

### FEATURES

- Intel Celeron N3350 or N3450 Apollo Lake Processor
- Dual Gigabit Ethernet Ports, One With PoE Module Support
- SO-DIMM DDR3L Up To 8GB, Micro SD, SATA & m.2 SATA
- LVDS, eDP, MIPI DSI For LCD Panel Support
- Ultra-Small Form Factor & Ultra-Slim Configuration Option
- Rich I/O With RS-232/485, I<sup>2</sup>C, & USB Ports

Designed for IoT applications with tablet-like panel PC applications, the EMB-7610 is a small form factor industrial motherboard based on the Intel Apollo Lake Celeron processor. The board features a Power over Ethernet (PoE) ready Ethernet port, two m.2 sockets, standard SATA and m.2 SATA interfaces, multiple LCD panel display interfaces support and full set of I/Os including RS-232/485, digital I/O and more.

### SPECIFICATIONS

#### SYSTEM

Processor	Intel Quad Core Celeron N3450 (2M Cache, Up To 2.2 GHz) or Intel Dual Core Celeron N3350 (2M Cache, Up To 2.4 GHz)
Platform	Intel Apollo Lake
Graphic Controller	Intel HD Graphics 500
Memory	1 x 204-Pin SO-DIMM DDR3L Up To 8G
OS	Windows 10 Windows 10 IoT Ubuntu Linux
Storage	1x m.2 2230 B-Key SATA Slot 1x SATA Port 1x Micro SD Slot

#### DISPLAY

Interface	1x Micro HDMI
LCD Interface	1x LVDS/eDP 1x MIPI DSI for 7", 8", 10.1" & Other Panel Sizes
Resolution	HDMI - 1920 x 1080 LVDS/eDP/MIPI DSI - 1920 x 1200

#### COMMUNICATIONS

Ethernet	1x 10/100/1000 Mbps RTL8111F GbE <b>Option:</b> 1x 10/100Mbps RTL8111F Ethernet Support POE
Wi-Fi/Bluetooth	m.2 2230 E-Key Expansion Slot <b>Option:</b> Wi-Fi Module

#### I/O INTERFACE

Audio	Realtek ALC662 1x Mic-In 1x Line Out 1x Speaker Out (Up To 6W/ch)
Ports	1x RS-232/RS-485 Terminal Block 1x RS-232 Header 1x USB 2.0 Type A 1x USB 2.0/3.0 Type A 1x USB 2.0 Header 1x Micro USB 2.0 4+ GPIO 2x I <sup>2</sup> C (For TP & MIPI CSI) 1x MIPI CSI

#### EXPANSION I/O

Expansion	1x 40pin Connector With PCIe x1, GPIO, Front Panel Control, POE
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#### MECHANICAL

Cooling	Fanless
Watchdog Timer	Programmable Timer System Reset
Form Factor	Embedded Proprietary
Dimensions	150 x 90 mm (5.9" x 3.54")

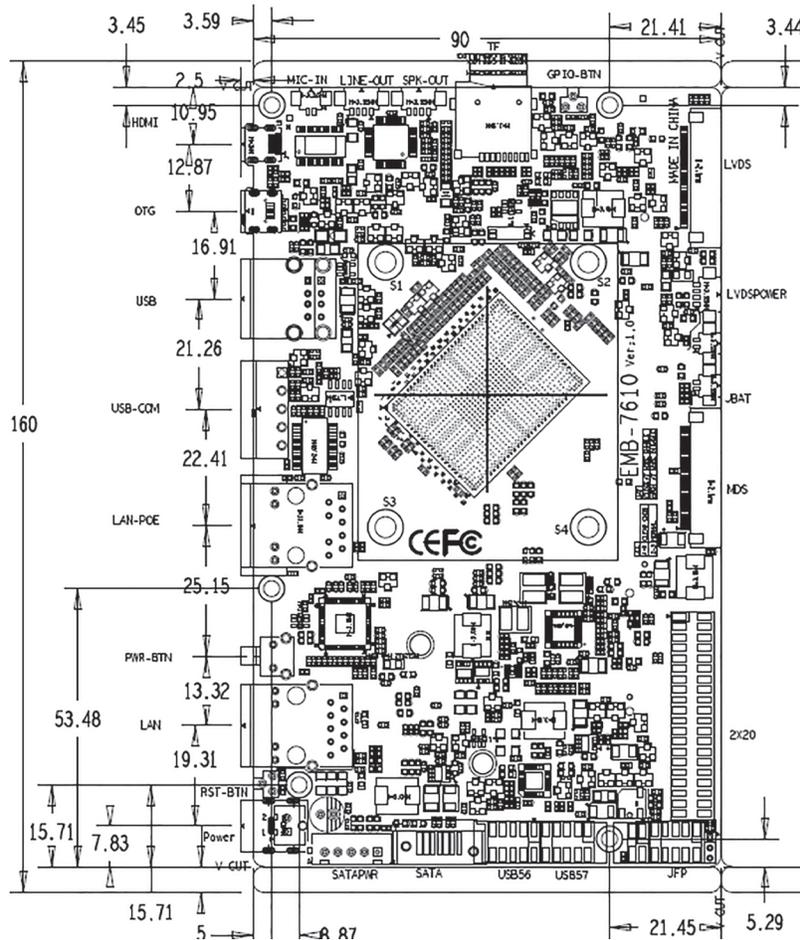
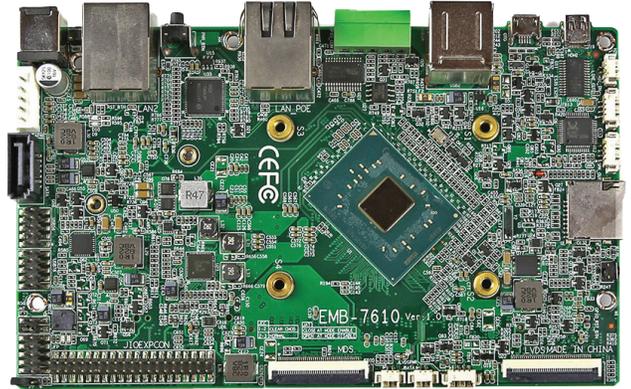
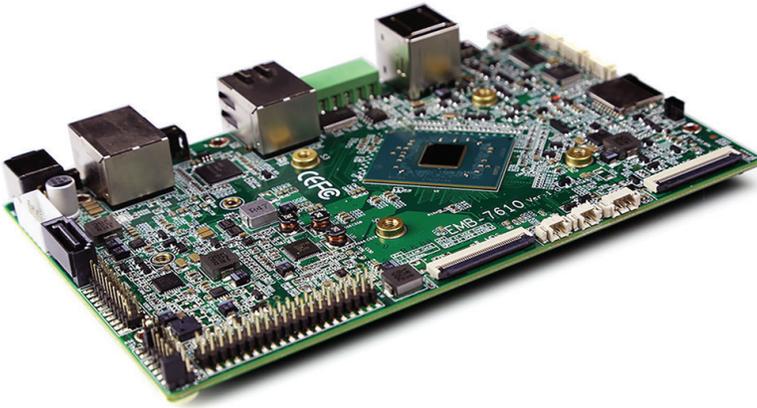
#### POWER

Input Voltage	12V DC Header Or POE
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#### ENVIRONMENTAL

Operating Temp	0°C to 60°C (32°F to 140°F)
Storage Temp	-40°C to 85°C (-40°F to 185° F)
Humidity	5% to 95% @ 40°C (Non-Condensing)

\*Specifications are representative. Specific product technology may be different than indicated.



\*Dimensions in mm

### ORDER OPTIONS

PART NUMBER	DESCRIPTION
EMB-7610-N3450	EMB-7610 Embedded Board With N3450 Processor
EMB-7610-N3350	EMB-7610 Embedded Board With N3350 Processor
HB-POE4210	12V POE Add-On Module