



NEWS RELEASE

FOR IMMEDIATE RELEASE:

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VITA Standards Organization Ratifies VITA 78 SpaceVPX Systems Standard

The Next Generation Space Interconnect Standard (NGSIS)

VITA, April 14, 2015 — VITA, the trade association dedicated to fostering American National Standards Institute (ANSI) accredited, open system architectures in critical embedded system applications announces that VITA 78 “SpaceVPX Systems” has reached ANSI recognition as ANSI/VITA 78.00-2015. This specification has completed the VITA and ANSI processes reaching full recognition under guidance of the VITA Standards Organization (VSO).

“We are pleased that SpaceVPX™ Systems has received VITA/ANSI recognition,” said Patrick Collier, Senior Electrical Research Engineer, Space Communications Program, AFRL Space Vehicles and VITA 78 Working Group Chair. “We were able to pull together the minds of engineers from companies around the world that have a vested interest in developing this specification for the space industry.”

ANSI/VITA 78 defines an open standard for creating high performance fault tolerant interoperable backplanes and modules to assemble electronic systems for spacecraft and other high availability applications. Such systems will support a wide variety of use cases and potential markets across the aerospace and terrestrial communities. This standard leverages the OpenVPX standards family and the commercial infrastructure that supports these standards.

“Patrick was and continues to be a great asset in getting this specification through the process,” stated Jerry Gipper, VITA executive director. “Without his leadership, energy, and passion it would have been extremely difficult to complete this work effort.”

The goal of SpaceVPX Systems is to achieve an acceptable level of fault tolerance while maintaining reasonable compatibility with OpenVPX components, including connector pin

assignments. For the purposes of fault tolerance, a module is considered the minimum redundancy element.

For high reliability applications, the major fault tolerance requirements are:

- Dual-redundant power distribution (bussed) where each distribution is supplied from an independent power source.
- Dual-redundant utility plane signal distribution (point-to-point cross-strapped) where each distribution is supplied from an independent system controller to a module that selects between the A and B system controllers for distribution to each of the slots controlled by the module.
- Card-level serial management
- Card-level reset control
- Card-level power control
- Matched length, low-skew differential timing/synchronization/clocks
- Fault tolerant Power Supply Select (bussed)
- Fault tolerant System Controller Signal selection (bussed)
- Dual-redundant data planes (point-to-point cross-strapped)
- Dual-Redundant control planes (point-to-point cross-strapped)
- Each module is a managed field replaceable unit as defined by VITA 46.11

Copies of the specification are available for purchase at the VITA Online Shop (<http://shop.vita.com/>).

About VITA

Founded in 1984, VITA is an incorporated, non-profit organization of suppliers and users who share a common market interest in critical embedded systems. VITA champions open system architectures. Its activities are international in scope, technical, promotional, and user-centric. VITA aims to increase total market size for its members, expand market exposure for suppliers, and deliver timely technical information. VITA has ANSI and IEC accreditation to develop standards (VME, VXS, VPX, OpenVPX, VPX REDI, XMC, FMC, VNX, etc.) for embedded systems used in a myriad of critical applications and harsh environments. For more information, visit www.VITA.com.

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