

Embedded Computing

- Compact Fanless Box PCs
- Industrial Panel PCs
- Industrial Touch Displays



U Series

Compact Fanless Box PC

Overview

- **Sustainable product design with updated CPU core module in the same mechanical formfactor**
- **Various formfactors to support different requirements on performances and dimensions**



U3-D80 Series

Intel® Core™ U Series Processor Fanless Box Computers

- Compact system: 72(W) x 150(D) x 192(H) mm
- 8th Gen. Intel® Core™ embedded low power U series, Intel® Celeron® processor
- Multiple internal expansion card possibilities
- Wide range power input 12 –24V DC
- Trusted Platform Module (TPM 2.0)
- Long life components for 24/7 embedded use
- DIN rail and terminal block DC in design suitable for industrial application
- REAL-TIME SYSTEMS Hypervisor supported
- 4 x LAN RJ45/ 2 x USB 3.1/ 1 x USB Type C/ 2 x USB 2.0/ 1 x DIO
- 1 x DisplayPort/ 1 x DC-In / 3 x COM/ 1 x Audio



Up-500 Series

- Intel® Atom™ Processors Compact Fanless Box Computers
- Compact Pico-ITX board- based system: 161(W) x 77(D) x 67.4(H) mm
- Low Power CPUs from 6 to 12Watt TDP
- Extended Operating Temperature variants for harsh environments (-40°C to +85°C)
- Long life components for 24/7 embedded use
- DIN rail and terminal block DC-In design suitable for industrial application
- REAL-TIME SYSTEMS Hypervisor supported

Up-550 Series

Intel® Atom™ Processors Compact Fanless Box Computers

- Intel 5th Gen. Atom®, Intel® Celeron® and Intel® Pentium® Processors
- 2 x LAN RJ45/ 1 x USB Type C/ 2 x USB 3.0/ 2 x USB 2.0
- 1 x DisplayPort/ 1 x DC-In (12 VDC)/ 1 x COM/ 1 x Audio
- 1x SATA (6G) / 1x mPCIe or mSATA Card Slot (internal)
- Easy access to external microSD card slot with removable cover



Up-570 Series

Intel® Atom™ Processors Compact Fanless Box Computers

- Intel Atom®x6000E, Intel® Celeron® J and Intel® Pentium® Processors
- 2 x LAN RJ45/ 1 x USB3.1 Type C/ 2 x USB 3.1/ 2 x USB 2.0
- 1 x DisplayPort/ 1 x DC-In (12 VDC)/ 1 x COM/ 1 x Audio
- 1x M.2 key ID B type 2280/ 1x M.2 key ID E type 2230 (internal)

COM Express



U6-580 Series

Intel® Core™ Processor Ultra-compact Fanless Box Computers

- Compact size: 238 x 129 x 63.7 mm
- 8th Gen. Intel® Core™ processor (formerly Whiskey Lake)
- Wide-Range DC voltage input: 9V~32V
- Fanless system, aluminum alloy structure
- 6x RJ45 GbE Ethernet/ 1x RS-232/422/485, 5x RS-232
- Multi display: 1x DDI/VGA and 1x DP
- 2x Mini-PCIe with SIM socket (PCIe + USB + USIM)
- 1x mSATA socket, 1x 2.5" drive bay for HDD/SSD
- 16-bit programmable GPIO
- Operation Temperature: -20°C ~60°C (-4°F~140°F)

U7-150 Series

Intel® Atom™, Celeron® Ultra-slim Fanless Box Computers

- 5th Gen. Intel® Atom™ Processor, Celeron® Processor (formerly Apollo Lake)
- Ultra-slim size: 173 x 88 x 21.7mm (6.81" x 3.46" x 0.85")
- Wide-Range DC voltage input: 9V~32V
- Cableless, fanless system, aluminum alloy structure
- Wi-Fi and cellular network support
- 2x Mini-PCIe with USIM socket/ 1x mSATA socket
- 16-bit programmable GPIO/ 2x RJ45 GbE
- 1x USB 3.0/2.0 port, 4x USB2.0 ports/ 1x RS-232 port



Industrial Touch Displays

Rugged Design | Multi Touch | Full HD

21.5" Monitor (TPM-A22FP)

21.5" Flat Panel Full HD Projected Multi-Touch Display with AG Coating

- Multi-Touch Display(P-CAP)
- Either Real side OSD or OSD Remote control by optional RJ-11 cable
- Front Panel IP65
- Flat Panel Design
- VGA/DVI-D input
- DC 12V input with adapter
- AG coating
 - With Increased transmittance
 - Reduces sparkle effectively with fine particles
- Option for bottom side protective rubber bar



TPC Series

Intel® Core™ U Series Full HD Industrial Panel PC

- Intel® Gen. 7th Core™ i7, i5, i3 and Celeron® processor
- IP65 Compliant aluminum front bezel
- Fanless operation@ -10~60°C environment (TPC-15U7 only)
- Internal multiple Mini card & M.2 slot for expansion
- Suitable for Automation, HMI, general purpose applications
- Wide-Range DC voltage input: 9V~36V
- 2x DP/1x VGA/ 16-bit programmable GPIO/ 2x RJ45 GbE/ 1x audio
- 4x USB 3.0 ports/ 1x RS-232/422/485 port/1x RS-232 port
- 2x Mini-PCIe with USIM socket/ 1x mSATA socket/ 1x 2.5" SATA/ 1x M.2 M Key 2242 PCIe/SATA [internal expansion]



TPC-15U7 series

- 15.6" Full HD TFT LED LCD
- Dimensions: 391.5x 242x 69 mm

TPC-21U7 series

- 21.5" Full HD TFT LED LCD
- Dimensions: 537.8 x 329 x 87 mm

About EFCO

Established in 1992, EFCO is a leading provider of embedded computer platforms with a demonstrated history of delivering solutions matched specifically to individual customer requirements. Our industrial-grade products cover a variety of vertical market solutions. These include Wide-temperature Rugged Fanless Computers, Multi-touch Panel PCs, Casino Gaming Solutions and IoT Nodes. We also offer COMe carriers board design service, OEM/ODM design and manufacturing services, and Computer on Module (SOM) thermal solutions. EFCO is headquartered in Taipei Taiwan, with offices in the USA, China, UK and Germany.

EFCO has earned a reputation for quality control and reliability on product design and service. EFCO has successfully deployed customers' solutions into Gaming, Digital Signage, Smart Factory, Machine Vision, In-Vehicle Transportation, Health Care, Security Control and Automation.

EFCO has close partnerships with Intel® and AMD® to provide customers seamless support and time-to-market solution. EFCO is also a member of AIA, EtherCAT, and AGM. By participating in industrial organizations, and staying current on AIoT trends, EFCO aims to build integrated Application-Ready Platforms to provide various solutions, as well as contribute its insights to the market.

Flexible and Collaborative Manufacturing Services

With more than 26 years experience, EFCO offers turnkey manufacturing services with state-of-the-art production equipment for both PCB assembly and complete system builds. EFCO utilizes its professional manufacturing process with customized designs in support of small/medium/large-volume and high-mix orders to achieve quick production ramp up and competitive ROI benefits. EFCO's in-house production center provides not only box-build services, but also Conformal Coating, Extended Temperature Screening and Burn-In services, etc. to ensure the best quality and product longevity.

International Quality Assurance Standards

EFCO is ISO 13485 and ISO 9001 certified, and its total quality management covers customer satisfaction, supplier management, product design and verification, manufacturing, and quality assurance. EFCO proudly offers our customers innovative products and services with the highest level of quality.

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