



# VITA standards update

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## VITA 42.0, 46.0, and 47r1 move to ANSI ballot

### 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](http://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 42 – XMC

#### Objective

Extend PMC to include serial fabrics.

#### Status

The working group has voted to send VITA 42.0 to the ANSI process. The trial use period for VITA 42.0 ended in March.

### VITA 46 – VPX

#### Objective

Develop a 3U/6U 160 mm deep Eurocard module with a high-density and high-performance connector capable of supporting both parallel and serial fabrics.

#### Status

The working group has voted to send VITA 46.0 and 46.1 to the ANSI ballot process, and it continues to work on other related draft standards in the VITA 46 family.

### VITA 47r1 – Revisions to ANSI/VITA 47, Environmental Requirements

#### Objective

Add new requirements such as 3U and spray cooling to currently existing standard.

#### Status

The working group has reviewed the previous working group ballot results and decided that the draft is ready to proceed to ANSI ballot.

*Editor's note: By the time you read this in June, the May 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](http://www.opensystems-publishing.com/ecast).*

**E-cast**

### VITA 50 – Electronic Cooling

#### Objective

Develop a best practices guide for electronic module cooling.

#### Status

The working group discussed the nature of VITA 50 and suggested that it might be better suited to become a Web presence rather than a traditional standard. Best practices for electronic cooling could be provided via various URLs. A prototype will be developed for review.

### VITA 51 – Reliability Prediction

#### Objective

Develop a better method for predicting electronic module reliability.

#### Status

The working group continues to make progress. A new draft has been released, and the working group is refining the concept of *community of practice*.

### VITA 53 – Market Surveillance

#### Objective

Develop a standard method for collecting product life-cycle information.

#### Status

VITA 53 draft 2 is in development. Approximately 50 comments to draft 1 have been reviewed. The working group is adding reference to EIA-STD-933, Electronic Component Management Plan (ECMP). RoHS-related questions have been added and are aimed at identification of RoHS-compliant designs. There are no technical issues with the document. Once draft 2 is completed and reviewed, it is anticipated that the draft will likely go to working group ballot.

PDF – This column and the accompanying table are available at

[www.vmecritical.com/columns/vitastandards](http://www.vmecritical.com/columns/vitastandards).

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Standard	Title	Status	Reaffirmed	VME and Critical Systems edition
ANSI/VITA 1.0	VME64 Standards	Released	2002	
ANSI/VITA 1.1	VME64 Extensions	Released	2003	August 2004
ANSI/VITA 1.3	9U x 400 mm Format	Released	2003	
ANSI/VITA 1.5	2eSST	Released		February 2004
ANSI/VITA 1.6	Keying for Conduction-cooled VME	Released	2005	
ANSI/VITA 1.7	Increased Connector Current Level	Released		
ANSI/VITA 3	Board Level Live Insertion	Released	2002	
ANSI/VITA 4.0	IP Modules	Released	2002	
ANSI/VITA 4.1	IP/I/O Mapping to VME64x	Released	2003	
ANSI/VITA 5.1	RACEway Interlink	Released	2004	
VITA 5.2	RACEway++	Withdrawn		August 2004
ANSI/VITA 6.0	SCSA	Released	2002	
ANSI/VITA 6.1	SCSA Extensions	Released	2003	
ANSI/VITA 10	SKYchannel Packet Bus	Released	2002	
ANSI/VITA 12	M-Modules	Released	2002	
ANSI/VITA 13	Pin Assignments for HIC on VME	Withdrawn		
ANSI/VITA 17.0	Front Panel Data Port	Released	2004	
ANSI/VITA 17.1	Serial Front Panel Data Port	Released		February 2004
VITA 17.2	Serial Front Panel Data Port (SFPDP) channel bonded protocol	Working Group		April 2004
VITA 19.0	BusNet Overview	Withdrawn		
ANSI/VITA 19.1	BusNet MAC	Withdrawn		
ANSI/VITA 19.2	BusNet LLC	Withdrawn		
ANSI/VITA 20	Conduction-cooled PMC	Released	2005	April 2005
ANSI/VITA 23	VME64x Extensions for Physics	Released		
ANSI/VITA 25	VISION	Withdrawn		
ANSI/VITA 26	Myrinet-on-VME	Released	2003	
ANSI/VITA 29	PC•MIP	Released		
ANSI/VITA 30.0	2 mm Connector Practice on Euroboard	Released	2005	
ANSI/VITA 30.1	2 mm Conduction-cooled Euroboard	Released		
VITA 30.2	Power Connector Equipment Practice			April 2004
ANSI/VITA 31.1	GbE on VME64x Backplanes	Released		February 2004
ANSI/VITA 32	Processor PMC	Released		February 2004
VITA 34	A Scalable Electromechanical Architecture	Working Group		April 2004
ANSI/VITA 35	Pin Assignments for PMC to VME	Released	2005	
VITA 36	PMC I/O Modules	Withdrawn		April 2004
ANSI/VITA 38	System Management on VME	Released		
ANSI/VITA 39	PCI-X Aux. Std. for PMCs and PrPMCs	Released		February 2004
ANSI/VITA 40	Status Indicator Standard	Released		February 2004
VITA 41.0	VME Switched Serial (VXS)	Released		October 2006
VITA 41.1	VXS InfiniBand Protocol Layer	Released		October 2006
VITA 41.2	VXS RapidIO Protocol Layer	Released		October 2006
VITA 41.3	GbE	Working Group		April 2006
VITA 41.4	PCI Express	Working Group		April 2006
VITA 41.6	VXS GbE Control Plane	Working Group		February 2007
VITA 41.10	Live Insertion Requirements for VITA 41 Boards	Working Group		April 2006
VITA 41.11	Rear Transition Modules	Working Group		April 2006
VITA 42.0	Switched Mezzanine Card (XMC)	Working Group		June 2007
VITA 42.1	Parallel RIO	Released		October 2006
VITA 42.2	Serial RIO	Released		October 2006

Standard	Title	Status	Reaffirmed	VME and Critical Systems edition
VITA 42.3	PCI Express	Released		October 2006
VITA 42.4	HyperTransport	Working Group		April 2005
VITA 43S	Hot Swap NextGen Mezzanine	Working Group		February 2004
VITA 45S	Serial VME	Canceled		April 2004
VITA 46.0	VPX	Working Group		June 2007
VITA 46.1	VMEbus Signal Mapping on VPX	Working Group		June 2007
VITA 46.3	Serial RapidIO on VITA 46	Working Group		October 2006
VITA 46.4	PCIe Mapping & Advanced Switch Signal Mapping for VITA 46	Working Group		October 2006
VITA 46.5	HyperTransport on VITA 46	Working Group		
VITA 46.9	XMC and PMC User I/O Mapping for VITA 46	Working Group		
ANSI/VITA 47	Env., Design and Const., Safety, and Qual. for Plug-in Units	Released		June 2006
VITA 47r1	Revisions to ANSI/VITA 47	Working Group		June 2007
VITA 48	Ruggedized Enhanced Design Implementation (REDI)	Working Group		April 2007
VITA 49	Digital Intermediate Frequency (IF)	Working Group		October 2006
VITA 50	Best Practices for Electronic Module Cooling	Working Group		June 2007
VITA 51	Reliability Prediction	Working Group		June 2007
VITA 52	Lead-free Practices	Working Group		October 2006
VITA 53	Market Surveillance	Study Group		June 2007
VITA 54	Embedded Platform Management Architecture (EPMA)	Working Group		August 2005
VITA 55	Virtual Streaming Protocol	Working Group		June 2006
VITA 56	Express Mezzanine Card (EMC)	Working Group		February 2007
VITA 57	Mezzanine Standard for FPGA I/O	Working Group		October 2006
VITA 58	Electronic Module Standardization	Working Group		August 2006

**For corrections or suggestions, contact Chris Ciufo, *VME and Critical Systems* magazine, at [cciufo@opensystems-publishing.com](mailto:cciufo@opensystems-publishing.com).**