

μOPALE V2-D

Ultra-dense, low-power Xeon D server-class



► Ready for OEM with Modified COTS services

ECRIN Systems leverages its deep expertise in server technology to bring customers the first Intel® Xeon® D System-on-a-Chip (SoC) solution. μOPALE V2-D offers infrastructure optimization, by combining the performance and advanced intelligence of Intel® Xeon® processors into a dense, lower-power System-on-Chip and SWaP chassis footprint. With server-class reliability, availability and serviceability (RAS) features now available in an ultra-dense, low-power device, μOPALE V2-D will be able to deliver balanced compute, SAN/NAS storage and intelligent edge networks and appliances. These advanced technology building blocks offer the best work load optimized solutions and long life availability with the Intel® Xeon® processor D family with up to 16 cores, 32 threads providing a performance multiply by four improvement, with up to 128GB ECC DDR4 RDIMM operating at 2400MHz, 2x PCIe 3.0 x8 full length I/O slots, USB 3.0, up to six SATA 3.0 storage and dual 10 GbE LAN networking ports. μOPALE V2-D, server is optimized for mid-range networking and warm storage environments such as network security appliances, SMB servers with storage, web hosting, controllers, dedicated servers, and other similar applications in harsh Industry and Military/Aerospace environments. We can set you apart from the competitors. ECRIN Systems has a specialized in-house design team that will help customize your server, giving 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.

> Up to 16-Core / 32-Thread Intel Xeon-D SoC with max TDP of 65W

> Long life management: up to 7 years with revision control

> Up to 128GB ECC RDIMM DDR4 + 1x socket M.2

> 2x 10GbE and 2x GbE, 2x USB 3.0 and 4x USB 2.0

> One dedicated IPMI 2.0 port (virtual media over LAN, KVM-over-LAN support)

> 2 full-size PCIe 8x slots to customize server for your mission

> Up to Six Hot Swap 2.5" SSD in Rugged Carriers from the front (up to 12 TB)

> Rear rugged MIL SPEC I/O connectors on demand

> MIL-STD-810 Shock & Vibration


> 0-50° operating temperature

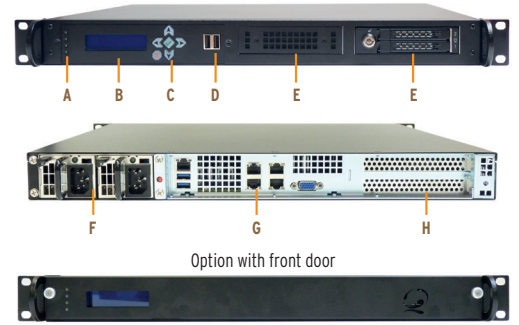
> Complete system monitoring: voltage, temp, airflow to extend long term reliability, watchdog, redundant PSU default, alarm, log file...

> Single or mini redundant PSU, AC or DC versions

> Optional front door lockable for security control

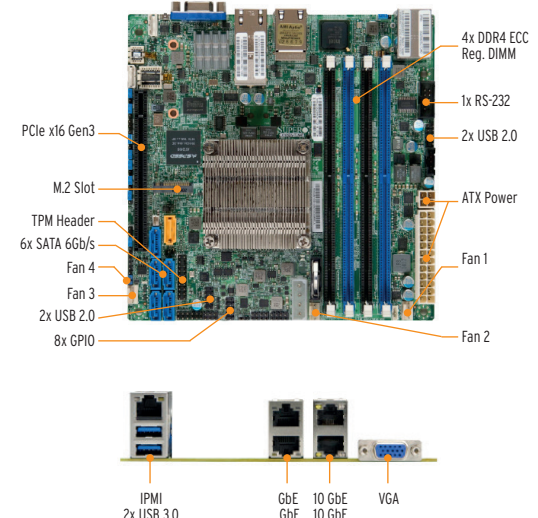
> TPM header for SSI

Rack specifications	
Construction	Anti-corrosion and long term heavy-duty steel
Dimensions (W x H x D)	19" / 1U with 17.8 inch depth (483x44x450mm)
Weight	7.5 kg (standard configuration)
Color	Black
Cooling	Up to four 40mm ball bearing fans Fan speed regulation and monitoring
Power supply	1U form factor, compliant with Mini Redundant PSU
Drive bays	Two 3 1/2 front accessible drive bay
Motherboard	Mini-ITX : 170 mm x 170 mm 2x slots for full length I/O boards (riser)
Front panel	Front door for drives bays and USB access Mini-IHM, 4 LEDs with I/O capabilities
Carton size (W x H x D)	620x600x199 mm
	 Option with six 2.5" SSD on front



- 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	
Processor	Intel® Xeon® processor D, SoC FCBGA 1667
BIOS	128Mb SPI Flash with AMI BIOS SMBIOS 2.8, UEFI 2.4, ACPI 5.0
Memory	Dual channel, Up to 128GB ECC RDIMM DDR4 2400MHz or 64GB ECC/non-ECC UDIMM in 4 sockets
Video	Aspeed AST2400 - sortie VGA (Rear)
Ethernet	2 x GbE (Intel® i350-AM2) Rear 2x 10GbE (SoC, 10GBase-T) Rear 1x Realtek RTL8201N PHY (dedicated IPMI) Rear
Disk	6x SATA 6Gbps ports - Software RAID 0,1,5,10 RSTe 1x socket M.2
USB	Rear: 2x USB 3.0 connector on the rear 2x USB 2.0 pin header + 2 USB 2.0 Front panel
TPM	TPM header
IPMI	Support for Intelligent Platform Management Interface v2.0 Virtual media over LAN and KVM-over-LAN support
I/O	Serial port : 1x RS-232 (pin header) Digital IO : 8x GPIO via onboard feature connector
PC Health Monitoring	Voltage, Temperature, FAN (x4)
Expansion Slots	1x PCIe x16 Gen3 - Bifurcation support: 2x PCIe x8 1x socket M.2 (PCIe x4 Gen3, SATA, M Key 2242/2280)



Environmental specifications	
Temperature	Operating: 0~45°C (MIL STD 810 G, method 502.5 / 501.5) - Storage: -20~80°C
Humidity	Operating : 5% to 90% non-condensing
Altitude	0-2000m (0-6600ft) operating
Shocks*	Operating: 20G @ 11ms / 15G @ 20ms - 6 axis (MIL STD 810 G, method. 516.6)
Vibrations*	Operating: 5-7Hz / 10mm, 10~2000Hz / 2G - 3 axis, 2 sweeps, 15min (MIL STD 810 G, method. 514.6)
Noise	43.7 dBA (Iddle), 52.5 dBA (50%), 54.6 dBA (80%) - 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
> IPMI v2.0 with virtual media and KVM over LAN support > Local control with embedded HMI (Windows & Linux services) <ul style="list-style-type: none"> - 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
> Customization: <ul style="list-style-type: none"> - 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	
Power Supply Unit	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
Drives	2 x 2.5" SATA Removable Drive Enclosure 1 x 3.5" front accessible drive bay free
Riser	2x PCIe x8 (PCIe x16 connector)
Front I/O	2 x USB 2.0
Rear I/O	VGA, 2x 10GbE, 2x GbE, 2x USB 3.0 + IPMI

Options	
Processor	Intel® Xeon™ D-1587 Processor, 16C/32T, 24Mo, 1.7/2.3 GHz, 65W Intel® Xeon™ D-1557 Processor, 12C/24T, 18Mo, 1.5/2.1 GHz, TDP 45W Intel® Xeon™ D-1528 Processor, 6C/12T, 9Mo, 1.9/2.5 GHz, TDP 35W Intel® Xeon™ D-1518 Processor, 4C/8T, 6Mo, 2.2 GHz, TDP 35W
Memory	DDR4-2400 ECC Reg. : 4Go ~ 128Go DDR4-2400 ECC : 4Go ~ 64Go
Disk	- SLC & MLC Solid State Drive (32 Go ~ 2To) - Up to 4x hot swap 2.5" SSD with optional 2 in1 drive bays - Up to 6x hot swap 2.5" SSD option three 3.5" front accessible drive bay
OS	- Microsoft® Windows® 7 32/64-bit, Windows 8.1 & 10 64-bit - Linux 32/64-bit

* with SSD

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