FCC MAIL SECTION
Nov 9 4 10 PM '05

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

In the Matter of	)	
	)	
Requirements for Digital Television Receiving Capability	)	ET Docket No. 05-24
	)	

SECOND REPORT AND ORDER

Adopted: November 3, 2005 **Released: November 8, 2005**

By the Commission:

I. INTRODUCTION

1. By this action, the Commission is modifying its rules to advance the date on which new television receivers with screen sizes 13-24" and certain other TV receiving devices such as VCRs and digital video recorders must include the capability to receive broadcast digital television signals from the current date of July 1, 2007 to March 1, 2007. The Commission is also amending its rules to apply the digital television reception capability requirement to new receivers with screen sizes smaller than 13" on this same schedule. The DTV reception requirement, which also often is termed the "DTV tuner requirement," is being implemented under an approach that applies it first to large screen receivers and then progressively to smaller screen receivers and other devices over a period of several years.[1] The modifications made herein affect the final step of this phase-in plan.[2] With these changes, the scheduled implementation plan will provide for all new TV receiver equipment to include digital reception capability as of March 1, 2007.

2. This action follows our previous decision in the *Report and Order and Further Notice of Proposed Rulemaking* (*Report and Order/Further Notice*) in this proceeding to advance the date on which 100 percent of TV receivers with screen sizes 25-36" must include digital reception capability to March 1, 2006.[3] In this regard, we continue to believe that it is essential that DTV reception capability be provided to consumers in new TV receivers as rapidly as possible in order to promote an expeditious completion of the transition from analog to digital broadcast television service. Consistent with that objective, our goal in this further action is to advance the schedule on which all new television receivers must comply with the DTV tuner requirement. We conclude that advancing the DTV tuner mandate effective date for 13-24" TV sets and other TV receiving devices to March 1, 2007 and applying this requirement to receivers with screens smaller than 13" will most effectively ensure that products in these categories are equipped to receive digital television signals as quickly as possible consistent with the manufacturing and product distribution capabilities of manufacturers and retailers.

---

[1] DTV reception capability in fact involves more circuitry than just a tuner. To provide this capability requires a tuner to receive the digital signal, an MPEG decoder/formatter, and associated processing capability and memory.

[2] *See* 47 C.F.R. §§ 15.117(a), (h), and (i).

[3] *See Report and Order and Further Notice of Proposed Rulemaking* in ET Docket No. 05-24, FCC 05-121, released June 9, 2005.

II. BACKGROUND

3. The Commission adopted the DTV tuner requirement in the *Second Report and Order and Second Memorandum Opinion and Order* (*DTV Review Second Report and Order*) in the DTV review proceeding."[4] In that action, the Commission, *inter alia*, adopted rules requiring that all new TV broadcast receivers that are shipped in interstate commerce or imported into the United States, for sale or resale to the public, be capable of receiving the signals of DTV broadcast stations over-the-air no later than July 1, 2007.[5] Under this requirement, TV broadcast receivers must provide useable picture and sound commensurate with their video and audio capabilities when receiving DTV signals. The DTV tuner requirement was intended to facilitate the transition to digital television by promoting the availability of DTV reception equipment and to protect consumers by ensuring that their TV receivers will provide off-the-air TV reception of digital signals when analog TV operation ceases.[6] In order to minimize the impact of this requirement on both manufacturers and consumers, the Commission adopted a phase-in schedule that applies the requirement first to receivers with large screens and then to progressively smaller screen receivers and other TV receiver devices that do not include a viewing screen, *e.g.*, VCRs and digital video recorders. This phase-in plan was intended to allow manufacturers to realize increasing economies of scale with production volume so that DTV tuner costs will be lower when they are required to be included in smaller sets and other TV receiver devices. In the case of large screen receivers, *i.e.*, screen sizes 36" and larger, and mid-size receivers, *i.e.*, screen sizes 25-36", the tuner requirement first applies to 50 percent of a responsible party's units and then the following year to 100 percent of its units. The 50 percent requirement commenced for large screen receivers on July 1, 2004 and for mid-size receivers on July 1, 2005. The tuner requirement then applies to 100 percent of small screen receivers, *i.e.*, those with screen sizes 13-24", and other TV receiver devices beginning July 1, 2007.

4. In the *Report and Order* section of the *Report and Order/Further Notice*, the Commission modified the DTV tuner requirement phase-in plan by moving the date on which 100 percent of mid-size TV receivers must include a DTV tuner from July 1, 2006 to March 1, 2006.[7] This change was intended to minimize certain difficulties that manufacturers experienced with the 50 percent provisions of the phase-in plan and to expedite the provision of DTV reception capability to consumers. In that action, the Commission also maintained the 50 percent requirement for mid-size receivers during the period from July 1, 2005 to February 28, 2006. It concluded that maintaining the 50 percent approach for mid-size receivers prior to March 1, 2006 will most effectively ensure that DTV tuner equipped sets in this size range are available to consumers this year, and especially for the 2005 holiday and 2006 Super Bowl seasons. The DTV tuner requirement phase-in plan is currently as follows:

> Receivers with screen sizes 36" and above -- 50% of a responsible party's units must include DTV tuners effective July 1, 2004; 100% of such units must include DTV tuners effective July 1, 2005;

[4] *See Second Report and Order and Second Memorandum Opinion and Order* in MM Docket No. 00-39, 17 FCC Rcd 15978 (2002) at ¶¶ 8-46.

[5] *See DTV Review Second Report and Order*, at ¶ 40. For purposes of these rules, TV broadcast receivers also include other devices such as TV interface devices that do not include a viewing screen, *e.g.*, devices that are intended to provide audio-video signals to a video monitor with an antenna or antenna terminals that can be used for off-the-air TV reception. However, in the case of receivers that have display capabilities, the DTV tuner requirement applies only to units that have screen sizes 13" or larger.

[6] *Id.* at ¶ 44.

[7] *See Report and Order/Further Notice*, at ¶¶ 16-20.

Receivers with screen sizes 25-36" -- 50% of a responsible party's units must include DTV tuners effective July 1, 2005; 100% of such units must include DTV tuners effective March 1, 2006;

Receivers with screen sizes 13-24" -- 100% of all such units must include DTV tuners effective July 1, 2007;

Other devices that receive broadcast television signals (VCRs, digital video recorders, etc.) -- 100% of all such units must include DTV tuners effective July 1, 2007.

5. In the *Further Notice* portion of the *Report and Order/Further Notice*, the Commission proposed to advance the date on which new television receivers with 13-24" screens and other television receiver products must comply with the DTV tuner requirement from July 1, 2007 to a date no later than December 31, 2006 and sought comment on whether it should extend this requirement to new receivers with screen sizes less than 13" inches.[8] In addition, it requested suggestions for alternative approaches for including DTV reception capability in all new TV receivers on a schedule reflective of the December 31, 2006 statutory target date for the end of the DTV transition.[9] We received 11 comments and 6 reply comments in response to these proposals.[10]

III. DISCUSSION

6. As we have observed previously, consumers must be able to receive digital TV signals for the transition to move forward to a successful completion.[11] The DTV tuner requirement is intended to provide off-the-air DTV reception capability to the general population on a schedule that will promote a rapid completion of the DTV transition. Our goal in this matter remains to maximize the number of TV receivers with DTV tuners on the market, with a final goal that all new television receiver products include a DTV tuner, as quickly as possible. We recognize, however, that manufacturers' and retailers' product development and distribution resources and capabilities will affect their ability to comply with the tuner requirement and therefore need to be considered in decisions modifying that requirement.

A. Receivers 13-24" and Other TV Receiving Devices

7. In the *Further Notice*, we proposed to advance the date on which new television receivers with 13-24" screens and other new television receiver products must be able to receive over-the-air broadcast digital television signals from July 1, 2007 to a date no later than December 31, 2006. We requested comment on this proposal and suggestions for alternative approaches for including digital reception capability in all TV receiver devices.

8. *Comments.* Parties representing the views of broadcasters, new 700 MHz service providers, and consumers support advancing the date by which new television receivers with 13-24" screens and other TV receiver products must comply with the DTV tuner requirement to a date no later

[8] *Id.* at ¶¶ 21-22.

[9] *See* 47 U.S.C. § 309(j)(14).

[10] A list of the parties submitting comments and reply comments is provided in Appendix A. We also received a late filed comment submission from the Government of China through the National Institute of Standards on September 7, 2005. In the interests of relying on a full record, we are accepting that comment and considering it in our decision herein.

[11] *See Report and Order/Further Notice*, at ¶ 6.

than December 31, 2006, and also recommend making this compliance date even earlier.[12] Consistent with their comments with regard to our previous action to advance the deadline for inclusion of digital reception capability in the mid-size 25-36" receivers, these parties generally submit that advancing the date for compliance with the tuner requirement for smaller receivers would promote the prompt availability of smaller screen DTV sets and thereby protect consumers by ensuring that their television sets in this size range will go on working after analog TV service ceases. For example, MSTV/NAB argue that it is important that new receivers include digital tuners as soon as possible because consumers do not benefit from purchasing new analog sets that will become obsolete when analog service ceases. They also point to a survey showing that nearly one-half of all consumers report their current screen size as between 20-29" as an indication that many consumers are using smaller sets as their primary TV receiver.[13] Disney/ABC argues that although the smaller sets are undoubtedly lower cost, those sets also likely will not be connected to cable and instead will be placed in viewers' kitchens or bathrooms, or will be used when viewers are traveling and so will need to tune broadcast signals. Motorola agrees with our initial assessment that the DTV tuner requirements for sets with screen sizes 25" or greater will help drive down the cost of integrating digital tuners in to sets smaller than 25".

9. MSTV/NAB, Disney/ABC, and Motorola also submit that each sale of an analog-only TV set adds to the number of digital-to-analog converter boxes that consumers will need to obtain to preserve service for the millions of consumers relying on reception of broadcasters' over-the-air signals. Chris Llana, an interested consumer, similarly states that the DTV transition is now moving forward on a predictable timetable and that if a consumer buys an NTSC-only TV set, that set is not going to be able to receive service after analog service ends.

10. Motorola also argues that if the Commission does not act and enforce aggressive requirements for including DTV tuners in new TV receiver products the full availability of the 700 MHz spectrum for public safety and commercial services could be delayed. It argues that the importance of freeing this spectrum for the use of first responders and other users has been noted by Congress, which recently passed legislation stating that the Commission should consider all regulatory means available to expedite the return of analog spectrum.[14]

11. MSTV/NAB, Disney/ABC, Chris Llana, and Motorola submit that the Commission should consider the feasibility of a date earlier than December 31, 2006 for small sets and other TV receiver products to include DTV tuners. They generally argue that advancing this deadline to an earlier date would help ensure that consumers shopping for sets smaller than 25" during the 2006/2007 holiday and Super Bowl selling seasons are not sold analog-only receivers. Chris Llana and Disney argue that in setting a date for requiring all TV sets to include a digital tuner, the overriding public policy concern should be minimizing the number of new analog-only sets purchased by American consumers before the end of the transition. MSTV/NAB and Disney/ABC state that in support of efforts to establish a fixed date, or "hard date," for terminating analog television service, the Commission should encourage the cessation of sales of analog-only television receiving equipment as soon as possible.[15] Chris Llana

[12] Parties that support advancing the date for requiring digital tuners in small screen and other TV receiving devices include the Association for Maximum Television Service and the National Association of Broadcasters in joint comments (MSTV/NAB), the Association of Public Television Stations (APTS), the Walt Disney Company (Disney/ABC), Chris Llana, and Motorola, Inc.

[13] MSTV/NAB cite Knowledge Networks/SRI, "Home Technology Monitor, 2004 Ownership Survey" (Spring 2004) and Steven Hoffenberg, "Why Buy? 2005 HDTV Purchase Intent Survey," DTV View, January 2005.

[14] *See* Intelligence Reform and Terrorism Prevention Act of 2004, Pub. L. 108-458, § 7501.

[15] MSTV/NAB reference *Hearing on the Digital Television Transition*, Testimony of Edward O. Fritts, President and CEO of NAB Before the Senate Committee on Commerce, Science, and Transportation, July 12, 2005 ("Broadcasters accept that Congress will implement a 2009 hard date for the end of analog broadcast."); Anne Veigle, *DTV Bill to be Subsumed in Budget Bill*, Comm. Daily, July 8, 2005 ("A scaled-back DTV provision setting

(continued....)

contends that meeting an early deadline would not be difficult for manufacturers in that they would not be required to produce any particular quantity of sets with digital tuners but rather would merely be required not to import or ship in interstate commerce any sets without digital tuners after a certain date. He argues that while fewer television sets might be sold under this approach, every one of the sets not sold would be a set that would only have an analog-only tuner and that would be good for consumers. Motorola recommends that the Commission advance the date for all sets 13" or larger and other devices that receive television signals to include a digital tuner from July 1, 2007 to November 1, 2006, two months prior to the congressionally anticipated date for the completion of the DTV transition, while Chris Llana argues for moving the date forward to not later than October 1, 2006.

12. ATI Technologies, Inc. (ATI) states that it submits comments to provide information regarding the ability of chip manufacturers such as itself to assist consumer electronics manufacturers in meeting the DTV reception requirement. ATI indicates that it currently manufactures a single-chip digital tuner solution known as "Xilleon 240" that, with associated software and reference designs, allows manufacturers to build both set-top converter boxes and television receivers that are capable of receiving DTV transmissions.[16] It projects that based on historical price reductions and anticipated manufacturing volumes, by the fall of 2006 manufacturers could include DTV reception capability in television sets for a cost of less than $40.[17] ATI also advises that the ability of DTV chip manufacturers to provide component parts for DTV reception addresses only a portion of the issues that should be analyzed in considering an earlier deadline for including DTV tuners in new small screen TV sets. It states that the Commission should also consider the time and costs involved in the redesign of existing engineering plans and manufacturing processes, as well as the logistical, distribution, and retail hurdles that an earlier deadline would create.

13. CEA/CERC, several major consumer electronics manufacturers, and the Government of China strongly oppose advancing the deadline for including digital tuners in small screen and other TV receiving devices.[18] These parties argue that it would be infeasible for the general population of TV manufacturers to include digital tuners in all of their smaller screen and other TV receiver products by December 31, 2006 or earlier. CEA/CERC state that the current date has been relied on by manufacturers in their product and resource planning and by retailers in their merchandising and marketing planning and that it would be infeasible to advance the date in accordance with the proposed change. In this regard,

---

(...continued from previous page)
a hard transition date of January 1, 2009 ... will be part of a budget bill to be voted on in mid-Sept., Hill sources say.").

[16] ATI states that its Xilleon 240 DTV integrates into one chip all of the major functions of a DTV receivers, including VSB demodulator, MPEG decoder, video scaler, NTSC encoder, and microprocessor. It further states that the VSB demodulator included in the Xilleon 240 fully satisfies the ATSC A/74 receiver performance standard. It also indicates that it produces a complete ATSC software stack for the Xilleon 240 that includes a PSIP parser, digital closed captioning, emergency alert, and graphical user interface.

[17] ATI also states that by the fall of 2006 consumer electronics manufacturers should be able to produce DTV set-top converters for approximately $40, allowing for retail prices around $50. It explains that savings in power supply, packaging, and material will reduce the cost of adding DTV functionality to a television receiver to below the cost of building an external set-top box. It states that set-top boxes produced at this price should comply with substantially all of the requirements included in the Request for Quotes recently issued by MSTV/NAB. ATI predicts that for only a few additional dollars that it will be possible to add functions such as high definition output, Dolby digital audio output, and digital still camera and MP3 playback, making such converter boxes even more attractive to consumers.

[18] Those opposed to advancing the date for requiring digital tuners in smaller TV sets and other TV receiving devices include the Consumer Electronics Association and the Consumer Electronics Retailers Coalition (CEA/CERC) in joint comments, Panasonic Corporation of North America (Panasonic) in reply comments, Philips Electronics North America Corporation (Philips), Sharp Electronics Corporation (Sharp), Inc., TiVo, Inc., and TTE Corporation in reply comments.

CEA/CERC and the manufacturers state that while it may seem that success in one area could support acceleration in another, this is not the case with smaller TV sets. They submit that the resources that have been devoted to areas that the tuner mandate requires to be addressed first are still being devoted to those areas. They argue that these resources cannot now be readily shifted or duplicated to respond to a change in schedule for smaller products and that in any case the general population of manufacturers does not have sufficient resources available to respond to such a change. Panasonic, Philips, and TTE state that acceleration of this last DTV tuner deadline from July 1, 2007 to no later than December 31, 2006, on top of the four month acceleration of the deadline for 25-36" receivers, would tax manufacturers capabilities to the breaking point. For example, Panasonic states that it does not have unlimited resources and has relied on the implementation schedule in the rules to schedule, develop, and coordinate its production and distribution plans for digital television products. The Government of China argues that there has not been sufficient progress towards meeting the 85 percent threshold for DTV reception capability in the statutory standard for ending the transition to provide a basis for advancing the schedule for including DTV tuner in new small screen and other TV receiver products. [19]

14. CEA/CERC and the manufacturers submit that advancing the digital tuner compliance schedule as proposed would unnecessarily cause sharp price increases in the price of smaller sets and set-top boxes that otherwise would be avoidable and would threaten to create marketplace shortages of certain products that would impede, rather than accelerate, the overall digital transition. The Government of China similarly argues that the effect of advancing the date by which these products must include a DTV tuner would only serve to significantly raise the price of those products. TTE states that while the cost of including DTV reception capability in TV receivers will decline as component manufacturers achieve economies of scale and consistent with the estimates of Zoran Corporation, that cost will not drop so dramatically as to be anywhere near a "modest" increase for smaller screen products. Philips and TTE further argue that accelerating the deadline for smaller sets would create unacceptable risks to product quality.[20] Sharp and TiVo argue that advancing the tuner mandate in an attempt to meet the 2006 holiday selling season would have the opposite effect in that it would disrupt the market for all television devices in that season. In response to arguments that sales of analog sets harm the transition, CEA/CERC contend that it would be wrong to assume that every television set sold with an analog tuner will in fact need an over-the-air converter box as such sets can also be used with cable and satellite TV systems, gaming consoles, and similar products.

15. Philips explains the minimum 18-24 month period that it and other manufacturers argue is needed between design of television products and retail availability. It states that each new product must first undergo a development process with milestones as follows: 1) feature specification, 2) performance specifications for each function, 3) engineering designs for all features, 4) chassis development, 5) obtain parts, 6) prototypes construction, and 7) test prototypes to ensure that specifications are met and reliability acquired. Philips submits that the above process takes a minimum of nine months, and more if design difficulties occur. It states that once prototypes reach the later stages of the above process, the product is first presented to retailers and an additional six month period ensues during which the product design is refined, further integration and testing occurs, and formal product sales presentations are made to retailers, followed by further sales meetings. Philips indicates that only then do major retailers make their placement decisions, paving the way for production quantity manufacturing to commence. It states that at that point the manufacturer proceeds to order the parts and subassemblies necessary to construct the products that have been ordered. According to Philips, after the production models pass testing, shipments begin to the retailers, generally within 4-6 months of retailer placement decisions. It states that that upsetting this process by moving the deadline unreasonably close at the last minute would threaten to disrupt marketplace dynamics and drive up the price of digital sets.

[19] 47 U.S.C. §309(j)(14) also provides for extending the transition in individual markets if certain criteria regarding consumer penetration of DTV reception capability are not met.

[20] Philips indicates that the quality problems it anticipates would show up a higher than normal product failure rates.

16. CEA/CERC further state that the DTV tuners integrated into large screen sets are not necessarily the same units as those that must be designed for smaller products. They submit that the tuners used in the large screen sets and most mid-size sets are designed to produce HDTV or EDTV outputs, as well as standard definition outputs, from HDTV programs. CEA/CERC indicate that this is not the case with smaller products, which in many cases will provide outputs at the NTSC, or standard definition, level. They state that although the resulting product is less capable and potentially cheaper, the fact that the component set is different means that the chassis and the final product must be engineered and produced differently. In their reply comments, Panasonic and TTE similarly argue that producing a line of integrated digital TV products requires making fundamental changes to the engineering design, electronics implementation, and physical structure of products. In this regard, TTE states that adding DTV reception capability to an existing television receiver model involves more than soldering a single tuner/chip onto a circuit board. It states that in fact DTV integration requires a re-engineering effort – and in the case of smaller-sized sets, requires a new chassis - beginning with modifications to the chassis hardware and software to accept the digital tuner, demodulator, and other essential circuitry and related components; followed by cabinet modifications to accept the new chassis, all new reliability and safety testing, and regulatory approvals. Panasonic states that these considerations are especially important as the shift to flat, thin and often "panel" TV's has become the norm and as consumers seek alternatives to the larger, bulkier, and boxy CRT-based TV sets that sometimes offered somewhat easier "packaging" implementation. Panasonic submits that this packaging factor is amplified in interface products such as VCRs and DVD recorders where consumer expect the physical footprint of the device to match or be smaller than current models.[21]

17. While they maintain that it will still be challenging to meet the July 1, 2007 date for smaller screen and other TV receiver products, CEA/CERC, Panasonic, Philips, and TTE also offer that a somewhat earlier compliance date for these products might be feasible so long as it is not earlier than March 1, 2007. They indicate this date is the earliest possible compliance date for the general population of manufacturers, who need a minimum of 18 to 24 months to plan, develop, and deploy new products. Philips opposes changing the current date for digital television products other than television sets, such as DVD recorders and VCRs. It states that with so many products to address, the resource burden would be simply too great to move the compliance date up for other TV reception products. Philips also argues that in considering the difficulties with a November 1, 2006 or December 31, 2006 compliance date, the Commission should recognize that there is only a 2-4 months, not years, difference between these proposals and the date offered by itself, CEA/CERC and other manufacturers and that while the 2-4 months is critical to the reliable design and successful introduction of the new smaller digital sets and other products for consumers, relatively few analog sets would be sold during the 2-4 month period as compared to the 290 million analog sets already in homes.

18. *Decision.* Consistent with the need to promote a rapid and orderly end to the DTV transition, we continue to believe it is desirable and appropriate to advance the date by which all new television receiving equipment must include the capability to receive over-the-air broadcast DTV signals. The rules already require that all new large screen receivers and 50 percent of a responsible party's mid-size receivers include digital reception capability and we recently advanced the date by which all mid-size receivers must include that capability by four months, to March 1, 2006. Advancing the date by which the remaining 13-24" smaller-size sets and other TV receiver devices categories must comply with the DTV tuner requirement will serve to ensure that a greater portion of all TV receiver products that are in

[21] Panasonic also states that DVD and nascent products such as the new high-capacity Blu-Ray Disc need all the time anticipated under the current rule, inasmuch as the design for the analog-only versions of these products of today is shifting to incorporate digital and full HDTV recording. Panasonic states that it makes no sense to require a digital tuner in such products if they cannot record high definition programming. It submits that with the transition to HD-capable disc recorders expected to begin within a year, the timing of the existing July 1, 2007 DTV tuner requirement would mesh well. It states that the complexity of this product provides a good example of why the industry needs all the time that the Commission originally provided for "interface devices."

use by consumers at the time analog service ceases will be able to receive broadcasters' digital signals and thus provide for a smooth and orderly completion of the switchover process. As MSTV/NAB and Disney/ABC observe, many consumers do, in fact, rely on a smaller-size set as their primary device for watching TV service and those consumers will receive only limited benefits from purchasing new analog-only sets that will not receive broadcast signals when analog service ceases.[22]

19. As indicated above, our goal in the *Report and Order and Further Notice* with respect to the smaller-size sets and other TV receiving devices categories was to advance the date by which these products must include digital reception capability to December 31, 2006 or earlier, if feasible.[23] In deciding on a new date for applying the tuner requirement to these products, we need to consider the ability of manufacturers to produce compliant products as well as the benefits of including DTV tuners in these products. After carefully examining the record herein, we conclude that the action which most appropriately balances our concerns on both sides of this matter is to advance the date by which new 13-24" television sets and other TV receiver devices must include the capability to receive broadcast digital television signals to March 1, 2007, in accordance with the alternative approach suggested by CEA/CERC and several of the consumer electronics manufacturers participating in this proceeding. From the information provided by CEA/CERC and the participating manufacturers, we conclude that it may not be feasible for the general population of receiver manufacturers to produce all of their products in these categories with DTV tuners at an earlier date. In particular, we recognize the manufacturers' points that the DTV tuners that will be included in smaller receivers are not the same units as installed in larger screen sets, that the design of smaller screen receivers is changing to flat or thin panel formats, and that the product development, parts acquisition, manufacturing, distribution, and marketing processes for new television receiver products are both technically demanding and complex with multiple steps that must be completed in succession.[24] We are not adopting Philips' suggestion that we exempt other TV receiver products from the accelerated date for compliance with the tuner requirements, as other manufacturers appear to be able to include DTV tuners in those products by March 1, 2007.[25]

20. We are concerned that if we were to require DTV reception capability in smaller-size and other TV receiver products before the general population of manufacturers is able to properly complete the product development process, it could prove disruptive to the market for those products. Specifically, we are concerned that such disruptions could possibly involve deficiencies in the quality of products marketed so that they would not be acceptable to consumers, manufacturers deciding to simply leave the market for these products, or manufacturers just removing broadcast television reception capability from these products. We do not find that it would be better to accept the removal of product categories from the marketplace or the removal of all television reception capability from a display device. To do so might pose business costs for manufacturers in terms of lost sales or possible shut-down of production facilities that we do not believe are necessary.

21. We also note that the March 1, 2007 date when the industry indicates that the general population could be ready to produce 13-24" sets and other TV receiver products with DTV tuners is only

[22] *See* discussion of comments in paragraph 8 and footnote 13 above; *see* also MSTV/NAB comments at 4-6; Disney/ABC comments at 4.

[23] We note that Congress is considering enactment of a new deadline for ending the digital television transition and eliminating the provisions for extending the deadline. We believe that the underlying rationale of the DTV tuner requirement would fully apply to any such change to the extent that the expected useful life of new television receivers extends beyond the transition date adopted (e.g., a transition end date in 2009 would be well within the expected useful life of TV receivers entering the marketplace in 2007).

[24] *See* discussion of comments in paragraphs 15-16; *see also* Philips comments at 4-6 ; CEA/CERC comments at 3 and 7-8; Panasonic comments at 4-6; and TTE comments at 4-7.

[25] *See* discussion of comments in paragraph 17; *see also* CEA/CERC comments at 10-12; Philips comments at 10; Panasonic reply comments at 7-8; TTE comments at 7.

two months beyond our December 31, 2006 proposal. We believe that the benefits of allowing manufacturers to proceed with the inclusion of DTV tuners in these products on a more orderly basis would outweigh the adverse effects of the relatively small number of affected products (as compared to the hundreds of millions of analog-only receivers currently in use) that would be brought into the market in the two month period between December 31, 2006 and March 1, 2007. Upon balancing the production capabilities of manufacturers and our interests in promoting a rapid conclusion to the DTV transition, we believe the brief two month period when new analog-only sets can be brought onto the market will still allow the return of the 700 MHz spectrum in a timely manner without overly burdening manufacturers.[26] Accordingly, for the reasons set forth above we are advancing the date by which television receivers with screen sizes 13-24" and other TV receiver devices must include the capability to receive digital television signals from July 1, 2007 to March 1, 2007.

B. Receivers with Screen Sizes less than 13"

22. In the *Report and Order and Further* Notice, the Commission sought comment on whether it should extend the DTV tuner requirement to apply to receivers with screen sizes less than 13" inches. It noted that if such devices are to provide off-the-air reception of TV signals after the transition, they too must be able to receive DTV signals and that it is less likely that very small screen receivers, and particularly handheld and similar portable devices, would be used with a separate device for receiving DTV signals.

23. *Comments.* MSTV/NAB, Chris Llana and Philips support applying the digital tuner mandate to receivers smaller than 13". MSTV/NAB state that extending the tuner mandate to sets under 13" as soon as practicable would ensure that these sets provide service in the post-transition environment, and in particular argue that it is crucial that they function during power outages in times of emergency. They note that portable sets are more likely than larger sets to be used solely for over-the-air reception and, because they are typically battery powered, are crucial when disasters leave viewers without power. MSTV/NAB also submit that unlike larger sets, a digital-to-analog converter box could not generally be added to a portable, battery-powered set. Chris Llana argues that sets with screen sizes smaller than 13" are generally more expensive than the typical 13" set and so believes that the added price for a digital tuner in these sets would not discourage consumers from purchasing them. Philips states that assuming that all analog broadcasts will completely cease, it is reasonable to extend the mandate to all television sets regardless of size.

24. CEA/CERC and Sharp oppose extending the DTV tuner requirements to receivers with screen sizes smaller than 13". They generally argue that manufacturers, in their concentration on the existing implementation schedule, have neither considered nor assigned resources to the project of including DTV reception capability in sets with screens smaller than 13". They state that including DTV tuners in products of this size will require chipsets that do not yet exist. They therefore submit that experience is necessary with the small chassis products that currently are subject to the tuner requirements before the feasibility of including digital tuners in products with screens smaller than 13" can be determined. CEA/CERC also submit that the cost of adding a digital tuner to these inexpensive sets would dramatically impact the retail price at this time. Sharp does not believe that the free market needs any assistance in the digital transition for receivers smaller than 13". It argues that since hand-held and portable TV receivers are typically rather inexpensive, consumers would be better served by purchasing a new portable device after the analog cutoff when prices decrease from economies of scale. It further argues that mobile devices have unique tuner needs that would be better served by more advanced chipsets, so that consumers would get a better mobile digital tuner later, at a less expensive price, without

[26] We also observe that if Congress enacts legislation establishing a new date for ending the transition and eliminating the provisions for extending the deadline, that action would moot Motorola's concerns about the impact of the date for requiring DTV tuners in smaller size TV sets and other TV receiver products on the availability of 700 MHz spectrum for public safety use.

a tuner mandate. Philips and TTE urge that any expansion of the mandate to include DTV tuners in receivers with screen sizes below 13" should apply only to devices that are intended primarily for receiving broadcasts and not other types of over-the-air video reception devices such as cellular telephones and personal digital assistants (PDAs). They argue that mobile phones and other mobile devices that include a capability to receive video programs transmitted in any service other than traditional, free over-the-air broadcasting on channels 2-51 are not TV receivers and do not have any meaningful impact on the DTV transition.

25. *Decision.* We find merit in the concerns of MSTV/NAB and others that receivers with screen sizes less than 13" should also be required to include DTV reception capability. Unlike larger screen receivers, the portable and typically battery-powered products in this category are more likely to be used to receive off-the-air signals and to not have inputs for connection to a separate DTV receiver. Thus, in contrast to larger screen receivers and other TV receiving devices, it is reasonable to expect that sets with screen sizes less than 13" would generally not be useful to consumers once analog television service ceases. We recognize that these very small receivers are not typically used as a viewer's primary receiver. Nonetheless we also note their particular value for enabling the reception of news and public safety information in times of emergency. We therefore conclude that it would benefit consumers and the purposes of the broadcast television service and its transition to digital operation to require that receivers with screens less than 13" are able to receive digital signals on the same schedule as other TV receiver products. Extending the DTV tuner requirement to receivers with screen sizes less than 13" on that schedule will maximize the number of receivers in this category that will continue to be able to provide service after analog TV operation ceases. We are not convinced that it would be overly burdensome for the consumer electronics industry to bring these products into compliance with the DTV tuner requirement by the date when all other TV receiver products must include DTV reception capability. For example, Philips supports extending the tuner requirement to sets in this category.[27] Because of the limited usefulness of these products for other purposes after analog service ends, we believe it would be preferable to restrict the marketing of products than to continue to allow non-compliant products to be sold to consumers. Accordingly, we will require that responsible parties equip television receivers with screens less than 13" that are imported into this country or shipped in interstate commerce on and after March 1, 2007 with the capability to receive broadcast digital television signals.

26. We agree with Philips and TTE that this extension of the DTV tuner requirement to very small screen devices should only apply to products that receive off-the-air broadcasts and not other types of off-the-air reception devices such as cell phones and personal digital assistants (PDAs) that do not include the capability to receive broadcast TV service on the frequencies allocated for that service but may be able to receive broadcast TV programming that is re-transmitted over a wireless communications link other than a TV channel. To the extent that such devices are able to display broadcast TV programming transmitted over a non-broadcast communications link, we do not consider a device with that capability to be a broadcast TV receiver. Therefore, the DTV tuner requirement does not extend to small screen video capable devices that do not include the ability to receive broadcast television signals off-the-air. However, in cases where a cell phone, PDA or similar device does include the capability to receive TV programming on the channels allocated for the broadcast television service, that device is a TV broadcast receiver under Section 15.3(w) of the rules and must comply with the DTV tuner requirement.[28]

C. Other Approaches - Labeling Requirements

27. As indicated above, in the *Report and Order and Further Notice* the Commission also requested suggestions for alternative approaches for including DTV reception capability in all new TV

[27] *See* Philips comments at 9-10.

[28] 47 C.F.R. § 15.3(w).

receivers. Chris Llana recommends that as an alternative approach in conjunction with the DTV tuner requirement the Commission also require that television receiver products be labeled with enough information to permit consumers to make a fully informed decision before purchase and to alert them to the downsides of buying an analog-only product. He submits that any label should be clear and complete and that the label should be placed on the screen of TV sets, where it would draw attention to itself.

28. CEA/CERC submit that they have testified in Congressional hearings that they each support a requirement for a standard informative label once a "hard date" for the end of the DTV transition has been enacted.[29] They therefore urge the Commission to wait until the enactment of new DTV legislation before proceeding with any labeling requirement. They also submit that in terms of timing, manufacturers would need 120 to 180 days to include labels on products themselves (as opposed to packaging) to incorporate the labeling step into the manufacturing cycle. They indicate that a 90 day period would be needed if a label were designed as a sticker to be placed on the outside of the product packaging. CEA/CERC state that any shorter notice period would mean that highly automated production lines would have to be stopped and re-organized at great cost, or else the labels would have to be added manually at similarly high cost. They state that with enough advance notice to automate the labeling process, labeling is a much less significant cost. In its reply comments, Panasonic supports CEA/CERC's submission regarding labeling and pledges to work with the Commission, other manufacturers, and retailers to devise the appropriate and uniform form for such labels.

29. We believe that consumer awareness of whether a television can receive off-the-air DTV signals or only off-the-air analog signals is critical to ensuring that consumer expectations are met. We also believe that it would further consumer education if manufacturers and retailers would provide point-of-sale and other marketing information to consumers and/or clearly label new television sets. We believe that such efforts would result in more informed consumer choices about whether to buy DTV tuner equipped sets. These issues have been raised in the Second DTV Periodic Review, MB Docket No. 03-15, and we intend to address these issues expeditiously.[30] In the interim, we encourage manufacturers and retailers to clearly label and identify the tuning capabilities of new TV sets and/or employ other means to disseminate to consumers information regarding whether or not specific models are able to receive off-the-air digital television signals.

IV. PROCEDURAL MATTERS

30. *Accessibility Information.* Accessible formats of this Second Report and Order (computer diskettes, large print, audio recording and Braille) are available to persons with disabilities by contacting Brian Millin, of the Consumer & Governmental Affairs Bureau, at (202) 418-7426, TTY (202) 418-0432, or at bmillin@fcc.gov.

31. *Paperwork Reduction Act of 1995 Analysis.* This Second Report and Order contains no new or modified information collection(s) subject to the Paperwork Reduction Act of 1995 (PRA), Public Law 104-13. In addition, therefore, it does not contain any new or modified "information collection burden for small business concerns with fewer than 25 employees," pursuant to the Small Business Paperwork Relief Act of 2002, Public Law 107-198, *see* 44 U.S.C. 3506(c)(4).

[29] CEA and CERC presentations before the House Energy and Commerce Committee, May 26, 2005.

[30] *See Second Periodic Review of the Commission's Rules & Policies Affecting the Conversion To Digital Television, Report & Order* in MB Docket No. 03-15, 19 FCC 18280 (2004), ¶¶ 98-106.

[33] *See* 5 U.S.C. § 604.

32. *Final Regulatory Flexibility Analysis.* As required by the Regulatory Flexibility Act,[33] the Commission has prepared a Final Regulatory Flexibility Analysis ("FRFA") relating to the Report and Order section of this action. The FRFA is set forth in Appendix C.

33. *Additional Information.* For additional information on this proceeding, please contact Alan Stillwell, Office of Engineering and Technology at (202) 418-2925.

V. ORDERING CLAUSES

34. Accordingly, **IT IS ORDERED** that, pursuant to the authority contained in Sections 2(a), 4(i) & (j), 7, 151 and 303 of the Communications Act of 1934 as amended, 47 U.S.C. §§ 152(a), 154(i) & (j), 151, 157, and 303, this Report and Order and Further Notice of Proposed Rulemaking **IS ADOPTED** and the Commission's rules **ARE HEREBY AMENDED** as set forth in Appendix B, and shall become effective 30 days after publication in the Federal Register.

35. **IT IS FURTHER ORDERED** that the Commission's Consumer and Governmental Affairs Bureau, Reference Information Center, **SHALL SEND** a copy of this Second Report and Order, including the Final Regulatory Flexibility Analysis, to the Chief Counsel for Advocacy of the Small Business Administration.[34]

36. **IT IS FURTHER ORDERED** that the Commission **SHALL SEND** a copy of this Report and Order and Further Notice of Proposed Rulemaking in a report to be sent to Congress and the General Accounting Office pursuant to the Congressional Review Act, *see* 5 U.S.C. § 801(a)(1)(A).

FEDERAL COMMUNICATIONS COMMISSION

Marlene H. Dortch

Marlene H. Dortch
Secretary

[34] *See* 5 U.S.C. § 603(a).

APPENDIX A
PARTIES SUBMITTING COMMENTS AND/OR REPLY COMMENTS

Parties Submitting Comments

1. Joint Comments of the Association for Maximum Service Television and the National Association of Broadcasters
2. Association of Public Television Stations
3. ATI Technologies, Inc.
4. Government of China (late filed)
5. Joint Comments of the Consumer Electronics Association and the Consumer Electronics Retailers Coalition
6. The Walt Disney Company
7. Chris Llana
8. Nicholas E. Leggett
9. Motorola, Inc.
10. Philips Electronics North America Corporation
11. Sharp Electronics Corporation
12. TiVo, Inc.

Parties Submitting Reply Comments

1. Joint Reply Comments of the Association for Maximum Service Television and the National Association of Broadcasters
2. Chris Llana
3. Joint Reply Comments of the Consumer Electronics Association and the Consumer Electronics Retailers Coalition
4. Panasonic Corporation of North America
5. Philips Electronics North America Corporation
6. TTE Corporation

APPENDIX B
AMENDMENTS TO THE COMMISSION'S RULES

Part 15 of Title 47 of the Code of Federal Regulations is amended as follows:

1. The authority citation for Part 15 continues to read as follows:

Authority: 47 U.S.C. 154, 303, 303, 304, 307, and 554A.

2. Section 15.117 of the rules is amended by revising paragraph (i)(1) to read as follows:

§ 15.117 TV broadcast receivers.

* * * * *

(i) Digital television reception capability implementation schedule. (1) Responsible parties, as defined in Section 2.909 of this chapter, are required to equip new TV broadcast receivers that are shipped in interstate commerce or imported from any foreign country into the United States and for which they are responsible to comply with the provisions of this section in accordance with the following schedule:

- Receivers with screen sizes 36" and above - 50% of all of a responsible party's units must include DTV tuners effective July 1, 2004; 100% of such units must include DTV tuners effective July 1, 2005
- Receivers with screen sizes 25" to less than 36" - 50% of all of a responsible party's units must include DTV tuners effective July 1, 2005; 100% of such units must include DTV tuners effective March 1, 2006
- Receivers with screen sizes less than 25" - 100% of all such units must include DTV tuners effective March 1, 2007
- Other video devices (videocassette recorders (VCRs), digital video recorders such as hard drive and DVD recorders, etc.) that receive television signals - 100% of all such units must include DTV tuners effective March 1, 2007.

The requirement to include digital television reception capability in new TV broadcast receivers does not apply to devices such as mobile telephones and personal digital assistants where such devices do not include the capability to receive TV service on the frequencies allocated for broadcast television service.

* * * * *

APPENDIX C
FINAL REGULATORY FLEXIBILITY ANALYSIS

As required by the Regulatory Flexibility Act of 1980, as amended ("RFA"),[35] an Initial Regulatory Flexibility Analysis (IRFA) was incorporated into the *Report and Order and Further Notice of Proposed Rulemaking* in ET Docket No. 05-24 (*Report and Order and Further Notice*). The Commission sought written public comment on the proposals on the *Notice* concerning modification of the plan for applying the DTV tuner requirement to TV receivers with screen sizes 25-36", including comment on the IRFA. No comments were received in response to the IRFA. This Final Regulatory Flexibility Analysis (FRFA) conforms to the RFA.[36]

A. Need for and Objectives of the Rules Adopted in the Second Report and Order. As described in the *Second Report and Order and Further Notice*, the changes to the rules adopted in this proceeding are intended to ensure a smooth transition of the nation's television system to digital television. Beginning in 1987, the Commission undertook to bring the most up-to-date technology to broadcast television.[37] That effort resulted in several Commission decisions, including those adopting a digital television (DTV) standard,[38] DTV service rules,[39] and a Table of DTV Allotments.[40] The Table of DTV Allotments provides each existing television broadcaster with a second channel on which to operate a DTV station for a transition period in which stations will operate both analog and digital TV service, after which analog service will cease and one of each station's two channels will revert to the government for use in other services. The transition deadline established by Congress was December 31, 2006.

In 2002, consistent with its efforts to promote the expeditious completion of the DTV transition, the Commission adopted a requirement that all new television receivers imported or shipped in interstate commerce after July 1, 2007 include the capability to receive DTV signals off-the-air. In order to minimize the impact of the DTV tuner requirement on both manufacturers and consumers, the Commission adopted a phase-in schedule that applies the DTV tuner requirement first to receivers with the screens and then to progressively smaller screen receivers and other TV receiving devices. In the *Report and Order and Further Notice*, the Commission modified the phase-in schedule for requiring DTV tuners in new television receiver products by advancing the date for 100% compliance by receivers with 25-36" screens to March 1, 2006 from July 1, 2006. In that action, the Commission concluded that maintaining the 50 percent requirement for 25-36" receivers for the period from July 1, 2005 to February 28, 2005 and advancing the 100 percent compliance date for mid-size receivers to March 1, 2006 will ameliorate the concerns of the consumer electronics manufacturers and retailers with respect to the 50 percent approach and further its goal of promoting DTV reception availability. In that action, the Commission also proposed to advance the compliance date for 13-24" receivers in order to promote a more rapid conclusion to the digital television transition.

In this Second Report and Order, the Commission revises its rules to advance the date on which new television receivers with screen sizes 13-24" and certain other TV receiving devices such as VCRs and digital video recorders must include the capability to receive broadcast digital television signals from the current date of July 1, 2007 to March 1, 2007. The Commission also amends its rules to apply the digital

[35] *See* 5 U.S.C. § 603. The RFA, *see* 5 U.S.C. §§ 601-612, has been amended by the Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA), Pub. L. No. 104-121, Title II, 110 Stat. 857 (1996).

[36] *See* 5 U.S.C. § 604.

[37] *See Notice of Inquiry* in MM Docket No. 87-268, 2 FCC Rcd 5125 (1987); *see also Tentative Decision and Further Notice of Proposed Rulemaking* in MM Docket No. 87-268, 3 FCC Rcd 6520 (1988).

[38] *See Fourth Report and Order* in MM Docket No. 87-268, 11 FCC Rcd 17771 (1996).

[39] *See Fifth Report and Order* in MM Docket No. 87-268, 12 FCC Rcd 12809 (1997).

[40] *See Sixth Report and Order* in MM Docket No. 87-268, 12 FCC Rcd 14588 (1997).

television reception capability requirement to new receivers with screen sizes smaller than 13" on this same schedule. With these changes, the scheduled DTV tuner implementation plan will require that all new TV receiver equipment include digital reception capability as of March 1, 2007. The Commission is taking these steps to ensure that digital television reception capability is provided to the general population on a schedule that will promote a rapid completion of the DTV transition. In this regard, we observe that consumers must be able to receive digital signals for the transition to move forward to a successful completion. The Commission's goal in taking the actions in the Second Report and Order is to maximize the number of TV receivers on the market, with a final goal that all new television receiver products include a DTV tuner as quickly as possible. In crafting those actions, the Commission recognized that manufacturers' product and distribution resources will affect their ability to comply with the tuner requirement and balanced those considerations with the need to ensure that new TV receiver products include DTV tuners.

B. Summary of Significant Issues Raised by Public Comments in Response to the IRFA: No comments were filed in response to the IRFA.

C. Description and Estimate of the Number of Small Entities to Which the Proposed Rules Will Apply. The RFA directs the Commission to provide a description of and, where feasible, an estimate of the number of small entities that will be affected by the proposed rules.[41] The RFA generally defines the term "small entity" as having the same meaning as the terms "small business," "small organization," and "small governmental entity."[42] In addition, the term "small business" has the same meaning as the term "small business concern" under the Small Business Act.[43] A small business concern is one which: (1) is independently owned and operated; (2) is not dominant in its field of operation; and (3) satisfies any additional criteria established by the Small Business Administration ("SBA").[44]

Electronics Equipment Manufacturers. Rules adopted in this proceeding will apply to manufacturers of DTV receiving equipment and other types of consumer electronics equipment. The SBA has developed definitions of small entity for manufacturers of audio and video equipment[45] as well as radio and television broadcasting and wireless communications equipment.[46] These categories include the types of equipment affected by the rules adopted herein and both include all such companies employing 750 or fewer employees. However, these NAICS categories are broad and specific figures are not available as to how many of these establishments manufacture consumer equipment. According to the SBA's regulations, an audio and visual equipment manufacturer must have 750 or fewer employees in order to qualify as a small business concern.[47] Census Bureau data indicates that there are 554 U.S. establishments that manufacture audio and visual equipment, and that 542 of these establishments have fewer than 500 employees and would be classified as small entities.[48] The remaining 12 establishments

[41] 5 U.S.C. § 603(b)(3).

[42] 5 U.S.C. § 601(6).

[43] 5 U.S.C. § 601(3) (incorporating by reference the definition of "small business concern" in the Small Business Act, 15 U.S.C. § 632). Pursuant to 5 U.S.C. § 601(3), the statutory definition of a small business applies "unless an agency, after consultation with the Office of Advocacy of the Small Business Administration and after opportunity for public comment, establishes one or more definitions of such term which are appropriate to the activities of the agency and publishes such definition(s) in the Federal Register."

[44] 15 U.S.C. § 632.

[45] 13 CFR § 121.201 (NAICS Code 334310

[46] 13 CFR § 121.201 (NAICS Code 334220).

[47] 13 CFR § 121.201 (NAICS Code 334310).

[48] Economics and Statistics Administration, Bureau of Census, U.S. Department of Commerce, 1997 Economic Census, Industry Series – Manufacturing, Audio and Video Equipment Manufacturing, Table 4 at 9 (1999). The (continued....)

have 500 or more employees; however, we are unable to determine how many of those have fewer than 750 employees and therefore, also qualify as small entities under the SBA definition. Under the SBA's regulations, a radio and television broadcasting and wireless communications equipment manufacturer must also have 750 or fewer employees in order to qualify as a small business concern.[49] Census Bureau data indicates that there 1,215 U.S. establishments that manufacture radio and television broadcasting and wireless communications equipment, and that 1,150 of these establishments have fewer than 500 employees and would be classified as small entities.[50] The remaining 65 establishments have 500 or more employees; however, we are unable to determine how many of those have fewer than 750 employees and therefore, also qualify as small entities under the SBA definition. We therefore conclude that there are no more than 542 small manufacturers of audio and visual electronics equipment and no more than 1,150 small manufacturers of radio and television broadcasting and wireless communications equipment for consumer/household use.

Computer Manufacturers. The Commission has not developed a definition of small entities applicable to computer manufacturers. Therefore, we will utilize the SBA definition of electronic computers manufacturing. According to SBA regulations, a computer manufacturer must have 1,000 or fewer employees in order to qualify as a small entity.[51] Census Bureau data indicates that there are 563 firms that manufacture electronic computers and of those, 544 have fewer than 1,000 employees and qualify as small entities.[52] The remaining 19 firms have 1,000 or more employees. We conclude that there are approximately 544 small computer manufacturers.

D. Description of Projected Reporting, Recordkeeping and other Compliance Requirements. The rule changes adopted in the Report and Order impose no additional recordkeeping or recordkeeping requirements on manufacturers of television receiving equipment, large or small. While the modifications adopted therein may have a small impact on consumer electronics manufacturers, any such impact would be similar for both large and small entities. We do not believe that the potential impact on an specified number of small entities outweighs the overall public interest benefits conferred by of the rule changes adopted in the Second Report and Order.

E. Steps Taken to Minimize Significant Impact on Small Entities, and Significant Alternatives Considered. The RFA requires an agency to describe any significant alternatives that it has considered in reaching its proposed approach, which may include the following four alternatives (among others): (1) the establishment of differing compliance or reporting requirements or timetables that take into account the resources available to small entities; (2) the clarification, consolidation, or simplification of compliance or reporting requirements under the rule for small entities; (3) the use of performance,

---

(...continued from previous page)
amount of 500 employees was used to estimate the number of small business firms because the relevant Census categories stopped at 499 employees and began at 500 employees. No category for 750 employees existed. Thus, the number is as accurate as it is possible to calculate with the available information.

[49] 13 C.F.R. § 121.201 (NAICS Code 513220).

[50] Economics and Statistics Administration, Bureau of Census, U.S. Department of Commerce, 1997 Economic Census, Industry Series – Manufacturing, Radio and Television Broadcasting and Wireless Communications Equipment Manufacturing, Table 4 at 9 (1999). The amount of 500 employees was used to estimate the number of small business firms because the relevant Census categories stopped at 499 employees and began at 500 employees. No category for 750 employees existed. Thus, the number is as accurate as it is possible to calculate with the available information.

[51] 13 C.F.R. § 121.201 (NAICS Code 334111).

[52] Economics and Statistics Administration, Bureau of Census, U.S. Department of Commerce, 1997 Economic Census, Industry Series – Manufacturing, Electronic Computer Manufacturing, Table 4 at 9 (1999).

rather than design, standards; and (4) an exemption from coverage of the rule, or any part thereof, for small entities.[53]

The modification of the date for implementing the DTV tuner requirement in TV receivers with screen sizes in the 13-24" and under 13" size ranges and other television receiver products set forth herein is intended to expedite the availability of DTV tuners in products in these categories that are offered to consumers. The consumer electronics industry has indicated that it prefers the DTV tuner requirement to become effective for 13-24" receivers and other television receiver products on March 1, 2007 rather than a date of December 31, 2006 or earlier as proposed. The Commission also found that it was necessary to apply the tuner requirement to receivers with screen sizes less than 13" in order to ensure that new products in that category remain functional after the cessation of analog TV service. Moving the compliance date for these receivers to March 1, 2007 rather than an earlier date will allow the general population of manufacturers sufficient time to include digital reception capability in small TV sets and other television receiver products and will also serve to promote the availability of digital reception capability in these sets for consumers.

Alternative approaches considered by the Commission, but rejected, include various suggestions by broadcasters and others to advance the deadline for DTV tuners in 25-36" sets to either October 1, 2006 or November 1, 2006. We rejected these options on the basis that the lead-times available for product development under those scenarios would be too short for the general population of manufacturers, including smaller manufacturers, to bring new compliant products to the market, especially given the times associated with specification, design, testing and obtaining parts and components from suppliers. While other options that would have extended the deadline beyond March 1, 2007 may have posed less potential impact on manufacturers, including small business manufacturers, extending the date beyond March 1, 2007 would be inconsistent with the need to expedite the DTV transition. In its decision, the Commission balanced the need to ensure that DTV reception capability is included in new TV receivers as soon as possible with its concerns for impact on manufacturers, including small manufacturers. Thus, the plan adopted minimizes the potential impact on small manufacturers consistent with the Commission's goals for the DTV reception requirement.

F. Federal Rules Which Duplicate, Overlap, or Conflict with the Commission's Proposals. None.

[53] 5 U.S.C. § 603(c)(1)-(c)(4).