

## NAVAIR PMA-209 Announces 4.1 Release of HOST Open Architecture Standards Framework

NAVAIR PMA-209 has just publicly released Version 4.1 of the HOST standards set which covers the HOST Tier 1 Standard and the OpenVPX Tier 2 Standard. Hardware Open Systems Technologies (HOST) is a standards framework that applies open architectures to high-performance embedded computing. HOST contains well-defined interfaces based on established industry standards that support a Modular Open Systems Approach (MOSA). It defines the implementation of Commercial-Off-the-Shelf (COTS) components for embedded computing on Open systems so scalability and compatibility across the breadth of U.S. Defense platforms, systems, and applications can be achieved to improve defense acquisition. HOST promotes Open System Architectures (OSA), reduces production cost, shortens development time, and improves life cycle sustainment through increased use of COTS components, system modularity, and improved upgradeability.

The HOST Tier 1 framework enables openness by leveraging existing open standards, standardizing open architectures, precluding the use of proprietary interfaces, and being a published Open Standard, which also provides guidance for subsequent HOST Tier standards. The HOST OpenVPX Tier 2 Standard applies OpenVPX embedded computing technologies to the HOST Tier 1 Standard architecture, supports the framework outlined in HOST Tier 1, and is platform agnostic so as not to incorporate specific *Target System* requirements. The HOST OpenVPX Tier 2 Standard provides best-in-class electronics module standardization for a wide range of Defense Systems based on the VITA 65 OpenVPX standard. This standard aligns with the hardware requirements of the popular SOSA™ (Sensor Open Systems Architecture) technical standard of which Version 1.0 is due for release in the near future.

The HOST Version 4.1 update remains compatible with the earlier Version 4.0 and includes the following updates and revisions:

- HOST Standard 1 and 2 was rewritten to conform to the Easy Approach to Requirements Syntax (EARS) - a standardized way to provide increased rigor to natural language requirements
- Reorganized Tier 2 Standard to better match Tier 1 standard
- Incorporated wording, grammar, and structural updates to both Tier 1 and OpenVPX Tier 2 standards to enhance understanding
- Indicated future revisions of OpenVPX Tier 2 standard will support VITA 48.8 Air Flow Through Cooling
- Updated Tier 2 OpenVPX standard to incorporate elements of updated VITA 46.11 in-band chassis management standard
- Clarified elements of Tier 2 OpenVPX standard to better align with the SOSA Technical Standard release V1.0
- Updated both Tier 1 and OpenVPX standards to incorporate latest versions of reference documents

More details on HOST are available at: [www.host-oa.com](http://www.host-oa.com)

PMA-209 is a Collaborative Team of Proactive Acquisition Professionals enabling Current and Future Foundational Aviation Requirements led by Captain Margaret Wilson.

NAVAIR Public Release 2021-755 Distribution Statement A – “Approved for public release; distribution is unlimited”