September 25, 2006

Mr. Milton Brown
Office of the Chief Counsel
National Telecommunications and Information Administration
U.S. Department of Commerce
1401 Constitution Avenue, Room 4713
Washington, D.C. 20230

Re: Comments On Proposed Rules To Implement And Administer A Coupon Program For Digital-To-Analog Converter Boxes

Dear Mr. Brown:

Thomson has been a leader in digital television technology for more than two decades and a key industry participant in the development of the FCC's DTV transmission standard. Thomson's RCA brand has been a respected name in consumer electronics products for over eighty years. Today, Thomson provides services, systems and technology to help its media and entertainment clients — content creators, content distributors and users of its technology — realize their business goals and optimize their performance in a rapidly changing technology environment. Thomson is a preferred partner to the media and entertainment industries through its Technicolor, Grass Valley, RCA and THOMSON brands.

In October 2005, Thomson was very pleased to be one of two manufacturers (with LG) selected by MSTV and NAB to develop a prototype digital-to-analog converter box.[1] Today, development of this prototype project is completed and the reference design is instructive for other commercially marketed converter boxes that will be coming to the market to assist consumers in completing the digital TV transition.

Thomson welcomes this opportunity to comment on NTIA's proposed rules to implement and administer the coupon program for digital-to-analog converter boxes,[2] as required under the

[1] NAB-MSTV's joint press release is attached as Appendix A.

[2] *Request for Comment and Notice of Proposed Rulemaking To Implement and Administer a Coupon Program for Digital-to-Analog Converter Boxes,* Dept. of Commerce, National Telecommunications and Information Administration, 71 Fed. Reg. 42067 (July 25, 2006) ("NPRM").

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Digital Television Transition and Public Safety Act of 2005 ("the Act").[3] NTIA's NPRM reflects a strong understanding of and appreciation for the unique marketplace circumstances impacting the availability, functionality and cost of digital-to-analog converter boxes eligible under the coupon program. Thomson is committed to working with NTIA to achieve its and Congress's primary goal, through the converter box coupon program, of minimizing consumer disenfranchisement following the switch to all-digital television broadcast transmissions. Success in achieving this goal hinges largely on three major factors:

(1) Consumers purchasing a subsidized converter box must be able to enjoy a seamless transition to, and satisfactory viewing experience from, digital broadcasting, including through the availability of features important to ensuring reception of and reasonable access to all broadcast channels;

(2) The certification procedures for eligible converter boxes must ensure that the devices work properly without causing unacceptable delays in getting products into the marketplace; and

(3) The coupon program is implemented in a manner that is as simple and understandable as possible, and that effectively prevents waste, fraud, and abuse.

While these comments focus principally on NTIA's proposed technical requirements and certification procedures for a "minimum-capabilities" digital-to-analog converter box that will be eligible under the coupon program ("eligible converter box"), we also address possible safeguards to prevent waste, fraud and abuse of the system, and the definition of "eligible U.S. households." In regard to the latter, Thomson urges NTIA to broaden its proposed criteria to include cable and satellite households that may also have an exclusively over-the-air analog television (perhaps in a kitchen or bedroom) or may need to rely on that television's over-the-air capabilities in time of emergency. Limiting eligibility only to households that rely exclusively on over-the-air transmissions not only contradicts the plain language of the Act, but also would be extremely difficult to administer, increasing the potential for waste, fraud, and abuse, and raising significant privacy concerns.

[3] *See* Title III of the Deficit Reduction Act of 2005, Pub. L. No. 109-171, 120 Stat. 4, 21 (Feb. 8, 2006) ("the Act").

## I. NTIA'S REQUIREMENTS FOR DIGITAL-TO-ANALOG CONVERTER BOXES SHOULD ESTABLISH AN ADEQUATE "FLOOR" OF TECHNICAL CAPABILITIES, BUT NOT DISQUALIFY CONVERTER BOXES THAT INCLUDE FEATURES IMPORTANT TO AN ACCEPTABLE VIEWING EXPERIENCE FOR CONSUMERS

As NTIA correctly notes, there are no commercially available converter boxes today that clearly fit within the narrow definition contained in the Act. Thus, the creation of a commercial market for these devices must be attainable and sustainable under these rules. These circumstances pose a unique challenge to establish requirements for eligible converter boxes that: (a) set a technically sufficient "floor" to permit the design and manufacture of an affordable device that properly performs the task of receiving terrestrial digital television signals and converting those signals for viewing on an analog television; but that, (b) does not disqualify converter boxes that include features that are important to a satisfactory viewing experience for the millions of American households that will benefit from this program.

### A. NTIA's Proposed Requirements For Eligible Converter Boxes Should Serve As A "Floor" for Technical Capabilities

NTIA's proposed requirements for a "minimal-capabilities" converter box are, on the whole, reasonable and workable for the purposes of surmounting the first challenge, namely to design a converter box that will adequately perform the task of ensuring that consumers with analog sets can receive and view over-the-air digital television signals. Indeed, from a purely technical perspective, Thomson believes the six specific capabilities proposed in the NPRM are an acceptable basis upon which manufacturers can design and build a basic, affordable device that will enable consumers to access local television broadcast signals after February 17, 2009. To summarize, these capabilities include the ability to: (a) appropriately process all ATSC signals provided to the antenna-only input and then provide output signals in standard definition video for display on an NTSC television receiver/monitor; (b) deliver NTSC composite video and stereo audio to drive NTSC monitors; (c) deliver Channel 3 or 4 switchable (NTSC) RF output for television receivers; (d) comply with FCC requirements for Closed Captioning and V-Chip parental controls;[4] (e) operate through the use of a(n included) remote control; and (f) tune to all television channels 2-69. Compliance with FCC Part 73 and ATSC Standards A/52A and

[4] We note that the NPRM also proposes to require eligible converter boxes to comply with the FCC's Emergency Alert System ("EAS") requirements. Thomson respectfully notes that there are no such requirements currently applicable to *consumer equipment* (*i.e.*, television receivers such as eligible converter boxes in the instant case); rather, the FCC's (technical and operational procedure) rules for EAS apply exclusively to radio and television broadcast stations, cable systems and other participating entities. *See* 47 C.F.R. § 11.

A/65B, as well as following the recommended practices for receiver performance in A/74, is appropriate. In addition, Thomson supports the technical requirements to be proposed in a joint filing by the Consumer Electronics Association, the National Association of Broadcasters and the Association for Maximum Service Television in this proceeding.

Notably, because any eligible converter box will be a "television broadcast receiver" as defined by FCC rules,[5] each such converter box will necessarily have to comply with applicable FCC rules governing closed captioning and V-chip program blocking. Any formal requirement imposed as part of the instant rules would thus be redundant and therefore unnecessary.[6]

### B. NTIA Should Not Disqualify From Eligibility Converter Boxes With Features That May Be Important to Ensure Reception and Access To All Broadcast Channels

While the capabilities discussed above are sufficient to achieve the most basic functionality, they may not be sufficient from the perspective of *consumers.* Indeed, Thomson respectfully suggests that meeting the second prong of the challenge — ensuring that converter boxes contain features that may be important to an acceptable viewing experience for consumers — requires NTIA not to apply an overly constrained approach to a "basic" box. Specifically, converter boxes should not be disqualified from eligibility for the subsidy because they possess some very limited functionalities going beyond the baseline requirements.

#### 1. Features Helping To Ensure Reception

NTIA is prudent to note that while converter boxes "…should be able to receive digital television broadcast signals in the same receiving configuration (*e.g.,* same household antenna, same location) as used for the existing analog reception,"[7] there may be instances where geography or other factors, including broadcast signal strength, require a different configuration. Without question, ensuring reliable reception of digital television signals, particularly given Congress's objective of minimizing to the greatest extent possible the number of exclusively over-the-air households that could lose access to local television signals on February 18, 2009, is critical to public policy objectives.

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[5] *See* 47 C.F.R. § 15.3(w).

[6] While we do not anticipate any changes to these rules, Thomson suggests these requirements be "frozen" as of January 1, 2007 to give converter box manufacturers the certainty that the products they design within a very tight manufacturing window are not at risk of being non-compliant due to a subsequent change in the FCC's rules.

[7] NPRM at 11.

Through significant investments in generational advances in DTV chipsets, DTV manufacturers have largely succeeded in resolving concerns about digital reception difficulties in certain interference-prone areas (*e.g.,* urban "multipath" environments). However, as with virtually any wireless technology, there will always be areas where reception may be subject to greater interference or weak transmissions, risking loss of access to the digital broadcast signal. In such circumstances, compensatory measures are needed. In the DTV context, one such measure is the use of a directable — or "smart" — antenna, capable of detecting the direction of an incoming signal and self-adjusting to achieve optimal reception. Thus, to the extent NTIA seeks to mitigate possible reception-related difficulties for consumers purchasing a government-subsidized converter, it could do so by permitting an input connector and associated circuitry for a smart antenna. Inclusion of such an input and circuitry would add little to the cost of the device, but would give consumers who wish to avail themselves of this technology the ability to do so without having to forego use of the coupon. Such a feature furthers the objectives of the program. Its inclusion certainly should not disqualify a converter box from eligibility under the coupon program.

**2. Access To All Channels Through An Electronic Program Guide**

It also is important to ensure that households needing to purchase a digital-to-analog converter to receive terrestrial TV broadcast programming are able to access all of the channels in a reasonable manner. One of the most fundamental changes in broadcasting made by the conversion to digital technology is multicasting. Instead of transmitting one channel of programming, a broadcaster may now transmit four or more channels of programming in the same spectrum. Multicasting fundamentally changes the manner in which viewers access broadcast programming. In this new digital realm, an electronic program guide ("EPG") is almost indispensable to ensuring access to all programming in a convenient manner.

One of the key benefits of the ATSC system is that it allows the broadcaster to transmit program-specific data — ranging from simple channel numbers and V-chip ratings to complete program names and descriptions — in the Program and System Information Protocol ("PSIP") portion of their digital signal. A DTV receiver typically displays PSIP-carried channel information in banner form on the top or bottom of the screen whenever the channel is changed. In addition, however, this data can be used, in aggregate form, to populate an electronic program guide (similar to the guide provided by cable and satellite systems) and thus offer the viewer a reasonable and convenient way to find and become informed about available programming. A PSIP-based EPG or other EPG furthers the statutory objective of universal accessibility to all digital broadcast channels.

Moreover, the availability of an EPG — either one that is PSIP-based or provided by way of contractual arrangement with the manufacturer — is an area in which manufacturers can differentiate their digital converter box from their competitors' products, both on a functionality

and cost basis — a critical component to creating the market-based incentives necessary to invest and participate in this short-term product market. For these reasons, Thomson urges NTIA not to disqualify from eligibility any converter box based on its offering of an electronic program guide.

### C. NTIA Should Defer to EPA's Energy Star® Program Regarding Energy Efficiency Requirements For Eligible Converter Boxes

Finally, NTIA seeks comment on whether to include an energy efficiency standard as a criterion for converter box eligibility.[8] Thomson believes that an energy efficiency standard should be part of the NTIA digital-to-analog converter box program. Its inclusion would underscore the federal government's commitment to encouraging energy efficient products and signal the importance of a single, uniform energy conservation approach to be applied on a nationwide basis. A national approach is especially important here because the NTIA digital-to-analog converter box program was specifically authorized by the Congress as a nationwide program to be implemented within an extremely tight timeframe and should not be impeded by a patchwork of state regulations.

To that end, the Environmental Protection Agency ("EPA") is in the process of developing energy efficiency standards for digital-to-analog converter boxes (what it terms "digital television adapters," or "DTAs") as part of its Energy Star® program, which has been setting energy efficiency standards through a well-established and successful public-private initiative at the national level. Thomson urges NTIA to rely on the Energy Star® program as a workable and achievable approach regarding energy efficiency in eligible converter boxes.

There are a number of advantages to such an approach. First, the Energy Star® logo is a well-known and trusted "seal of approval" for consumers seeking to make purchases of energy-efficient products, including consumer electronics products. Second, Energy Star® is comprehensive: it covers the entire market for digital-to-analog converter boxes, and focuses on both active and standby modes of energy use. Third, this Energy Star® initiative is scheduled for fast-track completion by the end of 2006. Finally, reliance on Energy Star® would eliminate enormous and unnecessary complication that otherwise would befall NTIA and the converter box program if it were it required to undertake the adoption of its own federal standard. Accordingly, Thomson urges NTIA to defer to EPA's Energy Star® program regarding energy efficiency requirements for eligible converter boxes.

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[8] NPRM at 13.

## II. MANUFACTURER SELF-CERTIFICATION, COUPLED WITH TIMELY GOVERNMENT APPROVAL, IS NECESSARY TO ENSURE THAT CONVERTER BOXES REACH THE MARKET IN A TIMELY YET QUALITY-CONSCIOUS MANNER

As a threshold matter, Thomson supports NTIA's proposal to allow manufacturers to self-certify that their converter boxes meet the stated eligibility requirements under the coupon program. Indeed, manufacturer self-certification is desirable generally because it can ensure both product compliance and speedier time-to-market of those products.

As with other aspects of the converter box coupon program, some unique challenges and concerns exist that require an approach to product certification procedures that under normal circumstances would be unnecessary. Specifically, Thomson is concerned that compression of high-volume sales into a very brief, 18-month period of time may result in less-than-scrupulous manufacturers attempting to market converter boxes that are either non-compliant, of unacceptably poor quality, or both. Either of these outcomes would be unacceptable, as they would almost certainly lead to widespread consumer dissatisfaction with their (government-sponsored) converter box, as well as dampened consumer confidence in (and acceptance of) the overall transition.

To address this concern, Thomson urges that NTIA adopt an approval process wherein the manufacturer certifies, under penalty of law, that: (1) the candidate converter box complies with the requirements under NTIA's rules; and (2) all appropriate licenses have been paid (such as for MPEG, VSB modulation, etc.) in relation to the candidate converter box. Manufacturers would execute their certification by submitting specific product test results, along with a single sample of the tested converter box, to the FCC's Office of Engineering and Technology (OET) (an experienced and well-respected entity in product testing). To avoid delay, the time frame for this review and "spot check" procedure should be limited to 15 days following submission to the OET. If the OET does find a problem (such as if a manufacturer's test results are inconsistent or unclear), it should initiate, on an expedited basis, its own testing and rapidly notify NTIA and the manufacturer of any noncompliance.[9]

Adopting this approval process would yield several benefits. First, by permitting manufacturers to self-certify that their product(s) comply with the NTIA requirements, and that all appropriate licenses have been paid, manufacturers would be able to bring compliant products

[9] In this circumstance, the manufacturer would not be allowed to distribute the product in question until it is cleared by the FCC.

to market more quickly. Time is of the essence: assuming NTIA adopts final rules by January 1, 2007, manufacturers will have barely 12 months to bring compliant converter boxes to market — less than the typical 18-month manufacturing cycle. While Thomson believes such a schedule would be feasible because much of the initial work (on chips and other design components) has been done already, it would nonetheless leave no room for delay. By contrast, requiring third party or government certification in the first instance and/or mandatory government product testing would almost unavoidably introduce delay and needlessly increase the cost of government administration of the program.

Second, giving OET the ability to conduct spot tests on an "as necessary" basis would give legitimate manufacturers a reasonable and timely means of getting products approved, while at the same time strongly discourage less-than-scrupulous manufacturers from attempting to sneak non-compliant products into the marketplace. Were such deficient products to reach the marketplace, especially as a device the government has deemed (but not confirmed) is a "coupon-eligible" converter box, it would undermine the marketplace rationale for legitimate manufacturers to continue to participate in this special, short-term product market.

Again, to ensure that OET review does not re-introduce unnecessarily the delay otherwise avoided through self-certification, NTIA should require that the OET complete its review and any necessary testing no later than 15 days from the date of product submission.

To further mitigate the risk of potential fraud and abuse, and to ensure consumers have an easy and understandable way to identify those converter boxes that are government-approved, Thomson urges NTIA to require that these devices carry some form of official "stamp of approval." This "stamp of approval" should be placed on each approved device sold to consumers under the subsidy program and should be included in the educational campaign superintended by NTIA, most importantly at retail locations where the converter boxes may be purchased.

## III. TO MINIMIZE WASTE, FRAUD AND ABUSE, THOMSON SUGGESTS A TRACKING SYSTEM THAT LINKS EACH ELIGIBLE CONVERTER BOX TO THE COUPON USED TOWARD ITS PURCHASE

Thomson shares NTIA's concern that appropriate systems must be in place at the retail level to minimize waste, fraud and/or abuse. To that end, Thomson suggests that NTIA adopt a system to track the entry (into interstate commerce in the U.S.), sale and, where necessary, return-for-exchange, of individual eligible converter boxes.

A critical component of such a system is the establishment by NTIA of a secure Compliant Products Database containing the Serial Numbers of every eligible converter box entering the U.S. (or the U.S. retail market).[10] The existence of such a database, combined with the use of Serial Numbers to uniquely identify individual coupons, would make it possible to "link" – at the point of initial purchase – each eligible converter box with the coupon used toward its purchase. Such a link could be an effective means to prevent fraud, both in the initial sale of the converter box and if that product is returned due to a defect or other problem.

For instance, in the initial sale, a retailer could be required to access the Compliant Product Database (through a secure account provided by NTIA) to verify the eligibility of the converter box and to identify the specific coupon used toward its purchase. Such verification would be required to validate the coupon for proper reimbursement.

Additionally, where a converter box is returned for exchange, a retailer could be required to verify, again using the Compliant Product Database, that the product being returned was purchased initially with a coupon, and to update the database to keep track of the exchange (including, if appropriate, to declare that the product being returned was defective). Thomson urges NTIA to consider an approach such as this as an effective way to mitigate the potential harm posed by fraud (or even just carelessness).

## IV. ELIGIBILITY OF U.S. HOUSEHOLDS SHOULD NOT BE LIMITED TO EXCLUSIVELY OVER-THE-AIR HOUSEHOLDS

NTIA proposes to limit eligibility of U.S. households able to participate in the coupon program to those "…that *only* receive over-the-air television signals using analog-only television receivers."[11] Such a narrow approach is not required by the authorizing legislation and is counterproductive to achieving important public policy objectives for the DTV transition.

The plain language of the Act neither requires nor even contemplates the exclusion of any household from eligibility in the coupon program. That does not mean Congress intended coupon eligibility to be limitless — far from it. Congress imposed very specific limitations in Section 3005(c)(1) of the Act, namely: a two-per-household maximum; a prohibition on combining two coupons toward the purchase of a single converter box; and a 3-month expiration

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[10] Manufacturers would be required to declare the Serial Number of any eligible converter box in the Compliant Product Database (using a secure account provided by NTIA) whenever a new batch of converter boxes enter the U.S. (or the U.S. retail market).

[11] NPRM at 6 (emphasis in original).

date on each coupon.[12] Had Congress intended to limit eligibility to only those households that rely exclusively on over-the-air reception of broadcast television it certainly knew how to do so. It did not include such a limitation. Were NTIA to exclude those households by way of its implementation of this program, it would be acting contrary to congressional intent.

Limiting eligibility to exclusively over-the-air households would be extremely difficult to implement administratively. For one thing, as the GAO found in its report to Congress on this very matter, there exists no single list of exclusively over-the-air households that could be used to identify or verify eligibility.[13] Furthermore, as the GAO cautions in that same report, compiling such a list or other lists (such as by requesting and combining the subscriber lists of every single cable and satellite operator) would be administratively challenging (to say the least), time-consuming and would raise very serious consumer privacy concerns.[14] Indeed, the prospect of a government (or privately contracted) entity collecting and reviewing these lists quite possibly could spark a substantial consumer backlash. Moreover, the time that would be required to put in place a system that could collect and use this data in a comprehensive, accurate and secure manner could delay the process by months — time that simply does not exist under the statutory time constraints within which this program exists.

Further, there is nothing to prevent a household that receives a coupon (or coupons) based on its eligibility *today* as an exclusively "over-the-air reliant" household, from *tomorrow* subscribing to cable or satellite. Indeed, such a scenario is quite plausible, especially as cable and satellite operators ramp up their efforts to gain new subscribers as the digital transition date draws closer.[15] Since one cannot imagine that, under such a circumstance, NTIA would propose to require that the converter be returned (indeed, such a requirement would increase exponentially the administrative burden and cost of the program), the inescapable conclusion is that the limitation proposed by NTIA would, in practice, be both unfair and unworkable.

Finally, the continued reliance by many Americans — including those who subscribe to cable and satellite — on analog-only (sometimes battery-powered) television receivers during power/cable/satellite outages is a factor deserving NTIA's strong consideration. Indeed, during Hurricane Katrina, many displaced New Orleans residents relied on local broadcasters to receive information about life savings emergency services. NTIA should not adopt rules limiting the

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[12] *See* Act at § 3005(c)(1)(A)-(C).

[13] *See* "Digital Broadcast Television Transition: Several Challenges Could Arise in Administering a Subsidy Program for DTV Equipment," GAO-05-623T (May 26, 2006) ("GAO Report") at 11.

[14] *See* GAO Report at 12.

[15] Nor would a consumer necessarily engage in such a switch with malintent.

eligibility of these or other citizens who may need to revert to off-air reception as their only means of receiving emergency information.

For these reasons, Thomson urges NTIA to stick to the plan envisioned by Congress, and to make eligible any U.S. household that may wish to apply for a converter box, regardless of the primary means by which that household receives broadcast television signals.

## V. CONCLUSION

Thomson is eager to move forward to bring to reality Congress's statutorily prescribed converter box subsidy program through the availability of affordable, consumer-friendly, digital-to-analog converter boxes that ensure to the maximum extent possible consumers' access to over-the-air television programming services. Accordingly, Thomson urges NTIA make eligible any converter box containing a channel navigational guide or "smart" reception capability; to embrace energy efficiency standards in eligible converter boxes by reference to EPA's Energy Star® program; to establish an approval process for eligible converter boxes that allows manufacturers to self-certify their product's compliance, coupled with expedited government verification procedures and safeguards against waste, fraud and abuse; and to permit any U.S. household seeking to convert an analog-only television to participate in the coupon program.

Respectfully submitted,

David H. Arland
Vice President, Marketing Communications
and Government Affairs

Appendix A: *Thomson and LG Electronics Partner with Broadcasters To Develop Terrestrial Digital-to-Analog Converter Boxes* (Press Release dated October 5, 2005)



**FOR IMMEDIATE RELEASE**
October 5, 2005

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# Thomson and LG Electronics Partner with Broadcasters to Develop Terrestrial Digital-to-Analog Converter Boxes

WASHINGTON, DC - The Association for Maximum Service Television, Inc. and the National Association of Broadcasters have selected LG Electronics Inc. and Thomson, SA to each develop prototype high quality, low cost Terrestrial Digital Converter Boxes to receive digital signals on conventional analog televisions.

Jointly funded by MSTV and NAB with development support from Thomson and LG Electronics, these prototypes will serve as blueprints for future products from manufacturers to ensure that the more than 70 million analog TVs relying exclusively on terrestrial broadcast signals will continue to receive free over-the-air TV service when all-digital broadcasting begins.

MSTV President David Donovan explained that today's announcement follows an extensive evaluation over the past several months of more than a dozen proposals submitted by leading electronics and integrated circuit manufacturers from around the world in response to a Request for Quotation released by NAB and MSTV on June 20.

"No viewer should be left behind when this nation converts to all-digital signals," said Donovan. "Developing a high-quality, low-cost digital-to-analog converter box ensures that all Americans will be able to receive emergency information and their favorite TV shows using existing analog television sets. We are delighted to be working with these companies, both leaders in the consumer electronics industry. This collaborative effort benefits all consumers. Also, it comports with Congressional efforts to subsidize quality converter boxes that provide an alternative for consumers that want to keep their current analog equipment."

NAB President Eddie Fritts observed, "There are 21 million homes and 73 million receivers relying exclusively on antennas to receive local television signals. Disenfranchising these viewers would present a significant problem for broadcasters, the government and consumers. This project demonstrates a willingness by both broadcasters and two of the world's leading electronics

companies to ensure that all Americans have affordable access to local television signals both during and after the transition to digital."

"LG Electronics is honored to be selected by the NAB and MSTV, and we're enthusiastic about joining forces with broadcasters to develop the next-generation of DTV reception technology," said Dr. Jong Kim, vice president, research, LG Electronics. "As a long-time participant in the digital television transition, LG and our Zenith subsidiary look forward to working with the broadcasting industry to develop this important product, which we expect to set the performance benchmark against which others should be measured to assure consumer satisfaction with digital reception. As I testified before a Congressional committee earlier this year, this kind of product is a key to the digital TV transition."

"We are delighted to be working with the broadcast television industry to develop a new digital-to-analog converter box platform," said Barb Birnbaum, director of business development for Thomson's Access Platforms & Gateways business. "We know that Congress desires an inexpensive digital to analog converter box in order to ensure consumers are not disenfranchised when analog broadcasts cease, and we believe there will be a market for a variety of digital-to-analog conversion products. Thomson has a long history of providing top quality receiving devices and we look forward to working collaboratively with the broadcast industry to help meet Congressional expectations."

**MSTV** is the recognized industry leader in broadcasting technology and spectrum policy issues. Formed in 1956, MSTV has endeavored to insure that the American public receive the highest quality, interference free, over-the-air local television signals. For the past decade, MSTV has been the leading advocate for advanced over-the-air digital television in the United States. Information about MSTV can be found at www.mstv.org.

**The National Association of Broadcasters** is a full-service trade association that promotes and protects free, over-the-air local radio and television stations' interests in Washington and around the world. NAB is the broadcaster's voice before Congress, federal agencies and the courts. NAB also serves a growing number of associate and international broadcaster members. Information about NAB can be found at www.nab.org.

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**LG Electronics Inc.** (Korea Stock Exchange: 06657.KS) is a $38 billion global force in electronics, information and communications. With more than 66,000 employees working in 76 subsidiaries in 39 countries around the world, LG Electronics comprises four main business companies including Mobile Communications, Digital Appliance, Digital Display, and Digital Media. LGE's U.S. research subsidiary, Zenith Electronics Corporation is a long-time leader in consumer electronics and inventor of the digital transmission system adopted by the Federal Communications Commission as a key element of the ATSC DTV broadcast standard. For more information please visit www.lge.com, www.LGusa.com and www.zenith.com.