

# μOPALE V2-SL

## Space Saver 1U rack mount Server



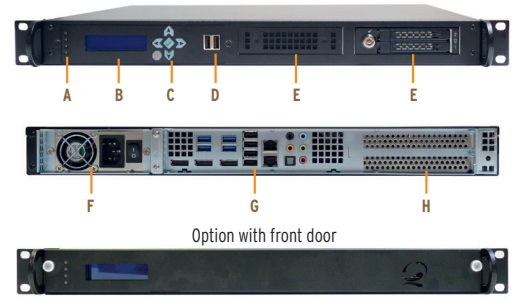
### ► Ready for OEM with Modified COTS services

As processing performance continues to improve, ECRIN Systems is dedicated to minimize the SWaP constraints of OPAL V2 series. With High-end multi-Core i7 Gen 6 computing performance embedded in 1U rack mount chassis with a small depth of 17.8" (450mm), new μOPALE V2-SL fits many applications. It will be particularly useful when foot print, performance, reliability and longevity are not optional: military shelter base station, rugged server for harsh environment, simulator, telemetry, telecom, medical imaging, infotainment, control/command station, test bench system, 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 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. 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
- > MIL-STD tests passed (for T°C, shock & vibration, humidity, noise)
- > Efficient thermal concept to get higher MTBF
- > Reduced TCO with reporting log file and downtime in harsh environments
- > Long life management: up to 7 years with revision control
- > Advanced Multi-Core "Skylake" boosted computing performance with DDR4 speeds and timings
- > Expandability with 1 full-height and full-length PCIe Gen3 16x I/O cards
- > Rear rugged MIL SPEC I/O connectors on demand
- > Single or mini redundant PSU, AC or DC versions
- > Optional front door lockable for security control
- > TPM header for SSI

**Rack specifications**

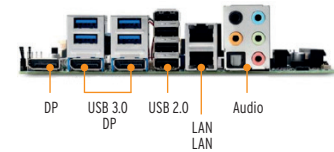
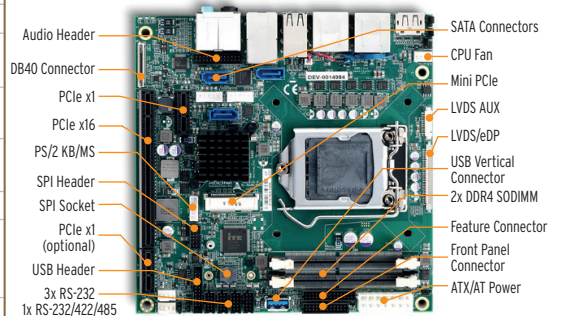
<b>Construction</b>	Anti-corrosion and long term heavy-duty steel
<b>Dimensions (W x H x D)</b>	19" / 1U with 17.8 inch depth (483x44x450mm)
<b>Weight</b>	7.5 kg (standard configuration)
<b>Color</b>	Black
<b>Cooling</b>	Up to four 40mm ball bearing fans - Fan speed regulation and monitoring
<b>Power supply</b>	1U form factor, compliant with Mini Redundant PSU
<b>Drive bays</b>	Two 3 1/2 front accessible drive bay
<b>Motherboard</b>	Mini-ITX : 170 mm x 170 mm
<b>Front panel</b>	2x slots for full length I/O boards (riser) Front door for drives bays and USB access
<b>Carton size (W x H x D)</b>	620x600x199 mm



- A: 4x tri-color LEDs
- B: LCD 2x16 characters
- C: Keyboard (Power & Reset)
- D: 2x USB 2.0
- E: 3 1/2 drive bay
- F: Single or redundant PSU
- G: motherboard rear I/O
- H: 2x PCIe x8 slots

**Electronic specifications**

<b>Processor</b>	LGA1151 socket for 6 <sup>th</sup> Gen Intel® Core™ Processor
<b>Chipset</b>	Intel® Q170 Express Chipset
<b>BIOS</b>	AMI EFI in 16MB SPI BIOS with Intel® AMT 11.0 support
<b>Memory</b>	Dual channel DDR4 2133 MHz, up to 32 GB in dual SODIMM sockets
<b>Video</b>	Intel® Gen 9 Graphics supporting 3 independent, simultaneous displays 3x DisplayPort 1.2 with resolution up to 4096 x 2160 pixels (rear)
<b>Ethernet</b>	2 x GbE (Intel® I219-LM + Intel® I211-AT) on rear panel Intel® AMT and Wake On LAN support
<b>Disk</b>	3x SATA 6Gb/s ports 1 Mini PCIe (full size slot) supporting mSATA
<b>Audio</b>	Realtek® ALC886 (7.1 channel audio via 5 jacks and S/PDIF)
<b>USB</b>	Rear: 4x USB 3.0 connector, 4x USB2.0 connector. Internal: 2x USB 3.0 pin header, 1x USB3.0 (vertical type A connector) / 2x USB 2.0 on front
<b>TPM</b>	TPM 1.2, chipset Atmel AT97SC3204
<b>SEMA® Support</b>	Voltage/current monitoring, power sequence debug support, AT/ATX mode control, logistics and forensic information, flat panel control, general purpose I2C, failsafe BIOS (dual BIOS), watchdog timer and triple Smart Fan control
<b>I/O</b>	PS/2 keyboard/mouse : 1x PS/2 internal headers Serial ports : 1x RS-232/422/485/485 + 3x RS-232 Digital IO : 10 GPIO via onboard feature connector
<b>Expansion Slots</b>	1 PCIe x16 Gen3 - 1 PCIe x1 Gen2 1 Mini PCIe (full size slot) supporting PCIe + USB or mSATA



**Environmental specifications**

<b>Temperature</b>	Operating: 0~45°C (MIL STD 810 G, method 502.5 / 501.5) - Storage: -20~80°C
<b>Humidity</b>	Operating : 5%-90% non-condensing
<b>Altitude</b>	0-2000m (0-6600ft) operating
<b>Shocks*</b>	Operating: 20G @ 11ms / 15G @ 20ms - 6 axis (MIL STD 810 G, method. 516.6)
<b>Vibrations*</b>	Operating: 5-7Hz / 10mm, 10~2000Hz / 2G - 3 axis, 2 sweeps, 15min (MIL STD 810 G, method. 514.6)
<b>Noise</b>	43.7 dBA (Idle), 52.5 dBA (50%), 54.6 dBA (80%) - MIL-STD-740-1
<b>CE certification</b>	EMC: 2014/30/UE ; EN 61000-6-2, EN55032, EN 55024 - SAFETY: 2014/35/UE ; EN60950-1 : 2006 2 <sup>nd</sup> 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, redundant P/S), Log file
- User script launch form menu entry
- Easy configuration with .TXT file

**OEM services**

- > Customization:
  - Front panel design
  - Specific I/O on front panel / rear panel
  - Specific H/W configurations
  - Specific S/W functionality
- Call us for more information

**Standard configuration**

<b>Power Supply Unit</b>	ATX 12V - 300W - High Efficiency 80+ 90 ~ 264 VAC full range / 47~63 Hz 5V@18A, 12V@22A, -12V@0.5A, 3.3V@16A, 5VSB@2A Option for 2x 220W Redundant 1U P/S High Efficiency (80+), 90-264VAC auto range /47-63Hz 5V@16A, 12V@17.5A, -12V@0.3A, 3.3V@16A, 5VSB@2A
<b>Drives</b>	2 x 2.5" SATA Removable Drive Enclosure 1 x 3.5" front accessible drive bay free
<b>Front I/O</b>	2 x USB 2.0
<b>Rear I/O</b>	3x Display Port, + 2x GbE 4x USB 3.0 + 4x USB 2.0 + Audio 7.1

**Options**

<b>Processor</b>	Intel® Core™ i7-6700 Processor, 4C GT2 8M 3.4/4.0 GHz, 65W Intel® Core™ i7-6700TE Processor, 4C GT2 8M 2.4/3.4 GHz, 35W Intel® Core™ i5-6500 Processor, 4C GT2 6M 3.2/3.6 GHz, 65W Intel® Core™ i5-6500TE Processor, 4C GT2 6M 2.3/3.3 GHz, 35W Intel® Core™ i3-6100 Processor, 2C GT2 4M, 65W Intel® Core™ i3-6100TE Processor, 2C GT2 4M 2.7 GHz, 35W
<b>Memory</b>	DDR4-2133 : 4Go / 8Go / 16Go / 32Go
<b>Disk</b>	- SLC & MLC Solid State Drive (32 Go ~ 2To) - Up to 4x hot swap 2.5" SSD with optional 2 in1 drive bays
<b>OS</b>	- Microsoft® Windows® 7 32/64-bit, Windows 8.1 & 10 64-bit - Linux 32/64-bit

\*With SSD

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