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

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In the Matter of:)
)
Evolution Broadband, LLC)
)
Petition for Waiver of)
47 C.F.R. § 76.1204(a)(1))
)
)
)

CSR- 7902-2

FILED/ACCEPTED
JUN 23 2008
Federal Communications Commission
Office of the Secretary

PETITION FOR WAIVER OF 47 C.F.R. § 76.1204(a)(1)

I. Introduction and Summary

Under the Commission's regulations, MVPDs are prohibited from placing into service new navigation devices (such as converter boxes) that "perform both conditional access and other functions in a single integrated device" ("Integration Ban").¹ That said, 47 U.S.C. § 549(c) and 47 C.F.R. § 76.1207 specifically provide for waivers of the Integration Ban where the 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...."² Moreover, the Commission specifically stated in its *Second Report and Order* that it would entertain requests for waivers under Section 549(c) for low-cost, limited-capability converters.³

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¹ 47 C.F.R. § 76.1204(a)(1)

² 47 U.S.C. § 549(c).

³ See *In the Matter of: Implementation of Section 304 of the Telecommunications Act of 1996, Commercial Availability of Navigation Devices*, Second Report and Order, 20 FCC Rcd. 6794 at ¶ 37 (2005) ("*Second Report and Order*") ("It is critical to the DTV transition that consumers

Evolution Broadband, LLC ("Evolution Broadband") is an equipment provider manufacturing low-cost, limited-capability digital-to-analog converter boxes. Evolution Broadband's DMS-1002 and DMS-1002-CA converter boxes⁴ fit squarely within the Commission's description of navigation devices for which the Commission will entertain waivers under 47 U.S.C. 549(c) and 47 C.F.R. § 76.1207:

- The DMS-1002 and DMS-1002-CA converter boxes are one-way devices.
- The DMS-1002 and DMS-1002-CA converter boxes do not have personal video recording capability.
- The DMS-1002 and DMS-1002-CA converter boxes do not have high-definition ("HD") capability.
- The DMS-1002 and DMS-1002-CA converter boxes do not have broadband Internet access capability.
- The DMS-1002 and DMS-1002-CA converter boxes do not have multiple tuner or other similar capabilities.
- Priced at \$45 and \$55 respectively, the DMS-1002 and DMS-1002-CA converter boxes are the lowest-priced commercially-available digital-to-analog converter boxes.

Accordingly, pursuant to 47 U.S.C. 549(c), Section 706 of the Telecommunications Act⁵ and 47 C.F.R. § 76.1207, equipment provider Evolution

have access to inexpensive digital set-top boxes...The availability of low-cost boxes will further the cable industry's migration to all-digital networks...[W]e will entertain requests for waiver of the prohibition on integrated devices for limited capability integrated digital cable boxes. We do not believe that waiver will be warranted for devices that contain personal video recording ("PVR"), high-definition, broadband Internet access, multiple tuner, or other similar advanced capabilities....").

⁴ Evolution Broadband attaches as Exhibit 1 the full specifications for its DMS-1002 and DMS-1002-CA converter boxes.

⁵ See § 706(b) of the Telecommunications Act of 1996, Pub. L. 104-104, 110 Stat. 56 (1996), reproduced in the notes under 47 U.S.C. § 157 ("The Commission... shall encourage the deployment on a reasonable and timely basis of advanced telecommunications capability to all Americans...by utilizing, in a manner consistent with the public interest, convenience, and

Broadband requests that the Commission waive the Integration Ban for Evolution Broadband's low-cost, limited-functionality DMS-1002 and DMS-1002-CA converter boxes.

We organize this Petition as follows:

- Relief requested
- Background information on Evolution Broadband and the DMS-1002 and DMS-1002-CA converter boxes
- Justification for the requested waiver
- Conclusion

II. Relief requested

Evolution Broadband requests a 3-year waiver of the Integration Ban for its DMS-1002 and DMS-1002-CA digital-to-analog converter boxes, the complete specifications for which are attached as Exhibit 1. Pursuant to 47 U.S.C. § 549(c) and 47 C.F.R. § 1207, the requested waiver would be effective "for all service providers and products in the category in which the waiver is granted." Given the imminent digital transition and Section 549(c)'s requirement that the Commission grant requests for waiver under that section within 90 days of filing,⁶ Evolution Broadband further requests that the Commission act expeditiously on this matter.

Alternatively, Evolution Broadband requests that the Commission grant the requested waiver for good cause shown under 47 C.F.R. §§ 1.3 and 76.7.⁷

necessity... regulatory forbearance...or other regulating methods that remove barriers to infrastructure investment....").

⁶ See 47 U.S.C. § 549(c).

⁷ See Section IV, *infra*.

III. Evolution Broadband and the DMS-1002 and DMS-1002-CA converter boxes

A. Evolution Broadband. Evolution Broadband is a new entrant in the North American cable and telecommunications market. The company's mission is to provide cable operators of all sizes a complete digital migration plan, and to enhance their digital offerings by reclaiming bandwidth with MPEG-2 technology without the need for cable plant upgrades, or complex, expensive, switched digital systems. To that end, Evolution Broadband has brought to market its DMS-1002 and DMS-1002-CA converter boxes. These limited-capability boxes are priced to drive increased digital penetration and to enable cable operators, especially operators of smaller cable systems, to reclaim bandwidth for the provision of advanced services, including broadband Internet access.

B. The DMS-1002 and DMS-1002-CA converter boxes. The DMS-1002 and DMS-1002-CA converter boxes are one-way, low-cost, limited-capability digital-to-analog converter boxes:⁸

- **DMS-1002.** The DMS-1002 converter box is an MPEG-2, digital-to-analog converter box aimed at the most cost-sensitive consumers. This converter box does little more than convert digital services to analog for viewing on analog televisions. The DMS-1002 employs a single digital tuner, and RF and AV outputs. The DMS-1002 has a SIM card slot which cable operators can activate to add conditional access functionality. The DMS-1002 passes through EAS messages and closed captioning, but it does not support VOD or other two-way functions. The DMS-1002 does not have HD, DVR, Internet access, or multiple tuner capability. The DMS-1002 can be purchased by smaller cable companies through the National Cable Television Cooperative ("NCTC") for approximately \$45.
- **DMS-1002-CA.** The DMS-1002-CA has the same functionality as the DMS-1002, but comes equipped with a removable SIM card with Conax 7

⁸ See Exhibit 1.

conditional access technology.⁹ The DMS-1002-CA can be purchased by smaller cable companies from NCTC for approximately \$55.

In short, these converter boxes are the most low-cost, limited-capability digital-to-analog converter boxes commercially available.

Evolution requests that any waiver granted for the DMS-1002 and DMS-1002-CA converter boxes accommodate any successor models to these converter boxes that do not contain personal video recording, high-definition, broadband Internet access, multiple tuner or similar advanced capabilities. Clarifying that the waiver covers such low-cost, limited capability successor devices would avoid the unnecessary expense and delay of applying for a waiver for each and every converter box that has undergone a minor redesign, and would provide more operational certainty for Evolution Broadband and its customers.¹⁰

IV. Justification for the requested waiver

A. Statutory and regulatory authority for the requested waiver

Under 47 U.S.C. § 549(c), the Commission is obligated to grant waivers of its separable security regulations to facilitate the deployment of new or improved cable services:

The Commission shall waive a regulation adopted under subsection (a) of this section for a limited time upon an appropriate showing by... an equipment provider, that such waiver is necessary to assist the

⁹ The SIM card incorporates Conax security, which is compatible with the set-top boxes of over 200 manufacturers worldwide. See <http://www.conax.com/en/partners/stb/> (viewed May 7, 2008). Accordingly, a waiver for the DMS-1002-CA would encourage further competitive entry into the United States set-top device market.

¹⁰ Such a clarification accords with 47 U.S.C. § 549(c) which provides that a waiver "shall be effective for all service providers and products in that category..." See also 47 C.F.R. § 76.1207 ("Such a waiver shall be effective for all service providers and products in the category in which the waiver is granted.").

development or introduction of a new or improved multichannel video programming or other service offered over multichannel video programming systems, technology, or products. Upon an appropriate showing, the Commission shall grant any such waiver request within 90 days of any application filed under this subsection, and such waiver shall be effective for all service providers and products in that category and for all providers of services and products.¹¹

Section 76.1207 of the Commission's regulations incorporates a corresponding waiver provision.¹²

Moreover, the Commission has determined that waivers for low-cost, limited-capability digital-to-analog converter boxes will have pro-consumer benefits. In its *Second Report and Order*, the Commission stated:

....It is critical to the DTV transition that consumers have access to inexpensive digital set-top boxes that will permit the viewing of digital programming on analog television sets both during and after the transition. The availability of low-cost boxes will further the cable industry's migration to all-digital networks, thereby freeing up spectrum and increasing service offerings such as high-definition television. Accordingly, as cable systems migrate to all-digital networks, we will also consider whether low-cost, limited capability boxes should be subject to the integration ban or whether cable operators should be permitted to offer such low-cost, limited capability boxes on an integrated basis. We are inclined to believe that provision of such devices by cable operators will not endanger the development of the competitive marketplace envisioned in Section 629, particularly because the more advanced devices offered by cable operators for primary home use will be required to rely on the same CableCARD technology as devices offered at retail by consumer electronics manufacturers. In the interim, we will entertain requests for waiver of the prohibition on integrated devices for limited capability integrated digital cable boxes. We do not believe that waiver will be warranted for devices that contain personal video recording ("PVR"), high-

¹¹ 47 U.S.C. § 549(c).

¹² 47 C.F.R. § 76.1207. Moreover, a waiver of the Integration Ban for the DMS-1002 and DMS-1002-CA boxes would be appropriate under the general waiver standards in 47 C.F.R. § 1.3 and 76.7. The waiver would apply only to the type of low-cost, limited-capability device that the Commission has already determined will qualify for waiver of the Integration Ban (see *Second Report and Order* at ¶ 37), and, as detailed below, will provide significant consumer benefits, and will have no adverse effect on CableCARD-compatible equipment.

definition, broadband Internet access, multiple tuner, or other similar advanced capabilities....¹³

B. The DMS-1002 and DMS-1002-CA converter boxes are low-cost, limited capability boxes

The DMS-1002 and DMS-1002-CA converter boxes are precisely the “low-cost, limited capability boxes” that the Commission found deserving of waivers in the *Second Report and Order*.

Low cost. At \$45 and \$55, the DMS-1002 and DMS-1002-CA converter boxes can be purchased for only 21%-26% of the price of the lowest-cost non-integrated set-top box commercially available, the Motorola DCH100.¹⁴ The DMS-1002 and DMS-1002-CA converter boxes are far less expensive even than the \$85 integrated Motorola DCT-700, a low-cost box for which the Commission has granted numerous waivers because its affordability allows cable operators to transition to all-digital cable systems.¹⁵ For the same reason, the Commission has granted a waiver to a functionally identical Evolution Broadband converter box used by TVMAX Houston,

¹³ *Second Report and Order* at ¶ 37. See also *Brief for Respondents at 14, Charter Comm., Inc. and Advance/Newhouse Comm. v. FCC*, No. 05-1237 at 30 (D.C. Cir. Mar 7, 2006) (“...recognizing the value of preserving a low-cost set-top box option for consumers, at least until volume usage of CableCARDs over time reduced the price of host devices... [t]he Commission determined that waivers for such boxes would benefit those cable subscribers most concerned about the cost of equipment, while maintaining the overall benefits of the integration ban with respect to boxes with more advanced capabilities (and therefore more likely to be the subject of a competitive market”) (citations omitted).

¹⁴ The Motorola DCH100 costs approximately \$209 per unit.

¹⁵ See, e.g., *In the Matter of Bend Cable Communications, LLC d/b/a BendBroadband, Request for Waiver of Section 76.1204(a)(1) of the Commission's Rules*, Memorandum Opinion and Order, 22 FCC Rcd. 209 at ¶ 24 (2007) (“*Bend Broadband Order*”); and *In the Matter of Millennium Telcom, LLC d/b/a OneSource Communications*, Memorandum Opinion and Order, 22 FCC Rcd. 8567 at ¶ 16 (2007) (“*OneSource Order*”).

LP.¹⁶ In short, the DMS-1002 and DMS-1002-CA converter boxes are so inexpensive that they cost less than most NTIA-coupon-eligible digital-to-analog converter boxes.¹⁷

Limited Capability. In its *Comcast Order*,¹⁸ the Commission described a limited capability box as a one-way box “whose functionality is limited to making digital cable signals available on analog sets,”¹⁹ and noted that such a box has “never [been] mass produced due to lack of interest from cable operators.”²⁰

Thanks to Evolution Broadband, now it has. The DMS-1002 and DMS-1002-CA converter boxes are unidirectional converter boxes “whose functionality is limited to making digital cable signals available on analog sets.” In short, the DMS-1002 and DMS-1002-CA converter boxes fit squarely within the category of boxes that the Commission has found warrant a waiver of the Integration Ban.

¹⁶ See *In the Matter of Consolidated Requests for Waiver of Section 76.1204(a)(1) of the Commission's Rules*, Memorandum Opinion and Order, DA 08-437, CS 97-80 (rel. March 19, 2008) (“2008 Consolidated Order”).

¹⁷ See <http://www.bestbuy.com/site/site/olspage.jsp?id=abcat0104000&type=category> (visited April 30, 2008) (least expensive off-air digital-to-analog converter box \$59.99); <http://www.circuitcity.com/ccd/Search.do?c=1&searchType=user&keyword=digital+to+analog+converter&searchSection=All> (visited April 30, 2008) (least expensive off-air digital-to-analog converter box \$59.99); http://www.walmart.com/catalog/product.do?product_id=8283870 (visited April 30, 2008) (least expensive off-air digital-to-analog converter box \$52.97).

¹⁸ *In the Matter of Comcast Corporation, Request for Waiver of Section 76.1204(a)(1) of the Commission's Rules*, Memorandum Opinion and Order, 22 FCC Rcd. 228 (2007) (“*Comcast Order*”).

¹⁹ *Id.* at ¶ 26.

²⁰ *Id.* at note 97.

C. The requested waiver is in the public interest

The Commission has ample authority to grant Evolution Broadband's request because the waiver will produce clear, non-speculative, public interest benefits. Widespread availability of DMS-1002 and DMS-1002-CA converter boxes will have a direct and immediate impact on cable operators' ability to reclaim bandwidth for advanced services, including broadband Internet access. This is especially the case for small and medium-sized cable systems that face much higher upgrade costs due to lack of economies of scale. Further, the waiver will facilitate competition and consumer choice in the navigation device market.

Advanced services. The Telecommunications Act of 1996 requires the Commission to encourage the deployment of advanced telecommunications capabilities.²¹ Accordingly, in its *BendBroadband Order*, the Commission granted BendBroadband a conditional waiver²² of Section 76.1204(a)(1) for the Motorola DCT-700 because the waiver would allow BendBroadband reclaim bandwidth and "to focus

²¹ See Pub.L. 104-104, Title VII, § 706, Feb. 8, 1996, 110 Stat. 153, as amended Pub.L. 107-110, § 1076(gg), Jan. 8, 2002, 115 Stat. 2093, reproduced in notes to 47 U.S.C. § 157(a):

The Commission...shall encourage the deployment on a reasonable and timely basis of advanced telecommunications capability to all Americans...

The term 'advanced telecommunications capability' is defined, without regard to any transmission media or technology, as high-speed, switched, broadband telecommunications capability that enables users to originate and receive high-quality voice, data, graphics, and video telecommunications using any technology.

²² The Commission's waiver for BendBroadband was conditioned on the company meeting certain deployment and customer notification milestones that are not applicable here.

its capital on other new digital services such as wireless, business services and other advanced services..."²³

The rationale behind the *BendBroadband Order* (among others²⁴) applies with even more force to the waiver request at issue. By granting a waiver for Evolution Broadband's DMS-1000 and DMS-1002 converter boxes – which cost about 40% less than the ultra-low-cost Motorola DCT-700 – the Commission can put the same public interest benefits within reach of even the most price-sensitive consumers.²⁵

The Telecommunications Act of 1996 and Commission precedent firmly establish the public interest benefits generated by waiving the Integration Ban for low-cost, limited capability converter boxes.

Competition and consumer choice in navigation device market. Granting the requested waiver will benefit the public interest by fostering competition and consumer choice in the market for navigation devices. This is because the waiver will

²³ *BendBroadband Order* at ¶¶ 24-25. See also *One Source Order* at ¶ 16.

²⁴ See, e.g., *2008 Consolidated Order* at ¶ 1; *In the Matter of Consolidated Requests for Waiver of Section 76.1204(a)(1) of the Commission's Rules*, Memorandum Opinion and Order, 22 FCC Rcd. 11,780 (2007) at ¶ 59.

²⁵ Grant of the waiver will not jeopardize the development of the competitive marketplace for non-integrated set-top boxes. More than 2,255,000 non-integrated converter boxes have been deployed by cable operators since the integration ban went into effect on July 1, 2007. *Letter from Neal Goldberg, National Cable & Telecommunications Association, to Marlene Dortch, Secretary, FCC, CS Docket No. 97-80* (December 26, 2007). That market is obviously well-established. Further, all digital cable systems are required to support the CableCARD-compatible equipment available at retail. See 47 C.F.R. § 76.640. Moreover, consumer equipment manufacturers have focused their CableCARD-related efforts on higher-end televisions, which are aimed at a very different market niche than a \$45, unidirectional, limited capability digital-to-analog converter box. See *Cable Without a Cable Box and TV Shows Without a TV*, http://www.nytimes.com/2007/07/26/technology/circuits/26basics.html?_r=1&fta=y&oref=slogin (viewed April 30, 2008) ("You won't find inexpensive smaller sets with the feature, but there are a few widescreen, flat-panel sets with CableCARD slots.").

allow new entrant Evolution Broadband to gain traction in a market that, to date, has been dominated by the duopoly of Motorola and Scientific Atlanta.

V. Conclusion

The DMS-1002 and DMS-1002-CA converter boxes are one-way converter boxes. In this way, they are fundamentally different from any other set-top boxes that the Commission has considered for waivers under 47 U.S.C. § 549(c) and 47 C.F.R. § 76.1207, and are truly limited-capability. Moreover, they are indisputably low-cost. At \$45-\$55, there is no lower-cost converter box commercially available.

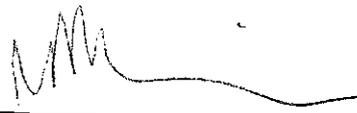
In short, the Commission finally has before it a truly low-cost, limited capability converter box that can be used to drive the digital transition among price-sensitive cable subscribers. The Commission should seize this opportunity to fulfill its mandate to “encourage the deployment on a reasonable and timely basis of advanced telecommunications capability to all Americans”²⁶ by granting the requested 3-year waiver for the DMS-1002 and DMS-1002-CA converter boxes.

The undersigned has read this Petition and to the best of her knowledge, information and belief formed after reasonable inquiry, it is well grounded in fact and is warranted by existing law or a good faith argument for the extension, modification or reversal of existing law; and is not interposed for any improper purpose.

²⁶ See § 706(b) of the Telecommunications Act of 1996, Pub. L. 104-104, 110 Stat. 56 (1996), reproduced in the notes under 47 U.S.C. § 157.

Respectfully submitted,

By:



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May 12, 2008

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**EXHIBIT 1
EVOLUTION BROADBAND
DMS-1002 AND DMS-1002-CA
SPECIFICATIONS**

Digital to Analog Converter with Integrated Security

DMS-1002 Series

Evolution's digital to analog converter set top box offers the ability to convert digital basic channels to analog. Evolution's DMS-1002 series DTA converters are available MPEG-2 with optional conditional access. The DMS-1002 series is designed as a cost effective solution to help manage the costs of digital migration. Evolution's DTA is extremely compact and encompasses an IR Extender to allow the unit to be installed behind the TV Set.

Features & Benefits

- MPEG-2
- Remote Control
- IR Extender
- Compact Design
- RF and AV outputs
- Removable Power Cord
- W 4.9" x H 1.1" x D 4.9"



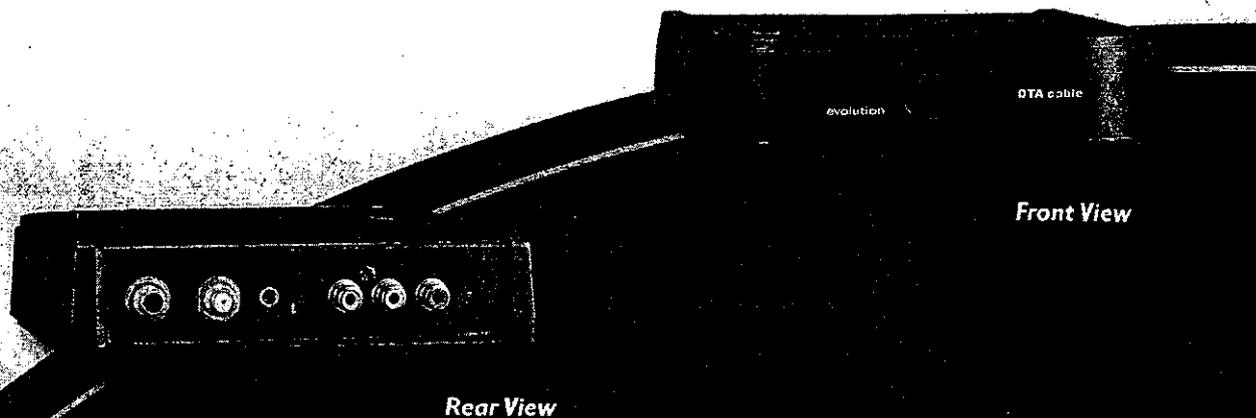
DMS-1002

DMS-1002

MPEG-2 Digital to Analog Device

DMS-1002-CA

MPEG-2 Digital to Analog Device with embedded removable Conax Conditional Access Capability



evolution

Ideas to Solutions for a Digital World

Digital to Analog Converter

Specifications

Tuner & Channel (Based on Annex B)

	Unit	DMS-1002
RF Input Connector	-	F-type female
RF Loop through Connector	-	F-type female
Input Signal Frequency	MHz	55 to 862
Input Signal Level	dBmV	-15 to +15
Input Impedance	ohms	75
IF Center Frequency	MHz	44
IF Bandwidth	MHz	6
QAM Constellation	QAM	16, 32, 64, 128, 256
Roll-off Factor	-	0.13, 0.15
Symbol Rate	Msp/s	7 (max)

Digital Video

Algorithm	-	MPEG-2 compatible, Main Profile @ Main Level
Video Bit Rate	Mbps	1.5 - 15 Mbps
Type	-	NTSC
Frame Rate	-	30 Hz for NTSC
Active Pixel	-	720*480 for NTSC
Active Ratio	-	4:3 or 16:9

Digital Audio

Algorithm	-	MPEG-1/2 Layers 1 and 2
Mode	-	Mono, Dual, Joint Stereo, AC-3 Dolby audio (stereo)
Frequency Response	-	20 - 20 kHz, <+/-3 dB, 60 Hz - 18 kHz, <+/-0.5 dB for digital
Sampling Frequency	-	32 kHz, 44.1 kHz, 48 kHz

A/V Output

RF Modulated Out. Baseband Audio/Video	-	CH 3/4, RCA
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CA (Conditional Access)

Conax CAS7 (Optional)	-	Embedded Removable SIM card (ISO 7816)
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Function

Mute Function	-	Yes
Display Program	-	Yes
Closed Captioning	-	Yes
Emergency Alert	-	Yes
V-Chip	-	Yes
Select Screen Size	-	4:3 / 16:9
On Screen Graphic	-	Yes
Channel Memory	Ch	4000
EPG	-	No. Basic Channel Navigation Only

General Specifications

Input Voltage	-	90 - 240 VAC, 50 Hz ± 5%
Power Consumption	watts	Less than 8
Operating Temperature	°C	0 - 40
Storage Temperature	°C	-10 - 50
Weight	-	0.7 kg including package
Dimensions	inches	W 4.9" x H 1.1" x D 4.9"

