

Integrated Systems and Chassis For Defense Applications

ADVANCED SOLUTIONS FOR TODAY AND TOMORROW



Defense applications require electronic packaging and integrated system solutions that provide the highest levels of reliability and performance. LCR has the products that meet mission objectives with conduction cooled ATRs for SWaP constrained installations in harsh environments and 19-inch chassis for larger scale computing needs. Proven ATR systems address C5ISR applications in demanding environments in airborne, land and sea-based defense assets.



Streamlining the Journey

PRODUCTS AND SOLUTIONS SUPPORTING INITIAL DESIGN TO THE DEPLOYED SYSTEM

Rapid time to deployment is an imperative. Our full featured VPX lab development systems, rugged field test and demonstration systems and deployable ATR chassis and systems help pave the way.



Develop

Lab Systems
3U, 6U, Rackmount

Demonstrate

Rugged Test Systems
2, 5, 8-Slot Solutions

Deploy

Rugged Chassis Systems
1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 14-Slot
ATR & Rackmount Solutions

LCR's AoC chassis are designed for mission critical defense applications in the most extreme environments where size constraints and functional performance are key. Intended for EW / ISR, radar, mission computing, surveillance, weapons control and more in land, sea and air equipment.

VPX Lab Development Lab Systems - The DK Line

BENCHTOP AND 19" RACKMOUNT DEVELOPMENT SYSTEMS FOR VPX AND SOSA ALIGNED PAYLOADS

- Integration and development testing for high speed systems
- Backplanes supporting 40Gb and 100Gb data rates
- Supporting up to 100Gb Ethernet and PCI Gen 4 protocols
- VITA 48.2 conduction cooled and air cooled testing
- Bench top 3U and 6U chassis plus 19" 3U rackmount / bench top



19" rackmount and bench top chassis for larger scale systems

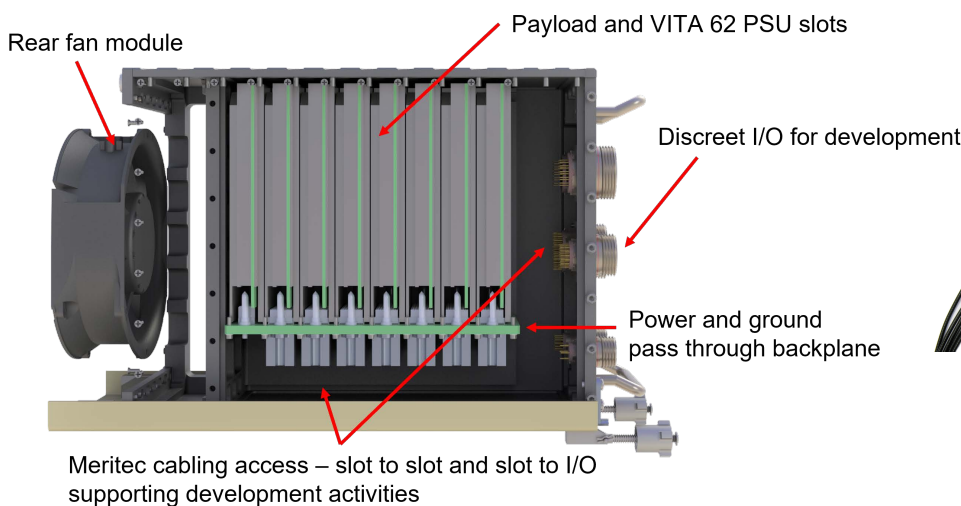


3U and 6U VPX open frame bench top development systems

Rugged Test Systems - The RTS Line

TRANSITION FROM LAB DEVELOPMENT TO FIELD DEMONSTRATION AND ADVANCED TESTING

- Transition platforms from the bench top to the onset of deployment
- Vehicle mounted testing in near deployment chassis
- Iterative testing leading to the final backplane and I/O complement
- Streamline testing processes leading to the full deployment system
- Create backplane profiles using Meritec cabling system



Cabling solutions from Meritec



Rugged ATR Chassis and Integrated Systems for Deployment

VITA 48.2 CONDUCTION COOLED CHASSIS WITH AIR ASSIST FOR VPX AND SOSA ALIGNED PAYLOADS

From 1-slot to 18-slot systems, each chassis leverages a baseline modular concept that addresses key performance requirements for shock, vibration and thermal management for maximum reliability in the toughest environments.

The 100, 200 and 300 Series provide cooling for up to 250W of aggregate power for 1 to 3 payload slots plus 1 VITA 62 power supply



100 Series



200 Series



300 Series

The 400 and 600 Series provide cooling for up to 500W of aggregate power for 4 to 6 payload slots with space for up to 2 VITA 62 power supplies



400 Series



600 Series

The 800, 900 and 1400 Series provide cooling for up to 1000W of aggregate power for 8 to 14 payload slots plus up to 4 VITA 62 power supplies



800 Series



900 Series



1400 Series

19" Rackmount Chassis

SUPPORTING LARGER SCALE APPLICATIONS IN CURRENT AND EMERGING BOARD ARCHITECTURES

Rackmount 19" chassis for VPX, SOSA-aligned, VME, cPCI and ATCA architectures. Our field proven chassis have provided over 30 years of reliable service in a wide array of applications. Building on solid design principals, our 19" solutions continue to evolve to meet 21st century defense challenges.



Rugged and industrial rackmount solutions for a wide range of applications



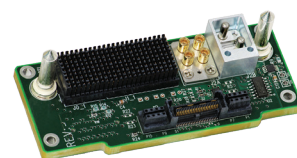
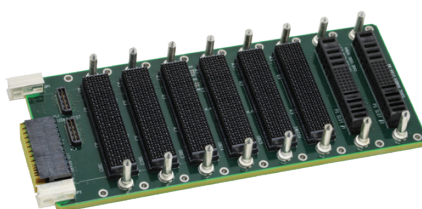
- 3U and 6U board support
- Designs for up to 21 slots
- VPX, SOSA-aligned, VME, cPCI and ATCA payloads
- Custom I/O panels and connector sets
- Rear transition area

- Standard and custom backplanes
- Board payloads from industry leading suppliers
- Designed to meet MIL-STD-810, 461, 167 and 901D test methods
- EMI gasketed filters with hinged door

Addressing High Speed Signaling Applications

100Gb/40Gb BACKPLANE TECHNOLOGY FOR VPX AND SOSA™ ALIGNED SYSTEMS

LCR designs precision engineered backplanes to the highest performance standards required for the high speed signal demands prevalent in today's defense applications. Our backplanes represent a key technology that supports the critical performance expectations of our line of ATR and rackmount chassis for VPX and SOSA aligned system payloads.

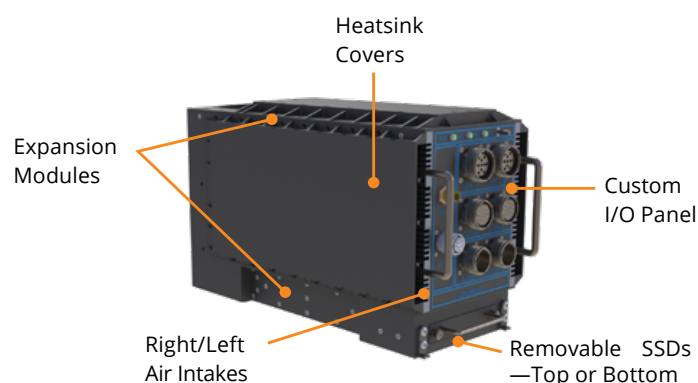
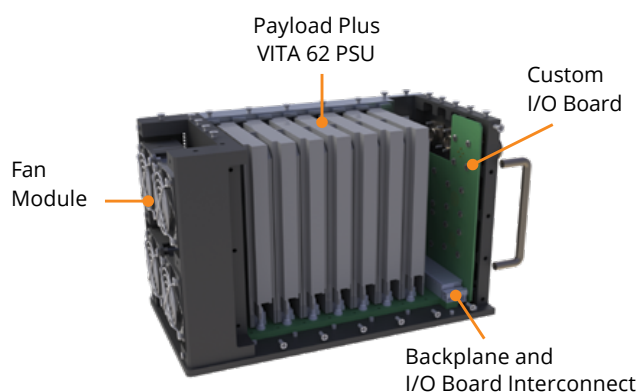


- **100 GbE (100GBASE-KR4) and PCI Express® (PCIe) Gen-4** on data plane, control plane and expansion plane fabrics
- **40 GbE (40GBASE-KR4) and PCI Express® (PCIe) Gen-3**
- **Custom designs** to meet your specific application requirements
- **VITA 66 and 67 optical and RF I/O connectors and apertures**
- **VPX and SOSA aligned module profiles**
- **VITA 46 Multigig RT-3 or EVO 2.0VPX connectors** for superior signal integrity
- **Hybrid 3U / 6U backplanes and hybrid VPX / VME**
- **From 1 to 21 slots**

AoC Family of Chassis – Intelligent Modularity

DESIGNED FROM THE GROUND UP TO ADDRESS A WIDE RANGE OF APPLICATIONS AND FUNCTIONAL CAPACITY

Extensible base design strategy enables quick turn solutions over a range of slot counts at lower cost.



PRODUCT LIFE CYCLE SUPPORT

Spares Support

Revision Control

Warranty Coverage

Product Service

End-of-Life Management