

Commercial & Military Avionics

Flight Computers • ATRs • MCUs • MFDs • Displays • MIL-STD-1553 • ARINC • Routers • Switches • Power Modules

AIRBORNE COMPUTING & DISPLAYS



High-Performance, Rugged Computing Solutions

- > Embedded computing, DSP and multiprocessor single-board computers (SBC)
- > 3U and 6U OpenVPX and VME SBCs with Intel or PowerPC
- > I/O, storage, databus and graphic boards
- > Military rated mission computers, video systems, routers and Ethernet switches



Display & Mission Computer



Military and Airborne Displays

- > Qualified airborne Multifunction Displays and Control Display Units (CDU)
- > Rugged flat panel displays, standard and custom, from 3.5" to 24.0" diagonals
- > Mini handheld CDU with 1.1" to 7.0" LCD displays
- > Optical bonding, sunlight readable, touch screen and front panel options



Multi-Function Display



Solid State Drives (SSD) with Security and Extreme Ruggedization

- > MLC and SLC NAND flash SSDs, military rated to MIL-STD-810F/G
- > Featuring secure erase, purge, write protect, OPAL, AES-256 and FIPS 140-2
- > Large TB capacities with PCIe, SATA, PATA, SAS, ATAPI and SCSI interfaces
- > M.2, mSATA, 1.8", 2.5" and U.2 form factors



Flight Recorder SSD



Embedded, Airborne Computers and Subsystems

- > Cabin management, inflight entertainment, bulkhead displays and servers
- > Full service engineering, avionics design and manufacturing services
- > RTCA DO-160, DO-178, DO-254 certification and DAL A through E
- > AS9100:2009 manufacturing facility and FAA repair station and manufacturing



4K Video Server



High-Performance Video and Graphics

- > Frame grabbers and GPU boards with H.264 Compression and AES Encryption
- > Using the latest NVIDIA GPUs, e.g., Quadro Pascal, single or dual per board
- > 3U / 6U VPX, VITA 74, XMC, MXC, MXM & PCIe conduction cooled formats
- > Meets MIL-STD-810 and avionics environmental specifications



Tegra K-1, 325 GFLOPs

RUGGEDIZED & MIL-STD-704 RATED POWER



Power Connectors and Cables

- > Class L and QWLD heavy-duty cylindrical power connectors from 40 to 200 amps
- > MIL-DTL-22992, MIL-DTL-38999 and 5015 connectors
- > High-quality cable assemblies for military and airborne power applications
- > Mobile, military-rated power distribution systems with intelligent management



QWLD Class L



Rugged Power Supplies, Inverters and Converters

- > DC/DC, AC/DC converters and DC/AC inverters and power supplies
- > High density, outstanding reliability with high MTBF, built in EMI filter
- > 3U VPX (600W) and 6U VPX (1kW) power supplies
- > MIL-STD-704, 461, 810G, 1275 and 1399 compliant



Miniature DC / DC Converter



Rugged Uninterruptible Power Supplies (UPS)

- > Extremely reliable, on-line / double conversion UPS systems
- > Frequency converters, power converters and inverters, power conditioners
- > Power Distribution Units (PDU), military rated
- > Meets MIL-STD-167A, -461F, -704E, -901D, -1275D and -1399 specifications



1200 Watts / 1500 VA UPS

Commercial & Military Avionics

Flight Computers • ATRs • MCUs • MFDs • Displays • MIL-STD-1553 • ARINC • Routers • Switches • Power Modules

AVIONICS & COMMUNICATIONS



Avionics Databus Interfaces

- > MIL-STD-1553, ARINC-429, 629, 708, 717, 664 and CDSB interfaces
- > Aircraft Interface Devices (AID) and Electronic Flight Bag (EFB) devices
- > CoPilot GUI software for bus analysis, recording and software development



MIL-STD-1553 Interfaces



Avionics and Space-Rated Magnetics

- > Airborne and space-qualified transceivers, transformers, inductors and baluns
- > Couplers, stubs, terminators, cable assemblies, testers
- > Space and Mil-STD-981 Ethernet, MIL-STD-1553, ARINC & Firewire 1394B



Space Qualified Bus Coupler



Airborne Media Converters and Transceivers

- > Ethernet switches and converters in D38999, TFOCA II and M28876 packaging
- > Optical transceivers, fiber optic converters, video media converter and adapters
- > Panel mount, PCB, jam nut, bulkhead or wall mount configurations



Video Media Converter



Real-Time Ethernet Solutions

- > 8 to 48 port flight rated (DO-160) rugged Ethernet switches and routers
- > Integrated GPS, NTP, PTP IEEE 1588 time synchronization
- > Embedded, rack mount and 3U VPX form factors



28 Port Router with PTP



Rugged Data Storage Systems

- > High capacity fault tolerant RAID systems and rack mount arrays
- > Military grade RAID, NAS and SAN systems and VPX SATA storage blades
- > Meets MIL-STD901D, MIL-STD-810F, MIL-STD-461F and NEBS level 3



Small 8TB Rugged NAS



Reliable, Real-Time Networking

- > PCIe and XMC cards for real-time 10/25/40/100G Ethernet, 1394b and EPON
- > Real-time streaming, cyber security monitoring, record and playback systems
- > IP Cores for 1394b-AS5643, Ethernet, Fibre Channel ASM and more



Conduction Cooled FC-ASM



Rugged Communications & Computing

- > Synchronous serial adapter cables for military radios and tactical applications
- > Rugged, reliable computing systems and COM Express carrier boards
- > Sital Technologies Mil-Std-1553 bus testers, IP cores and interface boards



Army Laptop Docking Station

FLIGHT ENCLOSURES & RACKS



Electronic Enclosures, ATR Chassis and Airborne Ethernet Switches

- > VPX, VMEbus, CompactPCI, MicroTCA and custom enclosures and backplanes
- > Military and airborne chassis and systems, thermal modeling and testing
- > Application ready platforms and system integration
- > Storage cards, Ethernet switches and router boards, I/O and computer blades



ATR Chassis

Arizona
Bob Rozell
Office: (480) 967-6163
Cell: (602)799-2075
rozell@sierrasales.com

Colorado
Kelvin Aist
(303) 877-0847
kelvin@sierrasales.com

New Mexico and El Paso
Ralph Palmer
(505) 331-0856
ralph@sierrasales.com

Utah, Idaho, Montana and Wyoming
Kjell Bjorge
Office: (801) 947-8558
Cell: (801) 809-0618
ktbjorge@sierrasales.com