

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

FILED/ACCEPTED  
FEB 22 2007  
Federal Communications Commission  
Office of the Secretary

In the Matter of: )  
)  
JetBroadband VA, LLC ) CSR-\_\_\_\_\_  
JetBroadband WV, LLC )  
)  
Emergency Petition for Deferral of )  
Enforcement of July 1, 2007 Deadline in )  
47 C.F.R. § 76.1204(a)(1) )  
)  
To: Chief, Media Bureau )

**EMERGENCY PETITION FOR DEFERRAL OF ENFORCEMENT OF  
JULY 1, 2007 DEADLINE IN 47 C.F.R. § 76.1204(a)(1)**

**I. Introduction and Summary**

Pursuant to 47 C.F.R. §§ 1.3 and 76.7,<sup>1</sup> JetBroadband VA, LLC and JetBroadband WV, LLC (collectively "JetBroadband") respectfully request that the Commission expedite issuance of an order deferring enforcement of the July 1, 2007 deadline in 47 C.F.R. § 76.1204(a)(1) to allow JetBroadband the opportunity to receive and deploy the separable-security, low-cost navigation devices that it has ordered from Beyond Broadband Technology, LLC ("BBT").<sup>2</sup> Time is of the essence in this matter:

<sup>1</sup> Section 1.3 of the Commission's rules provides: "The provisions of this chapter may be suspended, revoked, amended, or waived for good cause shown... Any provision of the rules may be waived by the Commission on its own motion or on petition if good cause therefor is shown."

Section 76.7(a)(1) of the Commission's rules provides: "On petition by any... cable television system operator the Commission may waive any provision of this part 76, [or] impose additional or different requirements...."

<sup>2</sup> JetBroadband attaches its purchase order for the BBT navigation devices as Exhibit 1 to this Petition. It also attaches as Exhibit 2 the sworn affidavit of its President, David Baum ("Baum Affidavit") attesting that JetBroadband has ordered 3,000 BBT non-integrated navigation devices and Drake headend equipment to support the BBT navigation devices. Baum Affidavit at ¶ 10.

If the Commission does not expedite consideration of this Petition, JetBroadband may have to cancel its order for the BBT Devices so that it has time to order DCH-100s prior to the July 1, 2007 deadline. This will slow the digital transition in JetBroadband's markets, hamper JetBroadband's ability to provide its subscribers with low-cost digital services, and harm a competitive entrant into the market for navigation devices.

Conversely, good cause exists for the requested deferral: The Commission has specifically provided for deferral of enforcement of the integration ban for small cable operators that have ordered set-top boxes with separable security. Further, granting JetBroadband's requested deferral will further the Commission's statutory mandate to develop the market for competitive navigation devices, and will benefit consumers by allowing JetBroadband to provide lower-cost digital services to its rural service areas.

We organize this Petition as follows:

- Relief requested
- Background information on JetBroadband and its planned use of the BBT low-cost, downloadable-security navigation devices ("BBT Devices")
- Justification for the requested deferral
- Justification for emergency relief
- Conclusion

## **II. Relief Requested**

JetBroadband requests that the Commission grant on an expedited basis a short deferral of enforcement of the July 1, 2007 deadline in 47 C.F.R. § 76.1204(a)(1) for all of JetBroadband's systems, including a number of systems that JetBroadband will be acquiring in March and July of this year. During the deferral, JetBroadband would continue to deploy low-cost, refurbished Motorola DCT-1000 and DCT-2000 series set-

top boxes to its subscribers.<sup>3</sup> The deferral would last only until JetBroadband had received and successfully tested the BBT Devices that it has ordered.<sup>4</sup>

### **III. JetBroadband, its systems, and its planned use of the BBT Devices**

JetBroadband is an independent cable operator currently providing video and high-speed Internet services to approximately 11,000 subscribers in Virginia and 6,000 subscribers in West Virginia.<sup>5</sup> In addition, the company expects to close an acquisition of a Virginia system and five West Virginia systems from Rapid Communications in March 2007. These systems serve about 2,000 subscribers in Virginia and about 5,000 subscribers in West Virginia.<sup>6</sup> In July of this year, JetBroadband expects to close an acquisition of thirteen Suddenlink systems that serve 31,000 subscribers in Virginia.<sup>7</sup> By the end of the year, JetBroadband will consolidate all of its West Virginia systems

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<sup>3</sup> We attach the specifications for the DCT-1000 and DCT-2000 series boxes as Exhibit 3.

<sup>4</sup> JetBroadband commits to promptly testing the BBT Devices upon receipt, and to deploying them instead of the DCT-1000 and DCT-2000 series boxes once the BBT Devices have been successfully tested. *Baum Affidavit* at ¶ 11.

<sup>5</sup> JetBroadband currently serves the following communities in Virginia: Blackstone (VA0289), Appomattox (VA0312 and VA0313), Crewe (VA0358), Campbell (VA0366), Bedford (VA0374), Burkeville (VA0509) and Pamplin (VA0581), and the following communities in West Virginia: Mullens (WV0121), Pineville (WV0392), Wyoming (WV0409), Covel (WV0410), Kopperston (WV0414), Craigsville (WV0495), Cottle (WV0496), Oceana (WV0654), Herndon (WV0757), Garwood (WV0758), Mercer (WV1146), Oakvale (WV1147) and Raleigh (WV1215).

<sup>6</sup> These systems serve Wytheville (VA0051) in Virginia and, in West Virginia, McDowell County (WV1151, WV1262, WV1263 and WV1081), Anawalt (WV0304), Bradshaw (WV0314), Davy (WV1178 and WV1268), Gary (WV0193 and WV1259), Jaeger (WV0313), Keystone (WV0139), Kimball (WV0101 and WV1269), Northfork (WV0306), War (WV0242 and WV1257), Welch (WV0196), Panther (WV0607 and WV1179), Mohawk (WV606) and Wyoming County (WV1267). Three of the five West Virginia systems currently provide digital services.

<sup>7</sup> These systems serve and Lawrenceville (VA0257 and VA0258), Bowling Green (VA0105), Keysville (VA0453), Clarksville (VA0293), Colonial Beach (VA0256), Farmville (VA0201), Tappahannock (VA0112), Kenbridge (VA0239), Warsaw (VA0368), Bedford (VA0345), Redwood (no CUID), Radford (VA0162), Dante (VA0062), Rocky Mount (VA0055), St. Paul (VA0064), Honaker (VA0063), and Boones Mill (VA0549). Five of the thirteen systems have digital services.

(including the acquisitions) into one system providing digital services to all of JetBroadband's West Virginia subscribers.

Currently, more than half of JetBroadband's subscribers have access to digital services. Of these subscribers, only around 22% take digital services. This is much lower than the 41%-58% digital penetration rate enjoyed by larger cable operators.<sup>8</sup> JetBroadband attributes its low digital penetration rate to the cost-sensitivity in its rural service areas, virtually all of which are low-income communities.<sup>9</sup> To provide the most economical digital services possible, JetBroadband currently deploys refurbished Motorola DCT-1000 and DCT-2000 series boxes. These boxes cost JetBroadband only between \$60 - \$95 each. Because of the demographics of its subscriber base, JetBroadband will need to continue to offer its subscribers the lowest-cost digital services possible if it is to increase its digital penetration rate. Accordingly, after the July 1, 2007 integration ban takes effect, JetBroadband plans to deploy BBT Devices, which have separable, downloadable security.<sup>10</sup> The BBT Devices will cost JetBroadband only about \$100 each, just a few dollars more than the refurbished DCT-2000 series boxes, and half the cost of the lowest-cost non-integrated box currently

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<sup>8</sup> As of June 2005, the five top cable operators' digital subscriber counts equaled 41% to 58% of their total basic cable subscribers. *In the Matter of Annual Assessment of the Status of Competition in the Market for the Delivery of Video Programming, Twelfth Annual Report*, 21 FCC Rcd. 2503 (2006) at ¶ 52.

<sup>9</sup> For example, according to U.S. Census data, the median household income in Oceana, West Virginia (population 1,550) is \$19,273 -only 46% of the national median of \$41,994. The median household income in Oakvale, West Virginia (population 142) is \$22,500 - only 54% of the national median. The median income in Appomatox, Virginia is \$24,267 – only 58% of the national median.

<sup>10</sup> We attach the specifications for the BBT Devices as Exhibit 4.

available, the Motorola DCH-100.<sup>11</sup> JetBroadband expects to convert the majority of its subscribers to digital services by the February 17, 2009 DTV transition date with the low-cost, non-integrated BBT Devices, and has already placed an order for 3,000 of these boxes. Unfortunately, BBT has informed JetBroadband that it will be unable to have the boxes certified and delivered to JetBroadband until sometime in the fourth quarter of 2007.<sup>12</sup> For this reason, JetBroadband requests a deferral of the enforcement deadline in 47 C.F.R. § 76.1204(a)(1) so that it can continue to deploy the low-cost, refurbished DCT-1000 and DCT-2000 series set-top boxes until it has received and successfully tested the BBT Devices. The deferral would apply to JetBroadband's currently owned systems, and to the systems that it expects to acquire in March and July of this year.

#### **IV. Justification for Requested Deferral**

The Commission has ample authority to grant JetBroadband's requested deferral for good cause shown because (i) the Commission has expressly provided for deferrals of enforcement of the July 1, 2007 integration ban for small operators with a pending order for non-integrated set-top boxes; (ii) the deferral will further the Commission's statutory mandate to develop the market for competitive navigation devices; and (iii) the deferral will increase digital penetration in JetBroadband's rural service areas. In short, the requested deferral will have a direct and immediate impact on JetBroadband's ability

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<sup>11</sup> The DCH-100 boxes are expected to cost \$190 each. See September 11, 2006 and October 30, 2006 *ex parte* letters filed by Armstrong Utilities, Inc. in support of *Comcast Corporation's Request for Waiver of 47 C.F.R. § 1204(a)(1)*; CS Docket No. 97-80; CSR-7012-Z.

<sup>12</sup> Baum Affidavit at ¶ 10.

to move the majority of its subscribers to digital services by the February 17, 2009 DTV transition, and will produce clear, non-speculative public interest benefits.

**A. The Commission has expressly provided for deferrals of enforcement of the July 1, 2007 integration ban.** In its *BendBroadband Order*,<sup>13</sup> the Commission recognized the difficulty that small operators might have in obtaining non-integrated set-top boxes in time to deploy them by the July 1, 2007 deadline in 47

C.F.R. § 76.1204(a)(1):

[W]e understand the difficulties that small cable operators may face in complying with the July 1, 2007 deadline...therefore...if BendBroadband chooses not to accept this conditional waiver, it can request that we defer enforcement of the July 1, 2007 deadline so long as it can demonstrate that it has placed orders for set-top boxes that comply with the integration ban but that its orders will not be fulfilled in time for it to comply with the deadline.<sup>14</sup>

JetBroadband meets all the requirements set forth in the *BendBroadband Order* for a deferral of enforcement of the July 1, 2007 deadline.

First, JetBroadband meets the definition of a “small cable operator” under the Cable Act and the Commission’s regulations.<sup>15</sup> JetBroadband is an independent cable operator that currently serves only about 17,000 subscribers. Even after JetBroadband’s March and June acquisitions, the company will only serve about 55,000

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<sup>13</sup> *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, CSR-7057-Z, CS 97-80, DA 07-47 (rel. January 10, 2007).*

<sup>14</sup> *BendBroadband Order* at ¶ 10.

<sup>15</sup> See 47 U.S.C. § 543(m)(2) and 47 C.F.R. § 76.901(f) (defining “small cable operator” as one that serves fewer than 1% of all subscribers in the U.S. and is not affiliated with any entity with gross annual revenues in excess of \$250,000,000); see also 47 C.F.R. § 76.901(e) (defining “small cable company” as a cable television operator that serves a total of 400,000 or fewer subscribers over one or more cable systems).

subscribers. Accordingly, JetBroadband qualifies as a small cable operator under the Cable Act and the Commission's regulations. Second, JetBroadband has demonstrated that it has placed orders for set-top boxes that comply with the integration ban,<sup>16</sup> but that its orders will not be fulfilled in time for it to comply with the deadline.<sup>17</sup> Accordingly, JetBroadband is entitled to a deferral of enforcement of the deadline in 47 C.F.R. § 76.1204(a)(1) under the conditions set forth in the *BendBroadband Order*.

Good cause exists for the deferral for at least two other reasons: The deferral will further the development of the market for competitive navigation devices and will increase digital penetration in JetBroadband's service areas.

**B. The deferral will further the development of the market for competitive navigation devices.** The Telecommunications Act of 1996 requires the Commission to:

[A]dopt regulations to assure the commercial availability...of converter boxes, interactive communications equipment, and other equipment used by consumers to access multichannel video programming and other services offered over multichannel video programming systems, from manufacturers...not affiliated with any multichannel video programming distributor...<sup>18</sup>

To carry out this directive, the Commission has prohibited MVPDs from offering new set-top boxes without separable security beginning July 1, 2007.<sup>19</sup> The

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<sup>16</sup> See *Commission Reiterates that Downloadable Security Technology Satisfies the Commission's Rules on Set-Top Boxes and Notes Beyond Broadband Technology's Development of Downloadable Security Solution, Public Notice*, CS 97-80, DA 07-51 (rel. January 10, 2007) ("we note that, 'consistent with the Commission's goal of "common reliance," BBT is offering its technology on an "open standard" basis...to all CE and set-top box manufacturers."").

<sup>17</sup> See Baum Affidavit at ¶ 10 and Exhibit 1.

<sup>18</sup> 47 U.S.C. § 549(a).

<sup>19</sup> See 47 C.F.R. § 76.1204(a)(1).

Commission recently confirmed that the BBT Devices satisfy its requirement for separable security.<sup>20</sup>

Granting JetBroadband's requested deferral will further the development of a competitive market for commercial navigation devices by providing an outlet for new-entrant BBT's non-integrated navigation devices. JetBroadband is the first cable operator to order the BBT Devices – the company has placed an order for 3,000 of the BBT Devices. If not granted the requested deferral, JetBroadband will be forced to cancel the order for the BBT Devices and obtain Motorola DCH-100s instead. Obviously, ordering 3,000 navigation devices from a competitive entrant will do more to encourage the development of a competitive market in navigation devices than ordering DCH-100s from Motorola, which already sells more set-top boxes than any other manufacturer.

**C. Granting the deferral will increase JetBroadband's digital penetration.** Congress and the Commission have consistently promoted the deployment of digital services,<sup>21</sup> and the Commission has recognized the important role that low-cost set-top boxes will play in furthering this deployment.<sup>22</sup> This is especially true in JetBroadband's cost-sensitive, rural franchise areas. Even with the low-cost,

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<sup>20</sup> See note 16, *supra*.

<sup>21</sup> See, e.g., *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 (2005) ("*Second Report and Order*") at ¶ 37 (allowing for waivers of the July 1, 2007 integration ban for low-cost, integrated boxes where the boxes will further the cable industry's migration to digital networks); 47 U.S.C. § 309(j)(14)(A) (setting the February 17, 2009 date for the DTV transition).

<sup>22</sup> See, e.g., *Second Report and Order* at ¶ 37 ("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.").

refurbished DCT-1000 and DCT-2000 series set-top boxes that JetBroadband is currently deploying, the company's digital penetration rate is only about 22%. The lowest-cost non-integrated set-top box currently available is the DCH-100, which costs two to three times as much as the refurbished boxes that JetBroadband currently deploys. If JetBroadband is not granted the requested deferral, it will be forced to deploy DCH-100s after the July 1, 2007 deadline. JetBroadband's digital penetration in its low-income, rural service areas is already low. The increased cost of the DCH-100s will significantly slow or halt consumer acceptance of digital services.

If granted the requested deferral, however, JetBroadband can continue to increase its digital penetration by deploying refurbished DCT-1000 and DCT-2000 series boxes until JetBroadband receives its BBT Devices. Because the BBT Devices will cost JetBroadband virtually the same amount as the refurbished DCT-2000s, JetBroadband's digital transition will continue with the BBT Devices. Accordingly, there is good cause for the requested deferral.

#### **V. Justification for Emergency Relief**

JetBroadband requests that the Commission issue the requested deferral on an expedited basis. Emergency relief is justified in this matter for the following reasons:

- **The requested relief is expressly provided for.** As shown above, the *BendBroadband Order* expressly provides for deferral of the enforcement deadline in 47 C.F.R. § 76.1204(a)(1) under the facts set forth in this Petition.
- **JetBroadband, its customers, and the developing market for competitive navigation devices will suffer irreparable harm if emergency relief is not granted.** Without the requested deferral, JetBroadband will need to cancel its order for the BBT Devices and deploy DCH-100s instead. This will slow the digital transition in JetBroadband's markets, hamper JetBroadband's ability to provide its subscribers with

low-cost digital services, and harm a competitive entrant into the market for navigation devices.

- **No other parties will be harmed if the Commission grants the requested relief.** No parties will be harmed if the Commission grants the requested deferral. Motorola sells millions of set-top boxes per year. The deployment of a couple thousand fewer DCH-100s will not have a discernible impact on this manufacturer.
- **The public interest favors granting the requested relief.** Congress and the Commission have worked hard to facilitate the digital transition on a national scale. For JetBroadband, the low-cost BBT Device is the key to increasing its digital penetration after the July 1, 2007 deadline and providing affordable separable security to its low-income subscriber base.

Time is running out for JetBroadband. If the Commission does not expedite consideration of this Petition, JetBroadband will have to cancel its order for the BBT Devices so that it has time to order DCH-100s prior to the July 1, 2007 deadline. This will slow the digital transition in JetBroadband's markets, hamper JetBroadband's ability to provide its subscribers with low-cost digital services, and harm a competitive entrant into the market for navigation devices. Conversely, by granting emergency relief in this matter, the Commission can ensure that the digital transition will continue to move forward in JetBroadband's franchise areas.

## **VI. Conclusion**

Good cause exists for the requested deferral. As described above, the deferral will further the development of the market for competitive navigation devices and speed the digital transition in JetBroadband's low-income, rural markets. Conversely, denial of the deferral will provide no discernible public interest benefits. For the reasons set forth above, JetBroadband respectfully requests that the Commission grant the requested relief on an expedited basis.

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.

Respectfully submitted,

By:



Nicole E. Paolini-Subramanya

Cinnamon Mueller  
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Chicago, Illinois 60601  
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Attorneys for JetBroadband VA, LLC  
and JetBroadband WVA, LLC

February 14, 2007

**EXHIBIT 1**  
**PURCHASE ORDER**

**EXHIBIT 2**  
**AFFIDAVIT OF DAVID BAUM**

**EXHIBIT 3**

**SPECIFICATIONS FOR DCT-1000 AND DCT-2000 SERIES SET-TOP BOXES**

**EXHIBIT 4**

**SPECIFICATIONS FOR BEYOND BROADBAND TECHNOLOGY'S  
NAVIGATION DEVICE**

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

In the Matter of: )  
 )  
JetBroadband VA, LLC ) CSR-\_\_\_\_\_  
JetBroadband WV, LLC )  
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Emergency Petition for Deferral of )  
Enforcement of July 1, 2007 Deadline in )  
47 C.F.R. § 76.1204(a)(1) )  
 )  
To: Chief, Media Bureau )

**AFFIDAVIT OF DAVID BAUM**

I, David Baum, make this affidavit based upon personal knowledge and a review of records, and can testify if necessary as to the truth of the matters asserted:

1. I am President of JetBroadband VA, LLC and JetBroadband WV, LLC (collectively, "JetBroadband").
2. JetBroadband is an independent cable operator currently providing video and high-speed Internet services to approximately 11,000 subscribers in Virginia and 6,000 subscribers in West Virginia.
3. JetBroadband expects to close an acquisition of a Virginia system and five West Virginia systems from Rapid Communications in March 2007. These systems serve about 2,000 subscribers in Virginia and about 5,000 subscribers in West Virginia. The communities served will include Wytheville (VA0051) in Virginia and, in West Virginia, McDowell County (WV1151, WV1262, WV1263 and WV1081), Anawalt (WV0304), Bradshaw (WV0314), Davy (WV1178 and WV1268), Gary (WV0193 and

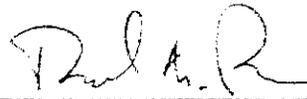
WV1259), Iaeger (WV0313), Keystone (WV0139), Kimball (WV0101 and WV1269), Northfork (WV0306), War (WV0242 and WV1257), Welch (WV0196), Panther (WV0607 and WV1179), Mohawk (WV0606) and Wyoming County (WV1267).

4. In July of this year, JetBroadband expects to close an acquisition of thirteen Suddenlink systems that serve 31,000 subscribers in Virginia. The communities served will include Lawrenceville (VA0257 and VA0258), Bowling Green (VA0105), Keysville (VA0453), Clarksville (VA0293), Colonial Beach (VA0256), Farmville (VA0201), Tappahannock (VA0112), Kenbridge (VA0239), Warsaw (VA0368), Bedford (VA0345), Redwood (no CUID), Radford (VA0162), Dante (VA0062), Rocky Mount (VA0055), St. Paul (VA0064), Honaker (VA0063), and Boones Mill (VA0549).
5. By the end of the year, JetBroadband will consolidate all of its West Virginia systems (including the acquisitions) into one system providing digital services to all of JetBroadband's West Virginia subscribers.
6. Currently, more than half of JetBroadband's subscribers have access to digital services. Of these subscribers, only around 22% take digital services. JetBroadband attributes its low digital penetration rate to the cost-sensitivity in its rural service areas, virtually all of which are low-income communities.
7. To provide the most economical digital services possible, JetBroadband currently deploys refurbished Motorola DCT-1000 and DCT-2000 series boxes. These refurbished boxes cost JetBroadband only \$60 - \$95 each.

Because of the demographics of its subscriber base, JetBroadband will need to continue to offer its subscribers the lowest-cost digital services possible if it is to increase its digital penetration rate. Accordingly, after the July 1, 2007 integration ban takes effect, JetBroadband plans to deploy BBT navigation devices, which have separable, downloadable security.

8. The BBT navigation devices will cost JetBroadband only about \$100 each, just a few dollars more than the refurbished DCT-2000 series boxes, and half the cost of the lowest-cost non-integrated box currently available, the Motorola DCH-100.
9. JetBroadband expects to convert the majority of its subscribers to digital services by the February 17, 2009 DTV transition date with the low-cost, non-integrated BBT navigation devices.
10. JetBroadband has already placed an order for 3,000 of the BBT navigation devices, and the Drake headend equipment to support the BBT navigation devices. Unfortunately, BBT has informed JetBroadband that it will be unable to have the devices certified and delivered to JetBroadband until sometime in the fourth quarter of 2007.
11. For this reason, JetBroadband requests a deferral of enforcement of the Commission's set-top box integration ban so that it can continue to deploy the low-cost, refurbished DCT-1000 and DCT-2000 series set-top boxes until it has received and successfully tested the BBT navigation devices.

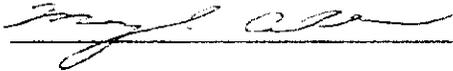
12. JetBroadband commits to promptly testing the BBT navigation devices upon receipt, and to deploying the BBT navigation devices instead of the Motorola DCT-1000 and DCT-2000 series boxes once the BBT navigation devices have been successfully tested.
13. JetBroadband requires the deferral of enforcement for JetBroadband's currently owned systems, and for the systems that it expects to acquire in March and July of 2007.



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David Baum, President  
JetBroadband VA, LLC  
JetBroadband WV, LLC

Subscribed and sworn to before me this 2<sup>nd</sup> day of February, 2007.



Notary Public

MERYL ALLEN  
NOTARY PUBLIC  
MY COMMISSION EXPIRES NOVEMBER 30, 2011

**EXHIBIT 3**

**SPECIFICATIONS FOR DCT-1000 AND DCT-2000 SERIES SET-TOP BOXES**

## DCT2500



**MOTOROLA**  
intelligence everywhere™

The Motorola DCT2500 is the evolution of the highly popular DCT2000 - the world's most widely deployed digital cable set-top - offering excellent performance and proven reliability at an attractive price point. It provides state-of-the-art digital compression technology, allowing operators a broad range of revenue-generating services.

The DCT2500 can be configured to support real-time, reverse path communications and uses DigiCipher® II, Motorola's Emmy award-winning access control and encryption technology. It can support a wide spectrum of interactive application services including VOD, Internet, Electronic Program Guide (EPG), Impulse Pay-Per-View, e-mail, home shopping and more.

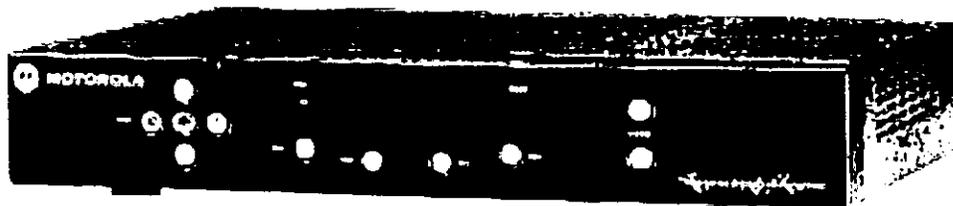
Platform versatility means the Motorola DCT2500 can grow as your home broadband access needs grow. Its 64 and 256 QAM digital processing technology significantly boosts channel capability while delivering unsurpassed digital audio and video quality to TV viewing, giving broadband operators the flexibility and scalability they need.

In summary, the advanced user features and capabilities of the DCT2500 support a host of new services and provide an unparalleled level of reliability, usability and affordability.

*The DCT2500 is a full featured digital set-top providing a wide array of capabilities, ease of use and affordability.*

### HIGHLIGHTS INCLUDE:

- Open architecture supports downloaded third-party software applications
- Scaled video
- High-resolution on-screen graphics
- Enhanced memory
- Advanced security via Motorola DC-II Conditional Access and Harmony DES-based encryption
- MPEG-2 Digital Video Processor
- ATSC standard Dolby® Digital (AC-3) audio processor



## FEATURES

### Features

- 175 MHz MIPS 32 CPU with 8K instruction and 8K data caches
- High speed, unified memory design with support for up to 64 Mbytes of DDR SDRAM
- 64 PID filters individually assignable to in-band or out-of band streams
- Video decoder with enhanced VBI data processing capability
- Analog/Digital video scaling (picture in graphics)
- High resolution graphics with support for multiple planes as well as current DCT2000 modes
- MPEG-2 Digital Video Processor
- ATSC standard Dolby Digital (AC-3) audio processor
- ITU standard 64/256 QAM/FEC/enhanced adaptive equalizer
- On-board real-time RF return (256 Kbps)
- Clear Analog Channel Processor with BTSC Decoder
- 54-860 MHz tuner
- DES-based encryption/DCII access control
- Digital diagnostics
- Frequency agile 2.048 Mbps out-of-band data receiver
- Macrovision copy protection
- Wide screen (16 x 9) video support
- Full feature access from front panel
- Switched accessory outlet

### Optional Features

- Motorola and compatible analog descrambling
- IR blaster tether
- RF bypass or A/B switch
- Telephone modem (14.4 bps)
- S-Video output
- USB Host 1.1 Port
- Universal remote (DRC450)
- Keyboard

### Standard Interfaces

- Dolby® 5.1 Digital Audio Output
- RF and Baseband Output (Video, L/R Audio) Ports
- IR Blaster Port
- TVPASS™ renewable security connector
- High/Low speed data output (27 and 2 Mbps)
- RS 232 Serial Port
- 4 digit, 7 segment LED display with IR receiver for remote and/or keyboard

### General Specifications

Dimensions	17.13 W x 13.25 H x 2.75 D
Weight	8.6 lbs.

Specifications are subject to change without notice.



MGBI

Motorola, Inc.  
Broadband Communications Sector  
101 Tournament Drive  
Horsham, PA 19044  
1.800.523.6678  
[www.motorola.com/broadband](http://www.motorola.com/broadband)

507287-001  
5579-0802-0K

MOTOROLA and the Stylized M Logo are registered in the U.S. Patent and Trademark Office. DigCipher is a registered trademark of Motorola, Inc. All other product or service names are the property of their respective owners. Dolby is a trademark of Dolby Laboratories Licensing Corporation. ©Motorola, Inc. 2003.

## Motorola's most popular interactive digital set-top terminal boasts a wide array of capabilities, ease of use and affordability.

Motorola, the world's leading supplier of addressable systems, now offers the next generation of addressable set-top converters.

The DCT1000/1200 uses state-of-the art digital technology to provide a wealth of new generating services to the cable industry. In addition to providing digital quality audio and video, the DCT1000/1200 can be configured to support real-time reverse communications providing the user with a gateway to interactive services such as VOD, Internet

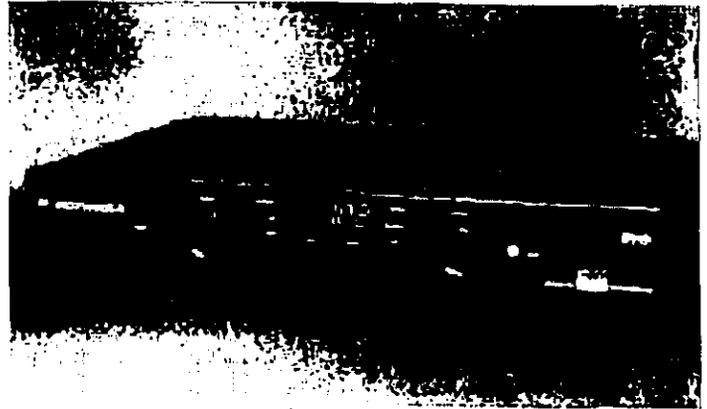
access, electronic commerce, and

more. The advanced

features of the DCT provide a

host of new services with an unparalleled level of

flexibility and control. In addition, the DCT line employs the latest in Motorola's world leading access control and encryption technology to ensure the maximum level of system security.



- State-of-the-art Audio and Video Compatibility
  - MPEG-2 video decoder
  - Capable of displaying wide screen aspect ratio for "movie like" video display
  - Dolby® digital audio
- Two-way Communications
  - May be configured with either a STARVUE® II RF return, or a STARFONE® telephone return modem
  - Provides options to choose the communications methods that best supports current and future system designs
- Backward Compatible
  - Clear analog processing standard in all DCTs
  - Analog descrambling module (optional) allows full backward compatibility
- Upgradeable
  - DCT architecture supports software downloads for continuing improvements in DCT functionality
  - Application Interface Port (AIP) protects network investment by providing a mechanism to upgrade the DCT to incorporate future capabilities and services
  - TV Pass™ renewable security system



**MOTOROLA**

*intelligence everywhere™*

# MOTOROLA DCT1000/1200 FEATURES & INTERFACES

## FEATURES

### ➤ Application Features

- 768 kB DRAM for application data
- 512 kB total NVRAM for application code downloads
- 4 bit graphics capability (352 x 480)
- Macrovision anti-copy protection
- GI operating system and open API set

### ➤ Network Features

- 54-860 MHz tuner
- 64 QAM modulation in DCT1000
  - 28 Mbps/6 MHz channel
- 64 & 256 QAM modulation supported in DCT1200
  - 256 QAM expands channel capacity to 38.8 Mbps/6 MHz channel
- Messaging capabilities
- DES based encryption
- Clear analog processing
- 2.048 Mbps out-of-bound data receiver
- Configured for 2-way communication with either:
  - Starvue II® RF return path modem (ALOHA protocol, 256 kbps upstream)
  - OR-
  - Starfone II® telephone modem

### ➤ Optional Features

- Analog descrambling
- BTSC stereo decoding for analog programs
- High-power tethered IR blaster module
- RF bypass switch
- A/B switch
- Serial data connector

## INTERFACES

### ➤ Standard Interfaces

- RF, baseband output ports
- Low power IR blaster ports
- Internal application interface port
- High (27 Mbps) and low (2.048 Mbps) speed data output ports



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Specifications subject to change.

101 Tournament Drive, Horsham, PA 19044  
800.523.6678 [www.motorola.com/broadband](http://www.motorola.com/broadband)

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**EXHIBIT 4**

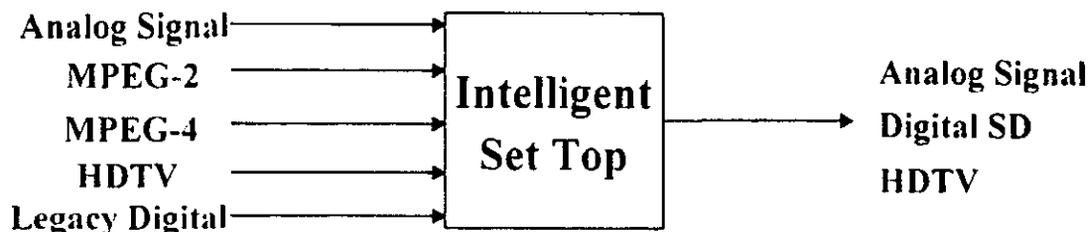
**SPECIFICATIONS FOR BEYOND BROADBAND TECHNOLOGY'S  
NAVIGATION DEVICE**

# BEYOND BROADBAND TECHNOLOGY, LLC

## THE "BBT SOLUTION"™

Beyond Broadband Technology, LLC, (BBT) has developed an end-to-end system, the "BBT Solution"™ that unitizes a downloadable security system for content access control. The complete system is comprised of an uplink facility, cost effective headend equipment and a low cost set-top device. The "BBT Solution"™ answers the difficult question of how a cable operator can provide an inexpensive, highly secure digital video delivery to the home viewer.

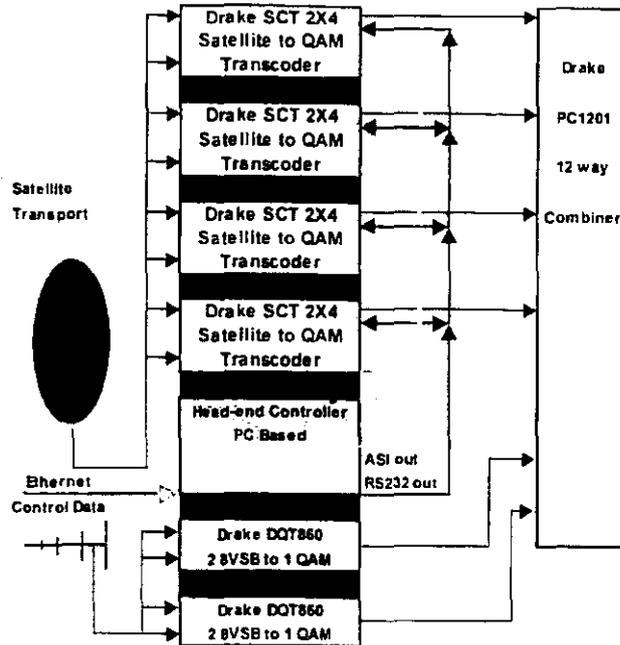
The uplink facility aggregates over 200 SD and HD video channels and encodes them into MPEG2 and MPEG4 signals. The headend equipment combines the satellite receive, MPEG multiplexer and QAM modulator into one cost-effective unit allowing the operator to easily groom the signals into efficient QAM channels. The low cost set-top device supports analog, digital and HDTV signals. Fundamentally this device accepts any form of video signals and converts the video signals into what is required for the customer's television.



A Headend controller handles access control and channel maps telling the set-top device where and what channels it can deliver to the customer's television.

The system was designed to allow for flexibility and diverse implementation to meet the needs of many cable operators. The discrete parts of the end-to-end system can be used together or separately according to the needs of the operator.

## Typical headend end design of the BBT Solution™



Prototype testing of the first low cost basic set top devices using the BBT Solution™ will begin by the end of the first quarter of 2007. Full deployment is expected to commence by the fourth quarter.

The BBT Solution™ provides a fully downloadable and highly secure conditional access system at a price-point for deployment that is considerably lower than any system currently on the market. It also provides cable operators with a fully customizable migration path from analog to digital distribution, allowing the operators to recover and manage broadband spectrum far more efficiently without the necessity of major new capital expenditures.

### Explanation of FCC Rules

The Federal Communications Commission (FCC) has desired, for many years to create an environment in which a consumer could purchase a set top device from a retail outlet to receive video signals. The consumer could then choose any cable operator to provide them video services and the set top device they chose

to use would be able to decrypt those signals. Since cable providers use different conditional access systems (CAS) to secure their video signals, this environment has been impossible to provide.

The FCC believes that current technology has risen to a level that it is now possible to build just such an environment. Because of this belief the FCC has mandated that by July 1, 2007 all set top devices must provide a method that will support removable security. Removable security allows a set top device to be used with any cable system, thus creating the environment the FCC desires. The CAS on the set top device can be removed and replaced with another CAS and used with a different cable provider.

The most commonly accepted method to support removable security is through the use of a removable smart card or what is being called a CableCard. This device contains the CAS used by a single cable provider and can be used in any device that is designed with a CableCard slot. Once a CableCard is placed in the appropriate slot, that set top device can decrypt the video signals provided by that cable operator. When the CableCard is removed the CAS for that provider is removed and meets the FCC's mandate to support removable security.

There have been many debates over the cost and viability of a CableCard. Most manufacturers and purchasers of set top devices that support CableCards feel that the cost of this method is exorbitant and the long-term viability is questionable. It has been suggested, and the FCC has accepted, that other methods could be used to meet the removable security mandate. One of these methods is through the use of downloadable security.

Downloadable security is a concept in which the set top device is built with an embedded Secure Microprocessor that is designed to accept the download of the chosen CAS for use with a specific cable operator. A Secure Microprocessor is an integrated circuit that is built into the set top device and has the ability to protect any content, that is loaded, from being read or accessed by any outside means. The integrated circuit is designed to meet the National Institute of Standards and Technology (NIST) Federal Information Processing Standard 140 (FIPS) levels 1,2,3 & 4. FIPS-140 is a series of U.S. government computer security standards that specify requirements for cryptography modules

Downloadable security reduces the cost of a CableCard enabled device by at least one order of magnitude and has an indefinite life span due to its ability to accept any CAS. This system does not require the replacement of the CableCard if the current CAS system needs to be replaced to improve the level of security or due to a security breach. This system can support many if not all CAS systems that are currently in use thus allowing any device supporting this method to be used in currently deployed cable systems.

Beyond Broadband Technology, LLC