Embedded Solutions
SMARTER BY DESIGN™

Compact HWD = 2.1" x 4.6" x 3.3"

DESCRIPTION

The ADLEPC-1750 is a rugged, compact industrial-grade computer constructed from 6063 aluminum, with thick-walled design and a fanless, conduction-cooled CPU for industrial temperature operation. It features a durable anodized finish, flush-mounted screws, and flexible mounting options. The compact size and light weight make it ideal for a variety of industrial applications and environments...whether on the factory floor or in rugged external conditions.

Customizable High Performance

At the heart of the ADLEPC-1750 is a compact Intel® Atom® x6000E Series SBC with a host of onboard and M.2 expansion features. The compact chassis design has a very small footprint at only a 3.3" x 4.6"...the approximate size of an index card... making it ideal for embedded use in IIot applications or retrofitting into high-value assets and infrastructure such as edge devices for power grid protection, oil and gas, unmanned applications, and more.

Custom I/O and Power

The EPC-1750 is highly customizable and can easily be adapted for particular customer needs including Wi-Fi, CAN, RS232, military-grade power, MIL-STD-1553, ARINC, and much more.
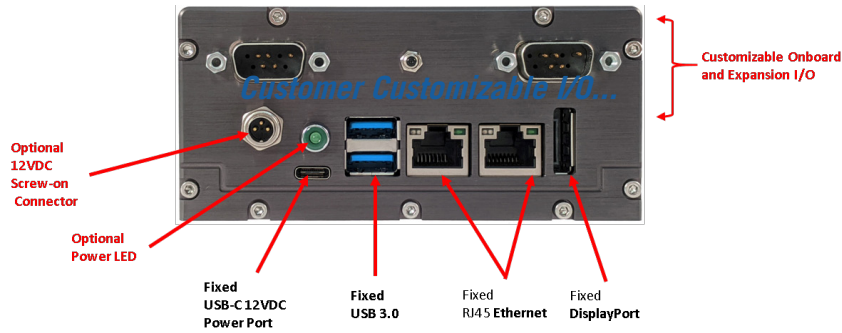
ADL Embedded Solutions, Inc. offers full turnkey system design services and is well versed at working collaboratively with customers to conceptualize and manufacture full custom EPC-1750 solutions or even full-custom system solutions. Contact your ADL sales engineer for details.

APPLICATIONS

- Industrial IoT (IIoT) Network and Cloud Computing
- Cyber Security Edge Devices for ICS and SCADA threat security.
- Secure Networking (Secure Routing, Traffic Monitoring and Gateways)
- Intelligent Machinery and Equipment Controllers
- Unmanned or Auonomous Vehicle Mission/Payload Computing
- Traffic Engineering
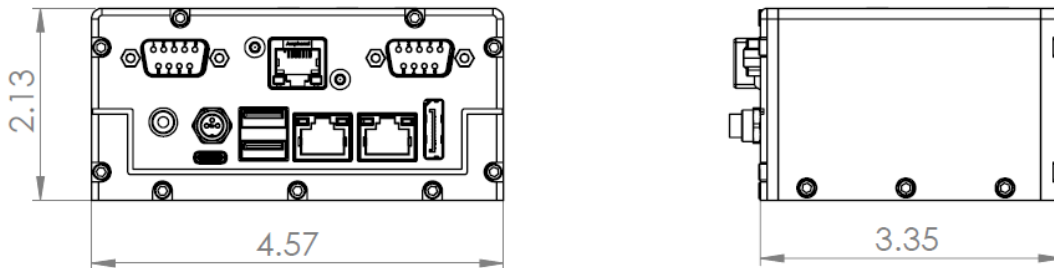- Wind Turbine Datalogging and Collision Avoidance
- Oil and Gas IPC Controller

TECHNICAL SPECIFICATIONS

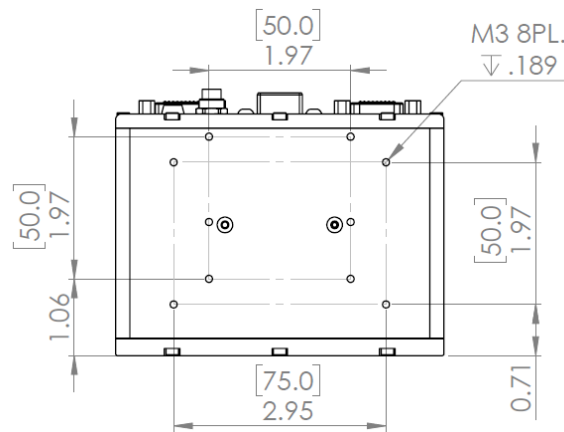| FEATURES	FUNCTIONS
Intel® Atom Processors (Formerly codenamed Elkhart Lake)	• Intel® Atom® x6425RE quad, 1.9GHz, 1.5MB cache, 8GB RAM, 12W TDP, Gfx Gen11 32EU, Passmark 3017 • Intel® Atom® x6414RE quad, 1.5GHz, 1.5MB cache, 4GB RAM, 9W TDP, Gfx Gen11 16EU, Passmark 1544 • Intel® Atom® x6212RE dual, 1.2GHz, 1.5MB cache, 4GB RAM, 6W TDP, Gfx Gen11 16 EU
Security	TPM 2.0 (Infineon SLB9670/SLB9672)
Memory	Up to 8GB Soldered-Down LPDDR4x at 4267 MT/s.
Storage	• 1x SATA III Port for SATADOM capacity up to 128GB • 1x mSATA SATA III Socket with capacity up to 512GB
Fixed Front-Side I/O and Features	• 1x DisplayPort; 4K @ 60Hz (DP 1.4) • 2x USB 3.1 Gen2 (10 Gbit/s) • 2x 10/100/1000 RJ45 Ethernet • 12VDC Power: Circular connector and USB-C Power Port
Onboard I/O and Features	• 2x BIOS-Selectable RS232/422/485; Linux-Only • 2x USB 2.0 • HD Audio • 6bit 3.3V GPIO
Expansion	• 1x M.2 2280/2242 KeyB socket with Gen3 PCIe X 2, SATA 6 Gb/s, and USB 2.0. For NVMe or expansion I/O. • 1x M.2 2230 KeyE socket with PCIe Gen3 x1 and USB 2.0. Shared by 512MB NVMe or WiFi.
Operating Temperature	• Standard Temperature = -40C to 70C • Note: Max temperature 75C with conduction cooling.
Power	Vin = 12VDC
Mechanical Specifications	• HWD = 2.1" x 4.6" x 3.3" (54mm x 116mm x 85mm) • Nominal Weight ~ 1.3lb • Mounting: DIN Rail, VESA 50mmx50mm

ADLES Corporate: 4411 Morena Blvd. Suite 101 | San Diego, CA 92117-4345

T: 858.490.0597   **F:** 858.490.0599
sales@adl-usa.com   www.adl-usa.com

Data subject to change without notice.

Customizable Onboard and Expansion I/O

Optional 12VDC Screw-on Connector

Optional Power LED

Fixed USB-C 12VDC Power Port

Fixed USB 3.0

Fixed RJ45 Ethernet

Fixed DisplayPort

Customer Customizable I/O...

ADLEPC-1750 I/O Ports and Features
(Pre-Configured ADLEPC-1752/1754/1756 shown)

ADLEPC-1700 Dimensions

2.13
4.57
3.35

Mounting: Din Rail, 50mm x 75mm M3

[50.0] 1.97
M3 8PL. ▽ .189
[50.0] 1.97
[50.0] 1.97
1.06
0.71
[75.0] 2.95

ADLES Corporate: 4411 Morena Blvd. Suite 101 | San Diego, CA 92117-4345

T: 858.490.0597   **F:** 858.490.0599

sales@adl-usa.com   **www.adl-usa.com**

Data subject to change without notice.

ORDERING INFORMATION

ITEM CODE	PART #	DESCRIPTION
ADLEPC-1750-DC		Intel® Atom® x6212RE Dual, 1.2GHz, 1.5MB cache, 4GB RAM, 6W TDP, Gfx Gen11 16 EU: Power LED + Power Reset Button, screw-type circular power conn, onboard 2x RS232/422/485 (DB9, Linux)
ADLEPC-1754-QD		Intel® Atom® x6414RE Quad, 1.5GHz, 1.5MB cache, 4GB RAM, 9W TDP, Gfx Gen11 16EU, Passmark 1544: Power LED + Power Reset Button, screw-type circular power conn, 2x RS232/422/485 (DB9, Linux)
ADLEPC-1756-QD		Intel® Atom® x6425RE Quad, 1.9GHz, 1.5MB cache, 8GB RAM, 12W TDP, Gfx Gen11 32EU, Passmark 3017: Power LED + Power Reset Button, screw-type circular power conn, 2x RS232/422/485 (DB9, Linux)
ADLEPC-1750 Custom Configurations	CALL	Call your sales engineer for custom configurations featuring optional onboard and M.2 expansion I/O.

Options		
1TB NVMe	207-1000	1TB, NVMe M.2 2280 Key B PCIex2 Gen3, seq. r/w 2000/1900 MB/s, Extended Temp
2GB NVMe	207-2000	2TB, NVMe M.2 2280 Key B PCIex2 Gen3, seq. r/w 2000/1900 MB/s, Extended Temp
512MB NVMe	207-0512	512MB, NVMe M.2 KeyE PCIex1, seq. r/w 800/730 Extended Temp
ADLEPC-1700-PWRFL	100-9843	External power via industrial circular connector with 18" flying leads
ADLEPC-1700-PWR	ADLEPC-1700-PWR	60W USB-C Wall Adapter
M.2 WiFi-6	CALL	WIFI-6 802.11ax/ac/a/b/g/n Industrial
EPC1700-Ant	232926	2ea Direct-attached WiFi antennas.
M.2 COM	M.2-COM-2SM/4SM	2x or 4x RS232/422/485, DB9, software selectable, Windows and Linux drivers
EPC1700-PSU	293049	Wide-Input 9VDC to 36VDC discrete power supply via circular connector
EPC1700-GPIO	100-9762	Optional DB9 8bit GPIO
DIN Rail Set	ADLEPC-1600-DIN	1 set of ADLEPC1700/1600 DIN Rails
EPC1700-BAT		EPC1700 RTC Battery
M.2 Dual-CAN	CALL	2-Ch CAN 2.0 A/B and FD, DB9
M.2 Dual-CAN-ISO	CALL	Isolated 2-Ch CAN 2.0 A/B and FD, DB9
M.2 16xAIO	CALL	16x A/D (12/16bit, 100/250/500/1000 KHz), 2x DIO, 4x D/A
M.2 16xAI	CALL	16x A/D (12/16bit, 100/250/500/1000 KHz), 2x DIO
M.2 24xDIO	CALL	M.2, 24x TTL I/O (optional CoS)
M.2 Relay	CALL	M.2 4/8/16x Isolated Inputs with options for 4/8 SSR Out or 4/8 FormC Out

ADLES Corporate: 4411 Morena Blvd. Suite 101 | San Diego, CA 92117-4345

T: 858.490.0597   **F:** 858.490.0599
sales@adl-usa.com   www.adl-usa.com

Data subject to change without notice.