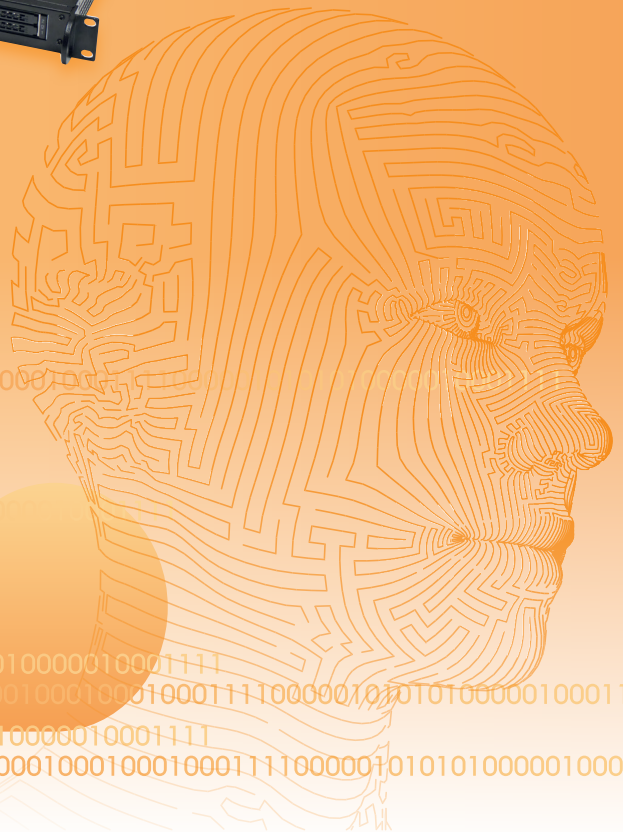
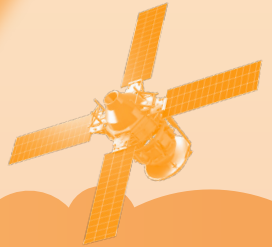


OPALE V2 Series

FOR CHALLENGING
INDUSTRIAL ENVIRONMENTS



OPALE V2 Series

Smart Industrial PC and Short-Server family to reduce downtime in harsh environments

For your projects that require robust, reliable and sustainable solutions, OPALE V2 series is the preferred industrial computer technology across a broad range of industries for communication, network, homeland security, Artificial Intelligence, control/command, ISR, test bench, factory automation, high physic applications.

CUSTOMIZED TO YOUR NEEDS

ECRIN Systems Industrial Computers and Servers (ICS), thanks our 45 years of experience, provide exceptional performance in compact, environmental, smart and economical package.

With our in-house Modified COTS service team, all our products can be customized, drop shipped to facilitate fast, convenient deployment directly to your end customers, offering you advantage over competition.

ROBUST, RELIABLE AND SUSTAINABLE

- Shock & Vibration proven
- Efficient thermal concept
- Low noise control
- Burn-in test

SECURITY AND MANAGEMENT

- SEMA board controller agent
- TPM
- AMT remote management
- Redundant P/S failure monitoring

LONG LIFE MANAGEMENT

- 10-year PLM contract
- Embedded Building Blocks
- Revision control
- Health checking service

TIME TO MARKET

- COTS Building Blocks
- Build-to-order flexibility
- 3D printing technology
- COTS qualified system

MAINTENANCE, REPAIR AND OVERHAUL

- Front panel HMI
- Remote monitoring
- Failure detection in advance
- Easy fans, filters, SSD exchanged

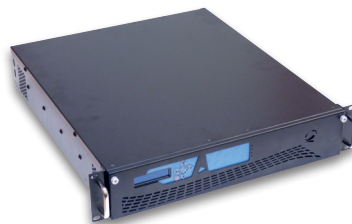
CUSTOMER KEY BENEFITS

HIGH DENSITY

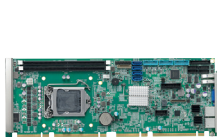
- Max performance with many I/O extension
- 1U, 2U, 4U size
- 450mm Short depth

MODIFIED COTS SERVICES

- Branding and industrial design
- Special connectors arrangement
- BIOS and monitoring customization



	OPALE V2	OPALE V2-Compact	μOPALE V2
Construction	Anti-corrosion and long term heavy-duty steel, black color		
Dimensions (W x H x D)	19" / 4U / 17.8" depth (483 x 177 x 450 mm)	19" / 2U / 19.4" depth (483 x 88 x 492 mm)	19" / 1U / 17.8" depth (483 x 44 x 450 mm)
Weight	17 kg (stand. conf.)	12.5 kg (stand. conf.)	7.5 kg (stand. conf.)
Front panel	Front door with lock: 2xUSB + drive bays Front door: dust filter and fans maintenance Embedded HMI, 4 LEDs with I/O capabilities Lexan for easy customization	Front door for drive bays and USB access Embedded HMI, 4 LEDs with I/O capabilities Lexan for easy customization	Drive bays and USB access Embedded HMI, 4 LEDs with I/O capabilities
Drive bays	Two 5.25" front accessible	One 5.25" front accessible One 3.5" front accessible	Two 3.5" front accessible Option for a third 3.5"
Cooling	3x 92 mm ball bearing fans with monitoring Front access for easy maintenance	3x 80 mm ball bearing fans with monitoring Top access for easy maintenance	Up to four 40mm ball bearing fans with monitoring
Power supply	ATX 12V, 400W, PS2 form factor Option for 2x 500W redundant P/S	12V 400W 2U form factor, 2x 500W mini redundant PSU (option)	12V 300W 1U form factor, 2x 220W mini redundant PSU (option)
Passive backplane	PICMG 1.3 and HDEC 14 slots full height, full length	PICMG 1.3 6 slots full height, full length	N/A
Motherboard	ATX (12"x10") and Extended ATX (12" x 13") 7 slots full height, full length	ATX (12"x9.6") 7 slots low profile, full length	mini-ITX (6.7"x6.7") 2 slots full height, full length (riser)
Temperature	Operating: 0~50°C (MIL-STD-810) Storage: -20~80°C		Operating : 0~45°C (MIL STD 810) Storage: -20~80°C
Humidity	Operating: 5% to 90% non condensing		
Altitude	0-3000m (0-10,000ft) operating		0-2000m (0-6600ft) operating
Shock & Vib	Operating: 15G@11ms 6 axis (MIL STD 810) 5~100 Hz 0.8G (MIL STD 810)		Operating: 20G @ 11ms 6 axis (MIL STD 810) 5~7Hz / 10mm, 10~2000Hz / 2G (MIL STD 810)
Noise	37 dBA (MIL-STD-740-1)	34.9 dBA (Idle), 35.9 dBA (50%), 42 dBA (80%) MIL-STD-740-1	43.7 dBA (Idle), 52.5 dBA (50%), 54.6 dBA (80%) MIL-STD-740-1
CE	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		



	NuPRO-E43	SEP8253	IMB-M43	AmITX-SL	X10SDV
Form Factor	PICMG 1.3 Server / Graphic class	HDEC (High Density Embedded Computing)	Industrial ATX (305x244 mm)	Mini-ITX (170x170 mm)	Mini-ITX (170x170 mm)
CPU	6 th /7 th Gen Intel® Core™ Quad & Dual-Core i7	Dual Xeon® Skylake-SP 20, 16, 14, 12, 8-Core	6 th /7 th Gen Intel® Core™ Quad & Dual-Core i7	6 th /7 th Gen Intel® Core™ Quad & Dual-Core i7	Intel® Xeon® D-1500 series 16, 12, 6, and 4-Core
Chipset	Q170	C622	Q170	Q170	SoC
Memory	DDR4-2400 32GB max. (2x DIMM)	DDR4-2666 ECC Reg. 512GB max. (8x DIMM)	DDR4-2400 64GB max. (4x DIMM)	DDR4-2400 32GB max. (2x SoDIMM)	DDR4-2133 ECC Reg. 128GB max. (4x DIMM)
Video	VGA / DVI-D (option)	VGA	VGA / 2x DP 1.2	3x DP 1.2	VGA
Network	2x GbE AMT / Wake On LAN	2x 10GbE + 2x GbE IPMI 2.0	2x GbE AMT / Wake On LAN	2x GbE AMT / Wake On LAN	2x 10GbE + 2x GbE 1x GbE for IPMI 2.0
Storage	4x SATA 6 Gbps Software RAID 0/1/5/10	7x SATA 6 Gbps Software RAID 0/1/5/10	6x SATA 6 Gbps Software RAID 0/1/5/10	3x SATA 6 Gbps	6x SATA 6 Gbps Software RAID 0/1/5/10
USB	8x USB 3.0 + 4x USB 2.0	10x USB 3.0	8x USB 3.0 + 6x USB 2.0	7x USB 3.0 + 4x USB 2.0	2x USB 3.0 + 4x USB 2.0
COM	2x RS232/422/485 + 2x RS232	1x RS232/422/485	2x RS232/422/485 + 4x RS232	1x RS232/422/485 + 3x RS232	1x RS232
Audio	Option	Yes	Yes	Yes	No
TPM	Optional module	TPM 2.0	No	Option	Option
Other	SEMA / LPT / PS2 / Watchdog	IPMI 2.0 / Watchdog	LPT / PS2 / DIO / Watchdog	SEMA / PS2 / DIO / Watchdog	IPMI 2.0 / DIO / Watchdog
PCIe	1x PCIe x16 + 1x PCIe x4 2x PCIe x8 + 1x PCIe x4 1x PCIe x8 + 3x PCIe x4	44x PCIe links on CPU-0 44x PCIe links on CPU-1	1x PCIe x16 + 2x PCIe x4 2x PCIe x8 + 2x PCIe x4 1x PCIe x8 + 4x PCIe x4	1x PCIe x16 or 2x PCIe x8 2x Mini-PCIe (PCIe x1)	1x PCIe x16 or 2x PCIe x8 1x Mini-PCIe (PCIe x1)
PCI	PCI 32Bit / 33MHz	N/A	2x PCI 32Bit / 33MHz	N/A	N/A
Platform	OPALE V2 / OPALE V2 Compact	OPALE V2	OPALE V2 / OPALE V2 Compact	μOPALE V2-SL	μOPALE V2-D

OPALE V2 Series



μOPALE V2-D NAS server
with RJ-Field connectors



Satellite Ephemeris Calculator
based on OPALE V2 Compact
with Dual P/S and RF connectors



OPALE V2 with rear box
for RF connectivity



OPALE V2-ATX with
MIL-DTL-38999 and DO-160 P/S

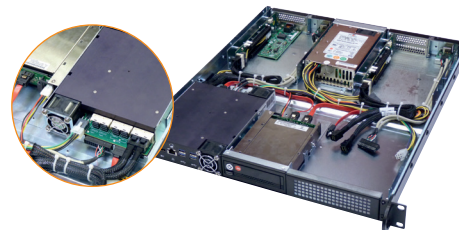


OPALE V2 with 10.2" LCD
for telemetry control

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ICS Original Design Manufacturer

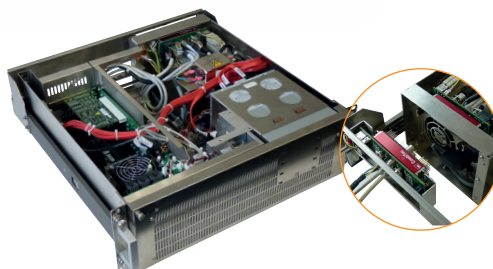
With 75% of our business driven by project to develop Computer-on-Demand, we re-use our proven COTS System building blocks and IPs to reduce your time to market, manage the risk during development phase and reduce your non-recurrent cost. Dedicated Project Manager with Project Quality Engineer will assist you all along the program. Manufactured in stainless steel for sea or aluminum for air constraint environments, each project follows our ISO-9001 quality process to deliver your SWaP-C product with high quality, at cost, in time.



myOPALE: Industrial
EDGE Modular Computer



ODM for tracking satellite



Naval computer
with LRU floating connector



Stainless steel OPALE V2-MIL
Compact for Coast Watcher RADAR
computing

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