HMI Panel PC Panel PC

Configuration Number: BASE CONFIG
SL-PPC-12A-LLH410I-S19

(full size images available on web site)

Type:

- Panel PC
- **Screen:**
  - 12" 5-Wire Resistive, Native Resolution: 800 x 600, Front Panel Rating: IP65 / NEMA4
- **Mounting:** Bezel Mounting Hardware Included, Suitable for Mounting in Cut-Out

Motherboard:

- Featuring Intel H410 Chipset and 10th Gen Intel Core i7, i5, i3/Pentium/Celeron, LGA1200 processor
- **Long Production Cycle Motherboard (Through Q4 2026)**
- **Low Profile Slots:**
  1 - PCIe x16
- **LAN:** 2x Ports (1GbE + 1GbE)
- **Video:** 1x VGA, 1x DisplayPort, 1x HDMI
- **Audio:** Realtek ALC897
- **Ports:**
  4x USB 2.0 Ports (4 Rear)
  2x USB 3.2 Gen 1 Ports (2 Rear)
  6x COM Ports (1 RS232 Rear, 4 RS232 Internal Headers, 1 RS232/422/485 Rear)
  See specifications for more ports
- **Operating Temperature:** 0ºC to 60ºC (32ºF to 140ºF)

Configuration summary:

- **Processor:** G5905- 3.50GHz Intel Celeron CPU - Dual Core, 4MB Cache, UHD Graphics 610 (58W)
- **Memory:** 8GB DDR4 3200MHz SODIMM RAM
- **Hard Drive:** 250GB SSD SATA 6.0Gb/s

560/530MB/s 2.5" - Samsung 870 EVO
- **Power Supply:** 160w output, 12v input DC-DC Power Supply - AC Adapter Included
- **Operating System:** Not Included -
- **Warranty:** One-Year Depot Warranty

Technical Specifications

MotherBoard Specifications:

Motherboard Model
- Motherboard Type: MiniITX
- Long Life: YES
- EOL Date: Q4 2026

Supported CPU
- Number of Processors: 1
- Processor Type: 10th Gen Intel Core i7, i5, i3/Pentium/Celeron, LGA1200

Chipset
- Chipset: Intel H410 Chipset

Memory
- Memory Type: SO DIMM DDR4 2666MHz
- Memory Type: Non-ECC
- DIMMS: 2
- Maximum Memory: 64GB

On Board Audio
- Audio Type: Realtek ALC897

On Board Video
- Video Chipset: Supported by CPU - depends on CPU selected
- Video on IO: 1x VGA, 1x DisplayPort, 1x HDMI
- VGA Port Out: 1
- Display Port Out: 1
- Embedded DisplayPort Out: 1
- HDMI Out: 1

LAN
- LAN Ports: 2
- LAN Type and IPMI: 1GbE + 1GbE
- LAN Chipset: Intel i211AT
- Second LAN Chipset: Intel i219LM
- Wireless LAN: No Integrated WLAN

Display Specifications

Display
- Screen Size (inches): 12
- Touch Type: 5-Wire Resistive
- Front Panel Rating: IP65 / NEMA4
- Aspect Ratio: 4 : 3
- Native Display Resolution: 800 x 600
- Brightness (nits): 400
- Screen Refresh Rate: 60Hz
- Display Area (H): 246mm
- Display Area (V): 184.50mm
- Aspect Ratio: 4 : 3
- DisplayColors: 16.2 M
- Contrast Ratio: 600:1
- Backlight: LED
- Viewing Angle(U) : 65
- Viewing Angle(D) : 75
- Viewing Angle(L) : 80
- Viewing Angle(R) : 80

Connectivity
- HDMI In: 1
- Display Port In: 1
- Touchscreen Interface USB Port (Front): 1

Mounting Options
- Mounting Options: Bezel Mounting Hardware Included, Other options sold separately
- Suggested Cut-Out Dimension (Width):
- Suggested Cut-Out Dimension (Height):

Physical
- Width:
- Height:
- Depth:
- Depth (Inches): Click Available Downloads Tab > Mechanical Drawings.

Drive Interface

- SATA III Ports (6GB): 2

Expansion Slots

- PCI Express x16 Slots On Motherboard: 1

Mini PCIe

- mini PCIe
- USB and PCIe signals (Internal)
- half and/or full size mini PCIe card: full size

M.2 Slot Specs

- 2242 - 22 mm x 42 mm.
- 2280 - 22 mm x 80 mm.

Rear IO

- USB 2.0 Ports (on IO): 4
- USB 3.2 Gen 1 Type A Ports (on IO): 2
- Serial (Rear IO): 1
- Serial 232/422/485 Ports: 1
- Audio on IO

Headers

- Serial (via Headers): 4
- FAN Connectors: 2
- TPM Support: TPM via Intel Platform Trust Technology

Management Features

- Watch Dog

Environmental

- Operating Temperature: 0ºC to 60ºC (32ºF to 140ºF)
- High Humidity: 90%
- Low Humidity: 5%

Operating System Support

- Windows 10 Home (64 Bit)
- Windows 10 Pro (64-Bit)
- SL-Windows 11PRO to 10PRO 64bit
- Windows 10 IoT Value 2019 LTSC
- Windows 10 IoT Ent 2019 LTSC
- Windows 10 IoT 2021 LTSC Value
- Windows 10 IoT 2021 LTSC High End
- Windows 11 Pro (64 Bit)
- Windows 11 IoT 2024 LTSC Value
- Windows 11 IoT 2024 LTSC High End
- LINUX Ubuntu Desktop

Other Features

- Other Features:
  One PCI-Express x16 slot.
  One PCI-Express Mini Card
- Unboxed Weight: 9lbs
- Shipping Weight: 25lbs

Environmental

- MTBF: 50000hours
- Maximum Operating Temperature: 80C
- High Humidity: 90%
- Low Humidity: 8%
- Storage Temp (High): 80C
- Storage Temp (Low): -30C
- Storage Humidity (High): 90%
- Storage Humidity (Low): 8%

Power

- Power Supply: AC 100~240V/12V DC
- Power Consumption (on): 12Watts

Compliance of Component

- CE
- CCC

Warranty

- Warranty: 1 year

Other

- Built-in Chassis Power Supply: Wide Voltage Input (9-36VDC)
- Features:

  Industrial Display

  - Screen Size: 12"
  - Touch Type: 5-Wire Resistive
  - Front Panel Rating: IP65 / NEMA4
  - Native Display Resolution: 800 x 600
  - Brightness (nits): 400
  - Wide Voltage Input (9-36VDC)

One M.2 Key B type 2242/2280/3042/3052 includes PCIe x2, PCIe + SATA3.0, PCIe + USB 3.2 GEN1 interfaces

One M.2 Key E type 2230 with PCIe x1 and USB2.0.

- Motherboard Warranty: 1 Year

Chassis Specifications:

General

- Form Factor: Embedded PC
- Color: Black
- Material: Metal/Steel
- Material Thickness: 1mm
- Motherboard Compatibility: Mini ITX

Expansion

- Low Profile Slots: 1
- Max Card Depth: 7.5""
- Internal 2.5" Bays: 2
- Serial Port Punchouts: 2
- Parallel Port Punchouts: 1

Cooling System

- Maximum Fan Count: 2

Physical

- Depth: 8.30"
- Depth (Inches): 8.27
- Width: 8"
- Height: 3.50"
- Shipping Box - Depth: 150mm
- Shipping Box - Width: 380mm
- Shipping Box - Height: 27mm
- Shipping Weight: 13lbs

Other Features

- Chassis Warranty: 1 Year

Power

- Built-in Chassis Power Supply: Power Adapter Included