



# Standards Documentation Update

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# HDTV Documentation

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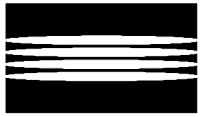
- In 1992 ATSC proposed to FCC that ATSC document the ATV standard
- FCC welcomed the proposal
- Documentation began after formation of Grand Alliance
- HDTV standard now being voted



# List of Documents

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- Digital Television Standard for HDTV Transmission
- Guide to the Use of the Digital Television Standard for HDTV Transmission
- Digital Audio Compression (AC-3) Standard



# Digital Television Standard

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- Printed in 1995 NAB Proceedings
- Video based on MPEG-2 Main Profile @ High Level with a few “constraints” (Annex A)
- Audio based on AC-3 with a few “constraints” (Annex B)



# Digital Television Standard (continued)

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- Transport based on MPEG-2 Transport Stream with a few “constraints” (Annex C)
- RF based on 8-level VSB (Annex D)
- Receiver recommendations (Annex E)



# Guide to the Standard

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- Printed in 1995 NAB Proceedings
- “Tutorial” written for Chief Engineers
- Covers entire system
- Written to accompany the Standard



# AC-3 Audio Standard

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- Adopted last November by ATSC Members
- Current vote includes an Annex describing use of MPEG-2 Transport to carry AC-3 bit stream



# SDTV Documentation

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- During 1994 several ATSC Members proposed that ATSC document SDTV
- Executive Committee agreed, but...
- Must finish HDTV first





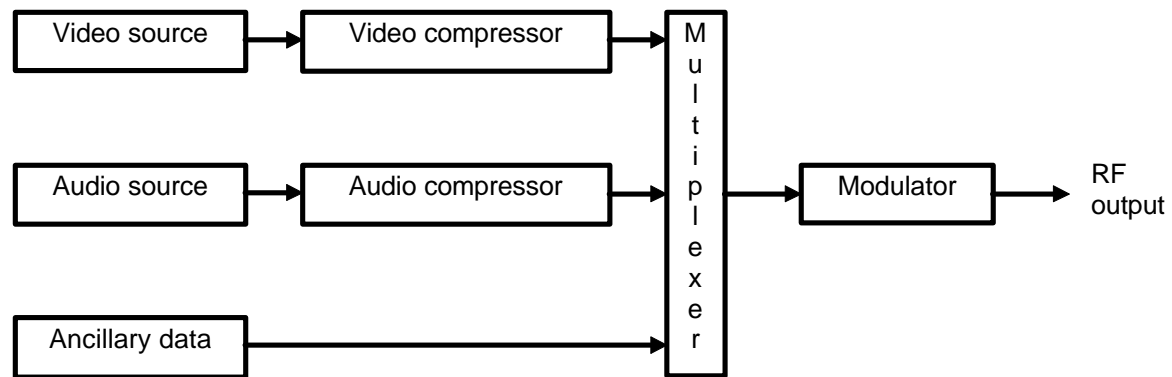
# Extensibility of GA HDTV System

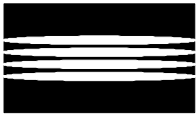
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- Grand Alliance HDTV System has:
  - Flexibility
  - Interoperability
  - Extensibility
- SDTV “almost” built-in
  - Use multiple encoders at lower resolution
  - MPEG-2 transport accommodates multiple programs

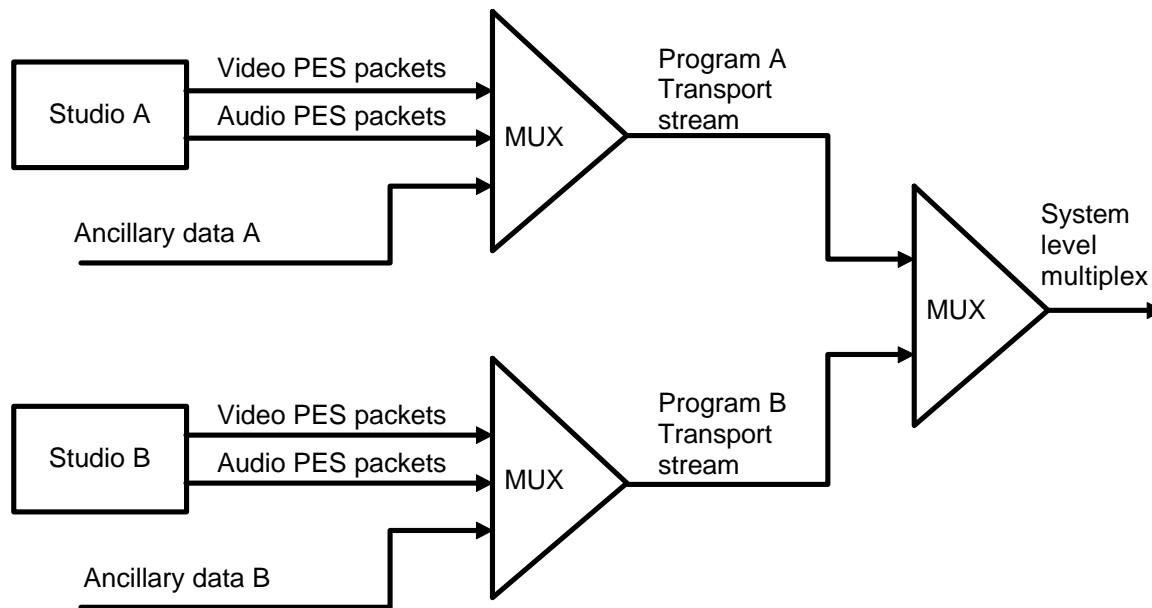


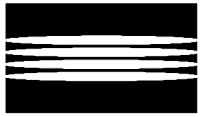
# Grand Alliance Encoder





# System Level Multiplex





# SDTV Documentation Status

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- Will lay on top of HDTV Standard
- Adds standard definition format to video
- Specific formats are under discussion
- Audio, Transport, and RF, as already documented, can accommodate SDTV
- Discussions on whether additional constraints should be added to AC-3 audio



# Additional Documentation Tasks

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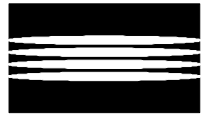
- Service Information
- Program Guide
- Compliance Document



# Submission to FCC

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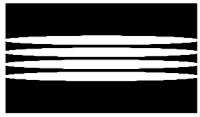
- HDTV standards work completed now
- SDTV standards work completed summer 1995
- All other standards documents completed summer 1995



## Submission to FCC (continued)

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- Lab test report will be available summer 1995
- Advisory Committee expected to make recommendation to FCC autumn 1995
- FCC action soon thereafter



# Availability of Standards Documents

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- Copy in 1995 NAB Proceedings
- **FTP** or **WWW** to **ATSC.ORG**
- Send email request to  
**R.HOPKINS@IEEE.ORG**