



VITA STANDARDS UPDATE

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E-cast

VXS' VITA 41.6 passes recirculation ballot, heads to ANSI recognition

Editor's note: By the time you read this in October, the September VSO meeting will have taken place. Be sure to check out our online E-cast archives for the latest video and audio updates on VITA 41, 46, and 48. See www.opensystems-publishing.com/ecast.

VSO ANSI accreditation

Accredited as a Standards Development Organization (SDO) in June 1993 by the American National Standards Institute (ANSI), the VITA Standards Organization (VSO) meets every two months to address vital embedded bus and board industry standards issues. Information on ANSI/VITA standards is available on the VITA website at www.vita.com.

VSO study and working group activities

Standards within the VSO may be initiated by a study group and developed by a working group. A study group requires the sponsorship of only one VSO member and is used to build interest in a standard. A working group requires the sponsorship of at least three VITA members, and the proposed work must fit within the defined scope of VITA's accreditation with ANSI.



VITA 41.6, VXS 1X GbE Control Channel Layer

Objective: To define and assign 1X GbE signals for communication over signal sets currently defined as reserved for future use in VXS.0

Status: The working group reviewed the ballot comments from the ANSI ballot and revised the draft. A recirculation ballot was held and passed with 17 approve and 2 disapprove. The results will be submitted to ANSI for recognition.



VITA 41.8, VXS 10 GbE Protocol Layer Standard

Objective: Implement 10 GbE protocol

Status: The working group is developing the draft and expects to have it available before the next VSO meeting in September.

VITA 42.0, XMC

Objective: Expand PMC to include serial fabrics.

Status: After review of the recirculation draft, several issues were discovered that had held up submission of VITA 42.0 to ANSI. These issues were resolved, and VITA 42.0 should be submitted to ANSI shortly.



VITA 46.3, Serial RapidIO on VPX Fabric Connector

Objective: To assign Serial RapidIO 1x/4x links onto the VPX P1/J1 connector and to provide rules and recommendations for the use of the Serial RapidIO links.

Status: Draft 0.6 was released at the beginning of July, and the signal integrity budget is being reviewed. The group is discussing whether crosstalk should be part of the jitter budget or the loss budget.



VITA 46.10, Rear Transition Module for VPX

Objective: Define a Rear Transition Module (RTM) for VPX applications.

Status: Draft 0.7 was released in the beginning of July. The working group voted to move the draft into the ANSI process. Ballot solicitation will start shortly.



VITA 46.12, Fiber Optic Interconnect

Objective: To create a fiber optic connector standard for VPX.

Status: A connector style has been selected. Multiple vendors have agreed to work together to provide interoperable connectors. An initial draft of the standard should be available soon.

VITA 49.0, VITA Radio Transport (VRT)

Objective: To define a transport-layer protocol designed to promote interoperability between RF receivers and signal processing equipment in a wide range of applications.

Status: The working group voted to move VITA 49.0 to the ANSI ballot process.

VITA 49.1, VITA Radio Link Layer (VRL)

Objective: To specify an optional encapsulation protocol for VITA 49.0 (VRT) packets.

Status: The working group voted to move VITA 49.1 to the ANSI ballot process.

VITA STANDARDS ACTIVITY CHART

JULY MEETING HIGHLIGHTS

Standard *Reaffirmed	Title	Status	VME and CS edition
ANSI/VITA 1.0 *2002	VME64 Standards	Released	
ANSI/VITA 1.1 *2003	VME64 Extensions	Released	Aug. 2004
ANSI/VITA 1.3 *2003	9U x 400 mm Format	Released	
ANSI/VITA 1.5	2eSST	Released	Feb. 2004
ANSI/VITA 1.6 *2005	Keying for Conduction-cooled VME	Released	
ANSI/VITA 1.7	Increased Connector Current Level	Released	
ANSI/VITA 3 *2002	Board Level Live Insertion	Released	
ANSI/VITA 4.0 *2002	IP Modules	Released	
ANSI/VITA 4.1 *2003	IP/I/O Mapping to VME64x	Released	
ANSI/VITA 5.1 *2004	RACEway Interlink	Released	
VITA 5.2	RACEway++	Withdrawn	Aug. 2004
ANSI/VITA 6.0 *2002	SCSA	Released	
ANSI/VITA 6.1 *2003	SCSA Extensions	Released	
ANSI/VITA 10 *2002	SKYchannel Packet Bus	Released	
ANSI/VITA 12 *2002	M-Modules	Released	
ANSI/VITA 13	Pin Assignments for HIC on VME	Withdrawn	
ANSI/VITA 17.0 *2004	Front Panel Data Port	Released	
ANSI/VITA 17.1	Serial Front Panel Data Port	Released	Feb. 2004
VITA 17.2	Serial Front Panel Data Port (SFDP) Channel	Working Group	
VITA 19.0	BusNet Overview	Withdrawn	
ANSI/VITA 19.1	BusNet MAC	Withdrawn	
ANSI/VITA 19.2	BusNet LLC	Withdrawn	
ANSI/VITA 20 *2005	Conduction-cooled PMC	Released	Apr. 2005
ANSI/VITA 23 *2004	VME64x Extensions for Physics	Released	
ANSI/VITA 25	VISION	Withdrawn	
ANSI/VITA 26 *2003	Myrinet-on-VME	Released	
ANSI/VITA 29	PC•MIP	Released	
ANSI/VITA 30.0 *2005	2 mm Connector Practice on Euroboard	Released	
ANSI/VITA 30.1	2 mm Conduction-cooled Euroboard	Released	
VITA 30.2	Power Connector Equipment Practice	Released	Apr. 2007
ANSI/VITA 31.1	GbE on VME64x Backplanes	Released	Feb. 2004
ANSI/VITA 32	Processor PMC	Released	Feb. 2004
VITA 34	A Scalable Electromechanical Architecture	Working Group	Apr. 2004
ANSI/VITA 35 *2005	Pin Assignments for PMC to VME	Released	
VITA 36	PMC I/O Modules	Withdrawn	Apr. 2004
ANSI/VITA 38	System Management on VME	Released	
ANSI/VITA 39	PCI-X Aux. Std. for PMCs and PrPMCs	Released	Feb. 2004
ANSI/VITA 40	Status Indicator Standard	Released	Feb. 2004
ANSI/VITA 41.0	VXS: VME Switched Serial	Released	Oct. 2006
ANSI/VITA 41.1	VXS: InfiniBand Protocol Layer	Released	Oct. 2006
ANSI/VITA 41.2	VXS: RapidIO Protocol Layer	Released	Oct. 2006
VITA 41.3	VXS: GbE	Working Group	Apr. 2006
VITA 41.4	VXS: PCI Express	Working Group	Apr. 2006
VITA 41.6	VXS: 1X GbE Control Channel Layer	Working Group	Oct. 2008
VITA 41.7	VXS: Processor Mesh Topology	Working Group	
VITA 41.8	VXS: 10 GbE Protocol Layer Standard	Working Group	Oct. 2008
VITA 41.10	VXS: Live Insertion Requirements for VITA 41 Boards	Working Group	Apr. 2006
VITA 41.11	VXS: Rear Transition Modules	Working Group	Apr. 2006
VITA 42.0	XMC	Working Group	Oct. 2008
ANSI/VITA 42.1	XMC: Parallel RIO	Released	Oct. 2006
ANSI/VITA 42.2	XMC: Serial RIO	Released	Oct. 2006
ANSI/VITA 42.3	XMC: PCI Express	Released	Oct. 2006
VITA 42.4	HyperTransport	Working Group	Apr. 2005
VITA 42.10	XMC: General Purpose I/O Standard	Working Group	
VITA 42.20	XMC: Dual fabric I/O	Working Group	
VITA 43S	Hot Swap NextGen Mezzanine	Inactive	Feb. 2004
VITA 45S	Serial VME	Canceled	Apr. 2004
ANSI/VITA 46.0	VPX: Base Specification	Working Group	Feb. 2008
ANSI/VITA 46.1	VPX: VMEbus Signal Mapping	Working Group	Feb. 2008

Standard *Reaffirmed	Title	Status	VME and CS edition
VITA 46.3	VPX: Serial RapidIO on VPX Fabric Connector	Working Group	Oct. 2008
VITA 46.4	VPX: PCIe Mapping and Advanced Switch Signal Mapping	Working Group	Oct. 2006
VITA 46.5	VPX: HyperTransport	Working Group	
VITA 46.6	VPX: GbE	Working Group	
VITA 46.7	VPX: 10 GbE	Working Group	
VITA 46.9	VPX: XMC and PMC User I/O Mapping	Working Group	
VITA 46.10	VPX: Rear Transition Module for VPX	Working Group	Oct. 2008
VITA 46.12	VPX: Fiber Optic Interconnect	Working Group	Oct. 2008
VITA 46.20	VPX: Switch Slot Definition	Working Group	
ANSI/VITA 47	Env., Design and Const., Safety, and Qual. for Plug-in Units	Released	Jun. 2006
VITA 47r1	Revisions to ANSI/VITA 47	Released	Feb. 2008
VITA 47r2	Revisions to ANSI/VITA 47	Working Group	Oct. 2008
VITA 48.0	REDI: Ruggedized Enhanced Design Implementation Specification	Working Group	Oct. 2008
VITA 48.1	Mechanical Specs for Microcomputers Using Air Cooling	Working Group	
VITA 48.2	Mechanical Specs for Microcomputers Using Conduction Cooling	Working Group	
VITA 48.3	Mechanical Specs for Microcomputers Using Liquid Cooling	Working Group	
VITA 49.0	VITA Radio Transport (VRT)	Working Group	Oct. 2008
VITA 49.1	VITA Radio Link Layer (VRL)	Working Group	Oct. 2008
VITA 50	Best Practices for Electronic Module Cooling	Inactive	Dec. 2007
ANSI/VITA 51.0 *2008	Reliability Prediction	Released	Aug. 2008
ANSI/VITA 51.1 *2008	Reliability Prediction: MIL-HDBK-217 Daughter Standard	Released	
VITA 52	Lead-free Practices	Working Group	Oct. 2006
VITA 53	Commercial Technology Market Surveillance	Working Group	Oct. 2007
VITA 54	Embedded Platform Management Architecture (EPMA)	Inactive	Aug. 2005
VITA 55	Virtual Streaming Protocol	Working Group	Jun. 2006
VITA 56	Express Mezzanine Card (EMC)	Inactive	Oct. 2007
ANSI/VITA 57 *2008	FMC: FPGA Mezzanine Card Standard	Released	Aug. 2008
VITA 58	Line Replaceable Integrated Electronics Chassis	Working Group	Aug. 2008
VITA 59	RSE: Rugged System-On-Module Express	Working Group	

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