



COMPACT FANLESS EMBEDDED SYSTEMS

DCO-1000-ASL

DIN-Rail Fanless Embedded Computer with Intel® Atom® x7433RE/x7835RE CPU, 2x DP, 2x COM, 4x USB, 4x LAN



Features

- Support Intel® Atom® x7433RE/x7835RE Processor
- 1x 262-pin DDR5 SO-DIMM up to 32GB
- Dual Independent Display by 2x Display Port
- 4x 2.5GbE LAN
- 1x M.2 (B Key, 2242, PCIe x2, support NVMe)
- 1x M.2 (B Key, 3042/3052, USB 3.2 Gen2 & USB2.0, support 4G/5G Module)
- 2x RS-232/422/485, 2x USB 3.2 Gen2, 2x USB 2.0
- 9 to 36VDC Wide Range Power Input Supporting AT/ATX Mode
- Wide Operating Temperature -40°C to 55°C
- TPM 2.0 Supported
- UL 61010-1, UL 61010-2-201, CE, FCC Class A, UKCA, ICES-003

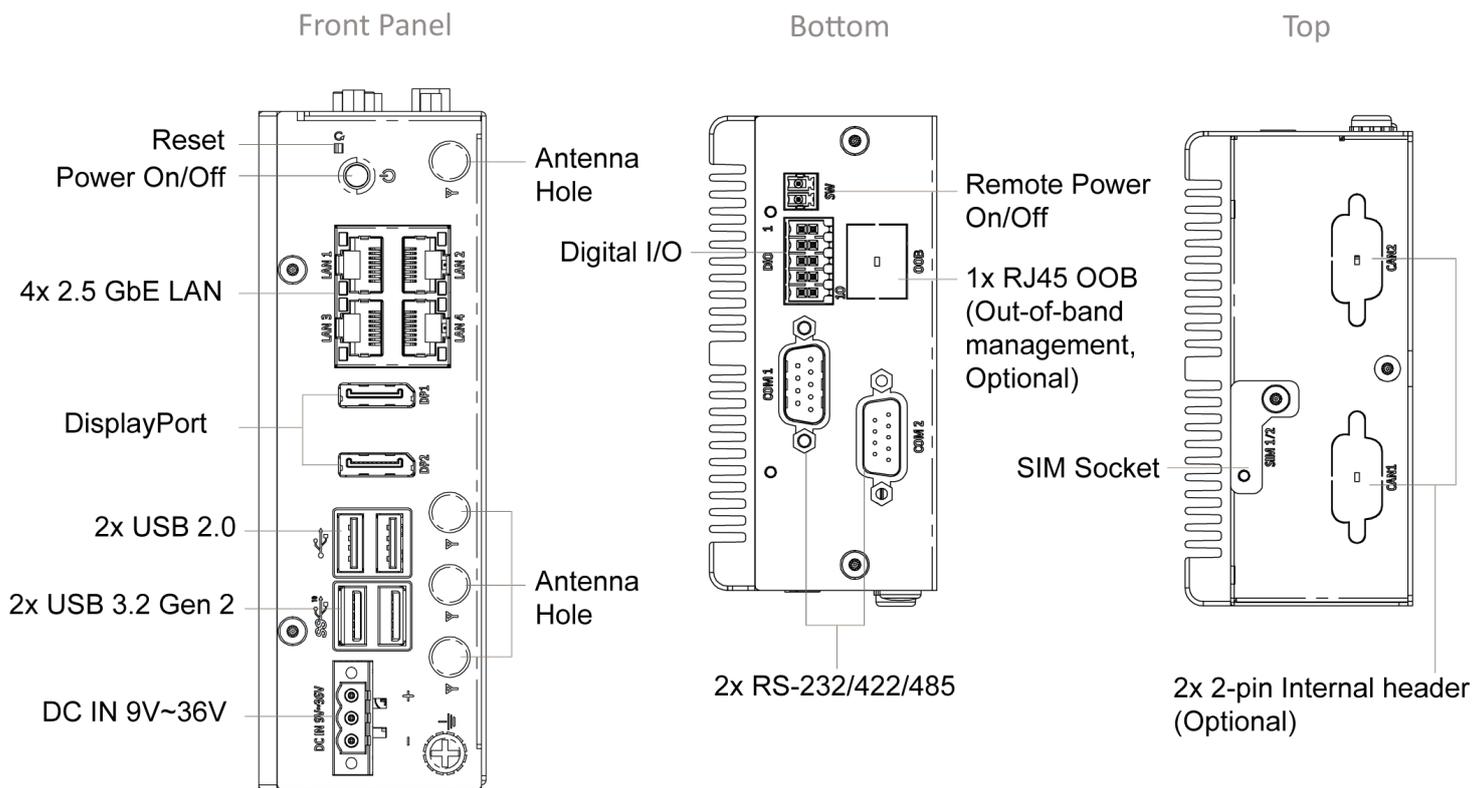
Specifications

System	
Processor	Support Intel® Atom® Processor (Up to 12W TDP) -Intel® Atom® Processor x7433RE, Quad Core, CPU FHM 1.5 GHz/1C Turbo 3.2GHz, GPU 32EU, TDP 9W -Intel® Atom® Processor x7835RE, Eight Core, CPU FHM 1.0 GHz/1C Turbo 3.6GHz, GPU 32EU, TDP 12W
System Chipset	SoC integrated
LAN Chipset	2.5 GbE1: Intel I226 2.5 GbE2: Intel I226 2.5 GbE3: Intel I226 2.5 GbE4: Intel I226 (Support TSN) (LAN #1-2 Shared PCIe Gen 2 x1 Lane bandwidth)
System Memory	1x 262-Pin DDR5 4800/5600 MT/s SO-DIMM. Max. up to 32GB (In-Band ECC Supported)
Graphics	Intel® UHD Graphics
BIOS	AMI SPI BIOS
Watchdog	Software Programmable Supports 1~255 sec. System Reset
TPM	TPM 2.0
Display	
Display Port	2x DisplayPort 1.4, DP (4096 x 2160@60Hz)
Multiple Display	Dual Display
Storage	
M.2	1x M.2 (B Key, 2242, PCIe x2, support NVMe), Default 128G SSD
SIM Socket	1x Dual Nano SIM Socket
Expansion	
M.2	1x M.2 (B Key, 3042/3052, USB 3.2 Gen2 & USB2.0, support 4G/5G Module) 1x M.2 (E Key, 2230, PCIe x1 & USB2.0, support Wifi/Bluetooth)
I/O	
CAN	2x 2-pin Internal header (Optional)
COM	2x RS-232/422/485
DIO	4 in / 4 out (Isolated)
LAN	4x RJ45
OOB	1x RJ45 (Optional)
USB	2x USB 3.2 Gen 2 (10 Gbps) 2x USB 2.0
Others	4x WiFi Antenna Holes 1x Power Switch, 1x Reset Switch 1x AT/ATX Internal Switch Jumper 1x 2-PIN Remote Power On/Off 1x Internal CMOS Battery Cable
Operating System	
Windows	Windows 10/Windows 11
Linux	Linux kernel 6.2
Power	
Power Adapter	Optional AC/DC 12V/5A, 60W
Power Mode	AT, ATX
Power Supply Voltage	9~36VDC
Power Connector	3-pin Terminal Block
Power Protection	OVP (Over Voltage Protection) OCP (Over Current Protection) Reverse Protection
Environment	
Operating Temperature	-40°C to 55°C
Storage Temperature	-40°C to 85°C

Relative Humidity	10% to 95% (non-condensing)
Certification	UL 61010-1, UL 61010-2-201 CE, FCC Class A, UKCA, ICES-003
Vibration	DIN-Rail Wall Mount with NVMe SSD: 5 Grms, 5 - 500 Hz, 0.5 hr/axis DIN-Rail Mount with NVMe SSD: 5 Grms, 5 - 500 Hz, 0.5 hr/axis
Shock	With SSD: 20G, half sine, 11ms
Physical	
Dimensions (W x D x H)	150 x 105 x 50 mm
Weights	0.85 kg
Construction	Extruded Aluminum with Heavy Duty Metal
Mounting Options	DIN-Rail Mounting Wall Mounting

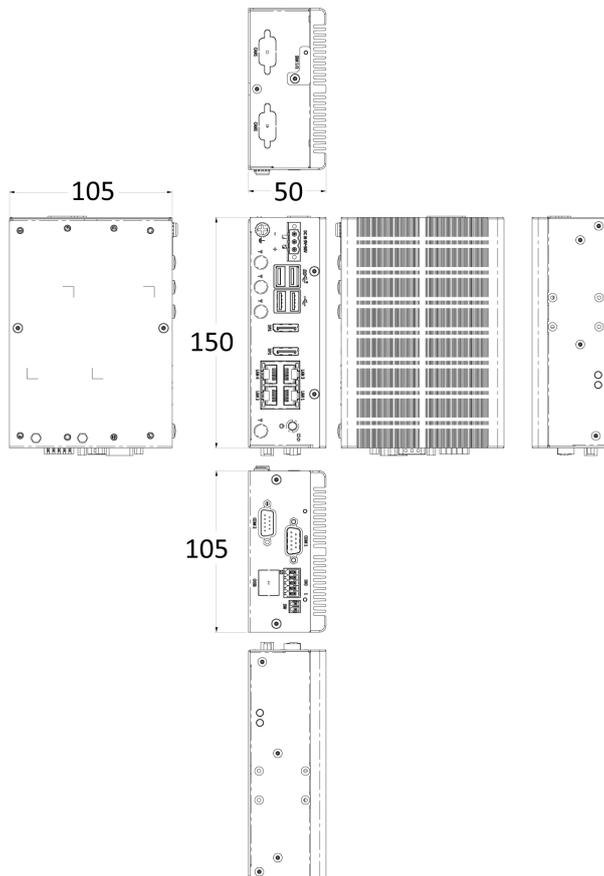
- For configured to run at 12W, operating temperatures will be limited to 55°C.
- 12W CPUs may experience thermal throttling depending on extreme application workloads; this is also due to an increase in the physical CPU cores from the Intel silicon (up to 8 cores). Please note, this does not indicate system malfunction or problems in the fanless design. Please consult our embedded engineers for the best configuration to match your application requirements.
- All specifications and photos are subject to change without notice.

External I/O Mechanical Layout



Dimension

Unit: mm



Available Models

Model No.	Description
DCO-1000-ASL-X7433RE-P	DIN-Rail Fanless Embedded Computer with Intel® Atom® x7433RE CPU, 2x DP, 2x COM, 4x USB, 4x LAN
DCO-1000-ASL-X7835RE-P	DIN-Rail Fanless Embedded Computer with Intel® Atom® x7835RE CPU, 2x DP, 2x COM, 4x USB, 4x LAN

Optional Accessories

Model No.	Description
1-E09A06008	Adapter AC/DC 12V 5A 60W with 3pin Terminal Block Plug 5.0mm Pitch
1-TPCD00005	Power Cord, 3-pin US Type, 180cm
1-TPCD00002	Power Cord, European Type
1-TPCD00001	Power Cord, 3-pin UK Type, 180cm

Packing List

1x DCO-1000-ASL Series Embedded System
 1x DIN-Rail Mount Kit
 1x Wall Mounting Kit
 1x Accessory Kit

Compliances and Standards

Shock	With SSD: 20G, half sine, 11ms IEC60068-2-27:2008 Designed to comply with MIL-STD-810H Method 516.8 Procedure I
Vibration	DIN-Rail Wall Mount with NVMe SSD: 5 Grms, 5 - 500 Hz, 0.5 hr/axis DIN-Rail Mount with NVMe SSD: 5 Grms, 5 - 500 Hz, 0.5 hr/axis IEC60068-2-64:2008 Designed to comply with MIL-STD-810H Method 514.8 Procedure I
Operating Temperature	-40°C to 55°C IEC60068-2-1:2007 (Cold test procedure) IEC60068-2-2:2007 (Dry heat test procedure) IEC60068-2-3:2007 (Damp heat, steady state, test procedure) IEC60068-2-14:2009 (Wide temperature range thermal shock)
EMC	<ul style="list-style-type: none"> • FCC Class A (47 CFR part 15.109 and part 15.107) • CE • ICES-003 • UKCA • Industrial EMC Compliance - EN 61000-4-2: 2009 - EN IEC 61000-4-3: 2020 - EN 61000-4-4: 2012 - EN 61000-4-5: 2014 +A1: 2017 - EN 61000-4-6: 2014
Safety	cULus <ul style="list-style-type: none"> • UL 61010-1, 3rd Ed. • UL 61010-2-201, 2nd Ed. • CAN/CSA-C22.2 No. 61010-1-12, 3rd Ed. • CSA C22.2 No. 61010-2-201:18, 2nd Ed.
Environmental Compliance	<ul style="list-style-type: none"> • RoHS 3 (2015/863/EU) • REACH