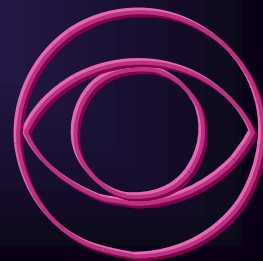


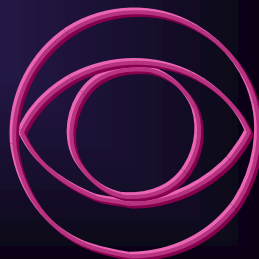
**2010
Hollywood Post Alliance**



Robert P. Seidel

CBS Television Network

V.P. Engineering & Technology



CBS's Alternate Delivery Platforms



Get Local News on your iPhone!

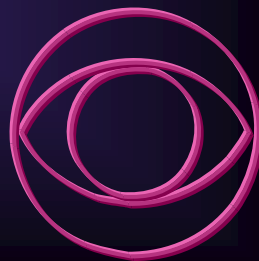


“Authentication”

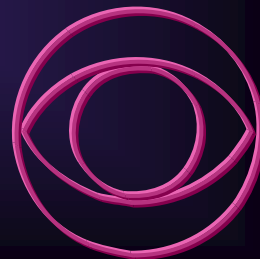
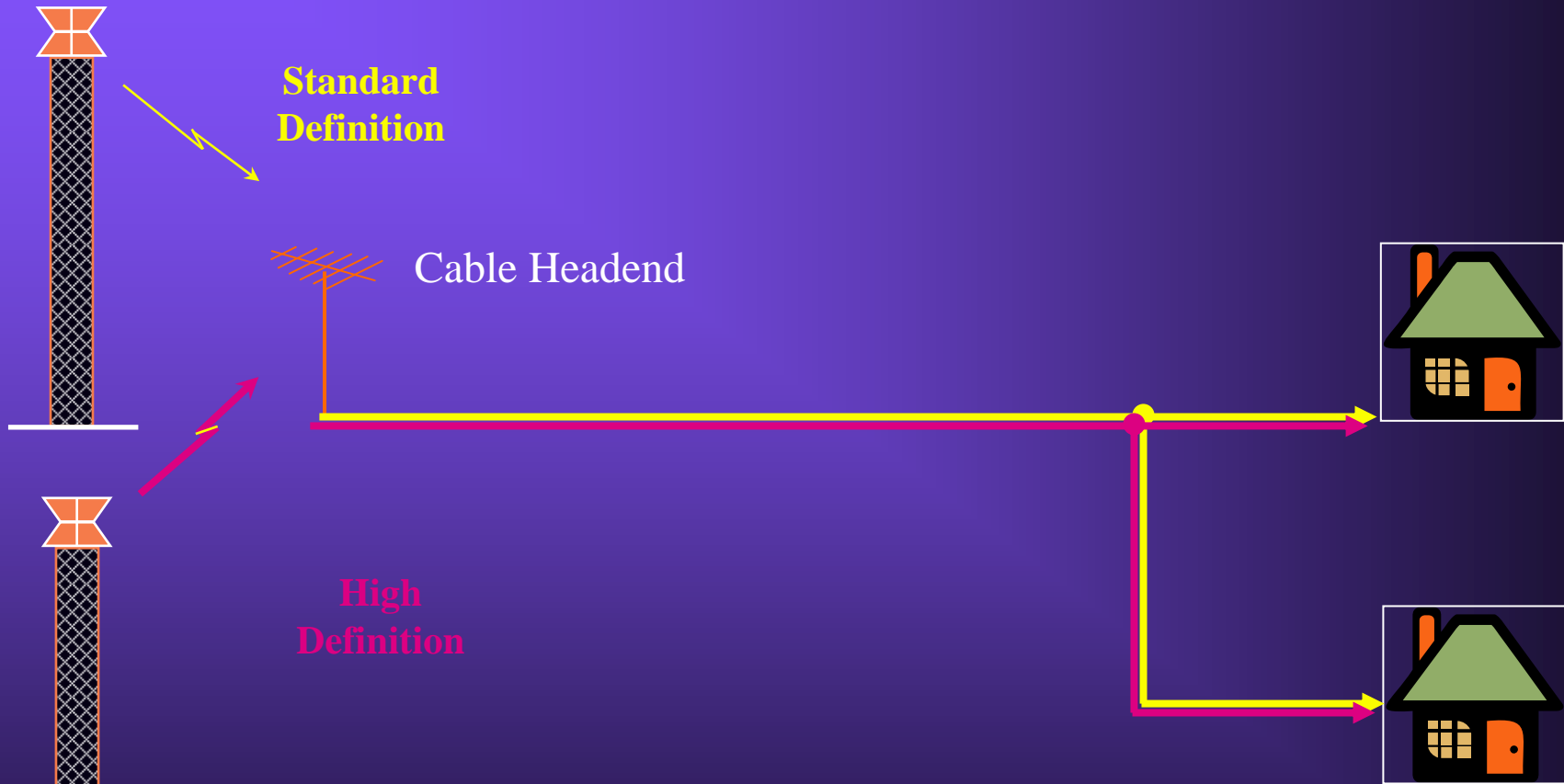


Post Analog Issues

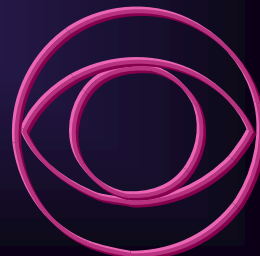
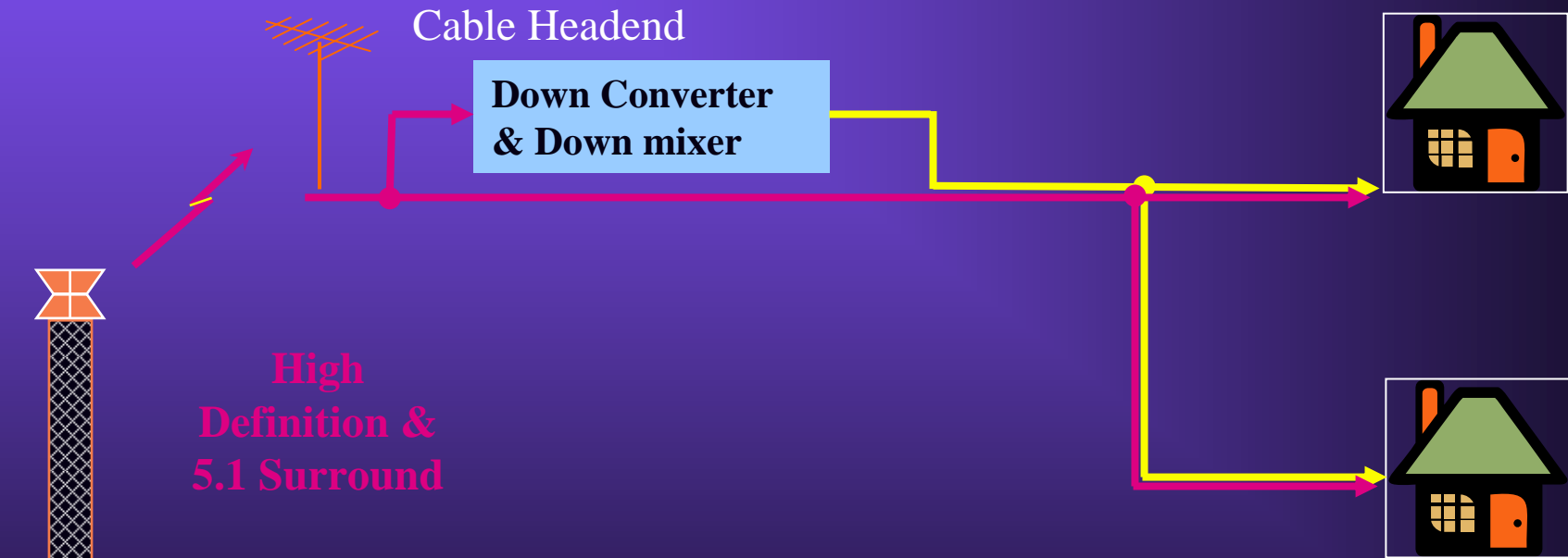
CBS Proof-of-Performance Testing



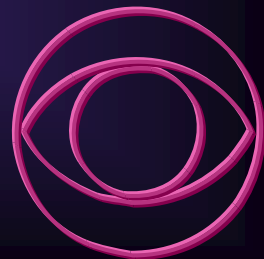
2000 Cable TV Signal Flow



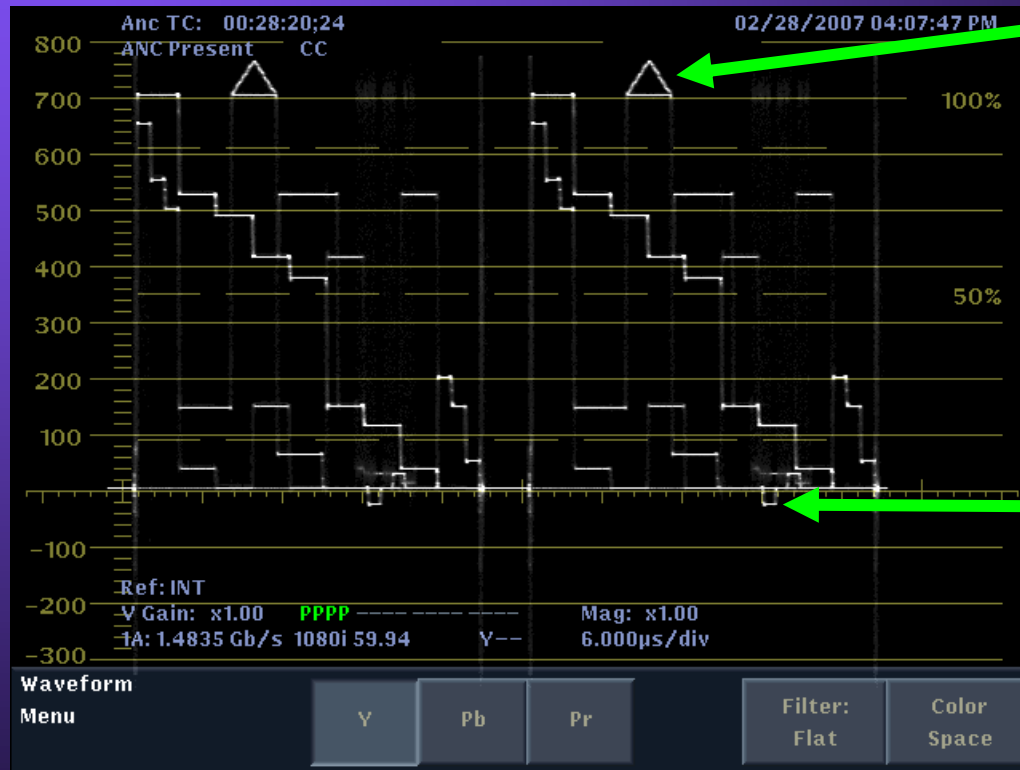
2009 Cable TV Signal Flow



Reoccurring Video Issues

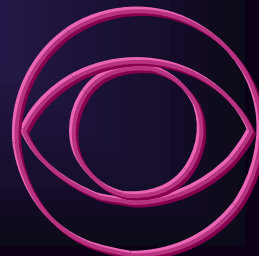


Full SMPTE Video Range

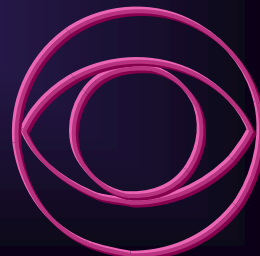
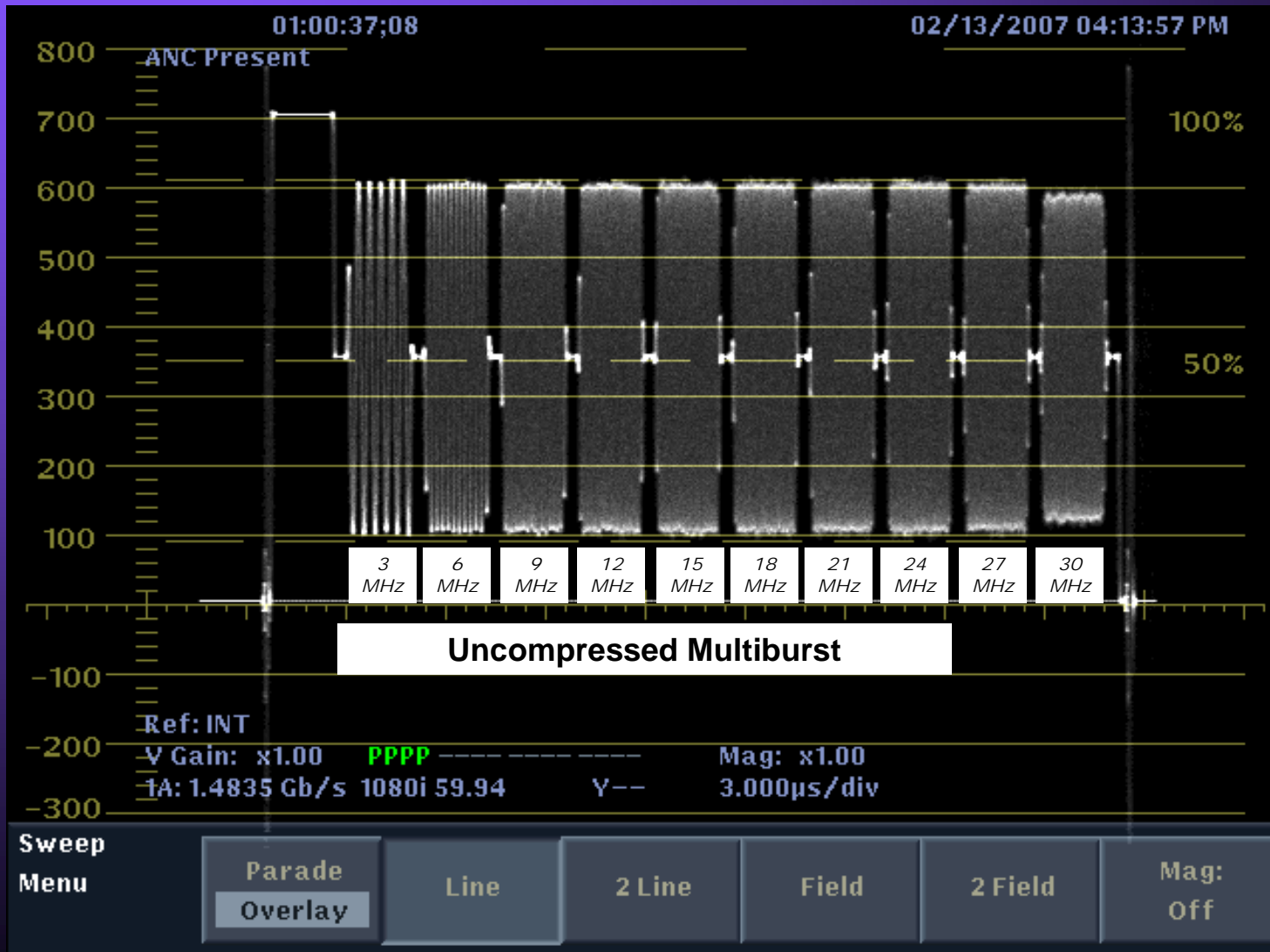


**TENT
Peak
White**

**PLUGE
Peak
Black**



Full 30 MHz Bandwidth



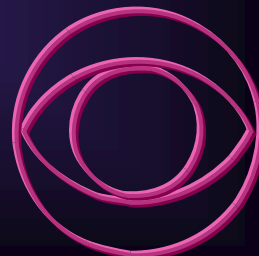
Down Conversion Colorimetry



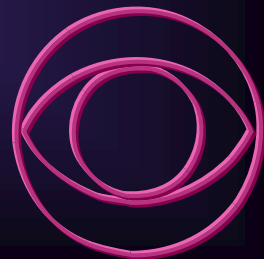
Correct Colorimetry



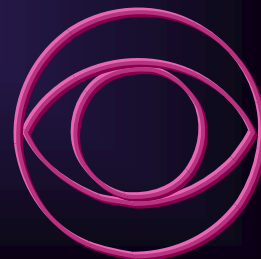
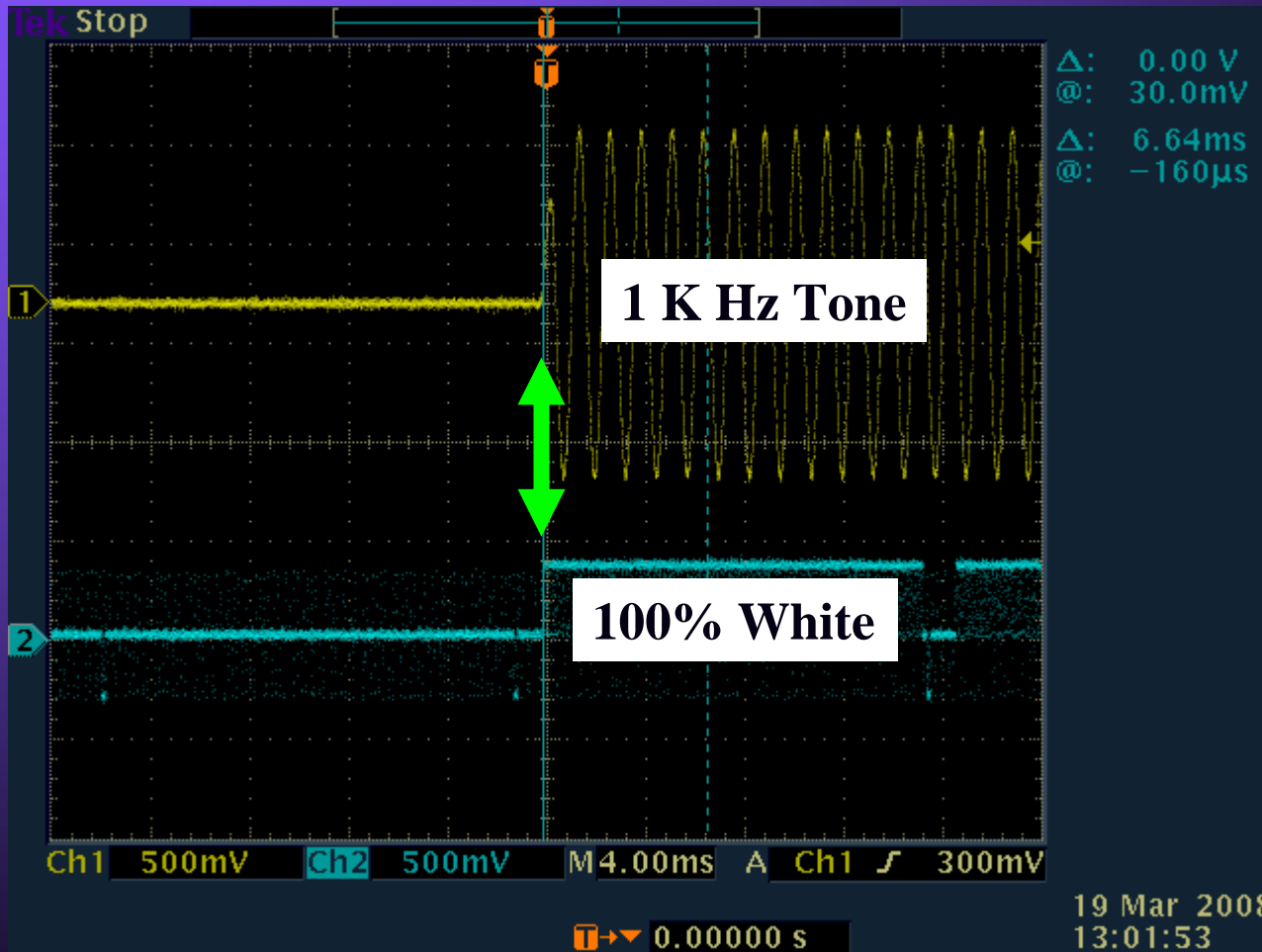
Incorrect Colorimetry



Reoccurring Audio Issues

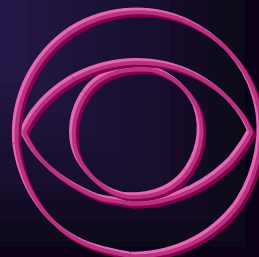


Audio / Video timing (Lip-Sync)



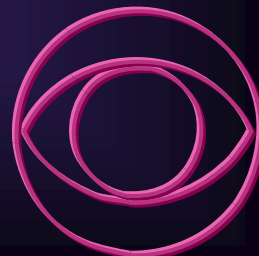
Lip sync Verification

- Tektronix Digital Dual trace scope.

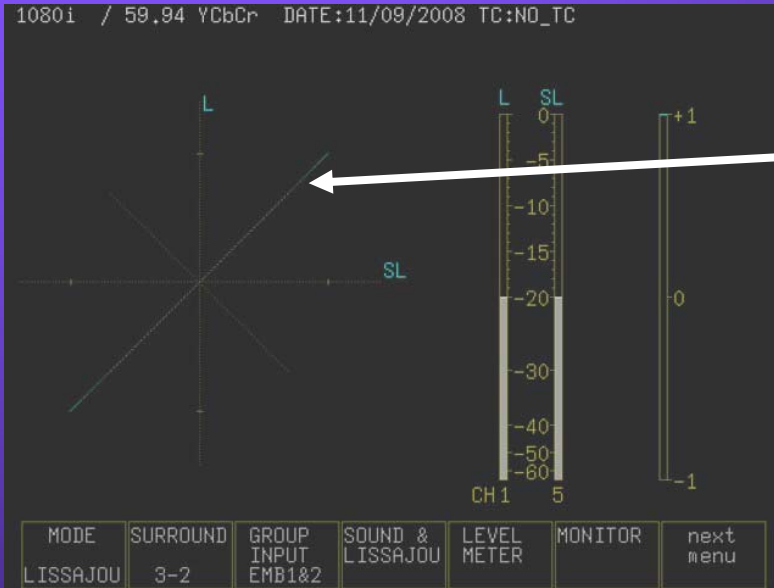


Lip sync Verification

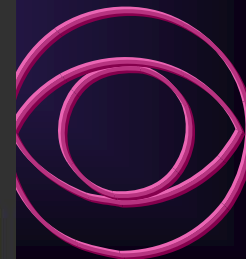
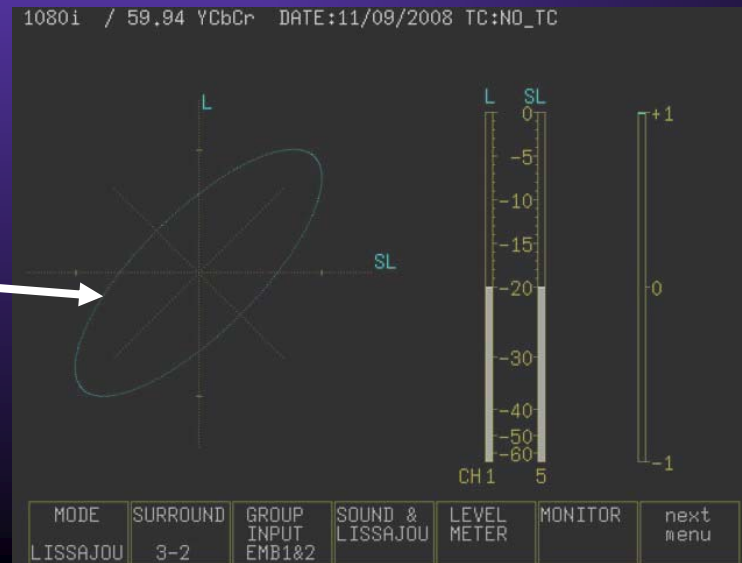
- The SyncCheck is an inexpensive way to verify audio / video offset.
- Kamesan KS-1018 “Video Kachinko”.



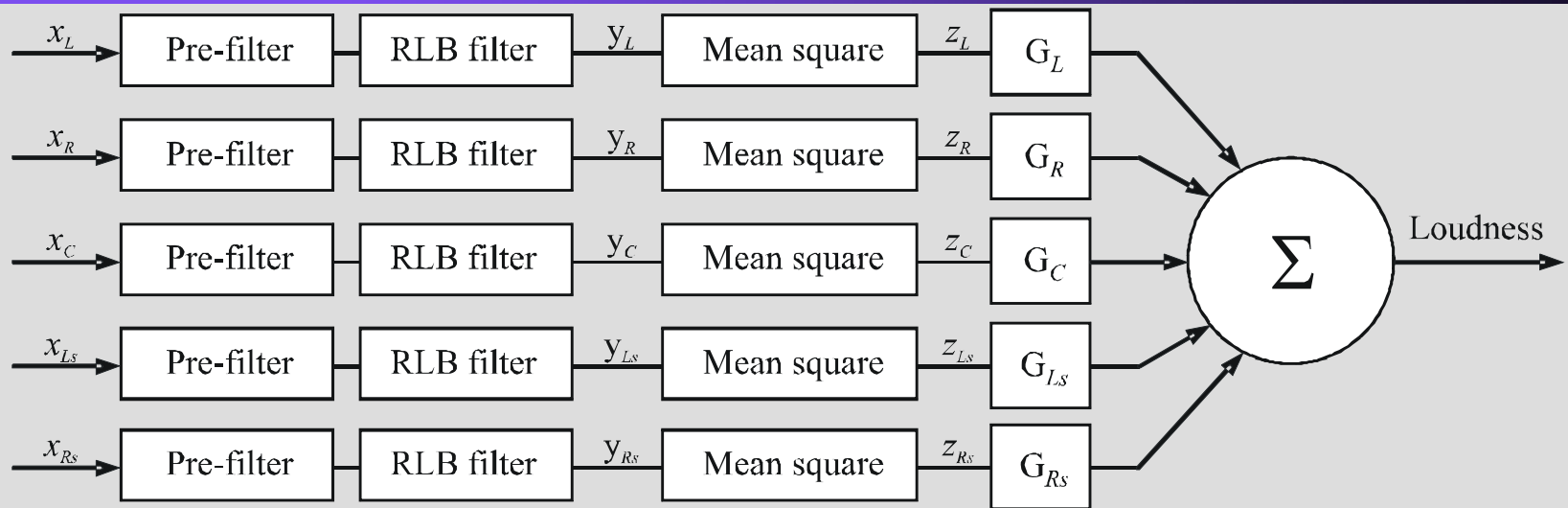
Group-1 vs Group-2 Audio



Incorrect Phase

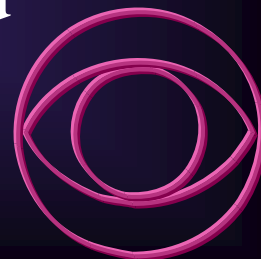


ITU BS-1770 Loudness Meter



1770-01

- Audio Loudness will be measured using all channels per ITU-R BS.1770 and will be controlled to meet the ATSC Recommended Practice target level of 24 LKFS \pm 2 dB.

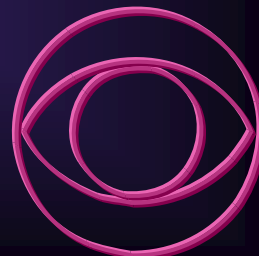


Audio Loudness

- TC Electronics DB-4 Loudness



- Flip Factory ®



Thank You

