

OPALE V2-ATX

Reliable embedded industrial PC's



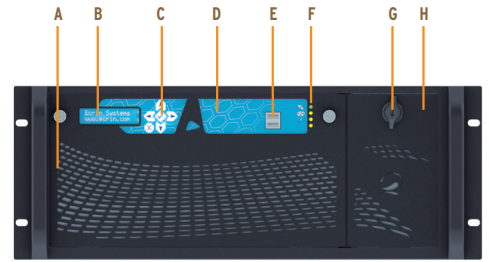
▶ Ready for OEM with Modified COTS services

When generic doesn't fit, Multi-Core OPALE V2 family based on standard ATX form factor, offers flexibility to fit into many applications for OEM, system integrators and application providers in a variety of domains: building automation, facility management, rugged servers for harsh environments (Aero/Mil), high availability embedded computers for cybersecurity, central data acquisition, control/command, vision...

To precisely meet your requirements, even for small quantities, ECRIN Systems 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.

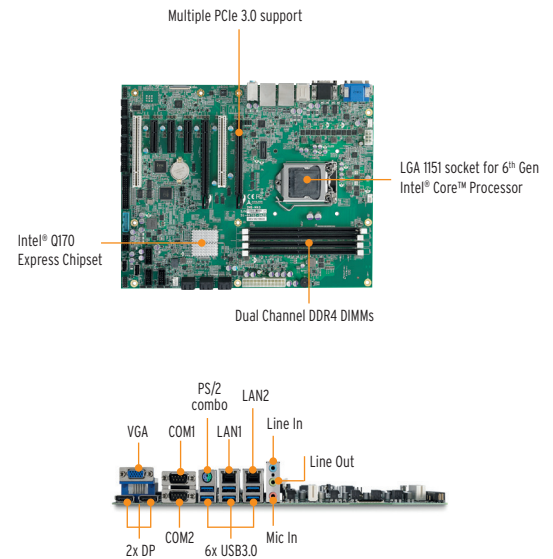
- › Modified COTS with easy brand naming, configuration and customization for competition advantage
- › Local and remote active management to detect errors before they occur
- › Enhanced asset protection for continuous operation: durable connectors, enhanced USB compatibility, rugged EMI construction
- › MIL-STD tests passed (for T°C, shocks & vibrations, humidity, noise)
- › Reduced TCO with reporting Log file and downtime in harsh environments
- › Energy efficient design / Low noise at 37dBA (equivalent to no risk)
- › Long life management: up to 7 years with revision control
- › Advanced Multi-Core "Skylake" boosted computing performance with DDR4 speeds and timings
- › Accommodate maximum PCIe slots and flexible configuration
- › Extended ATX compliant / 451mm depth only

Rack specifications	
Construction	Anti-corrosion and long term heavy-duty steel, black color
Dimensions (W x H x D)	19" / 4U with 17.8 inch depth (483x177x451mm)
Weight	17 kg (standard configuration)
Color	Black
Cooling	Three 92mm ball bearing low noise fans with monitoring Front access for easy maintenance
Power supply	PS2 form factor, compliant with Mini Redundant PSU
Drive bays	Two 5.25" front accessible drive bay
Motherboard	ATX: 12" x 10" Extended ATX: 12" x 13" (30.5cm x 33cm)
Front panel	Front door with lock, two USB and drive bays access Front door for dust filter and fans maintenance Embedded MMI, 4 LEDs with I/O capabilities Lexan for easy customization
Cards lock	Adjustable hold down bar for I/O cards Rugged front holding parts for full length I/O cards
Packaging (W x H x D)	600 mm x 345 mm x 640 mm



- A: Dust filter & Fan access door
- B: LCD 2x16 characters
- C: Keyboard (Power & Reset)
- D: Lexan for easy customization
- E: 2 x USB (optional)
- F: 4 x tri-color LEDs
- G: Key lock
- H: Drive bay door

Industrial motherboard specifications	
Form factor	ATX : 12" x 10" (30.5cm x 25.4cm)
Processor	LGA1151 socket for 6 th 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 V-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 6.0 Gb/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 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



Environmental specifications	
Temperature	Operating: 0~50°C (MIL-STD-810G method 502.5 / 501.5) - Storage: -20~80°C
Humidity	Operating : 5% to 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	37 dBA (MIL-STD-740-1)
CE certification	EMC: 2014/30/UE ; EN 61000-6-2, EN55032, EN 55024 - SAFETY: 2014/35/UE ; EN60950-1 : 2006 2 nd edition A11 : 2009 + A1 : 2010 + A12 : 2011 + A2 : 2014

System monitoring and management	OEM services
<ul style="list-style-type: none"> > Intel[®] AMT for remote management > Local control with embedded MMI (Windows & Linux services) <ul style="list-style-type: none"> - FAN control & monitoring - Alarm (fan, temperature, redundant P/S), Log file - System & network information - Watchdog & elapsed time counter - User script launch form menu entry - Redundant P/S default - Easy configuration with .TXT file 	<ul style="list-style-type: none"> > Branding user's Lexan - Costless, NRE fees only > Modified COTS customization: <ul style="list-style-type: none"> - Front panel design - Specific I/O on front panel / special connectors on rear panel - Specific H/W configurations - Specific S/W functionality <p style="text-align: right;">Call us for more information ...</p>

Standard configuration	Options																
<table border="1" style="width: 100%;"> <tr> <td>Power Supply Unit</td> <td>ATX 12V - 400W - High Efficiency 80+ 90 ~ 240 VAC full range / 47~63 Hz 5V@22A, 12V@32A, -12V@0.8A, 3.3V@22A, 5Vstb@3.5A Option for 2x 500W Redundant P/S 90-240VAC full range / 47-63Hz</td> </tr> <tr> <td>Drives</td> <td>1 x Slim DVDRW 1 x 2.5" SATA Removable Drive 1 x 5.25" front accessible drive bay free (up to 4x removable 2.5" HD or SSD)</td> </tr> <tr> <td>Front I/O (behind door)</td> <td>2 x USB 2.0</td> </tr> <tr> <td>Rear I/O</td> <td>2x DP + 1x VGA display outputs + 2x GbE 6x USB 3.0 + 2x COM + Audio + PS/2 KB/MS</td> </tr> </table>	Power Supply Unit	ATX 12V - 400W - High Efficiency 80+ 90 ~ 240 VAC full range / 47~63 Hz 5V@22A, 12V@32A, -12V@0.8A, 3.3V@22A, 5Vstb@3.5A Option for 2x 500W Redundant P/S 90-240VAC full range / 47-63Hz	Drives	1 x Slim DVDRW 1 x 2.5" SATA Removable Drive 1 x 5.25" front accessible drive bay free (up to 4x removable 2.5" HD or SSD)	Front I/O (behind door)	2 x USB 2.0	Rear I/O	2x DP + 1x VGA display outputs + 2x GbE 6x USB 3.0 + 2x COM + Audio + PS/2 KB/MS	<table border="1" style="width: 100%;"> <tr> <td>Processor</td> <td> <ul style="list-style-type: none"> - 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) </td> </tr> <tr> <td>Memory</td> <td>DDR4-2133 : 4Go / 8Go / 16Go / 32Go / 64Go</td> </tr> <tr> <td>Disk</td> <td> <ul style="list-style-type: none"> - 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" HDD/SSD total with optional 4in1 drive bay </td> </tr> <tr> <td>OS</td> <td>Microsoft[®] Windows[®] 7 32/64-bit, Windows 8.1 & 10 64-bit Linux 32/64-bit</td> </tr> </table>	Processor	<ul style="list-style-type: none"> - 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	<ul style="list-style-type: none"> - 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" HDD/SSD total 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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