

**Before the
Federal Communications Commission
Washington, D.C. 20554**

JUL 21 1997

In the Matter of)
)
Amendment of Parts 2, 15, 18 and Other)
Parts of the Commission's Rules to Simplify) ET Docket No. 97-94
and Streamline the Equipment Authorization)
Process for Radio Frequency Equipment)

To: The Commission

COMMENTS

Pursuant to Section 1.415 of the Commission's Rules,¹ AMP Incorporated ("AMP"),² by its attorneys, hereby comments on the Commission's above-captioned Notice of Proposed Rule Making ("NPRM").³ Specifically, as part of its overall proposals in the NPRM to update the equipment authorization rules, the Commission would subject TV Interface Devices ("TVID") to its Declaration of Conformity ("DoC") self-authorization procedure instead of to the current certification procedure.⁴

AMP manufactures a Multimedia Distribution System ("MDS"). The MDS is a certificated TVID used to deliver video programming from satellite, CATV, VCRs, laser discs or other video

¹47 C.F.R. §1.415 (1997).

²AMP is the world leader in electrical/electronic connection devices, with a 16%-17% share in this \$27 billion market. Headquartered in Harrisburg, PA, AMP employs 45,000 in 244 facilities in 50 countries, including approximately 20,000 in the U.S. Well over 100,000 types and sizes of AMP's terminals, splices, connectors, cables, cable and panel assemblies, printed wiring boards, electro-optic devices, networking units, sensors, switches, touch screen data entry systems, wireless components and assemblies, and application tooling are supplied to over 200,000 locations of original equipment makers and service organizations which install and maintain equipment. AMP had sales of \$5.47 billion in 1996, which has been achieved primarily by serving growth industries, developing new products, and entering new geographic markets.

³The NPRM appeared in the Federal Register on May 5, 1997. 62 FR 24383 (May 5, 1997).

⁴See Amendment of Parts 2 and 15 of the Commission's Rules to Deregulate the Equipment Authorization Requirements for Digital Devices, 11 FCC Rcd 17915 (1996).

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devices to classrooms and other locations. AMP's technology is the first system to permit two-way video communications over widely used unshielded twisted pair Category 5 cables, which is significantly less costly than installing coaxial cable.

AMP enthusiastically supports adoption of the Commission's proposal regarding TVIDs. Reliance upon the DoC procedure would expedite development and roll-out of new applications for this innovative delivery system in different environments, such as classrooms, factories, businesses, hotels, and hospitals. Moreover, relaxation of the authorization rules for TVIDs would ensure that the MDS technology can be exploited fully, while still protecting against harmful radio frequency interference ("RFI").

AMP SUPPORTS THE COMMISSION'S GOALS IN ADOPTING THE NPRM

The Commission's equipment authorization rules clearly have served the public interest. AMP and other manufacturers of RF equipment have benefitted substantially.

Given rapid technological change and marketplace needs, the Commission correctly recognizes that further refinements to its equipment authorization program are necessary to ensure that it remains vital. Appropriately, to "benefit both large and small manufacturers and encourage development of innovative products that best meet consumer's needs[,] the Commission

proposes to amend Parts 2, 15, 18 and other rule parts to: 1) simplify our existing equipment authorization processes; 2) deregulate the equipment authorization requirements for certain types of equipment; and 3) provide for electronic filing of applications for equipment authorization. These actions will greatly reduce the complexity and burden of the Commission's equipment authorization requirements. Further, these steps will improve the efficiency of the equipment authorization process so that products can be introduced to the market more rapidly.⁵

⁵NPRM at ¶ 1.

These proposals are in the public interest. As detailed in a previous filing on the NPRM,

AMP believes

that the actions proposed in this rule making will greatly reduce the complexity and burden of the Commission's equipment authorization requirements. In addition, these steps will improve the efficiency of the equipment authorization process so that our products as well as our customer's products can be introduced to the market more rapidly. Eliminating these non value adding costs will greatly benefit producers, end users, and the Commission.⁶

AMP'S MULTIMEDIA DISTRIBUTION SYSTEM SERVES THE PUBLIC INTEREST

The MDS is a relatively inexpensive technology which permits educational and other institutions to take advantage of existing infrastructure for the provision of sophisticated video delivery applications. It is an enabling technology. Readily available equipment, such as TV cameras, televisions and installed wiring, can be used instead of having to purchase expensive equipment.

For the first time, with the MDS, video programming from satellite, CATV, VCRs, laser discs and other video devices can be delivered using the unshielded twisted pair Category 5 cables embedded in schools and other facilities. With the MDS, each classroom has available up to 29 video channels for delivery of educational programming and for interconnection of campus activities. For example, school-wide assemblies can be conducted without herding students to the auditorium. Programming can be broadcast to any classroom from any location in the school. Each outlet in the

⁶Letter from Dennis E. Smith, Manager, Global Product Standards for AMP, dated May 27, 1997, in ET Dkt. No. 97-94. While Mr. Smith's letter reflects AMP's overall support for adoption of the proposals in the NPRM, the comments herein are directed specifically to the proposed application of the DoC procedure to TVIDs.

system is bi-directional, permitting team teaching between multiple classrooms or other interactive applications. Distance learning also is facilitated by the MDS technology.

Since the MDS takes advantage of existing wiring, time is saved and the cost of installing more expensive coaxial cabling is avoided. Indeed, to provide high-quality two-way multimedia with AMP's MDS, per classroom installation costs average \$300 instead of the \$10,000 typically needed to install new wiring to support computer technology.

Unlike existing video distribution systems, the MDS automatically configures itself to changes in the system. This eliminates the need for costly, time-consuming engineering. The MDS' bi-directionality makes it possible to plug a camera with a modulator into any outlet, select an open channel, and immediately begin broadcasting. Moreover, MDS' interactive capability will allow it to deliver services comparable to computer-based technologies. Not surprisingly, AMP's innovative technology has been embraced by educators and high-ranking government officials.

The MDS technology will not be limited to the classroom environment. It is also useful for multimedia applications such as security and training systems, overseeing productivity in various plant areas, remote patient monitoring in health care facilities, in-house viewing of news and information services, high-end AV presentations, and videoconferencing.

**THE AMP MULTIMEDIA DISTRIBUTION SYSTEM
HAS BEEN CERTIFICATED AS A TVID**

The Commission's equipment authorization program strikes a delicate balance between protecting against harmful RFI and promoting innovative technology. AMP's MDS system is a perfect example of how this program succeeds.

The MDS combines broadband radio frequency ("RF") technology with twisted pair and coaxial cables. It consists of an RF modulator, a breakout box (which provides two telephone lines and two in/out RF lines), and a hub for distributing the information.⁷

The MDS distributes RF signals bi-directionally from 5-216 MHz over a star-wired Category 5 UTP and coaxial cable plant. It is designed to be a "plug-n-go" and automatically will configure itself for master/slave operation and set the appropriate RF output levels.

Included in the MDS is a frequency agile RF modulator which provides the channel assignment of a source (e.g., camera or VCR) on the system. This modulator accepts a baseband audio/video input and modulates it to one of 29 channels (6 MHz NTSC) which are capable of being distributed over the system. It connects directly to the wall outlet via the Category 5 cable assembly supplied with the unit.

This RF Modulator is a TVID.⁸ Consequently, under current Part 15 requirements, it must be certificated by the Commission prior to being manufactured or marketed.⁹

Given the highly innovative nature of the MDS, several issues regarding its configuration needed to be resolved before certification could be granted. However, Commission staff worked extensively with AMP to resolve these issues. Consequently, in 1996, the MDS was certificated as a TVID.¹⁰

⁷For example, to connect a TV, telephone or VCR to the system, the breakout box must be connected to the wall jack. The RF modulator provides the flexibility to select channels.

⁸47 C.F.R. §15.3(y) (1997).

⁹47 C.F.R. §§2.803 and 15.101 (1997).

¹⁰FCC ID: FUVMULTISYS1. The MDS, however, is not a cable system terminal device ("CSTD"). Under Section 15.3(e) of the Commission's Rules, a CSTD is a TVID that serves as its primary function to connect a cable system operated under Part 76 of the Rules to a broadcast receiver or other subscriber premise equipment. 47 C.F.R. §15.3(e) (1997). The MDS' primary

TVIDs SHOULD BE SUBJECT TO THE DECLARATION OF CONFORMITY PROCEDURE

Under current requirements, TVIDs can not be marketed or operated unless the Commission issues a certification grant.¹¹ Obtaining a certification grant takes time because the manufacturer must submit a written application that includes a complete technical description of the product and a test report showing compliance with the technical requirements.¹² In addition, restrictions on testing and marketing are imposed prior to certification grant.¹³

In the NPRM, the Commission declares that the need for "submittal and review of equipment authorization applications . . . is no longer warranted for certain equipment where the technical requirements are met with little difficulty, the test methods are widely understood, interpretive questions arise infrequently, and there has been an excellent record of compliance."¹⁴ Based upon these criteria, the Commission proposes "[r]elax[ing] the requirements from certification . . . to the DoC procedure for the following Part 15 unintentional radiators: TV Interface Devices . . . except that we will require certification for cable system terminal devices to ensure against marketing of such devices for theft of cable service."¹⁵ The Commission's DoC, which it implemented relatively recently, is a "self-approval procedure that . . . calls for the manufacturer or importer of the

function is not to connect a cable system.

¹¹47 C.F.R. §2.803 (1997).

¹²47 C.F.R. §2.1033 (1997). See also NPRM at ¶ 6.

¹³47 C.F.R. §§2.801 et seq. (1997).

¹⁴NPRM at ¶ 18.

¹⁵NPRM at ¶ 18.

equipment to make measurements or take other necessary steps to ensure that the equipment complies with the appropriate technical standards."¹⁶

AMP supports the proposal to impose the self-authorization DoC procedure to TVIDs instead of the certification procedure, which requires prior Commission approval. The Commission's standard for relying upon self-approval clearly applies to TVIDs because they have incurred little, if any, authorization or compliance problems. Moreover, with advances in digital technology, this nominal risk of RFI would be reduced even further.

Most importantly, this change in authorization procedure would reduce or eliminate unnecessary regulatory burdens on manufacturers and users and would speed-up implementation of new technologies. Product development and time-to-market cycles are accelerating rapidly to keep pace with customer demand. Under the Part 2 certification requirements, however, TVID manufacturers must wait for Commission approval before marketing new products. The DoC procedure would eliminate this delay.

Manufacturers must have optimum flexibility to develop and market their product. Investment in product design, development, and promotion will be stifled unless manufacturers can respond to new technologies or shifting customer demand without having to wait for Commission authorization.

Any concern that relaxing Part 2 requirements for TVIDs would unleash harmful RFI is unfounded. Pre-compliance product testing and operation typically occur in a controlled environment. Development of RF devices that operate improperly or that cause harmful RFI will be deterred by the marketplace. Moreover, if the RF device causes harmful RFI, it must cease operating. Interference problems can be resolved in response to complaints filed with the Commission, whose resources are better utilized addressing these problems than reviewing countless authorization

¹⁶NPRM at ¶ 6. See also 47 C.F.R. §2.906 (1997).

applications. The benefits of liberalizing the equipment authorization requirements and using the DoC procedure for TVIDs simply outweigh the burdens imposed by the current rules.

CONCLUSION

Having satisfied the Commission's stringent certification requirements, AMP's MDS technology now should be allowed to flourish without the delays attendant on the authorization process. Indeed, AMP clearly has demonstrated that using a TVID to support broadband services is a useful application of this technology. Relaxing the authorization requirements for the MDS technology would make it easier for AMP and other manufacturers to develop new applications and services.

The DoC procedure would contribute significantly to accomplishing these objectives. Thus, AMP supports adoption of the Commission's proposal to authorize TVIDs under the DoC procedure.

Respectfully submitted,

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