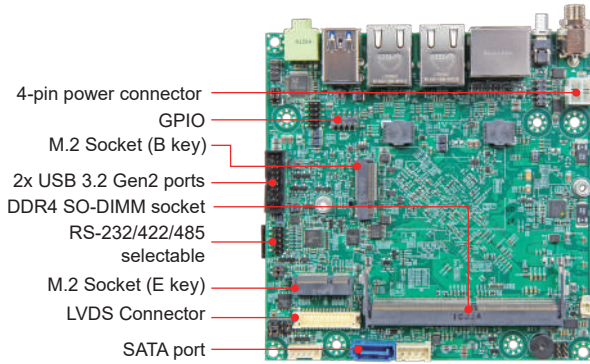
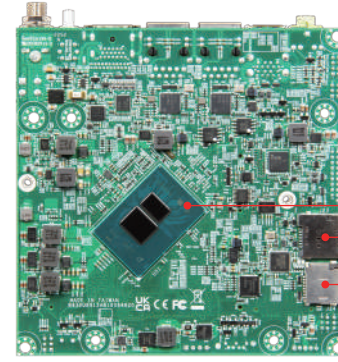
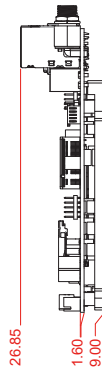


# NANO-6064

Intel Atom® x7000E Series SoC based NANO-ITX Board with Triple Display, 2.5GbE LAN, USB 3.2 Gen2, M.2, SATA III



- 4-pin power connector
- GPIO
- M.2 Socket (B key)
- 2x USB 3.2 Gen2 ports
- DDR4 SO-DIMM socket
- RS-232/422/485 selectable
- M.2 Socket (E key)
- LVDS Connector
- SATA port



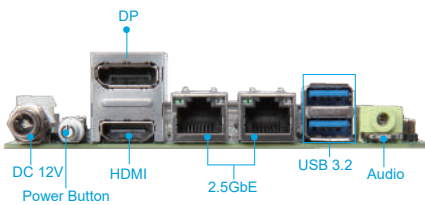
- Intel Atom® x7000E Series Processor
- Nano SIM socket
- Micro SD socket

NANO-6064 adopts the latest Intel Atom® x7000E/Intel® Processor N-Series/Intel® Core™ i3 N-Series. The processor comes with improved performance and higher graphics capability. NANO-6064 is suitable to build efficient solution for IoT applications, such as medical, retail, digital signage.

## FEATURES

- Support low power Intel Atom® x7000E Series SoC and high performance Intel® i3 N-Series SoC
- Up to 16GB DDR4 3200MT/s non-ECC SO-DIMM
- Support multiple display via HDMI, DP, LVDS
- High speed I/O with dual 2.5GbE and four USB 3.2 Gen2
- Multiple expansions with M.2 E Key and B Key
- Support on board TPM 2.0

## REAR/I/O



## ORDERING GUIDE

AB1-3R12Z	(R).NANO-6064 Nano-ITX ESB. Intel Alder Lake-N SoC./DDR4 SO-DIMM/LVDS/HDMI/DP/dual 2.5 GbE LAN/micro SD
-----------	--

## GENERAL

Processor	- Intel Atom® x7000E Series Processor (up to 12W) - Intel® Processor N-Series - Intel® Core™ i3 N-Series Processor (up to 15W)
BIOS	AMI UEFI BIOS
Memory	- 1x non-ECC DDR4 3200MT/s SO-DIMM up to 16GB - Support In-Band ECC
Storage Devices	- 1x SATA III - 1x M.2 B Key 2280(SATA III) - 1x Micro SD socket
Watchdog Timer	Programmable Watchdog Timer, time out period from 0.5 sec to 254.5 secs
Hardware Monitoring	System Monitor (Voltage, Fan speed, Temperature)
Expansion Interface	- 1x M.2 E Key 2230 - 1x M.2 B Key 3052+2280 (share with M.2 2280 SATAIII socket)

## I/O INTERFACE

Audio	- HDA controller integrated in Intel® SoC - Realtek ALC897 HDA codec - Audio jack on rear I/O (line-out) - On board pin header (line-in, line-out, mic-in)
Ethernet	- 2x Intel® 2.5GbE Controller (I225-LM) - 2x RJ45 connectors on rear I/O
Serial Port	- 1x RS-232/422/485 port (selectable via BIOS)
USB	- 2x USB 3.2 Gen2 on rear I/O - 2x USB 3.2 Gen2 on board pin header (1x USB 3.2 Gen2 share with M.2 B key socket)
Others	- TPM 2.0 on board - 8x GPIO - Support Real-time Performance - Intel® TCC & TSN(only selected skus)

## DISPLAY

Graphic Controller	Intel® UHD Graphics Gen12 with up to 32 EUs
Display Interface	- LVDS: 1x LVDS on board connector (Dual channel, 24bit, 1920x1200 @60Hz) - HDMI: 1x HDMI port on rear I/O (HDMI 2.0b, 4096x2160 @ 60Hz) - DP: 1x DP port on rear I/O (DP 1.4, 4096x2304 @ 60Hz)

## Mechanical & Environment

Dimension	120mm(L) x 120mm(W), 4.72"(L) x 4.72"(W)
Power Supply	DC 12V inport
Environment	- Operating temperature: 0°C~60°C - Storage Temperature: -40°C~85°C - Relative Humidity: 5~95%, non-condensing
MTBF	TBD



**Portwell, Inc.** Headquarters  
No. 242, Bo' Ai St., Shu-Lin Dist,  
New Taipei City 238, Taiwan  
Tel: +886-2-7731-8888  
Fax: +886-2-7731-9888  
E-mail: info@portwell.com.tw  
www.portwell.com.tw

**American Portwell**  
(Fremont, CA)  
Tel: +1-510-403-3399  
E-mail: info@portwell.com  
www.portwell.com

**Portwell UK Ltd.**  
Tel: +44(0)1235-750-760  
E-mail: info@portwell.eu  
www.portwell.eu

**Portwell Japan, Inc.**  
(Tokyo)  
Tel: +81-3-6902-9225  
E-mail: info@portwell.co.jp  
www.portwell.co.jp

**Portwell Japan, Inc.**  
(Osaka)  
Tel: +81-6-4807-7721  
E-mail: info@portwell.co.jp  
www.portwell.co.jp

**European Portwell**  
Tel: +31-252-620790  
E-mail: info@portwell.eu  
www.portwell.eu

**KIOSK Embedded Systems GmbH**  
Tel: +49-9152-3962-500  
E-mail: info@portwell.de  
www.portwell.de

**Shanghai Portwell**  
Tel: +86-21-5771-2505  
E-mail: info@portwell.com.cn  
www.portwell.com.cn

**Portwell Korea, Inc.**  
Tel: +82-31-450-3043  
E-mail: info@portwell.co.kr  
www.portwell.co.kr

**Portwell India Technology Private Limited**  
Tel: +91-80-4168-4255  
E-mail: enquiry@portwell.in  
www.portwell.in

