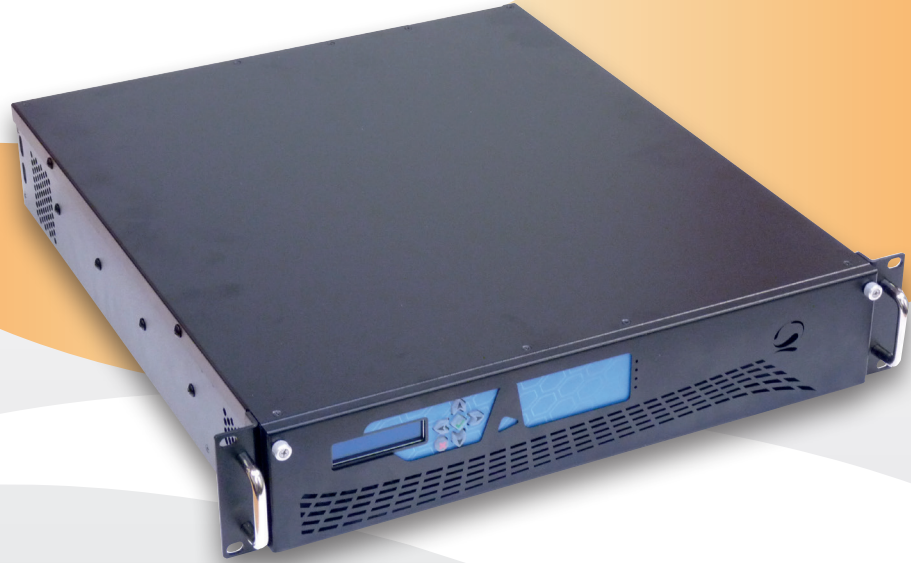# OPALE V2-ATX Compact

SWaP-C and flexible

▶ **Ready for OEM with Modified COST services**

As processing performance continues to improve, ECRIN Systems is dedicated to minimize the SWaP-C envelope of OPALE V2 series. High-end computing performance in a 2U chassis form factor, with a depth under 20'' (492mm), OPALE V2-ATX Compact fits most any 19'' rack mount space. It will be particularly useful when foot print, performance, reliability and longevity are not optional: military shelter base station, rugged servers for harsh environments, simulator, telemetry, telecom, medical imaging, infotainment, control/command station, internet appliance...

Distinctively customized oriented, thanks to our in-house design center, ECRIN Systems will help to personalize your computer and give you competitive advantage in the industrial world.
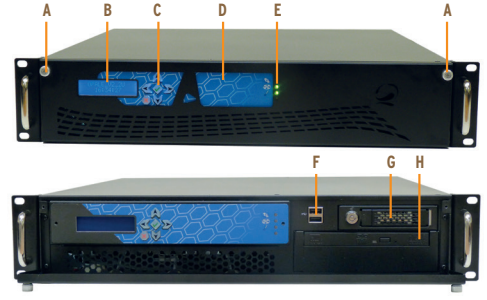To precisely meet your requirements, even for small quantities, ECRIN takes full system development responsibility and guarantee long term availability to allow you to concentrate on your added value. From mechanical parts to industrial design, with front and remote user interfaces, user LED's and I/O's, easy customized front and rear connectors, specific face-plate color and design, Lexan polycarbonate sheet with your logo and brand name, we will offer you a unique look that will shape your image and promote your sales.
Drop shipping is available to facilitate a rapid, more convenient deployment directly to your end customers.

> Modified COTS with easy Brand naming, configuration and customization for competition advantage
> Local and Remote Active Management to detect errors before they occur
> Enhanced Asset Protection for continuous operation: durable connectors, enhanced USB compatibility, rugged EMI construction
> High shock and vibration resistant
> Efficient thermal concept to get higher MTBF
> Reduced TCO with reporting Log file and downtime in harsh environments
> Energy efficient design / Low noise
> Long life Management: up to 10 years with revision control
> Advanced Multi-Core "Skylake" Boosted Computing Performance with DDR4 speeds and timings
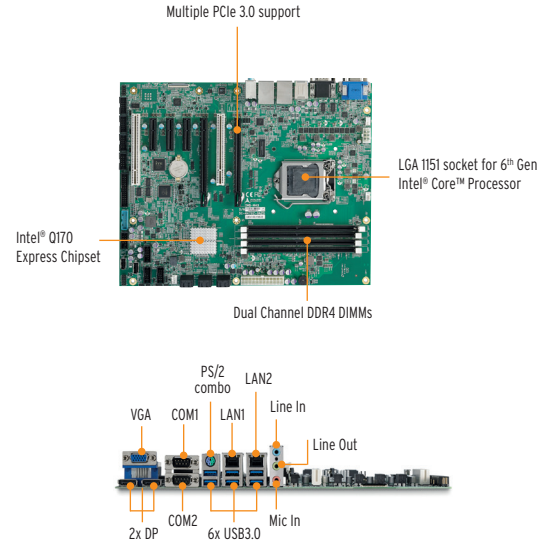> Accommodate Maximum PCIe Slots and Flexible Configuration

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Rack specifications

Construction	Anti-corrosion and long term heavy-duty steel
Dimensions (W x H x D)	19'' / 2U with 19.4 inch depth (483x88x492mm)
Weight	12.5 kg (standard configuration)
Color	Black
Cooling	Three 80mm ball bearing low noise fans with monitoring Top access for easy maintenance, cover removed
Power supply	2U form factor, compliant with Mini Redundant PSU
Drive bays	One 5.25'' front accessible drive bay or Slim CD + 3.5''drive bay One 3.5'' front accessible drive bay
Motherboard	ATX : 12'' x 10'' 7x slots for Low Profile boards
Front panel	Front door for drive bays and USB access Mini-IHM, 4 LEDs with I/O capabilities Lexan for easy customization
Packaging (W x H x D)	580x260x680mm

A: Single door with 2x Thumbscrews
B: LCD 2x16 characters
C: Keyboard (Power & Reset)
D: Lexan for easy customization
E: 4x tri-color LEDs
F: 2x USB
G: 3.5'' drive bay
H: 5.25'' drive bay

Industrial motherboard specifications

Form factor	ATX : 12'' x 10'' (30.5cm x 25.4cm)
Processor	LGA1151 socket for 6th Gen Intel® Core™ Processor (codename Skylake)
Chipset	Intel® Q170 Express Chipset
Memory	Dual channel DDR4 2133 MHz, up to 64 GB - Four 288 PIN DDR4 Sockets
Video	Integrated Intel® HD Graphics: 1* VGA (1920 x 1200 @60Hz) and 2x DisplayPort 1.2 (4096 x 2304 @ 60 Hz)
BIOS	AMI® UEFI BIOS, 128 Mb SPI Flash Memory
Ethernet	2 x GbE (Intel® I219-LM + Intel® I211-A) Intel® AMT and Wake On LAN support
Disk	6x SATA 6Gb/s ports - Software RAID support 0/1/5/10
Audio Codec	Realtek® ALC262-VC2-GR (Line-in, Line-out, Mic-in)
USB	6x USB 3.0 connector (rear), 2x USB 3.0 pin header, 4x USB 2.0 pin headers, 2x USB 2.0 (vertical type A connector)
Watchdog timer	24~65536 sec. software programmable and can be generate system reset
Hardware monitor	CPU/System temperature and fan speed / onboard DC voltages
I/O peripherals	PS/2 keyboard/mouse : 1x Mini-DIN Serial port : 2x RS-232/422/485/485 with auto flow control + 4x RS-232 Parallel port : 1x LPT Digital IO: 1x 10-pin/2.54mm GPIO pin header: 4 in and 4 out
Expansion I/O Slots	Flexible configuration: PCIe 3.0 bifurcation supports up to 5x PCIe 3.0 expansion slots: - 1x PCIe x16 + 2x PCIe x4 + 2x PCI slots - 2x PCIe x8 + 2x PCIe x4 + 2x PCI slots - 1x PCIe x8 + 4x PCIe x4 + 2x PCI slots

Multiple PCIe 3.0 support

LGA 1151 socket for 6th Gen Intel® Core™ Processor

Intel® Q170 Express Chipset

Dual Channel DDR4 DIMMs

PS/2 combo — LAN2 — LAN1 — Line In — Line Out
VGA — COM1 — 2x DP — COM2 — 6x USB3.0 — Mic In

Environmental specifications

Temperature	Operating: 0~50°C / Storage: -20~80°C (MIL-STD-810F, method. 502.4 proc II)
Humidity	Operating: 5 à 90% non condensing
Altitude	0-3000m (0-10.000ft) operating
Shock & vibration	Operating: 15G, 11ms 6 axis (MIL STD 810 F, method. 516.5) - 5~100 Hz 0.8G (MIL STD 810 F, method. 514.5)
Noise	TBD
CE certification	EMC: 2014/30/UE ; EN 61000-6-2, EN55022, EN 55024 - SAFETY: 2014/35/UE ; EN60950-1 : 2006 2nd edition A11 : 2009 + A1 : 2010 + A12 : 2011 + A2 : 2014

System Monitoring and Management

> Intel® AMT for remote management
> Local control with embedded HMI (Windows & Linux services)
  - FAN control & monitoring
  - System & network information
  - Watchdog & elapsed time counter
  - Redundant P/S default
  - Alarm (fan, temperature, redondant P/S), Log file
  - User script launch form menu entry
  - Easy configuration with .TXT file

OEM services

> Branding user's Lexan – Costless, NRE fees only
> Modified COTS customization:
  - Front panel design
  - Specific I/O on front panel / special connectors on rear panel
  - Specific H/W configurations
  - Specific S/W functionality   Call us for more information

Standard configuration

Power Supply Unit	ATX 12V - 400W - High Efficiency 80+ 90 ~ 240 VAC full range / 47~63 Hz 5V@20A, 12V@30A, -12V@0.8A, 3.3V@20A, 5Vstb@3.5A Option for 2x 420W mini-Redundant 2U P/S High Efficiency (80+), 90-240VAC auto range /47-63Hz
Drives	1 x Slim DVDRW 1 x 2.5'' SATA Removable Drive 1 x 3.5'' front accessible drive bay free
Front I/O (behind door) Rear I/O	2 x USB 2.0 2x DP + 1x VGA display outputs + 2x GbE 6x USB 3.0 + 2x COM + Audio + PS/2 KB/MS

Options

Processor	- Intel® Core™ i7-6700 (4C/8T, 3.4 GHz, 8M Cache, 14nm, 65W TDP) - Intel® Core™ i7-6700TE (4C/8T, 2.4 GHz 8M Cache, 14nm, 35W TDP) - Intel® Core™ i5-6500 (4C/4T, 3.2 GHz, 6M Cache, 14nm, 65W TDP) - Intel® Core™ i5-6500TE (4C/4T, 2.3 GHz, 6M Cache, 14nm, 35W TDP) - Intel® Core™ i3-6100 (2C/4T, 3.7 GHz, 3M Cache, 14nm, 51W TDP) - Intel® Core™ i3-6100TE (2C/4T, 2.7 GHz, 4M Cache, 14nm, 35W TDP)
Memory	DDR4-2133 : 4Go / 8Go / 16Go / 32Go / 64Go
Disk	- 2.5'' 7200 RPM Hard Drive (500Go ~ 1To) - SLC and/or MLC Solid State Drive (32 Go ~ 2To) - Up to 5x hot swap 2.5'' HD/SSD with optional 4in1 drive bay
OS	Microsoft® Windows® 7 32/64-bit, Windows 8.1 & 10 64-bit Linux 32/64-bit

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