# A REVIEW OF THE CABLE LABS CONSUMER ELECTRONICS INTERFACE SUB-COMMITTEE

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The Consumer Electronics Interface Sub-Committee is comprised of a group of engineers from the Cable Labs Technical Advisory Committee. These individuals share the common interest of trying to develop and promote ways to solve the "cable imposed obstacles" which diminish the features and usefulness of consumer electronics hardware when connected to certain types of cable television systems. The sub-committee will temporarily function as staff to Cable Labs until such time as Cable Labs personnel are on board to manage the projects associated with consumer electronics interfacing. After staffing is complete, the sub-committee will maintain a close involvement with consultants retained by Cable Labs as well as the staff of Cable Labs involved with consumer electronics interface projects.

The Consumer Electronics Interface Sub-Committee consists of seven engineers, each of whom are the designated representatives for their company on the Cable Labs Technical Advisory Committee. The companies represented on the Consumer Electronics Interface Sub-Committee are: Cencom Cable Associates, Colony Communications, Continental Cablevision, Douglas Communications, Monmouth Cablevision Associates, Multi-Media Cablevision and TKR Cable.

The goal of this sub-committee is to create and evaluate technical options for resolving the consumer electronics interface dilemma, not to set policy on their use. Cable Labs members need as many alternatives and options as possible for the delivery of their programming products in the most consumer friendly manner. This sub-committee of Cable Labs does not intend to represent or imply that a particular method or system which is developed is to be imposed on the industry, but rather that all participating operators in Cable Labs have the option to use a particular method if it fits their individual needs both from a technical and economic viewpoint. The Consumer Electronics Interface Sub-Committee will strive to study and communicate the economic impact of its recommendations as well as the technical implications of the options that are developed.

Over the years much has been said about consumer friendliness. The issue of consumer friendly interfaces is important for the industry to resolve. If we are successful at doing this we will have happier, more satisfied customers who will not have a reason to decline a premium service or a Pay-Per-View event for example, because it interferes with their ability to use the advanced features of their TV or VCR. This is an important issue from a competitive and strategic planning perspective. Consumer friendliness may someday make the difference between retaining a customer or losing one to a competitor who has solved the interface problems (or who didn't have them to begin with!)

In an effort to further the work and build on the progress which has been made over the past several years with the Joint EIA and NCTA Engineering Committee, Cable Labs has undertaken a project known as the EIA Multiport Field Trial.

The IS-15/EIA Multiport was adopted as an official standard at the most recent EIA R-4 Decoder Sub-Committee meeting in Orlando on February 1, 1989. The EIA is in the process of finalizing the procedural paperwork for approval as a recommended standard. This is anticipated to be completed by the '89 NCTA convention.

The purpose of this project is to demonstrate and analyze the effectiveness of the EIA multiport and IS-15 decoder in solving the consumer electronics interface problems created by the use of addressable converters.

The multiport is an option which may be desirable for the cable operator to utilize to make a more "cable friendly" interface with their customers while still offering new services such as Impulse Pay-Per-View. Many operators currently utilize traps to allow for a consumer

friendly interface, however, traps are not designed for use with Pay-Per-View. The multiport decoder and a multiport equipped TV receiver makes it possible to offer "transparent" security while still taking advantage of the added benefits of addressability such as Impulse Pay-Per-View, etc.

The Multiport Field Trial project consists of placing sample decoders in customers homes in carefully selected systems. In addition to gaging the customers satisfaction of the multiport decoders, the project will attempt to reveal operational efficiencies and savings for the cable operator who opts to use the multiport decoder. Additionally, the role of the TV/VCR retailer in selling and servicing multiport equipped TV sets will be evaluated.

This group will work with the EIA to finalize the IS-23 Cable/Consumer Electronics interface standard which, among other things, addresses the issue of improved TV/VCR tuner shielding to resolve direct pick up interference.

Cable Labs intends to continue the demonstration of the multiport decoder concept at industry trade shows such as NCTA, CCTA, CES, SCTE, etc. We hope to create more awareness of the concept and enlist the industry's support for the multiport decoder.

Future projects for the Cable Labs Consumer Electronics Interface Sub-Committee are currently under consideration. Areas for discussion include a technical and economic review of on-premise and off-premise security systems. This would include the interdiction-based security systems, the switched trap type systems, or any other newly announced consumer friendly security system. The technical analysis could study the issues of scrambling effectiveness, hardness of security, potential channel limitations, reliability, longevity, RFI susceptibility and IPPV operational and implementation considerations, etc. The economic analysis could study the costs involved in purchasing and implementing these systems from an initial investment standpoint while reviewing the long term economic consequences associated with system powering costs, replacement costs, etc.

We should anticipate that Cable Labs will be striving to foster even better relationships with consumer electronics manufacturers to aid in their understanding of our industry and our mutual customer's problems. These efforts will hopefully allow both industries to anticipate each other's technical trends and plan appropriately to keep the consumer supplied with products and services which are mutually complementary. Maybe both industries can adopt a somewhat familiar old slogan: "Where the quality (Consumer Electronics Interface) goes in before the name goes on! Let's all work together to make it happen.