Consumer Frustration

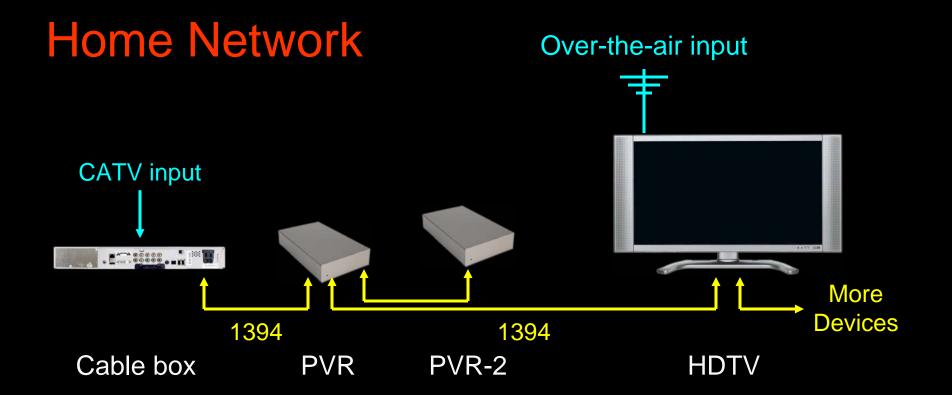## Noncompliance With FCC Rules Requiring Support For The IEEE 1394 Home Network Interface

Why Support Is Important To Consumers

- **IEEE 1394** ("FireWire") is at present the only recordable, copy protected, full-quality HDTV interface available to consumers
  - HDTV receivers with 1394 on the market since 2001
  - 160 models now on the US market
- 1394 offers consumers product choice and usage flexibility
  - Ability to choose in a competitive DTV market
  - An alternative to leased, proprietary systems that may erode established consumer expectations

47 C.F.R. 76.640(b)(4)(ii)

- FCC regulations have required a functional 1394 interface on *all new HD* cable set-top boxes since July 1, 2005 (no longer by request)

- However, consumers are mostly prevented from acquiring or using this home network interface

Home Network

Over-the-air input

CATV input

1394

1394

Cable box   PVR   PVR-2   HDTV

More Devices

- HDTV displays all sources: Cable, PVR, OTA
- PVR records all sources: Cable, OTA
- Open and expandable

Consumers Are Requesting 1394

- Cable MSOs are rejecting consumer requests for devices
  - "You don't want 1394" (Time-Warner, Austin, TX)
  - "1394 is only for audio, not video" (Comcast, Mukliteo, WA)
  - "Non-activated 1394 ports comply with the FCC mandate" (Comcast, Central New Jersey) *(Most common response)*
  - "We no longer offer 1394" (Time-Warner, San Diego)
  - "It is only for computer data" (Comcast, Naperville, IL)
  - "FCC <u>prohibits</u> us from providing 1394" (WOW, Naperville, IL)
- Poor implementation where provided
  - Copy Freely Flag not set (Ex: Super Bowl XL, Grammys)
  - STB and VCR / PVR do not interoperate
  - No "Move" function for protected content

Compliance With Obligations

- No technical obstacles remain
- Some set-top products are deployed with functional 1394
- FCC oversight should extend to compliance with 76.640(b)(4)(ii)
  - The FCC should require reporting by MSOs of 1394 deployment by unit volume
  - Functionality should be demonstrated
  - FCC site should have category for consumer complaints

"Quality of Service"

- For recordable, full-quality HDTV, 1394 is the undisputed leader
    - Extremely low bit-error rate (1 in 1,000,000,000,000)
    - Hardware guaranteed real-time delivery
    - Both are 100% supported in products since 1995

- "QoS" cannot be an afterthought, or an upgrade
    - It must be in all products, and must always work
    - Only 1394 has 100% QoS

Further Technology Development

- 1394 TA strongly supports advancing technology
  - 1394-over-Coax Task Group For Implementations Favored By MSOs
  - CAT-5 and other solutions are shipping
  - "Silicon Working Group" for 1600 and 3200 mbps

- There is a concern that favored treatment will be extended to technologies linked to MSO conditional access or OCAP

- 1394 is a common denominator between presently available cable devices and presently available HDTVs and DVRs

- Consumers should be able to rely on investments that are supported by FCC rules

Looking Forward

- 1394 TA members work together to deploy and advance 1394
  - MSO outreach led to 1394-over-Coax Task Group
  - MSO training outreach for 1394 education
  - Partnership with HANA
    - Greater HDTV integration and choice for consumers
    - Open, expandable Internet-Protocol based services
  - Members include Agere, Apple, ATI, Belkin, Broadcom, Dell, Delphi, Digeo, Entropic, Freescale, Microsoft, Pulse-LINK, Texas Instruments, UStec, and over 100 more - including all major TV makers

www.1394ta.org