

## Conception®-hXa-v3-S-Q670E

Extremely robust embedded PC with passive cooling, suited for ADAS development in vehicles

### Features

- **High-Performance with Intel® Core™ i CPUs 12<sup>th</sup>/13<sup>th</sup>/14<sup>th</sup> Generation**
- **Resilient, fully enclosed system with no rotating parts**
- **Passive cooling for temperature range of -10°C ~ 50°C**
- **Optional with Wi-Fi/Bluetooth**
- **1x PCIe x16 expansion slot**
- **One additional 2.5" shuttle**

### Configuration example

Further configurations on request!

#### Mainboard:

Industrial Mainboard (mini-ITX), 24/7 operation, long-term availability

#### Processor:

Intel® Core™ i 12<sup>th</sup>/13<sup>th</sup>/14<sup>th</sup> Generation Intel® Pentium® / Celeron® (up to 45 Watt)  
Chipset: Intel® Q670E

#### Graphic:

Onboard Intel® UHD 730/770 (depends on CPU)

#### Memory:

2x DDR5 SO-DIMM, max. 64GB

#### I/O:

1x 1 GBit LAN (RJ45)  
1x 2.5GBit LAN (RJ45), vPro support  
2x USB 3.2 (Gen 2)  
1x USB 3.2 (Gen 1)  
1x USB-C 3.2 (Gen 2)  
4x USB 2.0  
1x RS-232/422/485  
3x DisplayPort 1.4  
1x HDMI 2.0  
2x Audio (Line-In, Line-Out)  
2x PS/2 (Mouse and Keyboard)  
**Internal**  
1x USB-A 3.2 (Gen 2)  
1x GPIO Header (8 Bit), 3.3 Volt

#### Drive Bays:

1x 2.5" (in removable frame)

#### Communication:

**Wi-Fi/Bluetooth (optional)**  
Intel® M.2 Module  
802.11ax Dual Band  
Bluetooth® 5.1

#### Operating System:

Microsoft® Windows® 10/11, Linux®

#### Power Supply:

11 ~ 32 VDC, 95 Watt  
XLR connector (Neutrik) four-pin with ignition pin, XLR conn. incl. **Optional** ext. power supply 100 ~ 264 VAC XLR angled plug 90°

#### Expansions:

##### PCIe

1x PCIe x16 (Gen 5), low-profile max. 6 Watt (passive cooling)

##### M.2

1x M.2 (E-key, type: 2230)  
1x M.2 (M-key, type: 2242/2260/2280)

##### Additional expansions

for automotive applications (Ethernet, CAN, LIN®, etc.)

#### Mechanical:

##### Chassis

Robust sheet metal  
**Dimensions (W x H x D)**  
309 x 90 x 243.5 mm

##### Cooling

Passive, large area heat sink

#### Environment:

**Operating Temperature**  
-10° ~ 50° C

##### Shock

5 g / 2 ms

##### Vibration (operation)

0.6 g (10 - 200 Hz)

##### Storage Temperature

-20° ~ 70° C

##### Relative Humidity (operation)

10 ~ 90 % (non condensing)

##### IP Protection

IP20

#### Features:

Watchdog Timer, iAMT  
SPI TPM Header, Onboard PTT (dTPM)



