

VITA 46.11 Compliance Test Software

Perform compliance verification with automated software for every new product

- Verify VITA 46.11 Commands Compliance of your product
- Verify VITA 46.11 Rules Compliance of your product
- Supports testing of Tier-1, Tier-2 and Tier-3 IPMCs
- Compatible with ipmitool and RMCP
- Can be used for any type of VITA 46.11 IPMC
 - Payload cards, SBCs, switches, power supplies etc
- Connecting through 3rd party Chassis Manager or Hybrid DSP Mock Chassis Manager
- Generates PDF report and parseable text/log files

Table 10.1.1-1 IPMI Commands Supported by VITA 46.11^[1]

| Command Name | IPMI Specification Section | NetFn | CMD | Chassis Manager | | | | | |
|--|----------------------------|-----------|-----|------------------|------------------|--------|------------------|------------------|--------------------|
| | | | | Tier 1 | Tier 2 | Tier 3 | Tier 1 | Tier 2 | Tier 3 |
| IPMI Device "Global" Commands | | | | | | | | | |
| Reserved | NA | App (06h) | 00h | NA | NA | N/A | NA | NA | N/A |
| Get Device ID | 1.5.17.1 | App (06h) | 01h | M | M | M | M | M | M |
| Cold Reset | 1.5.17.2 | App (06h) | 02h | O ^[2] | M ^[2] | M | O ^[2] | M ^[2] | M |
| Warm Reset | 1.5.17.3 | App (06h) | 03h | O | O | M | O | O | M |
| Get Self Test Results | 1.5.17.4 | App (06h) | 04h | M | M | M | M | M | M |
| Manufacturing Test On | 1.5.17.5 | App (06h) | 05h | O | O | O | O | O | O |
| Set ACPI Power State | 1.5.17.6 | App (06h) | 06h | O | O | O | O | O | O |
| Get ACPI Power State | 1.5.17.7 | App (06h) | 07h | O ^[2] | O ^[2] | O | O ^[2] | O ^[2] | O |
| Get Device GUID | 1.5.17.8 | App (06h) | 08h | O | O | O | O | O | O |
| Broadcast "Get Device ID"[3] | 1.5.17.9 | App (06h) | 01h | M | M | M | M | M | M |
| BMC Watchdog Timer Commands | | | | | | | | | |
| Reset Watchdog Timer | 1.5.21.5 | App (06h) | 22h | O | O | O | O | O | O |
| Set Watchdog Timer | 1.5.21.6 | App (06h) | 24h | O | O | O | O | O | O |
| Get Watchdog Timer | 1.5.21.7 | App (06h) | 25h | O | O | O | O | O | O |
| BMC Device and Messaging Commands | | | | | | | | | |
| Set BMC Global Enables[6] | 1.5.18.1 | App (06h) | 2Eh | O | O | O | O | O | O |
| Get BMC Global Enables | 1.5.18.2 | App (06h) | 2Fh | M | M | M | O | O | O/M ^[2] |
| Clear Message Flags[6] | 1.5.18.3 | App (06h) | 30h | O | O | O | O | O | M |
| Get Message Flags | 1.5.18.4 | App (06h) | 31h | O | O | O | O | O | O |
| Enable Message Channel | 1.5.18.5 | App (06h) | 32h | O | O | O | O | O | O |

Screenshot of a subset of VITA 46.11-2022 commands

DESCRIPTION

The VITA 46.11 Compliance Test Software assists board vendors and system integrators in verifying compliance with the broad set of VITA 46.11 commands and rules.

VITA 46.11 is a comprehensive standard (~300 pages) and leverages the even more comprehensive IPMI specification (>400 pages). The SOSA¹ Technical Standard requires vendors to support VITA 46.11-2022 Tier-3 implementations. Additionally, risk management initiatives such as “Software Bill of Materials-based supply chain” and “deliver uncompromised” are forcing manufacturers to invest in compliant IPMC software implementations.

Hybrid DSP has an, inhouse developed, VITA 46.11-2022 Compliance Verification Test software that supports customers with a plug-and-play verification solution that runs on standard lab PCs. And most important: each new product is tested in a consistent way.

Example of a PDF report (>23 pages of tests)



OTHER VITA 46.11 IP

VITA 46.11 Tier-3 IPMC core

- Bare-metal C implementation
- Source code available
- Developed inhouse by Hybrid DSP in the Netherlands
- Free evaluation designs available

VITA 46.11 Mock Chassis Manager

- Cost-effective Ethernet-to-IPMB converter
- Supports ipmitool and RMCP
- Supports raw commands
- Designed for easy IPMB debugging (no IPMB polling, and capturing of IPMB messages with oscilloscope)
- Runs on low-cost, off-the-shelf SAMV71 evaluation board

1. SOSA and logo design and The Open Group Certification Mark™ are trademarks of The Open Group in the United States and other countries.
 2. The VPX logo and related marks are trademarks of VITA

VITA 46.11 automated verification test report

Test Result: PASS

General information
 Date: 2023-04-18 15:24:06
 Software: vita46dll_verification_test.exe, version 1.0
 Backend: rmcp, version: 0.5.4

Product/Device Under Test (DUT):

- Name: V3UFMCP7 with optical transceiver on P2B
- Manufacturer: Hybrid DSP Systems BV
- Manufacturer date: 2023-03-24 14:09:00
- Serial number: 123456
- Part number: V3UFMCP7-01-CKU0602-EAC2-01-00
- Tier: Tier-3
- Device revision: 1
- Firmware revision: 2.0

Test equipment information

Chassis Manager:

- Name: Demo Chassis
- Manufacturer: Elma Electronic.Inc.
- Serial number: 214xxx1
- Version: Rev. A
- Part number: None
- Tier: Tier-2

Note: Entire FRU Chassis manager is stored in Appendix A: Chassis manager FRU dat