NCTA
NATIONAL CABLE & TELECOMMUNICATIONS ASSOCIATION
NEAL M. GOLDBERG GENERAL COUNSEL
1724 MASSACHUSETTS AVE N.W. WASHINGTON, D.C. 20036-1903
TEL: 202.775.3664 FAX: 202.775.3603

November 19, 2004

EX PARTE

Ms. Marlene H. Dortch
Secretary
Federal Communications Commission
445 12th Street, S.W.
Washington, D.C. 20554

Re: CS Docket No. 97-80

Dear Ms. Dortch:

On Friday, November 19, 2004, Dan Brenner, NCTA Senior Vice President, Law and Regulatory Policy, and I met with Johanna Shelton, Legal Advisor to Commissioner Jonathan S. Adelstein. During the meeting, we discussed why the July, 2006 ban on cable operator deployment of integrated set-top boxes should be eliminated.

The discussion reflected the arguments previously made by NCTA and others in written submissions in the above-referenced docket. In particular, we explained that the FCC's adoption of rules requiring support for CableCARD-enabled devices and the cable industry's implementation of the 2002 MSO-CE manufacturer agreement on "Plug and Play" DTV products have fundamentally undermined the basis for the ban on integrated set-top boxes. The ban would limit consumer choice and impose a tax on cable customers, who will have to pay more for equipment because of the CableCARD interface and CableCARD which provide no benefits since operator-leased set-top boxes need not be portable. Specifically we made the following points:

- The cable industry has made a firm commitment to facilitate new retail distribution channels and to support CableCARD-enabled devices, as exemplified by its implementation of the 2002 MSO-CE Manufacturer Agreement on "Plug and Play" DTV Products.

- As evidence of its commitment to retail availability, the cable industry has invested extraordinary energy, time, and money in the success of CableCARD-supported digital television sets.
- The FCC Rules implementing the MSO-CE Agreement require digital cable systems to support CableCARD-enabled devices, obviating the need for the costly integration ban which arguably served that purpose.
- A ban on integrated set-top boxes would substantially increase equipment costs (and monthly lease prices) and reduce equipment options for consumers.
- The two-way MSO-CE negotiations are proceeding at a timely pace given the number of parties involved.
- The Integration Ban may stymie the development of a low-cost digital set-top box and a prompt digital transition

A copy of our presentation is attached as is an article describing customer satisfaction with Plug and Play devices and CableCARD installations. (See HDTV Expert, The Front Line, October 22, 2004 ["In a nutshell, CableCARD works very well."]). Both were distributed at the meeting.

In addition, we advised Ms. Fuller that there were now approximately 5,000 CableCARDs deployed by cable operators to customers with Plug and Play devices – a more than 600% increase from the 700 that were deployed as of the end of August 2004.

If you have any questions, please contact the undersigned.

Sincerely,

/s/ Neal M. Goldberg

Neal M. Goldberg

Attachments

cc: J. Shelton

THE 2006 BAN ON INTEGRATED SET-TOP BOXES SHOULD BE ELIMINATED

The FCC's Adoption of Rules Requiring Support for CableCARD-Enabled Devices and the Cable Industry's Implementation of the 2002 MSO-CE Manufacturer Agreement on "Plug and Play" DTV Products Have Fundamentally Changed the Basis for the Ban on Integrated Set-Top Boxes. The Ban Would Limit Consumer Choice and Impose a Tax on Cable Customers, Who Will Have to Pay More for Equipment that May Not be Best Suited to Meet Their Needs. It Should be Eliminated.

I. THE CABLE INDUSTRY HAS MADE A FIRM COMMITMENT TO FACILITATE NEW RETAIL DISTRIBUTION CHANNELS AND TO SUPPORT CABLECARD-ENABLED DEVICES, AS EXEMPLIFIED BY ITS IMPLEMENTATION OF THE 2002 MSO-CE MANUFACTURER AGREEMENT ON "PLUG AND PLAY" DTV PRODUCTS.

- The MSO-CE Agreement ("MOU") and the cable industry's commitment to making the Agreement work eliminate any doubt as to cable's commitment to a retail market and to new suppliers of set-top boxes for themselves.
- MSOs must make these CableCARD-enabled "plug and play" DTV products work with their systems or face the wrath – and defection – of their own customers.
- The MSO-CE Agreement will result in a wide variety of CableCARD-enabled products (e.g., integrated DTVs and other multifunction CE devices) that manufacturers believe are viable at retail because set-top functionality is a small fraction of total receiver cost. This is a market-based means for promoting retail availability, far superior to efforts to reshape cable rate regulations or MSO purchase orders.
- "Plug and play" CE manufacturers have to date developed DTVs and DVRs with integrated set-top box functionality for retail, rather than "plug and play set-top boxes." However, they have been working with MSOs in developing integrated set-top boxes for purchase and lease by cable operators, thereby further enhancing competition and consumer choice. Just recently, Comcast and Panasonic announced an agreement under which Panasonic will provide Comcast with a significant number of OCAP-enabled integrated set-top boxes. (Panasonic also announced it will offer other OCAP-enabled devices at retail.) Retaining the ban and thereby mandating the provision solely of CableCARD-host combinations in lieu of integrated set-top boxes will only increase the costs to those would-be cost-cutting new entrants.
- Cable operators have strong independent reasons to promote retail availability of equipment. In particular, cable operators' core business is the sale of services, not the sale or lease of set-top boxes or other cable customer equipment. Because cable operators face vigorous competition from DBS and others, they have every incentive to maximize the equipment options for cable customers, especially at retail.
- The costly integration ban was adopted to require support for CableCARDs. But it was designed before the "plug and play" agreement was negotiated and adopted. The FCC Rules implementing the MSO-CE Agreement require digital cable systems to support CableCARD-enabled devices, obviating the need for the integration ban.

II. AS EVIDENCE OF ITS COMMITMENT TO RETAIL AVAILABLITY, THE CABLE INDUSTRY HAS INVESTED EXTRAORDINARY ENERGY, TIME, AND MONEY IN THE SUCCESS OF CABLECARD-SUPPORTED DIGITAL TELEVISION SETS

- More than 100 new DTV models from 11 different independent manufacturers now have been certified, verified or self-verified for compliance with the unidirectional digital cable product test suite for "digital cable ready" televisions and DVRs. These major manufacturers are: Hitachi, LG Electronics (Zenith), Mitsubishi, Panasonic, Philips, Pioneer, Samsung, Sharp, Sony, Thomson, and Toshiba. These UDCPs would not have made it to market without extraordinary cooperation by cable operators and the cable industry.

- CableLabs made extraordinary efforts to meet CE manufacturers' insistence on speed: it created short cuts throughout the testing process; cut back on interoperability tests CE claimed were unnecessary; changed the handling of security certificates to allow faster development and manufacturing; paid for the invention of a new test tool for efficiently testing CableCARD-Host binding during the development process; allowed manufacturers to substitute their in-house testing plans for the CableLabs joint test suite to which they had previously agreed; rescheduled test waves to suit manufacturers' development and "time to market" schedules; provided weekly updates on how CE devices were testing out so that CE engineers could redesign at the same time the devices were in testing; provided free development labs time; provided formal testing at cost; provided internal "appeals" processes to minimize the need for re-testing; granted CableLabs verification *before* FCC approval or Underwriter's Lab certification; allowed manufacturers to change the product after testing and substitute the modified "production" model for the model tested; and then allowed self-certification of all subsequent DTVs. This process proceeded on an extraordinarily fast schedule, with scores of concessions to CE to meet their demands for speed, at considerable personal sacrifice by engineers, technicians, and businessmen at MSOs and at CableLabs.

- The cable industry had agreed in the MOU to assist CE manufacturers in creating their own headends for development and testing, but many did not wish to spend the money. At the urging of CE manufacturers, MSOs therefore provided additional testing in MSOs' own labs, even though not required by the MOU or any other agreement. Cox, Charter, Time Warner Cable, and Comcast all provided extensive support in their labs and at their headends. They ran interoperability tests, they tested for installation and provisioning; they tested CableCARD-Host authentication and the ability of the device to read CCI/Copy Protection signaling and EAS; they tested the devices ability to read channel maps and source name table and PSIP; they tested the device's responsiveness to CableCARD firmware upgrades; they tested performance in analog, standard definition digital, HD digital, 64 QAM, and 256 QAM.

- Independent of the efforts by CableLabs to "verify" UDCPs under these abbreviated procedures were efforts by MSOs to support the devices. Hundreds of headends were adjusted and updated to transmit the approved FCC copy control signals and to meet the SCTE standards called for in FCC rules. HD set-tops with 1394 outputs were made available on schedule by April 1, 2004, so that requesting customers could record compressed digital programming over 1394 connectors. Thousands of Customer Service Representatives and Field Technicians were trained to support the ever growing number of UDCPs—all of which had their own unique set-up menus, connectors, remote controls, and deficiencies.

- Armies of engineering personnel, from field technicians to corporate engineers, spent their time troubleshooting and fixing UDCPs as they appeared in consumer homes. "Troubleshooting" conference calls between MSOs and CE technicians—although not required under any agreement or order—were created and then moved from bi-weekly to weekly calls.

III. A BAN ON INTEGRATED SET-TOP BOXES WOULD SUBSTANTIALLY INCREASE EQUIPMENT COSTS (AND MONTHLY LEASE PRICES) AND REDUCE EQUIPMENT OPTIONS FOR CONSUMERS.

- As Chairman Powell observed in dissenting to the 2005 prohibition, it "is contrary to good public policy to remove from the market a potentially cost-effective choice for consumers." Yet, this is precisely what the ban does.
- Even in deferring to the FCC's prior decision, the D.C. Circuit suggested that "consumers might have chosen not to purchase retail devices for perfectly sensible economic reasons – because, for instance, there are efficiency gains captured in the manufacture of an integrated box that lead it to cost less" and that "the integration ban does nothing more than deny the most cost-effective product choice to consumers – an ironic outcome for an order implementing 'one of the most pro-consumer, pro-competitive provisions of the Telecom Act.'"
- The 2002 House Telecommunications Subcommittee's DTV Transition staff discussion draft made this same point in proposing elimination of the integration ban. As Chairman Tauzin recognized in his opening statement during the hearing on the discussion draft: "[i]ntegrated boxes may very well be more convenient and less expensive for consumers – at the very least, there is another choice for consumers."
- There is ample record evidence showing the potential cost advantages and other benefits that integrated set-top boxes offer to customers. NCTA has submitted evidence showing that a CableCARD-host combination would cost a cable operator approximately $72 to $93 more than an integrated set-top box performing the same functions. This translates into an average consumer price increase of between approximately $2.00 to $3.00 per month for <u>each</u> leased CableCARD-host combination (i.e., the CableCARD plus the CableCARD interface in the Host) (assuming both the CableCARD and host are rate regulated), based on a five-year and three-year depreciable life, respectively.
- Even using the cost figures alleged by retailers in their own <u>ex parte</u> filings – which NCTA continues to believe substantially understate the added costs associated with a CableCARD-host combination – implementation of the ban on integrated set-top boxes would impose <u>hundreds of millions of dollars in unnecessary additional equipment costs on consumers</u>. And these costs would be borne by consumers with no corresponding public interest benefit. There is no need to impose this tax when cable operators are already supporting CableCARDs.
- Indeed, the ban would force cable subscribers to bear these added costs even though the enhanced portability of such host devices provides no added value for consumers who prefer to <u>lease</u>, rather than <u>purchase</u>, their set-top boxes, because those boxes stay within one operator's cable system.
- The best public policy is to ensure that consumers can <u>choose</u> the equipment option that best fits their preferences. While some consumers may prefer the particular

features in an integrated set-top box, which might be offered by a cable operator or a retailer, others may prefer the different features offered in a CableCARD-host combination. As Chairman Powell has observed, the ban on integrated set-top boxes forces cable operators to make procurement and technology decisions "so as to avoid the potential for stranded investment, not on the basis of what might be best for their customers." By contrast, if the ban is eliminated, cable equipment investments and consumer equipment prices will (as they should) be driven by consumer choice and competition.

IV. THE TWO-WAY MSO-CE NEGOTIATIONS ARE PROCEEDING AT A TIMELY PACE GIVEN THE NUMBER OF PARTIES INVOLVED

- Two-way talks have been going on continuously since the 2002 one-way agreement was signed.
- Cable MSOs and CE manufacturer representatives have met separately to advance industry-to-industry ideas. There have been over 30 face-to-face meetings to narrow topics and reconcile differences in approaches.
- At the FCC's urging, all potentially affected parties have participated in large group discussions. At the first such meeting, twelve CE manufacturers, CEA, seven studios, MPAA, four group owners of programming, six prominent IT/PC companies, DirecTV and EchoStar, NAB and MSTV attended. Large-group meetings have been held in Washington (3), Chicago, and Los Angeles to accommodate non-CE, non-cable parties. These large meetings attract 80-100+ attendees.
- The size and scope of these meetings, and the presence of cross-industry competitors when issues touch on proprietary matters, necessarily influence the speed with which issues can be resolved.
- If the Integration Ban were to remain in place, it could impede continuing MSO-CE discussions regarding standards for two-way products, because it will divert MSO and vendor attention away from the negotiations.

V. THE INTEGRATION BAN MAY STYMIE THE DEVELOPMENT OF A LOW-COST DIGITAL SET-TOP BOX AND A PROMPT DIGITAL TRANSITION

- The cable industry is intent on developing and deploying low-cost digital set-top boxes. If the costs of a CableCARD slot and the accompanying CableCARD are added, the Integration Ban will stymie the goal of the elusive "$35 - $50" digital set-top box.
- Inexpensive digital set-top boxes – which will permit the viewing of digital programming on analog TV sets – will facilitate the end of the digital transition since, under the Commission's tentative conclusion, customers need such devices to be counted in meeting the "85% test."
- Allowing deployment of such operator-supplied devices does not lessen cable's commitment to making plug and play devices work. Cable needs a retail presence to compete with DBS and other competitors.

- This is why the cable industry developed OCAP to support the nationwide portability of applications, such as program guides, on retail navigation devices.
- This is why the cable industry has moved into active participation and leadership in the inter-industry forums setting standards for "Universal Plug and Play" home networking, that will allow various suppliers of retail consumer-electronics, personal computer and mobile devices to be networked together inside the home and be able to communicate with one another and share their resources.
- This is also why, as the cable industry started to develop goals and requirements for next generation security, it consulted not just with traditional cable operator suppliers, but also with consumer electronics manufacturers who sell at retail. It was designed that way so that CE manufacturers and retail distributors can be full participants.

VI. A PROMPT COMMISSION DECISION IS NEEDED GIVEN THE LEAD TIME REQUIRED TO BUILD AND DEPLOY CABLECARD-ENABLED SET-TOP BOXES

- A minimum of 18 months is required for operators to order, have delivered and deploy CableCARD-enabled set-top boxes.
- The Commission has committed to reassess the need for the Integration Ban by January 1, 2005, but, if the ban is maintained, that time frame will place extraordinary pressure on operators and manufacturers to meet a July 1, 2006 deadline.

THE FRONT LINE: OCTOBER 22, 2004

CableCARD is coming to a PCMCIA slot near you! What's it all about?

by Peter H. Putman, CTS

CableCARD is a new way to watch digital cable TV programs without a cable set-top receiver. Instead, a PCMCIA card plugs into a slot on your TV, giving you access to standard and premium SDTV and HDTV programs.

CableCARD has been in the works for several years, starting with an agreement among 14 manufacturers and CableLabs in late 2002 to bring the technology to market. Spurred on by the FCC's mandates to include terrestrial digital TV tuners in big screen TVs starting in July of 2004, manufacturers worried that such sets wouldn't sell well unless they could also receive digital cable programming.

The first crop of CableCARD TV sets started showing up in Best Buy and Tweeter stores around here in July. I managed to procure several review units for a hands-on test here in my studio with the able and willing assistance of Comcast personnel including Keith Boyd at Comcast University, Mark Bogle, Brian Saylor, and Janet Steiner of Comcast's Ivyland (PA) regional office, and David Landsman of Comcast's Plymouth Meeting (PA) call center.

An extensive report on those tests will appear in the February 2005 issue of Stereophile Ultimate AV magazine. In the meantime, here are some interesting things I learned (and a few I found out the hard way):

First, CableCARD is a 100% one-way system. All it lets you do is receive programs. These programs can't be time-shifted (unless you have special equipment), nor will you see any electronic program guide (EPG) info with them – that require a two-way path between TV and cable system head end.

You also can't order pay-per-view (PPV) or use video-on-demand (VOD) with CableCARD – at least, not this implementation of it. All you can do is order and pay for specific tiers of channels and watch them to your heart's content, which is something more akin to the old analog 'basic cable' service model.

If you purchase a CableCARD set (usually labeled with the "Digital Cable Ready" logo), you'll need to get a card from your local cable company. Some charge a rental for it; others provide it as part of the service (which is what Comcast does). Once this card is plugged into your TV, a set-up screen will provide you with four strings of numbers which you will, in turn, provide to your cable customer service representative top enable the service.

The three CableCARD TVs I tested all describe this service differently. One explained that I would first have to obtain an application to get CableCARD service and that I should "contact my customer service representative to discuss receiving an application". That's as far as the description went.

The other TVs were a bit more succinct in explaining how CableCARD worked (fortunately) but provided vastly different on-screen menus on how to set it up. With a CableCARD, there is no need to do a digital channel scan – the card contains all of the available channel information.

Problem is, only one of those two sets had any kind of menu that would show me a list of the available digital cable stations. The other set required me to push the channel up/down button to navigate, or write down channel numbers on my own for future reference.

Because of a design flaw, one of the sets required that I always connect digital cable signals through the main antenna input, which is fine. However, this input shows up on screen labeled as "AIR", which is not fine! To make matters more confusing, off-air digital TV signals must then be connected to the second or auxiliary antenna input, which shows up in the menu as (you guessed it) "CABLE".

The cards are not particularly difficult to install (see photos) but they must be inserted carefully into a pair of guide rails before they are homed into place. Otherwise, you run the risk of bending or damaging the pins, which is a manufacturer (not cable company) repair issue.

On two of the sets, you can have off-air digital TV and digital cable connected at the same time, switching back and forth between antenna/cable inputs as desired. On the third set, only one digital RF input is provided, so if you want to hook up a second digital TV source, you'd have to use the DVI or HDMI inputs.

Despite all of these quirks, the CableCARDs worked like a champ in all three sets. One word of caution – don't try to pull an authorized card from one set, plug it into another DCR TV, and expect it to work. Ain't gonna happen!

You'll need to re-authorize that new TV and there will be a new set of numbers to read back to your cable company. And if you realize your science experiment isn't going to work and put the card back into its original set, it will not work there without re-authorization. (Best to leave well enough alone!)

In a nutshell: CableCARD works very well. If you just want to watch and don't care about interactive services, it's a simple way to get digital cable. Of course, if you decide you do want all that interactive stuff, you can always turn in your card and get a full-blown cable set-top receiver from your cable company.

Figure 1A – Here's a CableCARD slot on the rear panel of a DLP rear-projection TV...

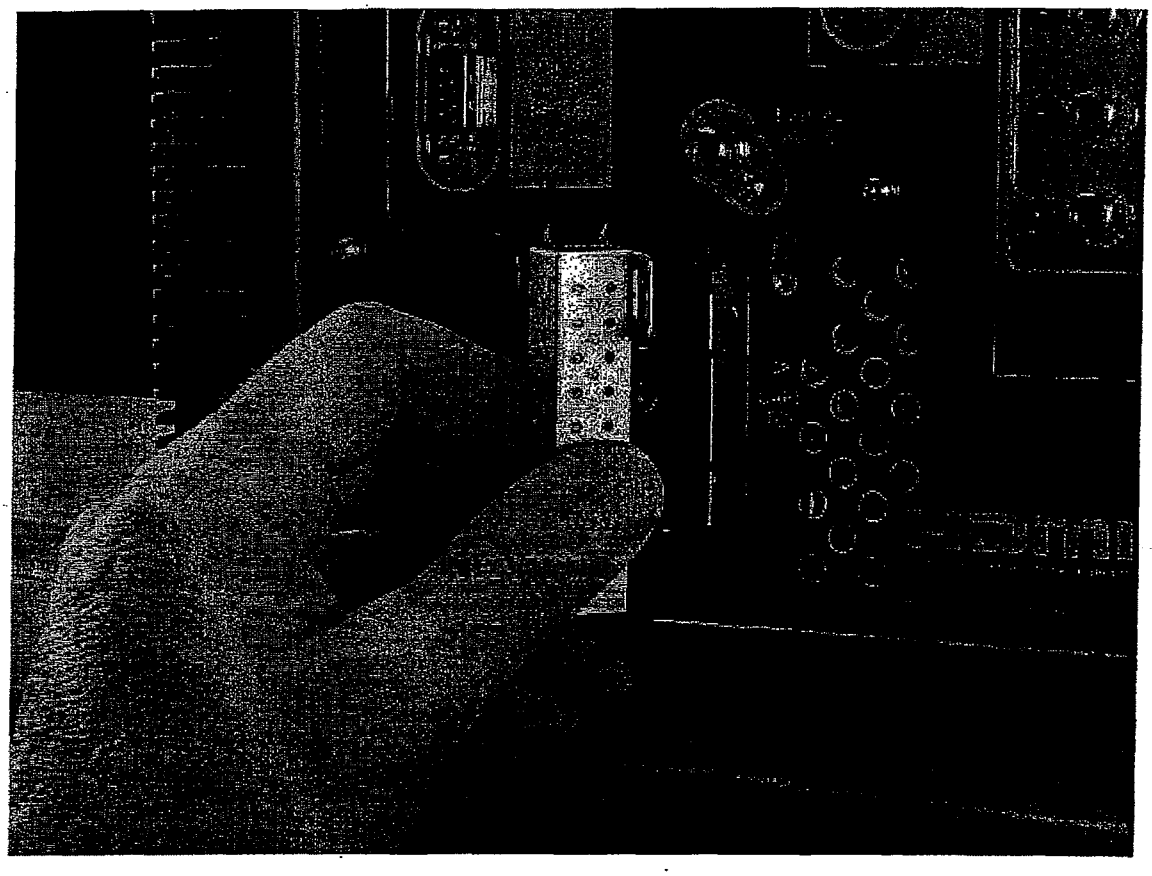


Figure 1B - ...but you must be careful not to jam the card in its guide rails.

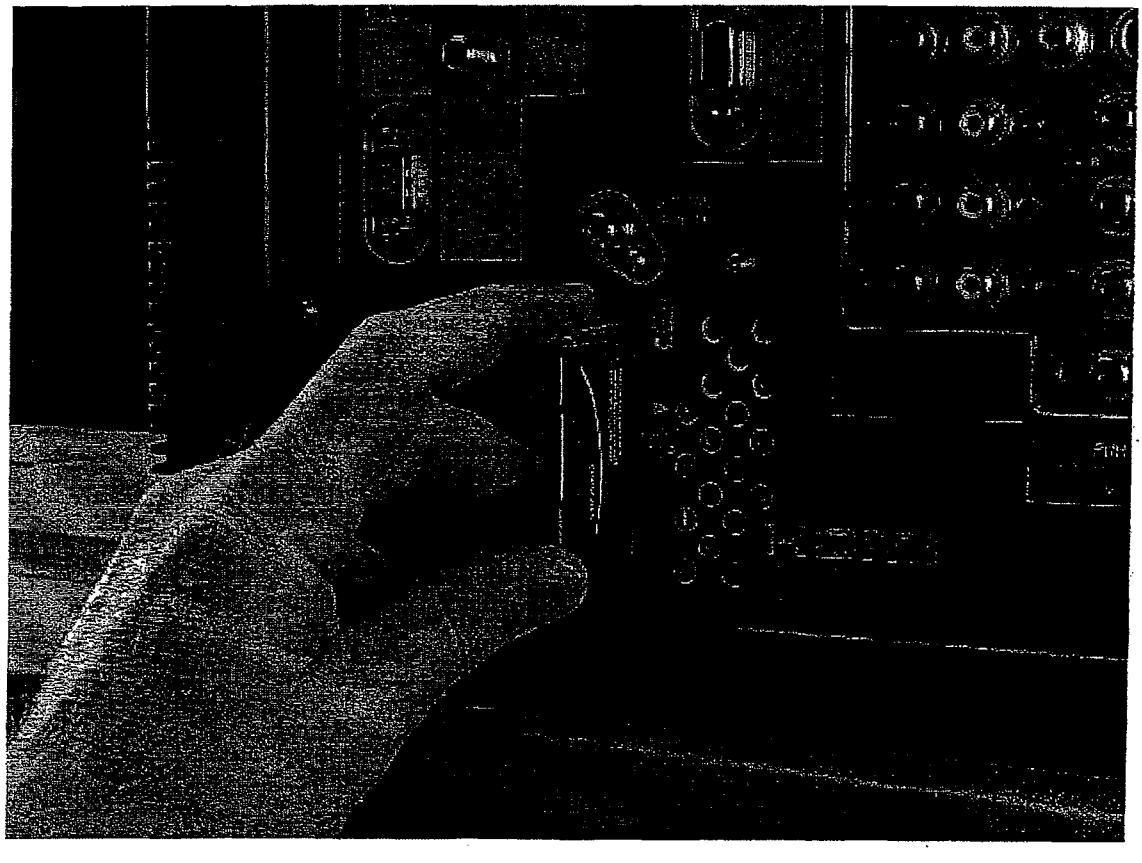


Figure 2A – Here's the slot on a new integrated plasma TV.

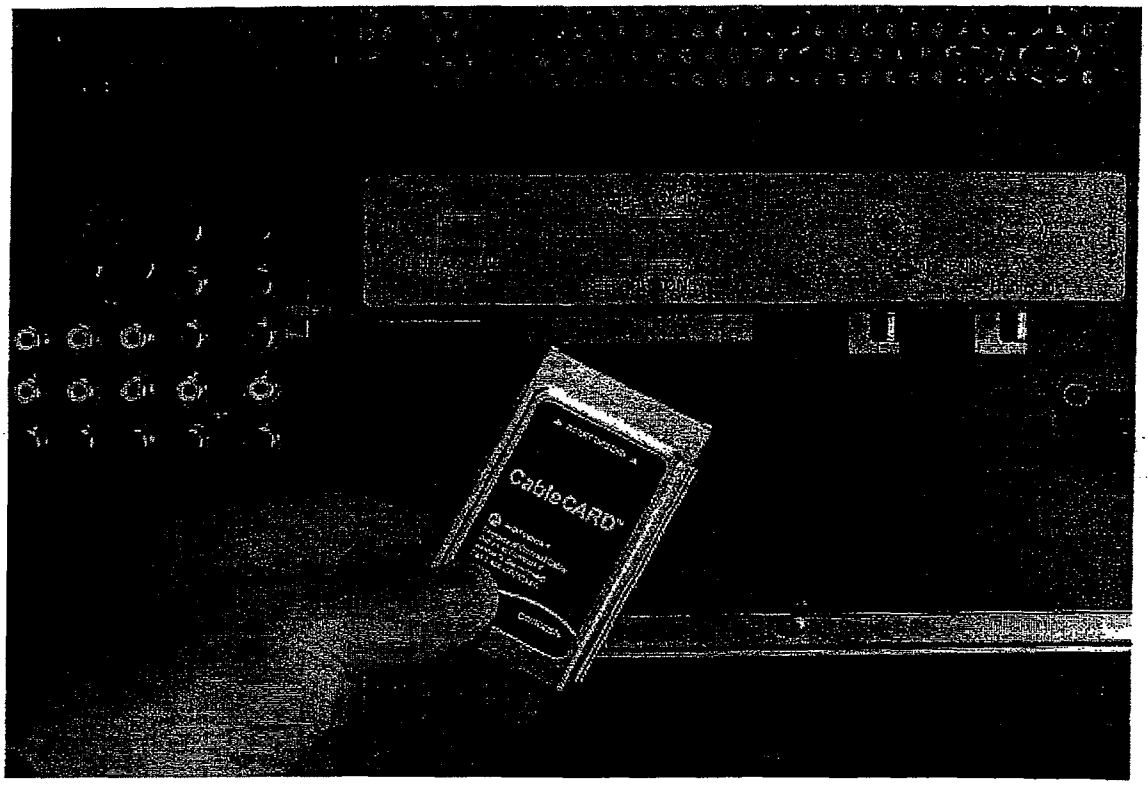


Figure 2B – Installation into this slot is a piece of cake.

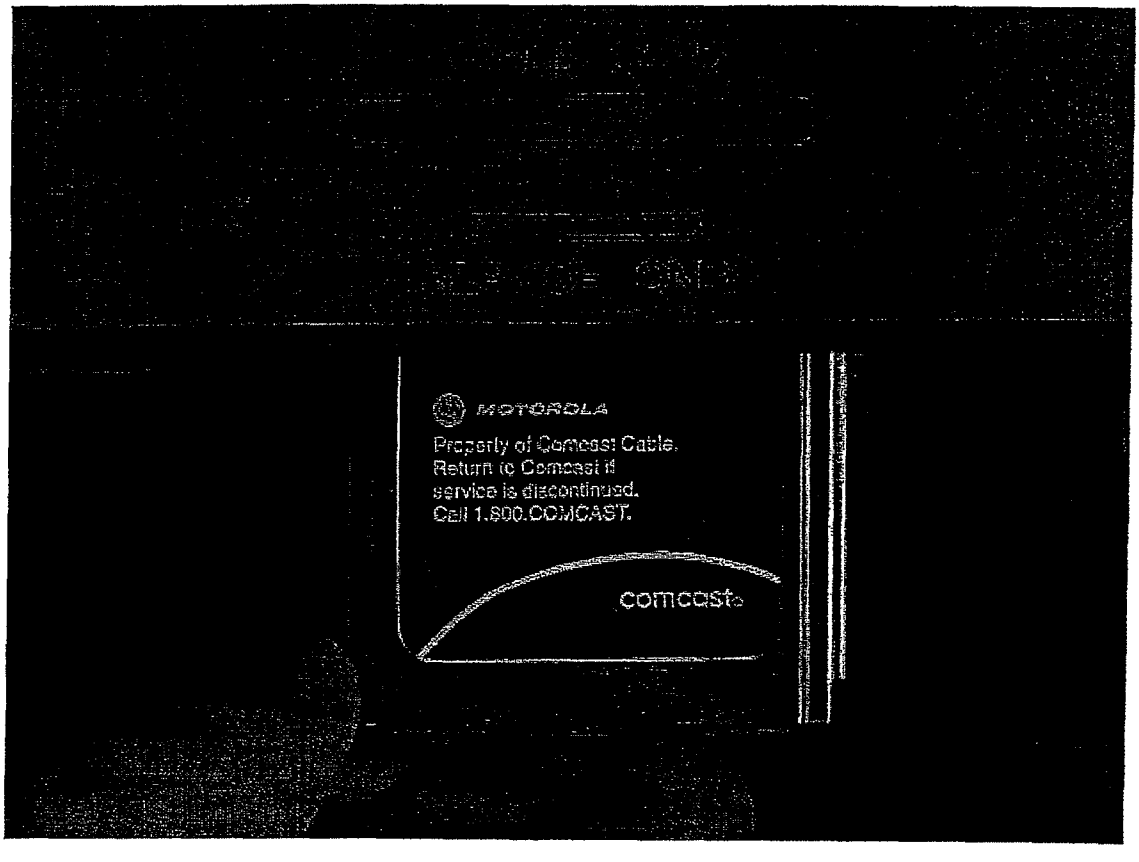


Figure 3A – Even outboard AV control centers have CableCARD slots.

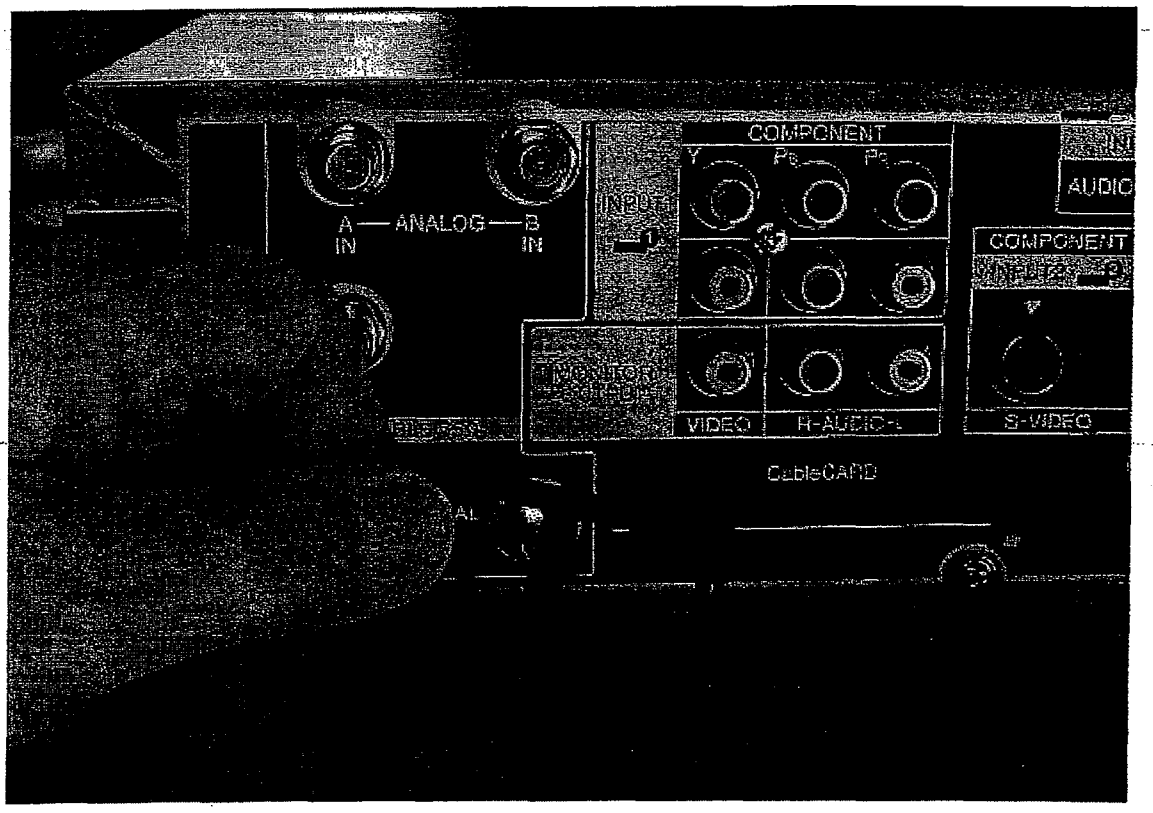


Figure 3B – This is the easiest installation of all.

Figure 4 – Here's a typical OSD of available digital cable channels.

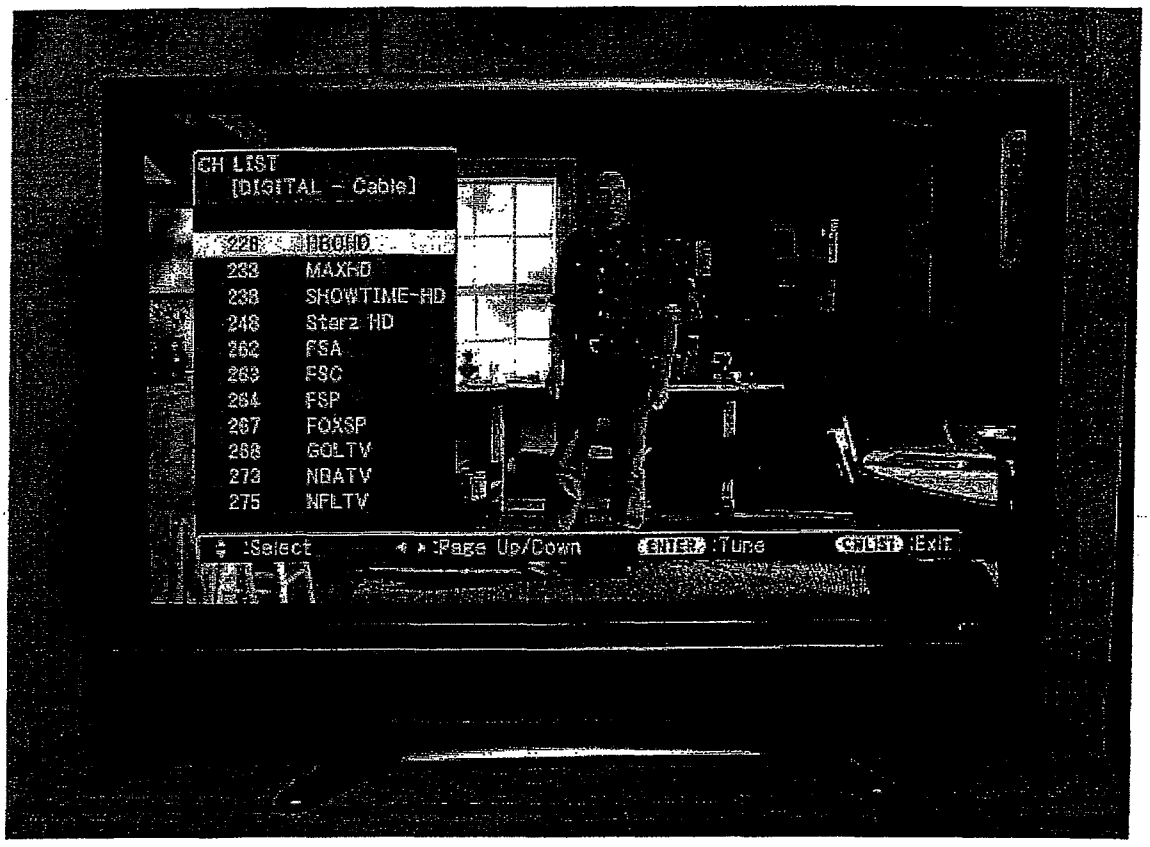
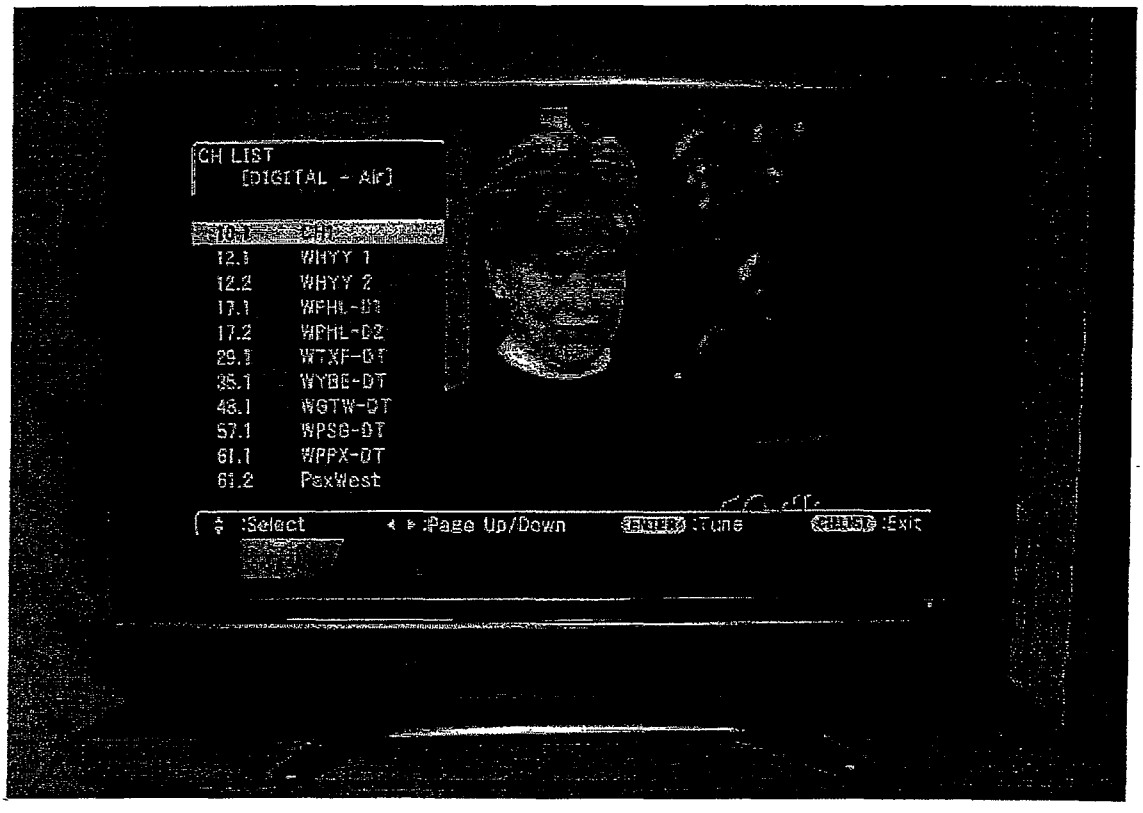


Figure 5 – Here's a typical OSD of available off-air digital channels.



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Want to know more about those CableCARD TVs? Look for the February 2005 issue of Stereophile Ultimate AV, which should be hitting newsstands in late December of this year.

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