

Intel® Xeon® D

for Mil / Aero Applications

X-ES

Up to 16 core
versions available
today

Low-power
SoC package

Xeon®-class RAS
(Reliability, Availability,
and Serviceability)



Native extended
temperature
support

Fast boot supported
with coreboot and
the Intel FSP

14 nm process
technology

X-ES

Ruggedization



Hybrid Heatframe – improves thermal performance while minimizing weight

Underfill – fills the gaps under problem components to minimize solder joint fatigue

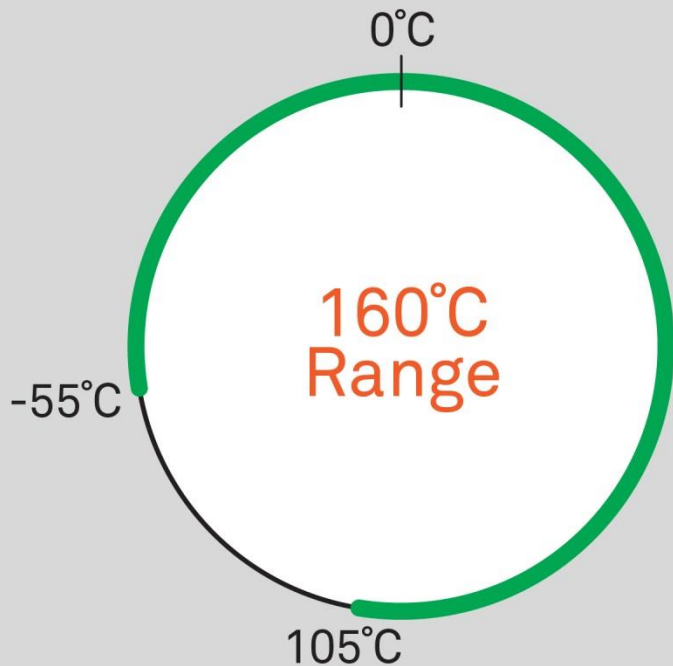
Class III PCB fabrication – improves reliability across temperature variations

X-ES

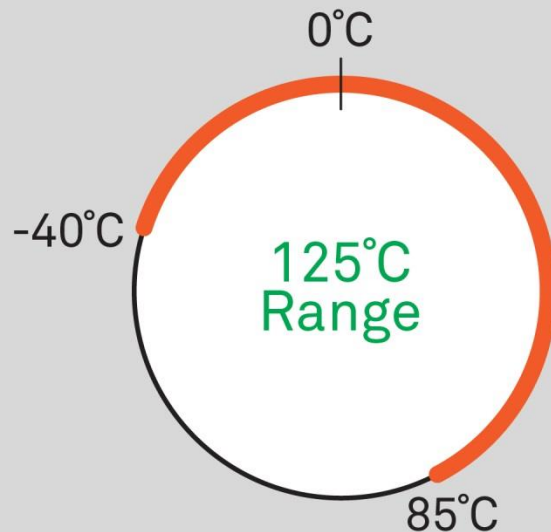
Structural Qualification



Temperature Qualification



Storage



Operation



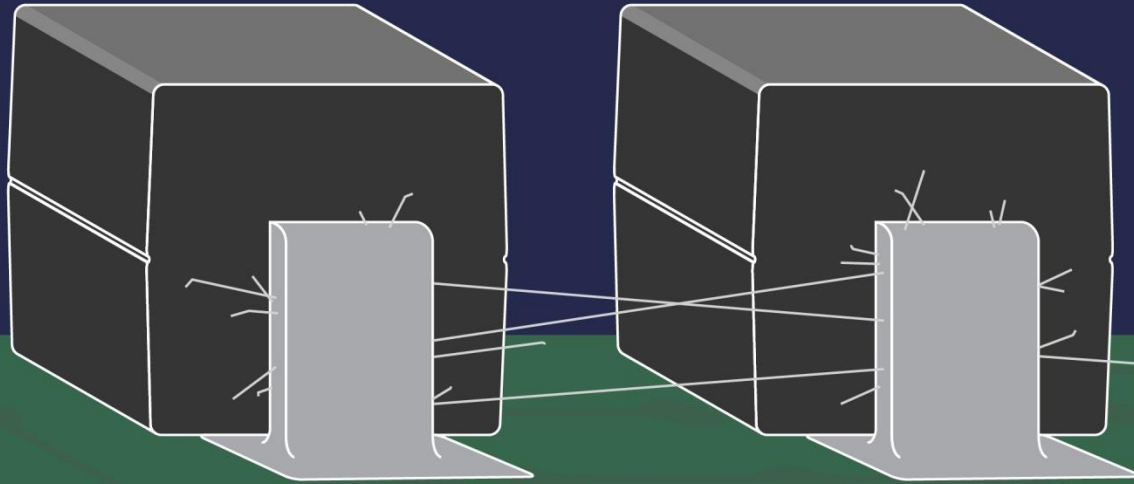
3U and 6U VPX Xeon® D products

**Tested and proven to operate reliably
in the harshest environments on Earth**

Depend on X-ES when performance matters most

X-ES

Tin Whisker Mitigation



Specialized soldering and materials selection

X-ES

“

With integrated

SecureCOTS™ technology,

X-ES Intel® Xeon® D products **protect data** from being modified or observed and provide an **ideal solution** when stringent security capabilities are required.

”



X-ES

SecureCOTS™

1

Protect

Reduce exposure to physical attacks and information extraction

2

Verify

Enable unique key encryption/decryption to authenticate trusted sources

3

Detect

Monitor environmental sensors and data buses for physical and informational attacks

4

Respond

Implement local or system penalties in reaction to an attack

X-ES



XPedite7670

3U VPX

- 16 GB DDR4-2133 SDRAM with ECC
- VITA 46.11 Tier 2 IPMC
- OpenVPX™ (VITA 65) compatibility

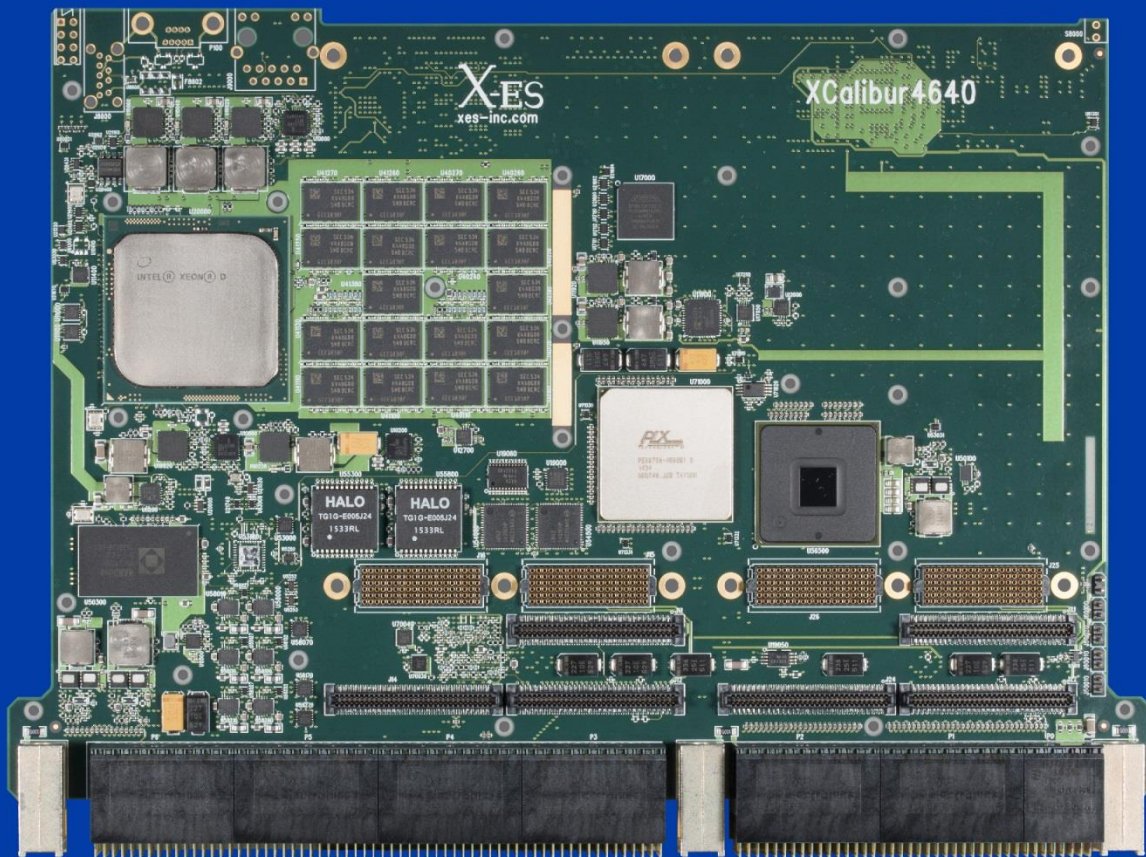


XPedite7672

3U VPX

- SecureCOTS™ with SmartFusion®2 Security SoC
- VPX-REDI (VITA 48) compatibility which includes Two-Level Maintenance (2LM)
- PCIe Gen3 and 10GBASE-KR Ethernet

X-ES

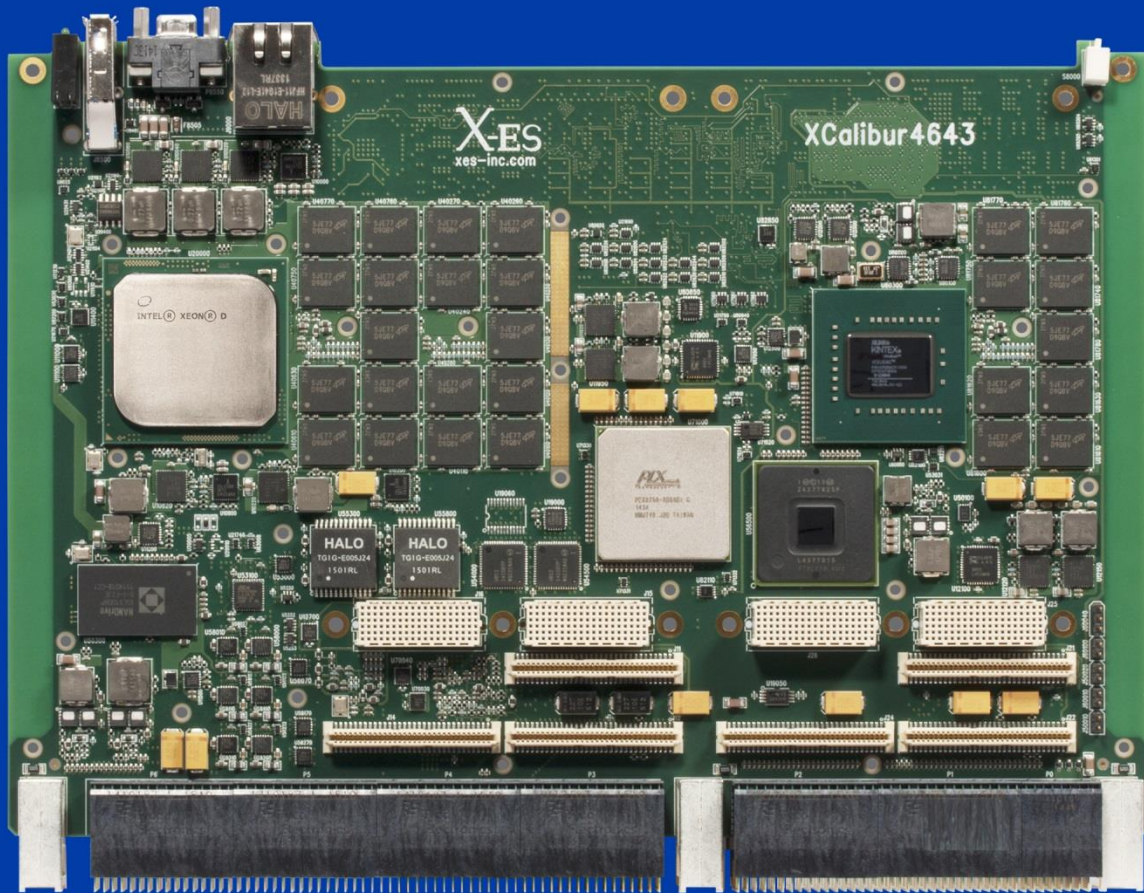


XCalibur4640

6U VPX

- 32 GB DDR4-2133 SDRAM with ECC
- VITA 46.11 Tier 2 IPMC
- OpenVPX™ (VITA 65) compatibility

X-ES



XCalibur4643

6U VPX

- SecureCOTS™ with Kintex Ultrascale FPGA
- VITA 61 (XMC 2.0) support
- VPX-REDI (VITA 48) compatibility which includes Two-Level Maintenance (2LM)

X-ES

Full-Service engineering capabilities
from design to testing and manufacturing
for COTS, Modified COTS, and fully
custom solutions.

**100% designed
and manufactured
in the USA**

X-ES