BICKER.de
ELEKTRONIK

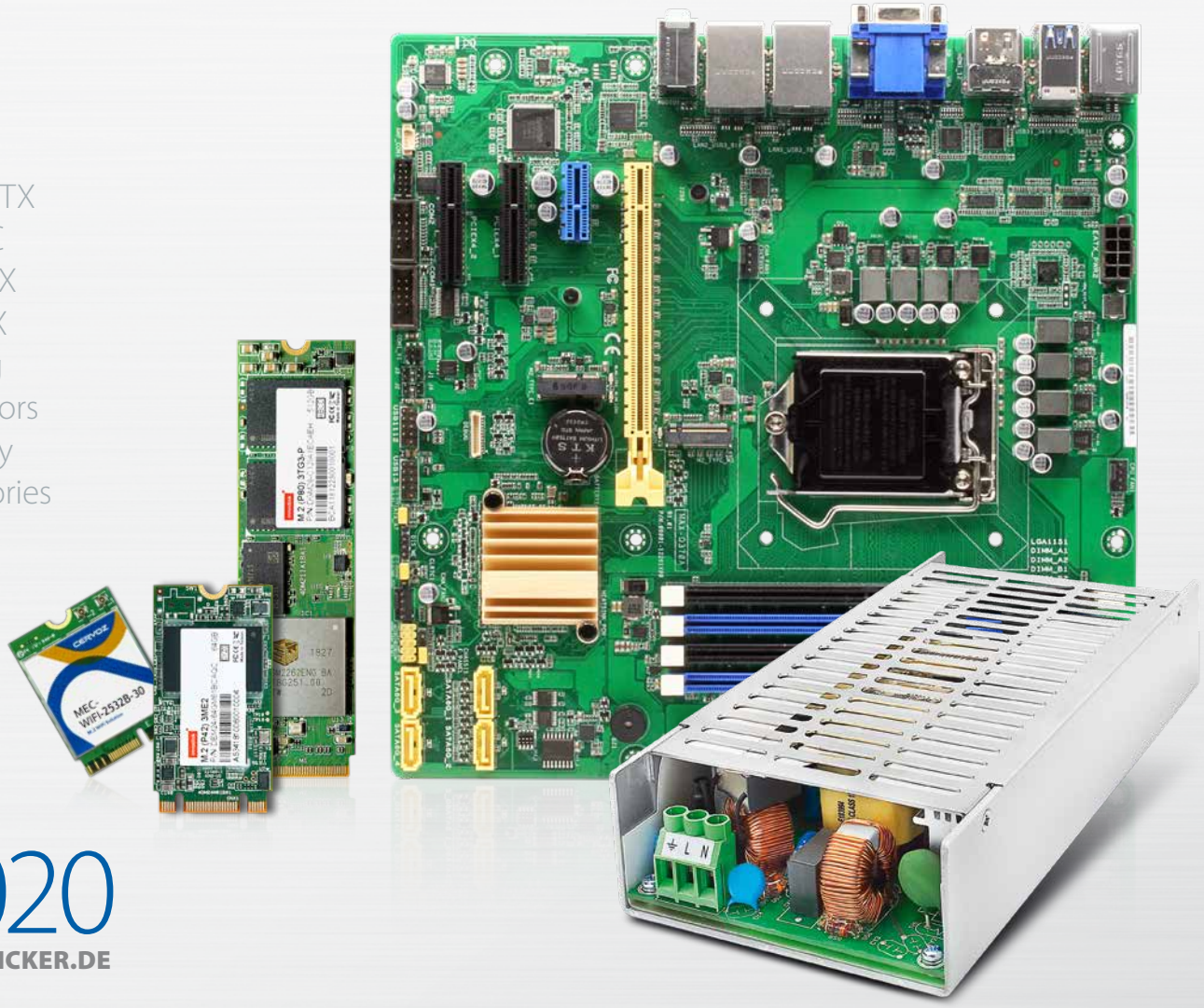
NEW BOARDS
COFFEE LAKE REFRESH

Power+Board

SOLUTIONS FOR PROFESSIONALS

ONE-STOP SOLUTIONS

ATX
µATX
mITX
Thin mITX
3.5" SBC
Mini-STX
Pico-ITX
Cooling
Processors
Memory
Accessories



2020

WWW.BICKER.DE

OUR TEAM IS **HERE FOR YOU!**

www.bicker.de

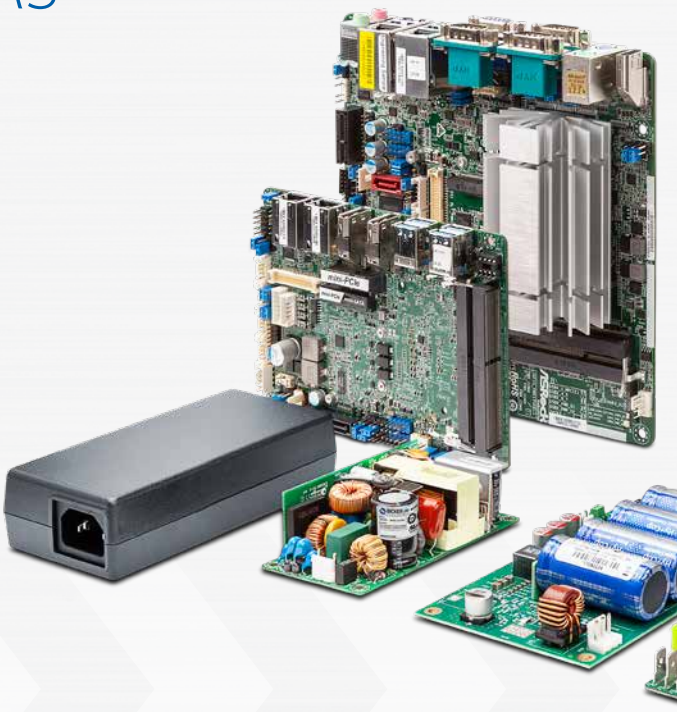
+49 (0) 906 – 705 95 – 0

info@bicker.de

BICKER ELEKTRONIK GMBH

POWER & SYSTEM COMPONENTS
FOR HIGH-END COMPUTERS

- One-stop solution provider
- Design-in advice on site
- Industrial mainboards
- Reliable power supplies
- Perfectly matched bundles
- Industrial grade accessories
- Extensive storage
- Excellent service & support
- 3 years warranty



BICKER.de ELEKTRONIK

CERTIFIED
ISO 9001:2015
QUALITY MANAGEMENT SYSTEM
www.tuev-sued.de/ms-zert

DONAUWOERTH, GERMANY

POWER+BOARD
BUNDLED SOLUTIONS

ONE-STOP-SOLUTIONS 04
P+B SURVEILLANCE & TRAFFIC CONTROL 06
P+B MEDICAL, DENTAL & SURGICAL 08
P+B FANLESS & MAINTENANCE-FREE 10
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RECOMMENDED ACCESSORIES 29
SELECT FROM THE MARKET LEADERS 30

BUNDLED SOLUTIONS

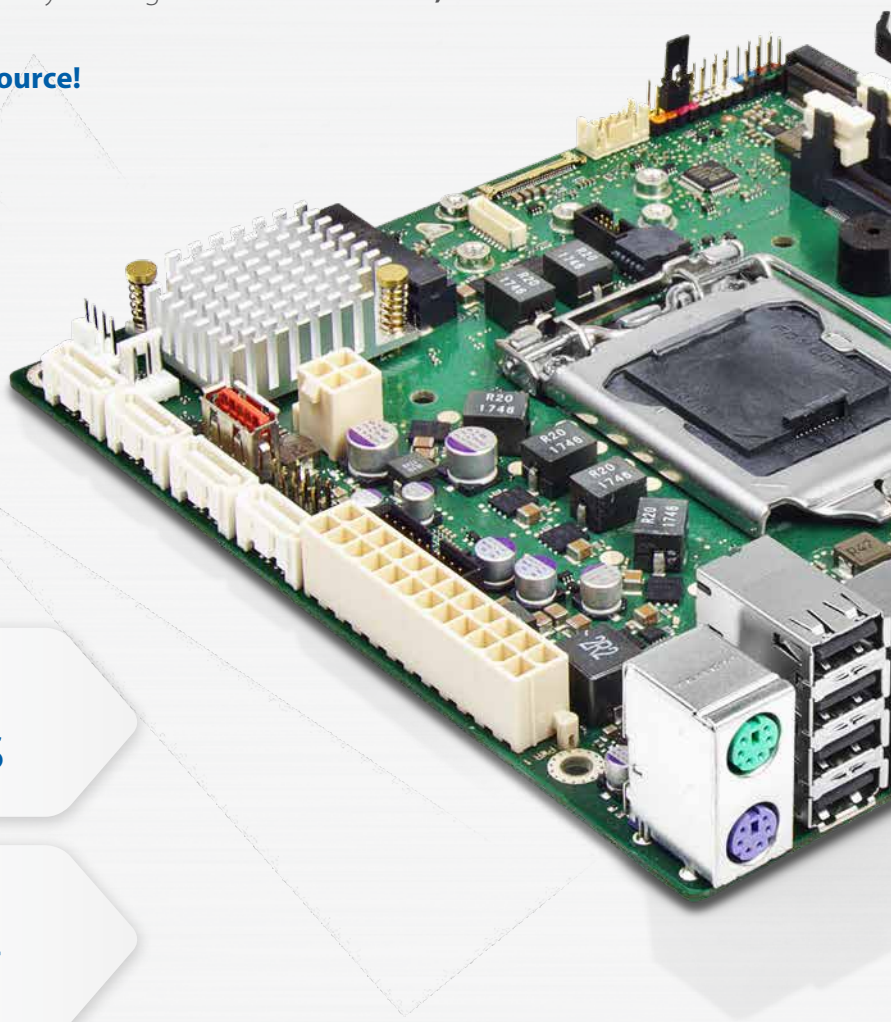
Power+Board

CHOOSE YOUR ONE-STOP SOLUTION

SAVE TIME AND MONEY DURING SYSTEM DEVELOPMENT

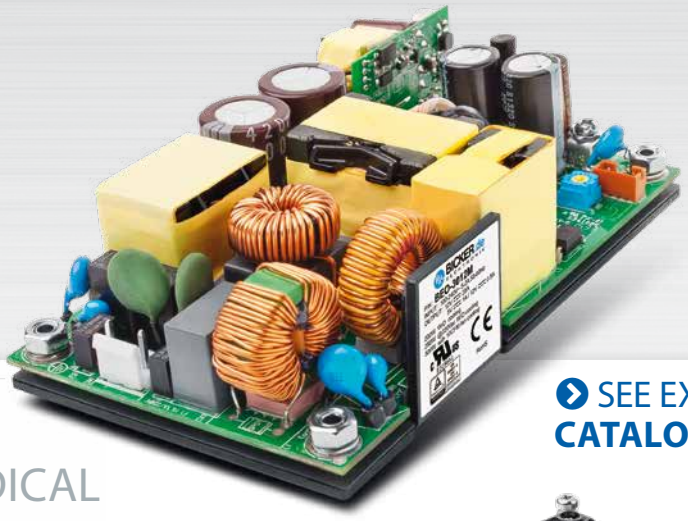
During development of **embedded computer systems** you have to invest a lot of time to qualify and test a matching combination of **Power Supply + Mainboard + Accessories.** With our perfectly matched Power+Board bundles you will get a **reliable solution, saving your time and money.**

You get a complete solution from one source!



- CHOSEN BUNDLES
- DESIGN-IN ADVICE
- CUSTOMIZED SYSTEM SOLUTIONS
- EXCELLENT SERVICE & SUPPORT

3 Years ★★★★★ Warranty



POWER SUPPLIES
INDUSTRIAL & MEDICAL

SEE EXTRA CATALOGUE

ACTIVE / PASSIVE
COOLING SOLUTIONS

EMBEDDED
PROCESSORS

INDUSTRIAL
RAM MODULES

INDUSTRIAL
M.2, mSATA, ...

INDUSTRIAL EXPANSION CARDS
M.2, MINI-PCIe, GRAPHICS, WIFI, I/O, ...

RECOMMENDED BUNDLE

SURVEILLANCE & TRAFFIC CONTROL

ARTIFICIAL INTELLIGENCE CORE SOLUTION WITH UPS BUFFERING FOR FANLESS AND MAINTENANCE-FREE 24/7 OPERATION

KEY FEATURES

- **Fanless PSU for conduction cooling certified to IEC/EN/UL62368-1**
- **Programmable UPS with integrated Supercaps for nonstop operation**
- **3.5" subcompact board with Intel® Whiskey Lake Processor SoC**
- **AI-Core X module drive demanding workloads of computer vision and AI applications at ultra-low power**
- **Fanless and maintenance-free 24/7 operation**
- **Long-term availability**
- **3 years warranty**

ACCESSORIES
Cervoz m.2 2280
Industrial SSD module

ACCESSORIES
Cervoz DDR4 SO-DIMM
Industrial grade memory

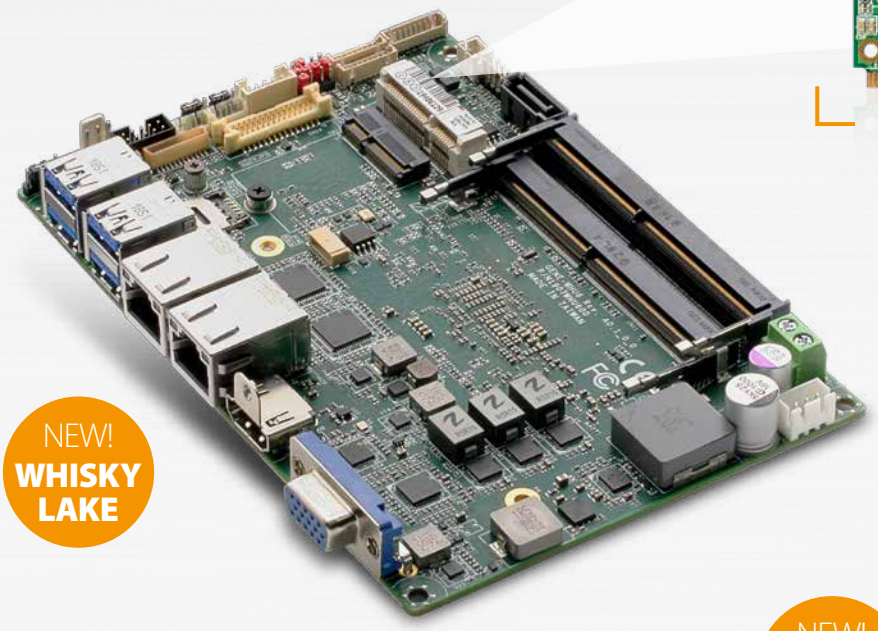
- Surveillance
- Traffic Control
- Face Recognition
- Industrial Machine Vision

MAINBOARD | 3.5"

AAEON GENE-WHU6

8th Gen Intel® Core™ i7/i5/i3/Celeron U Series Processor SoC
USB 3.1 Gen 2 and dual GLAN

Alternative
ASUS C381S-/C582S-/C785S-IM-AA



NEW! **WHISKY LAKE**

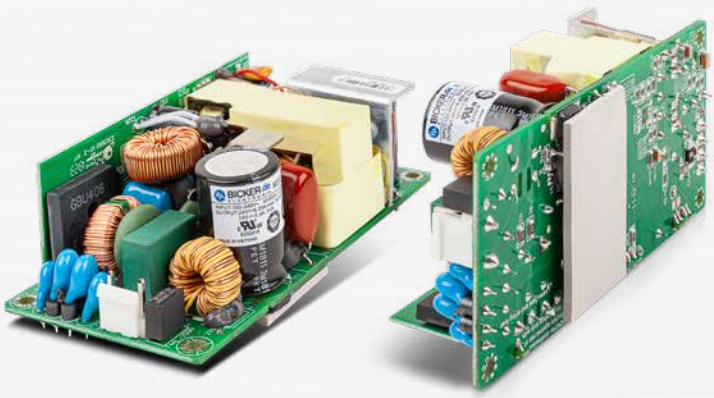
AI POWERED BY BICKER

ACCESSORIES

AAEON AI Core X Myriad™ X 2485

AI Edge Computing Board with Intel® Movidius™ Myriad™ X VPU, 1x MYDX on mPCIe

NEW! **DC-UPS 12V**



POWER SUPPLY

Bicker BEO-0812

Conduction cooled 80 W fanless (150 W peak)

DC UPS

UPSI-1208DP2

Maintenance-free supercap technology

RECOMMENDED BUNDLE

MEDICAL, DENTAL & SURGICAL

COMPACT UPS BUFFERED HIGH PERFORMANCE SOLUTION FOR A WIDE RANGE OF MEDICAL ENVIRONMENTS

KEY FEATURES

- **EN/UL 60601 power supply 2x MOPP class I and II**
- **Programmable UPS module for uninterruptible operation**
- **Maintenance-free and fast charging Supercaps for energy storage**
- **Hot plugable and exchangeable energy pack for continuous use**
- **LGA1151 Intel® Coffee Lake Q370 mITX mainboard for 24/7 operation**
- **Fanless operation with appropriate heatpipe solution**
- **Long-term availability**
- **3 years warranty**

NEW!
DC-UPS 12V

DC UPS
Bicker UPSI-1208
12 V DC UPS with USB and RS-232

ENERGY PACK
Bicker BP-SUC-10066
Maintenance-free Supercaps with 9.8 kJ

- Supersonic - Doppler
- Digital Radiography / X-ray
- Computer-Assisted Surgery
- Teledoc Systems

MAINBOARD | mITX

AAEON MIX-Q370D1

LGA1151 Intel® Q370 Coffee Lake with triple display support

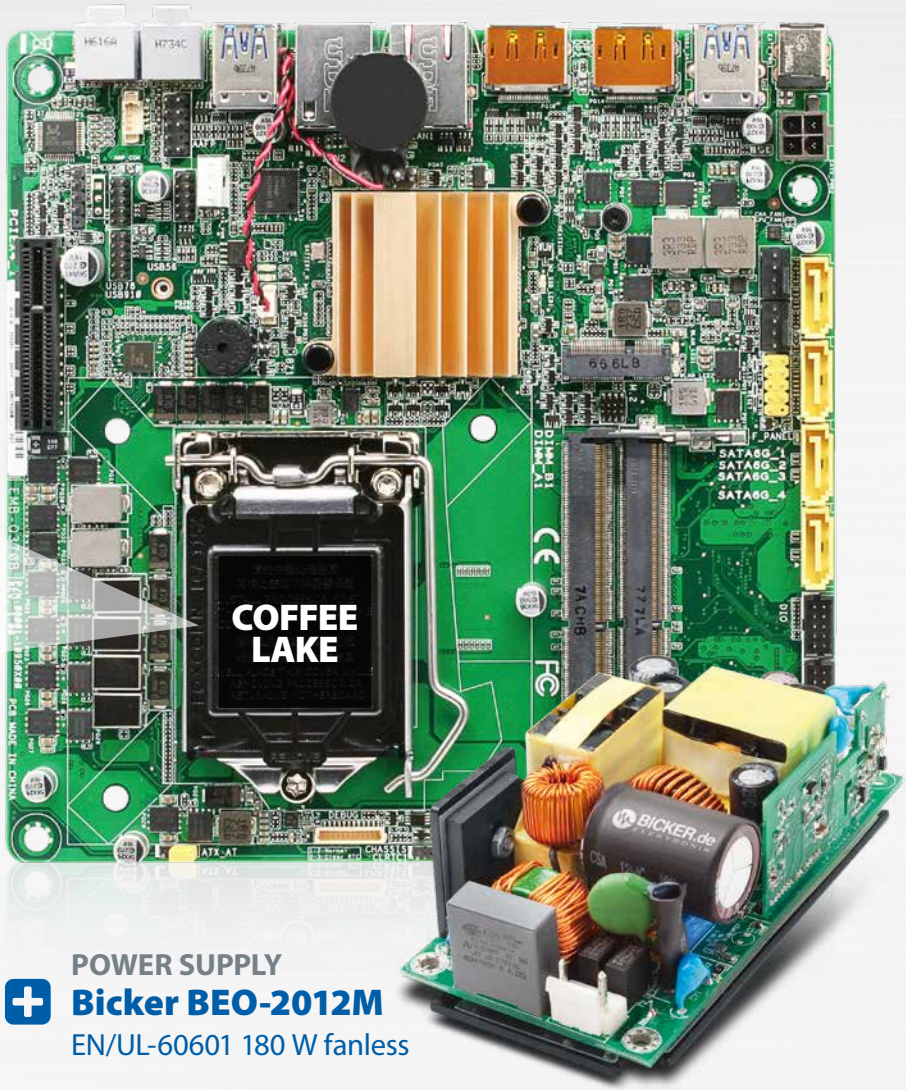
Alternative

ASRock IMB-1211-L
Avalue EMX-C246P
Kontron D3633-S

ACCESSORIES

Heat pipe solution

Passive, fanless cooling



POWER SUPPLY

Bicker BEO-2012M

EN/UL-60601 180 W fanless

ACCESSORIES

Innodisk M.2 PCIe Gen3 x4

Industrial SSD module M.2 2280

ACCESSORIES

Innodisk DDR4 SO-DIMM

Industrial grade memory

OPTIONAL
COATING

RECOMMENDED BUNDLE

FANLESS & MAINTENANCE-FREE

DESIGNED FOR AUTOMATED UNATTENDED 24/7 OPERATION
WHERE MAINTENANCE IS IMPOSSIBLE

KEY FEATURES

- **ATX PSU with insulated 24 V input equipped with polymer capacitors**
- **Ruggedized 10 A DC UPS unit for uninterruptible operation**
- **Remote access to UPS even without booted OS on IPC**
- **Nearly unlimited recharging cycles on Supercap energy pack**
- **Integrated UPS reboot function**
- **µATX Intel® Q370 Express Chipset**
- **Fanless operation with appropriate heatpipe solution**
- **Long-term availability**
- **3 years warranty**

NEW!
DC-UPS IP67

DC UPS
Bicker UPSI-2412IP-25U
10 A DC UPS with IP67 sealing protection and robust aluminium housing

ACCESSORIES
Cervoz DDR4 DIMM W.T.
Industrial grade memory up to +85 °C

- Stand-Alone Systems
- HF Relais Stations
- Offshore Windparks
- Tunnel Traffic Management

ACCESSORIES

Heat pipe solution

Passive, fanless cooling

MAINBOARD | µATX

AAEON MAX-Q370A

8th & 9th Gen Intel® Core™ processors, multiple display ports, iAMT 12.0

Alternative

Kontron D3641-S

ASRock IMB-1311 / IMB-1312

ASUS H310M-IM-A

Increased operational safety due to heatsink.

POWER SUPPLY

Bicker BEP-520C

200 W fanless ATX PSU

Design lifetime 12+ years

ACCESSORIES

Cervoz M.2 2280 NVMe PCIe Gen3x4

Industrial SSD module with 3D-TLC-NAND and heatsink

ENTRY LEVEL

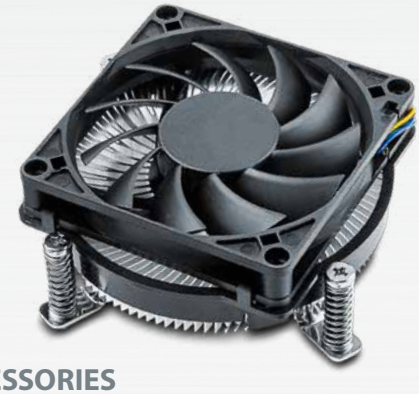
RECOMMENDED BUNDLE

INDUSTRIAL AUTOMATION

COST EFFECTIVE ENTRY-LEVEL BUNDLE WITH ADVANCED I/O AND CONNECTIVITY FEATURES

KEY FEATURES

- **300 Watt FlexATX IPC power supply with high energy efficiency**
- **Temperature regulated low noise fan**
- **Industrial µATX designed for 24/7 operation up to +60 °C**
- **Entry-level H310 chipset for cost-sensitive applications**
- **Comprehensive range of on-board interfaces**
- **Long-term availability**
- **3 years warranty**



ACCESSORIES
2U active CPU cooler
Aluminum sunflower with copper core

ACCESSORIES
Innodisk M.2 PCIe Gen3 x4
Industrial SSD module M.2 2280

ACCESSORIES
Innodisk DDR4 DIMM
Industrial grade memory

- Pick & Place applications
- HMI units
- Feeding machines
- Inspection and control systems

COFFEE LAKE REFRESH NEW!

MAINBOARD | µATX

ASUS H310M-IM-A

8th & 9th Gen Intel® Core™ processors,
LGA1151 with H310 chipset,
2x DIMM slot for up to 32GB DDR4,
Dual display support,
M.2 slot, PCIe x16, 4x SATA port

Alternative
Kontron D3641-S

POWER SUPPLY

Bicker BEH-530H

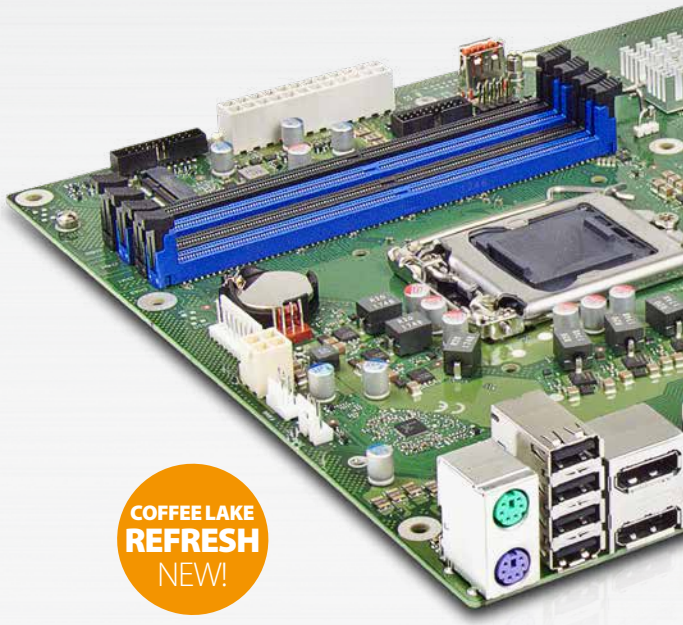
Compact and powerful 300 W FlexATX PC power supply

DEMANDING
LEVEL

RECOMMENDED BUNDLE

INDUSTRIAL AUTOMATION

PERFECT MATCHING COFFEE LAKE REFRESH BUNDLE
FOR INDIVIDUAL CONFIGURATIONS



COFFEE LAKE
REFRESH
NEW!

KEY FEATURES

- **500 Watt ATX Platinum Industrial PC power supply of latest generation**
- **Enhanced interference immunity**
- **Industrial full ATX designed for 24/7 operation up to +60 °C**
- **Short B.O.M. for high MTBF**
- **Protects against data loss in buffer encountering an improper power failure (PowerGuard)**
- **Long-term availability**
- **3 years warranty**

ACCESSORIES
Cervoz DDR4 DIMM
Industrial grade memory

- Safety-Related Systems
- Entry-Level Servers
- Demanding Industrial Automation
- Traffic Control

MAINBOARD | ATX

Kontron D3646-S

Designed by Fujitsu

8th & 9th Gen Intel® Core™ i9 / i7 / i5 / i3
and Xeon® E-21xx/22xx Processors, USB 3.1 Gen2

Alternative

AAEON ATX-Q370A
Avalue EAX-C246P
ASRock IMB-1710

POWER SUPPLY

Bicker BEA-550K

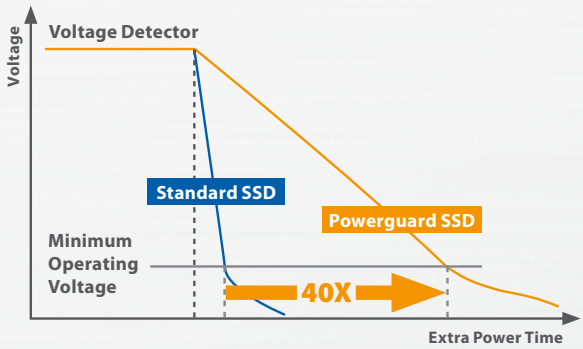
500 W ATX Platinum certified

POWER GUARD

ACCESSORIES

Cervoz M.2 2280

Industrial SSD module with power loss protection



** Extra Power Time is 40 times better than standard SSD

RECOMMENDED BUNDLE

HIGH PERFORMANCE COMPUTING

ULTRA SPEED M.2 PCIE GEN3 X4 ON FULL ATX MAINBOARD
POWERED BY 600 WATT REDUNDANT POWER SUPPLY

KEY FEATURES

- **Intel® C246 workstation chipset on a full ATX mainboard**
- **Extensive expansion options and interfaces**
- **No bottleneck through M.2 PCIe Gen3 x4 support**
- **Highly efficient 600 Watt industrial redundant power supply**
- **High-quality heatpipe CPU cooler**
- **Long-term availability**
- **3 years warranty**

ACCESSORIES
3U active CPU cooler
Aluminum heatsink with 4 heatpipes

ACCESSORIES
Innodisk M.2 PCIe Gen3 x4
Industrial SSD module M.2 2280

ACCESSORIES
Innodisk DDR4 DIMM
Industrial grade memory

- CAD Workstations
- Process Control
- Industrial Server
- Computer Simulation

MAINBOARD | ATX

Avalue EAX-C246P

LGA1151 Intel® C246 chipset

Alternative

Kontron D3598-B

POWER SUPPLY

Bicker BEAR-560H

2x 600 W redundant PSU with hot-swapping function

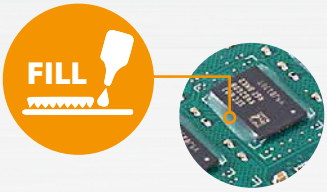
RECOMMENDED BUNDLE

PASSENGER INFORMATION

LOAD DUMP PROTECTED 8TH GEN WHISKY LAKE BUNDLE
FOR DEMANDING PASSENGER INFORMATION SYSTEMS

KEY FEATURES

- **Load dump (LD) protection for 24 V DC board net**
- **Individual usage with ignition key**
- **Supercap UPS buffering**
- **3.5" subcompact board with Intel® Whiskey Lake Processor SoC**
- **Full size mSATA/mPCIe Slot**
- **Nano-SIM for communication and emergency call**
- **Anti vibration fill on memory - epoxy resin between PCB and RAM**
- **Long-term availability**
- **3 years warranty**



ACCESSORIES

Cervoz DDR4 SO-DIMM with Anti Vibration Fill

Industrial grade memory with fixed B.O.M. and glued chips

ACCESSORIES

Cervoz mSATA MLC W.T.

Industrial grade mSATA MLC up to +85 °C

- Passenger Information Systems
- Commercial Vehicles
- Airport Shuttle Service
- Public Transportation

LD
LOAD DUMP

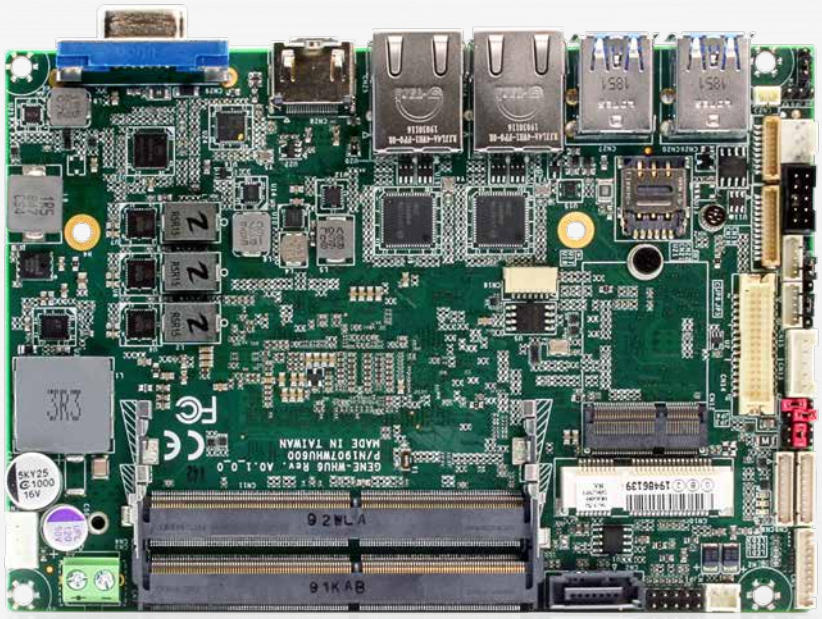
16–32V DC
INPUT

12V DC
NONSTOP

DC UPS
Bicker DC2412-UPS-LDD
DC/DC-converter eliminates LD voltage peaks up to 123 V DC and protects against power failure, flicker or voltage dips by integrated Supercap buffering.

Load Dump (LD) *is the generation of a voltage peak at a vehicle's alternator after load shedding. This can be dangerous for sensitive electronic components. The DC2412-UPS-LDD for DIN-Rail mounting protects mainboard and memory from these overvoltage peaks.*

NEW!
WHISKY LAKE



MAINBOARD | 3.5"
AAEON GENE-WHU6
8th Gen Intel® Core™ i7/i5/i3/Celeron U Series Processor SoC, dual GLAN and USB 3.1 Gen 2

Alternative
ASUS C381S-/C582S-/C785S-IM-AA
ASRock SBC-330P
Avalue ECM-CFS

RECOMMENDED BUNDLE

PROFESSIONAL GAMING

DUAL-OUTPUT POWER SUPPLY FOR LESS ASSEMBLY COSTS
BUNDLED WITH A HIGHLY PERFORMANT AMD RYZEN BOARD

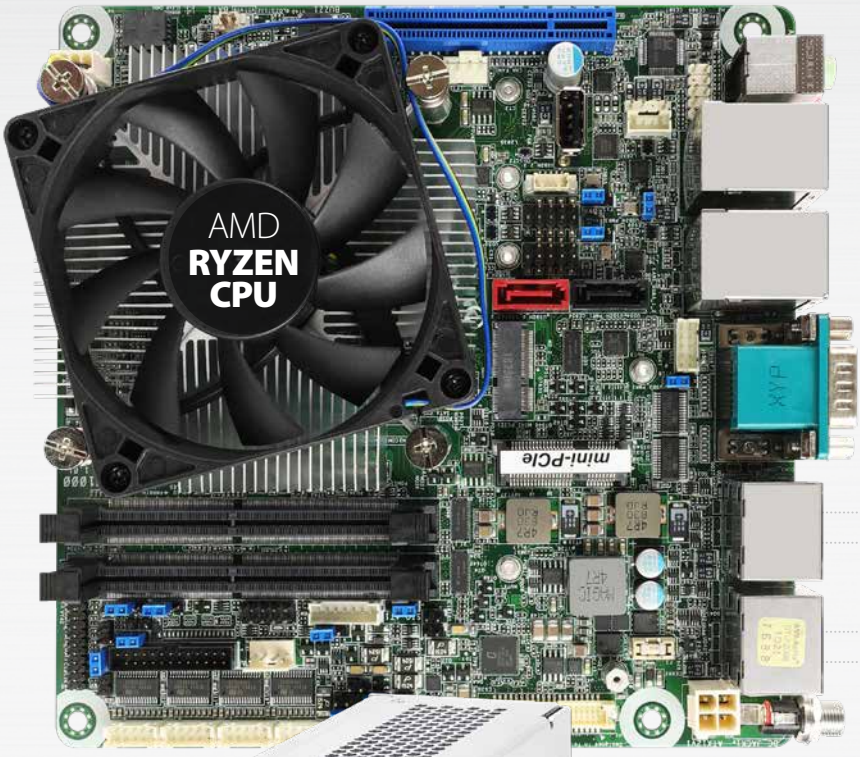
KEY FEATURES

- **Cost and space saving 2-in-1 PSU with 12 V and 24 V DC output**
- **Simultaneous supply of mainboard, display, printer and coin validator with only one power supply**
- **Li-Ion buffered nonstop operation**
- **Integrated UPS reboot function**
- **Industrial AMD Ryzen mainboard designed for 24/7 up to +60 °C**
- **Quad Display support 4x 4K resolution simultaneously**
- **Long-term availability**
- **3 years warranty**

ACCESSORIES
Cervoz m.2 2280
Industrial SSD module

ACCESSORIES
Cervoz DDR4 SO-DIMM
Industrial grade memory

- POI / POS Terminals
- Cash Handling
- Gaming Machines
- Betting Terminals



MAINBOARD | mITX

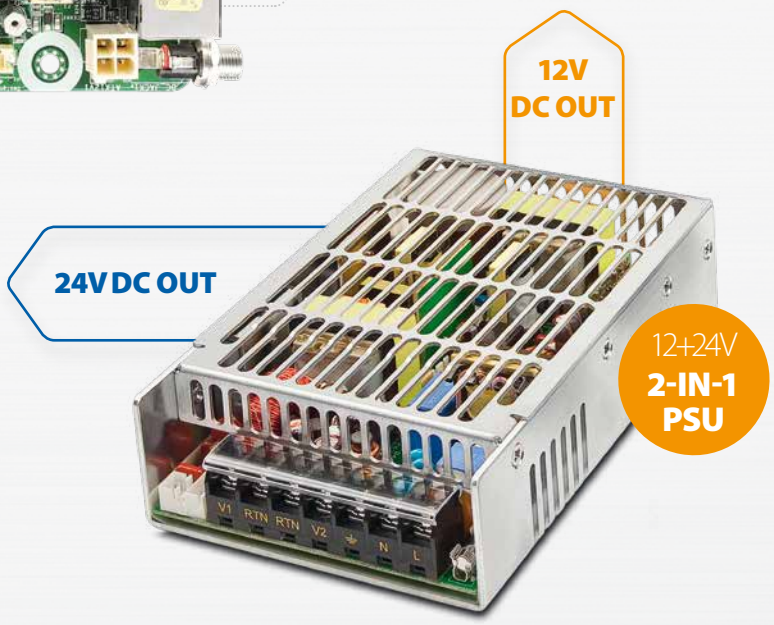
ASRock IMB-V1000

AMD Ryzen™ BGA (FP5)
with 4x Displayport

Alternative
Kontron D3713-V/-R
ASUS V-/R-1000I-IM-A

QUAD DISPLAY 4x4K SUPPORT

NEW!
DC-UPS 24V



DC UPS

Bicker UPSI-2406DP1

24 V DC UPS with integrated Li-Ion battery

POWER SUPPLY

Bicker BEG-300-1224

300 W AC/DC PSU with dual DC output

RECOMMENDED BUNDLE

ACCESS CONTROL & ENTRANCE SECURITY

POWERFUL COFFEE LAKE REFRESH SOLUTION
WITH MAINTENANCE-FREE SUPERCAP BUFFERING

NEW! **DC-UPS 12V**

KEY FEATURES

- **Compact and fanless 140 Watt PSU with industrial & medical approvals**
- **mITX Intel® Q370 Express Chipset for multiple demanding tasks like face recognition**
- **Programmable UPS module for uninterruptible operation**
- **Integrated UPS reboot function**
- **Maintenance-free Supercap buffer (no annoying change of batteries)**
- **Advanced connectivity features**
- **Long-term availability**
- **3 years warranty**

DC UPS
Bicker UPSI-1208
12 V DC UPS with USB and RS-232

ENERGY PACK
Bicker BP-SUC-1033
Maintenance-free Supercaps with 4.9 kJ

- Gate Control
- Entrance Gate Security
- Face Recognition
- Access Security Systems

COFFEE LAKE REFRESH NEW!

MAINBOARD | mITX

ASUS Q370I-IM-A

LGA1151 socket for 8th & 9th Gen Intel® Core™ processors,
Triple display support,
2x M.2 slot, PCIe x16 & Mini-PCIe

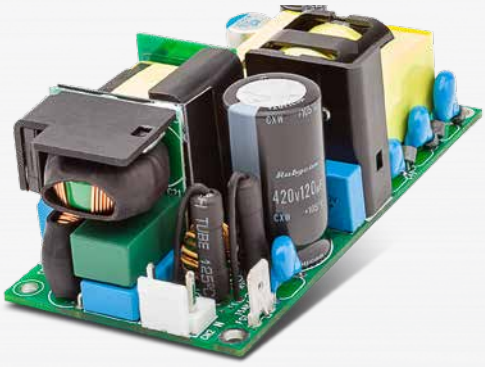
Alternative

Kontron D3633-S
AAEON MIX-Q370D1

POWER SUPPLY

Bicker BEO-1412M

140 W continuous fanless power on 2 x 4" footprint (200 W peak)



ACCESSORIES

Innodisk M.2 PCIe Gen3 x4

Industrial SSD module M.2 2280

ACCESSORIES

Innodisk DDR4 SO-DIMM

Industrial grade memory

RECOMMENDED BUNDLE

KIOSK & POI / POS SYSTEMS

BEST COMPACT POWER+BOARD SOLUTION INCLUDING
ROBUST AND ENERGY SAVING EXTERNAL AC/DC DESKTOP ADAPTER

KEY FEATURES

- **Energy saving and durable AC/DC industrial desktop adapter**
- **PSU equipped exclusively with +105 °C high quality capacitors**
- **Intel® Gemini Lake SOC up to Quad Core CPU with low power consumption (TDP 10 W)**
- **Small low cost Mini-STX form factor**
- **M.2 key E and M.2 key M**
- **Optional Mini-STX Chassis Kit**
- **Long-term availability**
- **3 years warranty**

ACCESSORIES
Cervoz DDR4 SO-DIMM
Industrial grade memory

ACCESSORIES
Cervoz mSATA MLC
Industrial grade mSATA MLC

- Point-Of-Sale
- Vending
- Point-Of-Interest
- Advertising

SOC
GEMINI LAKE

ACCESSORIES
Mini-STX Chassis Kit
for D3544-S series

Mini-STX
147 X 140 mm

Designed by Fujitsu

MAINBOARD | Mini-STX
Kontron D3544-S2
Intel® Quad Core Gemini Lake SoC
Alternative
ASRock STX-1000

CEC
LEVEL VI TIER2

POWER SUPPLY
Bicker BET-0624
65 Watt industrial desktop adapter certified to EN/IEC/UL 62368-1 (Ed. 2) with very high reliability (MTBF)

ECO friendly · COC TIER2 · VI CEC-Level

RECOMMENDED BUNDLE

DIGITAL SIGNAGE & CASH MANAGEMENT

COMPACT, SAFE AND RELIABLE PICO-ITX SOLUTION INCLUDING SUPERCAP UPS BUFFERING FOR UNINTERRUPTIBLE OPERATION

KEY FEATURES

- **Fanless AC/DC power supply with industrial & medical safeties**
- **Fast charging and maintenance-free UPS Supercap buffering**
- **Space-saving single board computer for slim and fanless systems with wide thermal operating range**
- **Impressive range of I/O interfaces by BIO daughter board**
- **Long-term availability**
- **3 years warranty**

ACCESSORIES
Cervoz m.2 2280
Industrial SSD module

ACCESSORIES
Cervoz DDR4 SO-DIMM
Industrial grade memory

- ePayment
- Vending
- Retail NFC / RFID
- Automated Teller Machine (ATM)

MAINBOARD | Pico-ITX

AAEON PICO-APL1-A10-0003

Intel® Celeron® N3350 Processor SoC

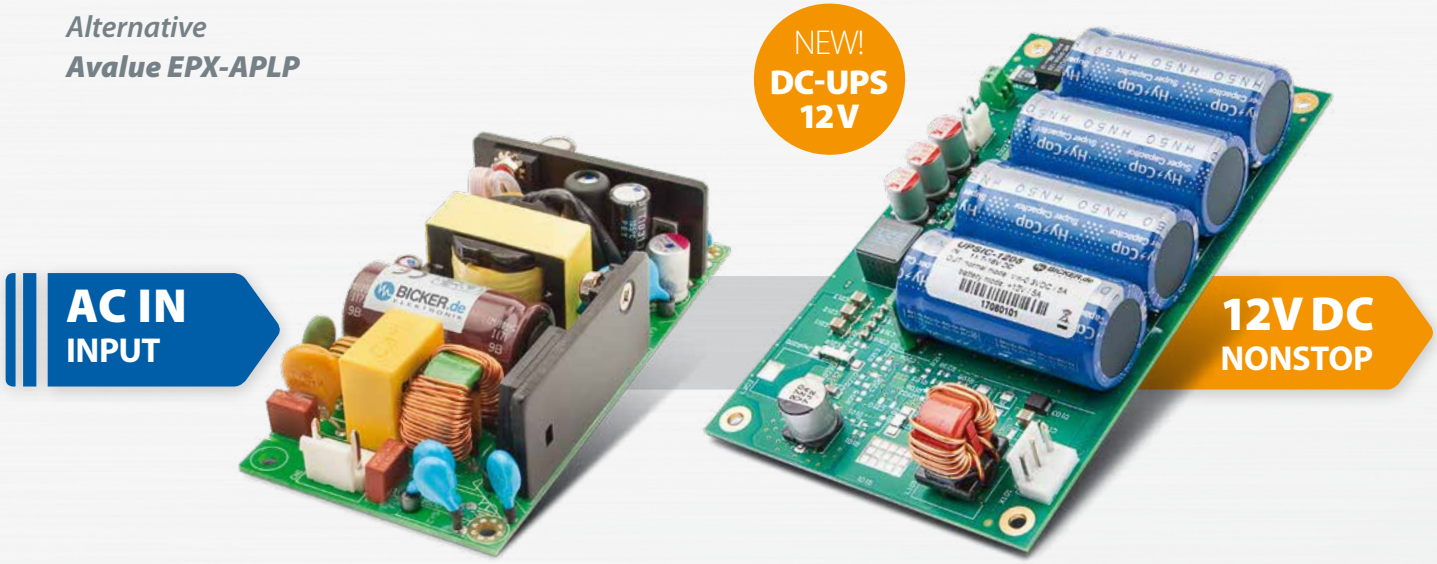
Alternative

Avalue EPX-APLP

ACCESSORIES

AAEON BIO-ST02-C14D32

2.5" BIO Daughter Board with
14x COM, 32bit DIO, LAN & USB 3.0



DC UPS

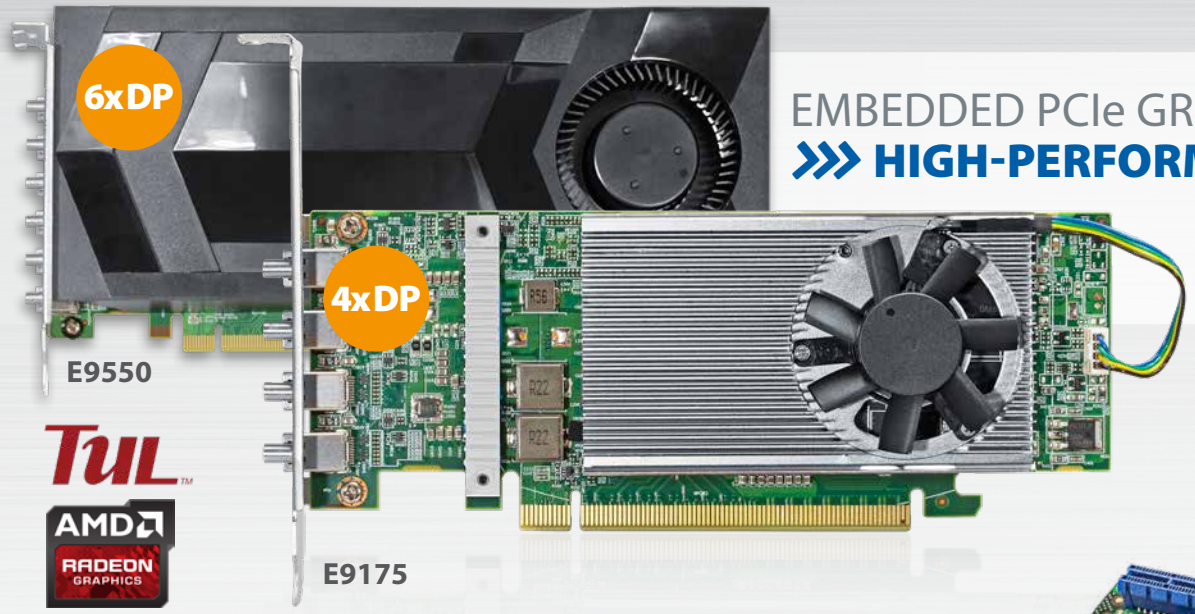
Bicker BEO-0612M

60 W continuous fanless power

POWER SUPPLY

Bicker UPSIC-1205

Compact DC UPS module with Supercaps

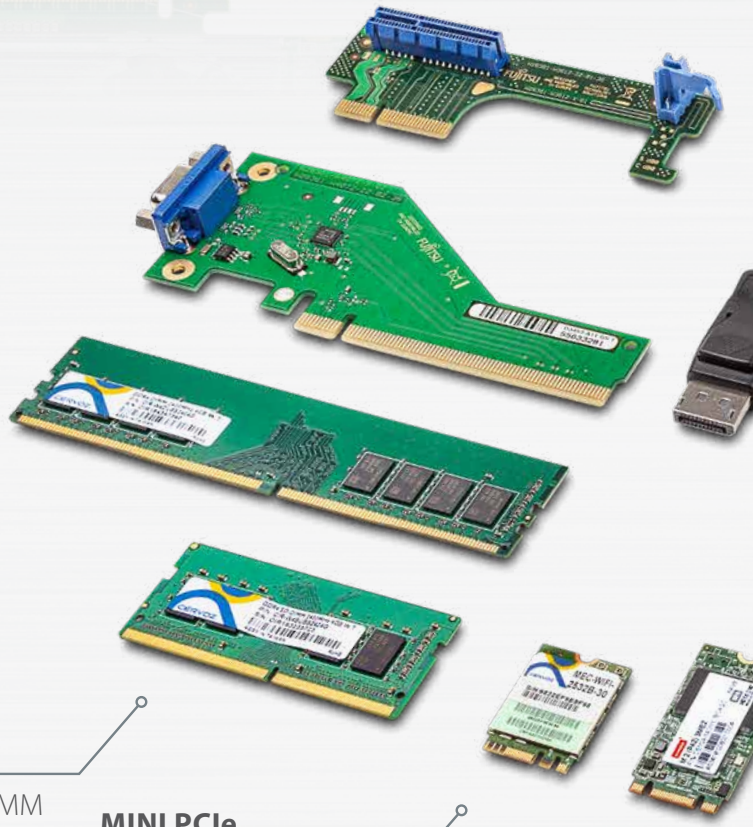


EMBEDDED PCIe GRAPHICS
»» HIGH-PERFORMANCE

EMBEDDED PCIe GRAPHIC CARDS

AMD Embedded Radeon™ graphics engine
Fast GDDR5 graphics memory
Multiple Mini DP outputs with cable locking
Long-term availability

TUL E9550: Lifecycle until 2023
TUL E9175: Lifecycle until 2026



FIXED **B.O.M.**

INDUSTRIAL RAM MODULE

DDR4 DIMM / SO-DIMM
DDR3 DIMM / SO-DIMM
DDR2 DIMM / SO-DIMM
DDR1 DIMM / SO-DIMM

MINI PCIe EXPANSION CARD

WIFI Solution
Ethernet Solution
Serial / USB / Firewire
Display Solution

INDUSTRIAL EMBEDDED MODULE

M.2 2242 / M.2 2280
mSATA
Half Size mSATA
Half Slim

BICKER.de ELEKTRONIK

BUNDLED SOLUTIONS

Power+Board

RECOMMENDED ACCESSORIES

CONNECTIVITY SOLUTIONS

Riser / VGA display extension cards
Converters and adapter cables

COOLING SOLUTIONS

Active / passive cooling
Heat pipe solutions

STORAGE SOLUTIONS WITH FIXED B.O.M.

Benefit from the exceptionally high quality of our accessories for your demanding projects. Our **industrial grade storage products** have a **locked Bill of Materials B.O.M.** Once launched, no changes are made to components of a product. This ensures a continuously safe and reliable operation.

- **FIXED B.O.M. (BILL OF MATERIALS)**
- **INDUSTRIAL GRADE PRODUCT DESIGN**
- **HIGH RELIABILITY**
- **TOP COMPATIBILITY**
- **LONG-TERM AVAILABILITY**
- **DESIGN-IN-ADVICE**
- **3 YEARS WARRANTY**

BUNDLED SOLUTIONS

Power+Board

SELECT FROM THE MARKET LEADERS

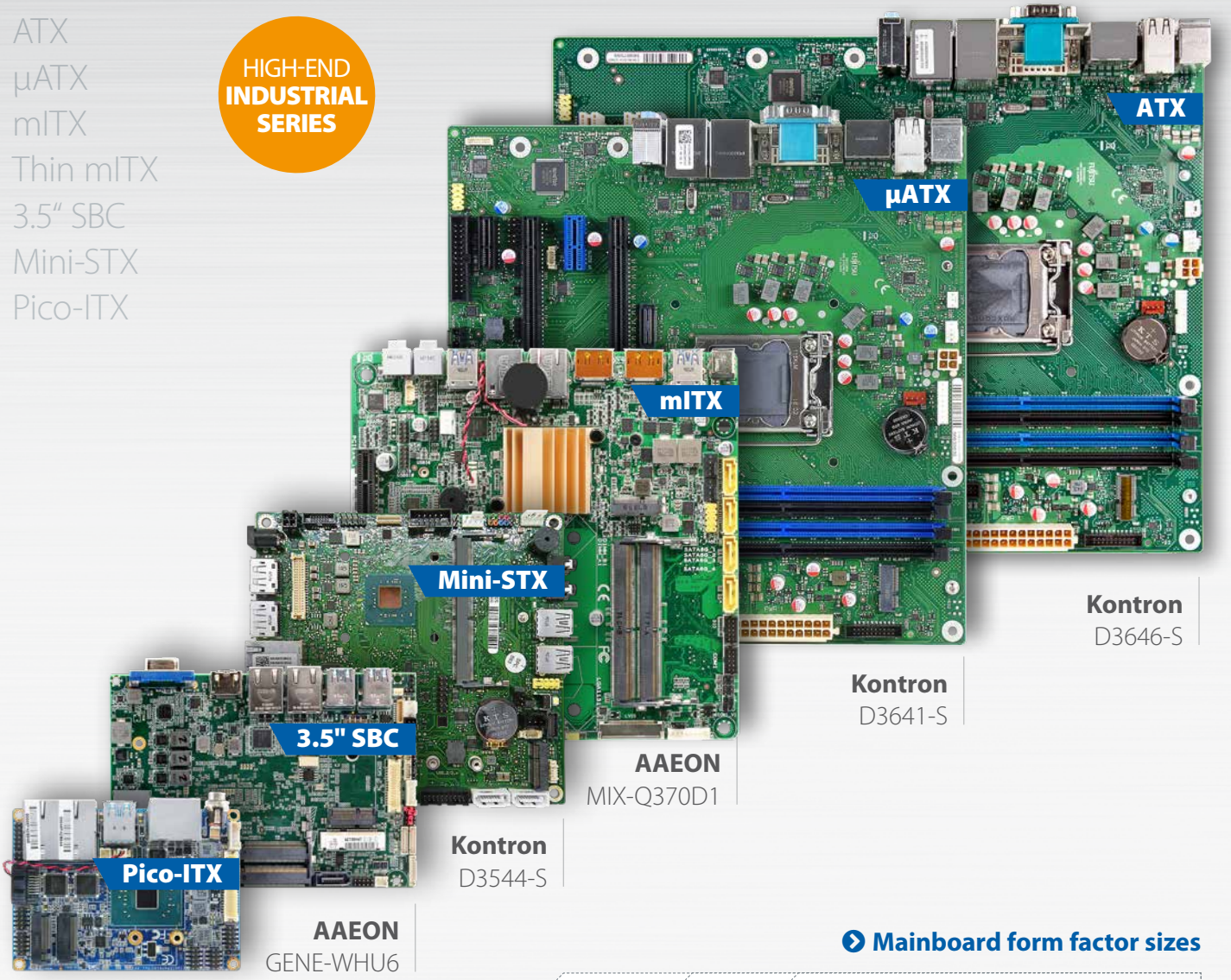
PERFECT MATCHING COMPONENTS FOR RELIABLE SYSTEMS

In addition to a wide range of industrial and medical power solutions, we offer you high-quality industrial mainboards in many form factors and accessories from brand manufacturers.

You have the choice!

ATX
µATX
mITX
Thin mITX
3.5“ SBC
Mini-STX
Pico-ITX

HIGH-END
INDUSTRIAL SERIES



Kontron
D3646-S

Kontron
D3641-S

AAEON
MIX-Q370D1

Kontron
D3544-S

AAEON
GENE-WHU6

Avalue
EPX-APLP

Mainboard form factor sizes

ATX
305 x 244 mm

µATX
244 x 244 mm

Reduced µATX
193 x 244 mm

mITX
170 x 170 mm

Mini-STX
147 x 140 mm

3.5“ SBC
146 x 101 mm

Pico-ITX
100 x 72 mm

Cervoz & Innodisk
Memory products

We are here for you!

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Note: Subject to errors and technical modifications! The contents of this catalogue have been assembled with greatest care and are in line with our current level of information. The current catalogue replaces all previous catalogues. Issued February 2020

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