



The Weekly NAB Newsletter for Television Broadcast Engineers

July 14, 2008

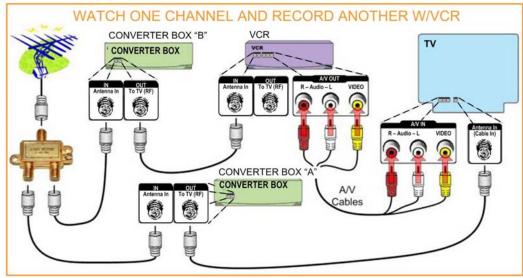
## FCC Posts DTV Converter Box "Setup Guides"

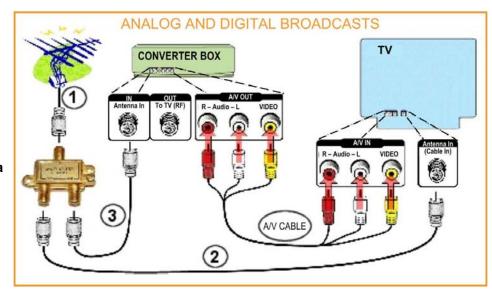
TV converter box coupons are now widely in use—according to the NTIA, as of mid-June over 16 million coupons have been mailed and over 3.8 million redeemed (additional information on the converter box program is available on the NTIA's Web page at <a href="https://www.ntia.doc.gov/dtvcoupon">www.ntia.doc.gov/dtvcoupon</a> and also at <a href="https://www.dtv2009.gov">www.dtv2009.gov</a>). Consequently, there are likely millions of consumers who are now trying to hook up all those converter boxes, and in a variety of ways. Broadcasters looking for information to help their viewers do this may want to visit the FCC's Digital TV Transition publications Web page <a href="https://www.dtv.gov/publications.html">www.dtv.gov/publications.html</a>) where recently a series of converter box "setup guides" have been posted.



The FCC "Setting up your Digital-to-Analog Converter Box" series of fact sheets are illustrated with block diagrams showing all of the connectors and cables involved, and contain step-by-step instructions written in plain language to help consumers with this aspect of the DTV transition. There are currently four setup guides:

- b Basic –describes the installation of a digital-to-analog converter box with a current antenna and analog TV (three illustrations included). This guide will help consumers prepare so that when they purchase a converter box they will know what to expect and whether they may need help setting it up;
- Basic with twin-lead antenna wire –similar to the "basic" installation sheet except includes information for TV sets that have twin-lead terminals for attaching the antenna, instead of a coaxial connector plug or port (three illustrations included);





- With a VCR includes instructions on how to set up a single converter box with a VCR (three illustrations) as well as for setting up two converter boxes with a VCR (five illustrations, including the one above) to allow for watching one channel while recording another;
- For viewing analog and digital broadcasts for consumers that wish to watch both stations that broadcast in digital (such as full-power stations) and stations that will continue to be broadcasting in analog after the February 17, 2009 transition date such as low-power, Class A, or TV translator stations (seven illustrations including the one shown above).

Another publication found on the FCC's DTV publications Web page is a fold-up DTV shopping guide which consumers can bring with them to a retail outlet when shopping for a DTV, and including a check list of the important things to ask about and look for such as finding out whether a particular TV set supports HDTV, and what cables will be needed to hook everything up. Other consumer-related FCC DTV publications include the following (all available on the DTV Transition publications Web page):

- Compatibility of Cable TV and Digital TV Receivers "Plug-and-Play"
- DTV: What Every Consumer Should Know
- The DTV Transition and Over-the-Air Viewers along U.S. Borders
- Antennas and Digital Television
- Video Descriptions and the Digital Television Transition
- Closed Captioning and Digital-to-Analog Converter Boxes for Viewing Free Over-the-Air Programming on Analog Televisions
- The DTV Transition and LPTV/Class A/Translator Stations
- FCC and EPA Joint Fact Sheet on DTV and Recycling

### SMPTE Asks for Input on Requirements for New Synchronization System

As reported in *TV TechCheck* of October 1, 2007, the Society of Motion Picture and Television Engineers (SMPTE) and the European Broadcasting Union (EBU) last year announced the formation of a Joint Task Force on Timing and Synchronization to investigate a potentially major change in one of the key aspects of the broadcasting infrastructure - system timing and synchronization. SMPTE has now issued the following call for input from users and equipment manufacturers, to which broadcasters are encouraged to respond

"PLEASE forward as necessary and, if at all relevant to you, please ensure that someone from your organization responds.

SMPTE & EBU formed a joint task force to examine options for new systems of synchronization and time labeling (details at http://www.smpte.org/standards/tf\_home/ )

We have received a number of interesting proposals, and are evaluating these and attempting to derive a "best of the best" scenario. However, it has become clear that we do not have good information on the performance requirements for a future synchronization system.

Traditional synchronizing systems had to provide a degree of accuracy and stability to permit mixing and special effects of NTSC and PAL composite analog signals. Generally it was considered necessary to achieve an accuracy in the order of one degree of subcarrier—somewhat better than 1 nanosecond.

We are investigating the possibility of a synchronizing system that would not require a dedicated distribution system, but could use an infrastructure shared with other services. Such a system is unlikely to meet conventional accuracy requirements, but we believe that this degree of accuracy may not be necessary for future systems.

Digital systems usually employ some form of FIFO and reclocking at receive points. Devices such as production switchers/mixers now have some degree of auto timing to synchronize inputs. So, we think that conventional requirements for stability and accuracy no longer apply—BUT we need your input and advice.

If you are a USER, please give us your comments and advice as to the requirements you believe should apply.

If you are an EQUIPMENT MANUFACTURER please tell us what stability is necessary for inputs of your present-day equipment to perform as expected. If you have auto-timing circuitry to synchronize multiple video signals, or video and audio signals (for audio insertion etc.) please tell us how much range you have. In other words, on equipment you manufacture today, what degree of jitter and wander on incoming signals could be tolerated without problems? Of course, we are interested in the most stringent requirements.

Your prompt response to this inquiry will be much appreciated, and you will be helping to ensure that future systems are as cost-effective as possible."

Replies should be addressed to Peter Symes, SMPTE Director, Standards & Engineering, at psymes@smpte.org, phone (914) 761-1100 x4961.

# DTV Satellite Coordination Webcast Wednesday, July 16, 2008 2:00 – 3:30 p.m. EDT



Satellite companies are in the process of changing over their receive sites to use our digital signals as the feeds for their satellite systems. They are proceeding on a market-by-market schedule. A copy of the satellite schedule can be found on MSTV's Web site, www.mstv.org, by clicking the satellite coordination link at

www.mstv.org/docs/sattransschedule.pdf.

Recently, a number of questions have arisen about the process. To answer these questions, MSTV will be hosting a webcast with the Leading Technical Teams from Directv and Echostar on Wednesday, July 16, 2008, from 2:00 to 3:30p.m., EDT.

To connect to the webcast, log on to: <a href="http://meta.globix.net/m/wm/cdl/wlj-01/COMP008760SCH1\_mobilevideo\_live2.wvx">http://meta.globix.net/m/wm/cdl/wlj-01/COMP008760SCH1\_mobilevideo\_live2.wvx</a>. The webcast will be interactive and allow you to email questions to <a href="mastvoorg">mstv@mstv.org</a>. Access to the webcast is free. Preregistration is not required. If you have any questions, please call David Donovan at 202-966-1956.

## NAB'S Satellite Uplink Operators Training Seminar September 29 – October 2, 2008



If you weren't able to attend the June NAB Satellite Uplink Operators Training Seminar, you still have one more opportunity this year. The course will be offered September 29 – October 2 at NAB's headquarters in Washington, DC.

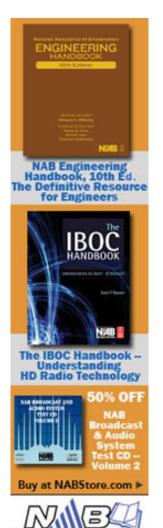
This four-day course is designed to instruct students in the proper technical and operational practices that will ensure safe, successful and interference free satellite transmissions.

You can check out a short video piece featuring satellite seminar instructor Sidney Skjei on the NAB365 Thought Leadership Channel at: http://nab365.bdmetrics.com/spc-8-10720/nab365-tv.aspx.

For more information call Cheryl Coleridge at (202) 429-5346 or go to NAB Satellite Uplink Operators Seminar.

## ATSC Digital Television Transmission System 8-VSB Fundamentals Seminar

Wednesday, September 24, 2008 - KNME, Albuquerque, N.M.



The 1-day 8-VSB Fundamentals seminar, conducted by Gary Sgrignoli, will help you develop a fundamental understanding of the digital VSB transmission system and its performance attributes as well as current practical application information. The seminar includes an optional site visit to KNME's DTV Tx site on Sandia Crest. For additional information contact the instructor Gary Sgrignoli, Meintel, Sgrignoli & Wallace at 847 259 3352 or <a href="mailto:Gary.Sgrignoli@leee.org">Gary.Sgrignoli@leee.org</a> or Jim Gale, KNME-DT, 505 277 2049, <a href="mailto:jgale@knme.org">jgale@knme.org</a>.

#### The AFD Ready Initiative



AFD Ready is an initiative created by television broadcasters to insure uniform and optimum program delivery of television broadcasts after the analog shutdown on February 17, 2009. Through this initiative, participants will work to increase awareness of AFD and promote its use throughout the television industry.

More information on the initiative including technical information and whitepapers, industry links and a list of AFD Ready ATSC receiver/down-converter devices is now available at www.nab.org/AFDReady.

