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ABOUT SAE J2496

Transit vehicles of today have exhibited a need for a number of electronic vehicle enhancements to effectively move forward within ITS America's (Intelligent Transportation Society) effort to better manage the limited resources of the roadways and streets.

In response to the challenge of adding electronic functions and devices to transit vehicles, the FTA† (Federal Transit Administration), acting as a lead agency in ITS America, created the Advanced Public Transportation System Vehicle Area Network (VAN) Cabling Standard Subcommittee. They recommend solutions which would provide advantages to transit authorities through VAN integration.

VAN Integration Objectives:

- Minimize electronic hardware costs.
- Provide interchangeability of on-board electronic equipment.
- Create standards which minimize the negative impact of proprietary systems.
- Provide flexibility for expansion as technology advances while minimizing hardware and software upgrade costs.

The VAN Subcommittee was successful in meeting these objectives. Their efforts have resulted in the SAE J2496 Transit Area Network Cabling Standard. This is comprised of a series of access boxes and cables, which are simple, effective and modular.

The Network Cabling Standard provides the power required by on-board devices as well as access to a pathway and communication protocol for the exchange of information available to all devices on the network. In addition, it supports on-board use of many devices allowing these devices to function independently or together, creating unlimited possibilities in managing transit vehicle fleets.

The Network Cabling Standard has been incorporated by many transit authorities through upgrades and new vehicle specifications and is currently in use. As we progress further into the 21st century, ITS America's efforts to better manage transit resources becomes ever more clear. The SAE Transit Area Network Cabling Standard is an important part of that effort.

† The FTA's Advanced Public Transportation Systems (APTS) Mobile Showcase is a 48-foot expandable exhibition trailer that demonstrates state-of-the-art APTS technologies. Visit www.ornl.gov/sci/tddt/apts.htm to learn more about this program and other companies that were a part of this effort.

Visit www.sae.org to obtain a copy of the SAE J2496 Specification.