in this ongoing process.

As mentioned above, Panasonic is also participating in ongoing CableLabs "interoperability" and "dry run" testing as to the most important elements of OpenCable standards. Testing -- internally by manufacturers, and cooperatively through CableLabs and cable operators -- is an essential element of achieving the full specifications that are necessary for product viability in the retail market. Once a product has been purchased by a consumer, it must work reliably under all anticipated circumstances; and such reliability can only be assured through adequate advance testing.

Panasonic believes it is at the leading edge of the progress by consumer electronics manufacturers, in implementing the communication of channel-mapping under the framework established in the February 22, 2000, CEA/NCTA agreements. Channel mapping, or "channelization", is the process by which navigation devices associate displayed channel numbers with supplied channels as "Signal Information" ("SI") in a standard and predictable fashion. Any navigation device must be able,

² As an example, in the summer of 2000, Panasonic obtained an 'evaluation license' for the key exchange algorithm pertaining to implementation of DFAST technology over the POD-Host interface. Working with evaluation software, Panasonic has identified a number of desirable changes to be implemented in successive prototypes.

reliably, to receive this "SI" information, as the first step in implementing a full "program guide." While more needs to be done to ensure that the information about current and future programs actually carried on individual channels is available for constructing such a "guide", Panasonic expects to be the first CE manufacturer³ in the OpenCable context, to verify the operation of the POD-Host exchange of the basic channel mapping information, as outlined in the CEA/NCTA agreement.

Panasonic believes that, with the continued cooperation of CableLabs and cable operators, it would be possible to support receipt of "guide" information as to presently displayed programs, and as to future programming as well. The latter capability is key to enabling receipt of "Impulse Pay-Per-View" ("IPPV") and full "Video on Demand" ("VOD") services over retail, POD-enabled boxes -- a competitive feature that Panasonic considers vital to retail viability. Indeed, many cable operators are now moving rapidly to deploy full VOD services, and to change from telephone call-in systems to direct, through-the-cable program ordering systems for IPPV. Therefore, Panasonic has submitted to CableLabs an Engineering Change Request ("ECR") on this subject.⁴ Importantly, a Motorola POD with IPPV capability has been scheduled for testing with hosts. Panasonic is deeply interested in the successful inclusion of VOD and IPPV capability in the POD and related host-device specifications now. And Panasonic believes that its prompt standardization will lead to manufacturers including such features that would be capable of working now on all cable systems.

(2) Panasonic's Announced Navigation Device Partnerships

Panasonic has been gratified to announce a partnership for the provision of digital set-top appliances, with a major cable multi-system operators, AT&T Broadband.

³ I.e., with the exception of specialized cable suppliers Motorola and Scientific Atlanta

⁴ This enhancement still would not support "video on demand" service, but would go a long way to satisfy consumer needs, at least for "second" and "third" televisions in a household. Panasonic believes that current OpenCable specifications could be enhanced relatively quickly to support this important "barely two-way" IPPV feature, which need not be delayed pending future development of the OpenCable "bi-directional" design. Such a step now would be of great benefit both to consumers and cable operators, and certainly to the objective of enabling a vital retail market.

The products to be provided under this contract, built to AT&T's specifications,⁵ will take advantage of the progress that has been made by CableLabs in the OpenCable environment.

One exciting aspect of this generation of MSO products is the potential inclusion of additional storage, communications, and other multimedia functionality in these "set-top" appliances -- e.g., personal video recording, removable and secure digital storage for video and audio and data, Internet browsing and communication, IP telephony, faxes, video cameras, Web phones, portable EMD devices, and digital still cameras for home conferencing, and more.⁶ The same functions and features, of course, can and should be built into and available as options in direct retail products, too and Panasonic strongly encourages CableLabs to facilitate such options.

These features and functions will begin to fulfill the potential, long recognized in the digital environment, for navigation devices to become multi-purpose consumer electronics and information technology devices. As a company offering a broad range of consumer electronics and information technology products, Panasonic brings special skills to the task of providing these features and functions to the new generation of products offered by cable multi-system operators. We are committed to working with CableLabs staff toward the goal of being able to offer similarly featured, system-independent products directly to retailers, too.

A key attribute of such products must be "portability" across the large number of cable systems nationwide, so that a device acquired for use in one cable system can be attached and used by a consumer in other cable systems. System operators will, by necessity, play a very significant role in assuring that such portability, necessary to consumer confidence in the retail model, can be achieved.⁷ And we are depending on

⁵ These products will have "embedded" security, specific to particular MSO systems, as well as support for operation with a POD. Since these products will include interfaces capable of supporting PODs, their production and distribution will, as in the case of any products to be *distributed directly to retailers*, depend on Panasonic's being offered an acceptable "POD Host Interface" license for 'production' purposes.

⁶ Many of these features were announced in Panasonic's September 26, 2000, press release, *attached*, as to its partnership with AT&T Broadband.

⁷ Operators will need specifically to provide support in their headends and/or through applications that will be downloaded to consumer devices to assure their proper configuration for the particular system. They will also play a key role in verification testing,

the FCC-sanctioned OpenCable process to develop the means for, and promote the implementation of, such portability. As noted above, an early example of such portability should be implementation of direct, impulse pay-per-view, which would support the industry's fastest growing video service. We are pleased that at least a potential implementation of this important function is scheduled to be tested at the CableLabs interoperability session this month.

(3) Panasonic's Navigation Device Goals For The Future, And Relation To The OpenCable Process

Panasonic's goal with respect to the OpenCable process, is to be able to distribute, at retail, a completely parallel range of "set-top" and DTV receiver products that offer to the consumer every service available over their local cable system. Panasonic believes that the consumer should be offered the choice of receiving any capability, available in a "set-top" product, as a feature of a retail DTV receiver. Our market research indicates that this is the packaging that consumers prefer. And Panasonic believes that its partnership with cable operators, and strong and cooperative relations with CableLabs staff, will help speed achievement of this goal.⁸

With respect to DTV receivers with navigation functionality, cooperative testing with cable operators is even more vital than in the case of set-top appliances -- the more expensive a product, and the more it has a suite of features chosen by a particular consumer, the more vital it is that the product work in every environment that it might reasonably encounter. Such testing will take, time, resources, and exactitude; and such testing must always be fully accounted for in any product development, evaluation and release cycles, including those which are dependent on the ongoing OpenCable process, whether for MSO-provided devices or for direct retail ones.

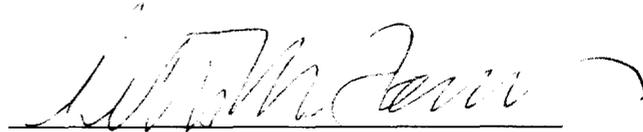
which is essential to make sure that, before devices are sold to customers, they will actually work with all systems; and in supporting remote diagnostics managed long-distance, through the cable plant, to ensure that such devices continue to work properly, just as system-proprietary devices do.

⁸

Conclusion

Panasonic believes that the Commission's oversight of the OpenCable process, as set forth in its Reconsideration order, reflects a necessary and appropriate commitment to achieving the competition, across a full range of retail cable navigation devices, that the Congress foresaw in enacting Section 304. As a company with longstanding partnerships in both the retail and cable sectors, we believe we are well positioned to help achieve the goal of a vigorous, competitive market offering a wide range of innovative navigation devices to consumers. The Commission's continued interest and oversight serves as a lens to focus all parties, in good faith, on the steps that must be taken to attain this goal.

Respectfully submitted,



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Attachment: September 26, 2000, Press Release

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Panasonic Announces Alliance With AT&T Broadband
To Drive Advanced Digital Cable Set-Top Boxes
In Retail Marketplace

SECAUCUS, NJ. and ENGLEWOOD, CO (September 26, 2000) -- Matsushita Electric Corporation of America, best known by its Panasonic brand name, today announced a joint initiative with AT&T Broadband to provide about one million advanced digital set-top boxes to AT&T's cable customers during the next three years.

Through this alliance, the companies expect to expand the competitive retail marketplace for advanced digital cable set-top boxes, in turn increasing new services and choices for consumers, and stimulating the introduction of new broadband video, voice and data services via cable set-tops.

"Panasonic is pleased to provide AT&T with our branded set-top boxes, offering AT&T Broadband consumers reliable connectivity to new and exciting forms of multi-media entertainment," said Dr. Paul Liao, chief technology officer, Matsushita Electric Corporation of America. "This relationship ensures that Panasonic's and AT&T's vision for creating an open and competitive environment in the retail marketplace are aligned with the key trends and standards for digital cable and broadband."

"We are pleased that Panasonic will join us in our continuing effort to meet the need for digital video delivery," said Chuck Schultz, senior vice president and chief procurement officer AT&T Broadband. "Panasonic's strong brand and experience in retail, combined with a history of quality and innovation, makes the company a powerful associate as we move into the retail space."

The digital set-top boxes Panasonic will supply to AT&T will feature built-in DOCSIS modems and will accept an OpenCable™ compliant point-of-deployment (POD) module. OpenCable™ is a Cable Television Laboratories, Inc. (CableLabs®) initiative aimed at developing a new generation of set-top boxes that are interoperable with the legacy of proprietary systems already deployed in the United States. This feature enables separable security, a key requirement for portability. Such portability is important to consumers, as it is intended to allow them to use their set-top box even if they move to a new home. The advanced set-top box also will include a built-in high-speed cable modem, which will enhance the interoperability of the set-top box and enable such services as Web-browsing, e-mail and interactive shopping and banking. For connection to various consumer devices, the Panasonic digital set-top boxes will include an IEEE-1394 port.

In addition, Panasonic currently expects to develop peripheral equipment specifically intended to enhance AT&T services at retail. Included among these devices will be IP phones, faxes and video cameras, as well as Web phones, portable EMD devices and digital still cameras for home conferencing. Panasonic also expects to work with AT&T Broadband to integrate a range of products – including DVD, DVD-RAM drives and hard disc drives – into future digital set-top boxes.

Sumitomo Corporation of America's Denver office facilitated the new alliance and supply contract between Panasonic and AT&T Broadband. Panasonic, as part of its commitment to AT&T, plans to open a Denver-based Integration Center where it can interact with AT&T on the development of advanced services for consumers.

About AT&T Broadband

AT&T Broadband, a business unit of AT&T, is the nation's largest broadband services company, providing analog and digital television entertainment services to about 16 million customers across the nation. The company also provides advanced services, such as high-speed cable Internet services and competitive local phone service. AT&T Corp. (NYSE: T) is the world's leader in telecommunications services and technology.

About Panasonic

Panasonic is the best known brand of Secaucus, NJ-based Matsushita Electric Corporation of America, the principal North American subsidiary of Matsushita Electric Industrial Co., Ltd. (NYSE: *MC*) of Japan. Matsushita Electric is one of the world's leading developers and manufacturers of digital and other electronic products for the home, the office and in between. Additional information on Panasonic and Matsushita can be found at www.panasonic.com.

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