



SHENZHEN ZRT TECHNOLOGY CO., LTD

Empowering Tomorrow's AI Computing

www.zrt-tech.com

—
2024.

Shenzhen ZRT Technology Co., Ltd., founded in 2014, is a nationally recognized high-tech enterprise specializing in research, development, production, and sales.

ZRT remains dedicated on AI healthcare field. The products are centered around AI acceleration and industrial display technologies, with a commitment to research, development, and manufacturing in AI edge integration, medical informationization, components for medical diagnostic equipment, and medical displays. Meantime, ZRT offers full solution for AI scenarios, medical image and video processing, and medical information systems for clients.



Office Location: Shenzhen Bao'an

Annual Value of Production

240million RMB

Production Base

6000m²

Registered Capital

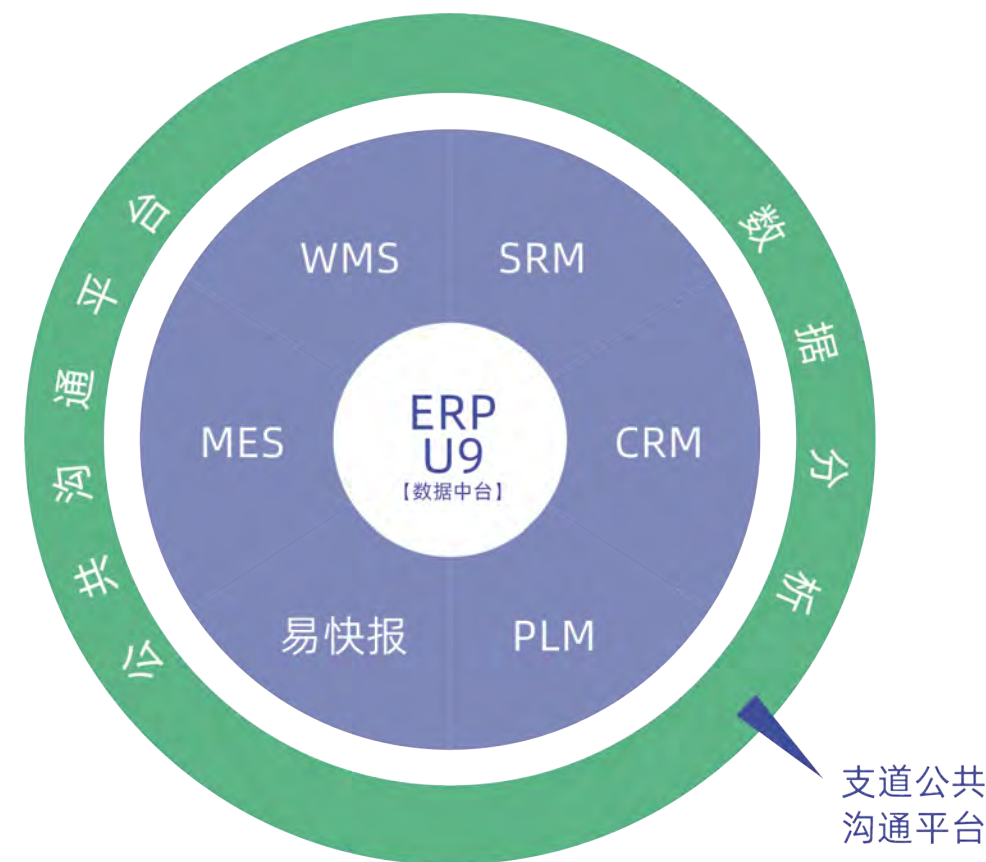
30million RMB

Cooperative Partners

300+



China High-Tech Enterprise



ZRT Management System

2015

- Launched server series
- AMD Graphics Card AIB Alliance Member

2017

- Intel IoT Solutions Member

2019

- Beijing branch
- IoT solution branch

2021

- Chengdu branch
- Member of the Shenzhen AI Industry Association
- Member of the Shenzhen High-Tech Industrialization Promotion Association
- Mindray Global Outstanding Partners

2023

- Brand upgraded
- Selected into “Specialized and Special New” enterprise list.
- 2023 China Intelligent Transportation Technology Innovation Award
- Company moved to self-owned office of 1300m².

- Company established

- Production base established

- National High-Tech Enterprise Certification,
- ISO9001, ISO14000 Certification

- Taipei and Nanjing branch
- Obtained 50+ core patents
- ISO13485 Certification

- Loongson Ecosystem Partner
- Cambricon Ecosystem Partner
- “Technological Advancement Enterprise” prize by SZ government
- “Best Growth Award of the Year” from Intel IoT

2014

2016

2018

2020

2022

17 M RMB
R&D investment

50+
R&D Stuff

20 Million RMB
Electronic Signal and EMC
Testing Center

200+
R&D Equipment

ZRT has consistently prioritized design, research and development, technological innovation, and quality as the core competencies of its brand.

81
Software
copyright

19
Design
Patent

59
Utility
Model

12
Invention
Patent

Over the years, ZRT has gradually improved a set of R&D process management system called the "**PLM system**". Through the PLM system, project requirements, task assignments, personnel scheduling, resource allocation, design and coding management, testing control, document management, quality management, and product lifecycle management are unified and controlled. This ensures smooth project progress and high-quality delivery.

Every ZRT product must undergo rigorous testing by professional DQE quality engineers before being launched into the market. The company closely monitors the quality feedback of products launched in the market to ensure that product quality, reliability, and durability reach the highest standards. With a commitment to excellence, ZRT strives to accelerate industrial upgrading in China and promote the new “smart manufacturing” in China.

Constant Temperature and Humidity Environmental Testing



EMC Testing

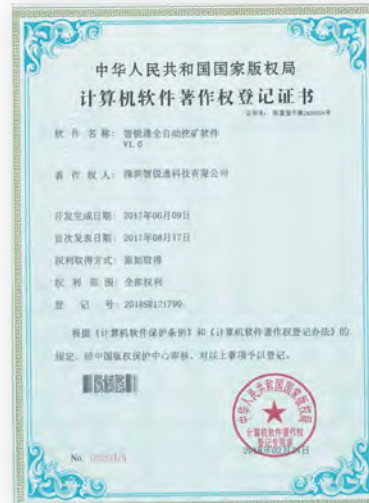


Anti-static Testing



Signal Integrity Testing





✓ 81 Software Copyright

✓ 19 Design Patent



✓ 59 Utility Model

✓ 12 Invention Patent

● **Manufacturing Equipment**

- | | |
|----|--|
| 1 | 3 Panasonic NPM-D3 dual track SMT lines |
| 2 | Dual-track asynchronous speed-adjustable 12-zone nitrogen reflow oven |
| 3 | Dual-track Online SPI and Dual-track Online AOI |
| 4 | 3D X-Ray testing, X-Ray automatic feeder |
| 5 | Automatic First Article Inspection Machine |
| 6 | SMT Automatic Measurement and Feeding Machine |
| 7 | 60m² temperature-controlled aging room |
| 8 | Temperature and humidity chamber, thermal shock chamber, vibration table, drop tester... |
| 9 | 260+ test accessorial tool |
| 10 | 2 assembly lines + 3 testing lines + 1 final assembly line |

ZRT's wholly-owned modern factory is dedicated to providing manufacturing solutions for industrial, medical, and military products, covering an area of 6000m². The core philosophy of the factory is to focus on serving specialized clients, aiming to become a small yet sophisticated intelligent manufacturing center. Our manufacturing center boasts complete production lines from industrial boards to finished products, as well as technologically advanced electronic production workshops, structural assembly workshops, and packaging workshops.

500,000_{pcs}

Annual output



6000_{m²}

Production base



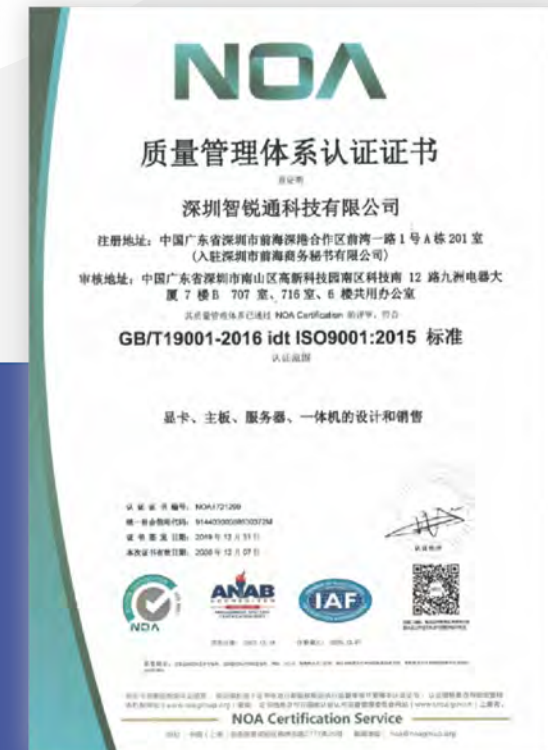
100_{+sets}

Modern equipment



By employing advanced SRM, ERP, and WMS systems, ZRT have established an efficient, flexible, and reliable supply chain management system, enabling real-time monitoring and management of production plans, material schedules, and production processes. This places ZRT at the forefront of the industry.

- **CCC** certification,
- **ISO 9001** Quality Management System Certification
- **ISO 14001** Environmental Management System Certification
- **ISO 13485** Medical Device Quality Management System Certification,
- **OHSAS18001** (Occupational Health and Safety Assessment Series 18001)
- **GJB9001C-2017** Quality Management System for Military Industry.
- ...



Company Honors

National High-Tech Enterprise Certification

SZ“Specialized and Special New” enterprise

2022 Intel IoT “Best Growth Award of the Year”

2023 China Intelligent Transportation Technology Innovation Award

Technological Advancement Enterprise Award

Contract-abiding and Credit-worthy Enterprise Award

Mindray Global Excellent Partner Award

Jusha Medical Core Supplier Certification

Top 10 Best Industrial Electronics and Intelligent Factory Technology and Solution Providers of 2018

Ecosystem Partner Projects

Intel® Partner Alliance Titanium Member

Loongson Eco Partner

Cambricon Eco Partner

Phytium Eco Partner



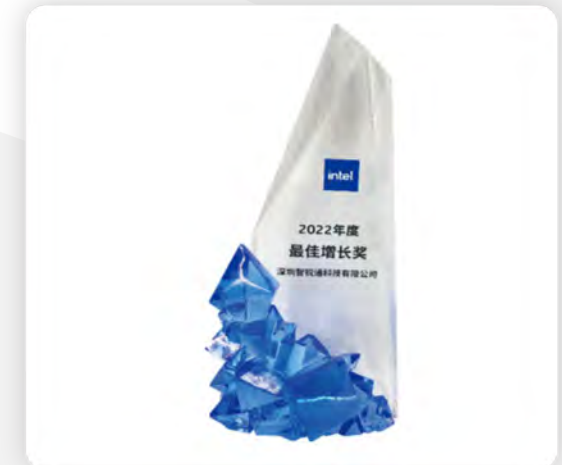
Intel® Partner Alliance
Titanium Member



Mindray Global
Excellent Partner Award



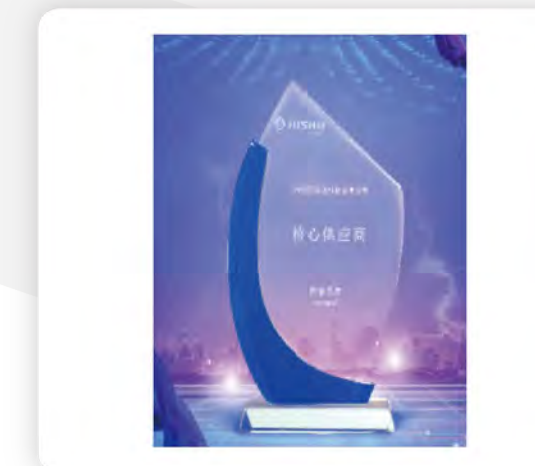
Shenzhen Technological
Advanced Enterprise



2022 Intel IoT Best Growth
Award of the Year



Innovative AI Products
Award



Jusha Medical
Core Supplier



Intel Global Best Potential
Award



Best AI Technology
Solution Award

AMD

AMD

apollo

百度阿波罗

DAWEI

大为医疗

登临科技

登临科技

Phytium 飞腾

飞腾

SonoScape 开立

开立

KTC

康冠科技

CARBON
卡本医疗

卡本医疗

蓝影

蓝影

mindray 迈瑞

迈瑞

VINNO 飞依诺

飞依诺

wisonic 华声

华声

MGI
华大智造

华大智造

Cambricon
寒武纪

寒武纪

JUSHA
巨鲨医疗

巨鲨医疗

mindray
animal care

迈瑞动物医疗

CVTE
视源股份

视源电子科技

SASET/healthcare

声泰特医疗

芯瞳半导体
FIETIUM

芯瞳半导体

XIFO 希孚

希孚

BEACONE 巨烽

巨烽

巨潮

巨潮

驾考宝典
智慧驾校

驾考宝典

金山科技

金山科技

BOE

京东方科技

CHISON 祥生
健康有道 健康无价

祥生医疗

zoncare 中旗

中旗

中国中车
CRRC

中国中车

intel

英特尔

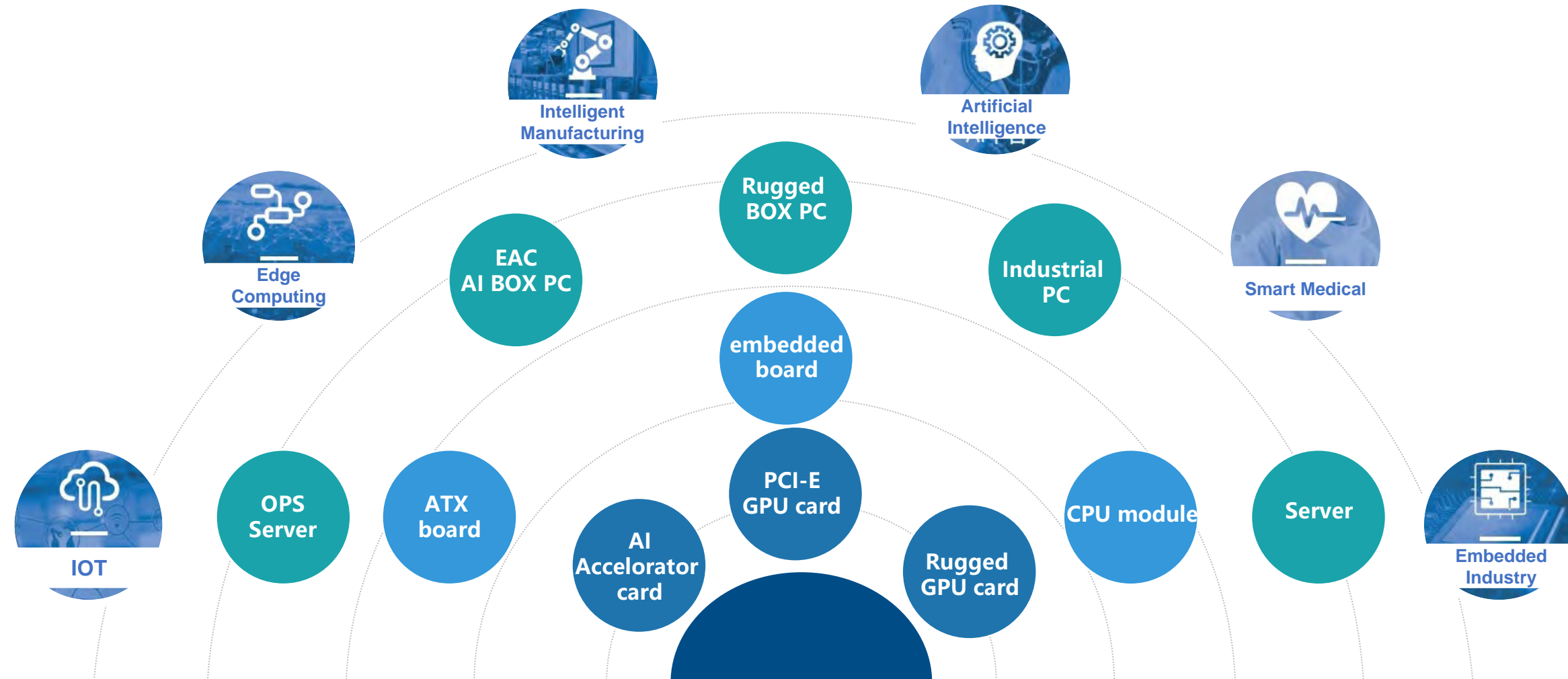
nvidia

英伟达



PRODUCT INTRODUCTION

www.zit-tech.com



Focusing on AI acceleration and industrial display technologies,
developing a complete product portfolio of ZRT

Product Introduction

---Industrial Motherboard

Compact design | High Scalability | Long life support



Motherboard with MXM Socket:
EMA-7103

- Intel Tiger Lake-H series high performance CPU
- Support LVDS + DP/HDMI independent display, eDP integrated display
- Dual channel DDR4 up to 64GB
- Dual M.2 SSD
- Support 4G/5G IoT module
- Support MXM GPU module
- Onboard 2 Ethernet, 1 PCIE x 4 slot
- 170*170mm



Motherboard with MXM Socket:
EMA-7303

- Intel Alder Lake S series CPU
- Dual channel DDR5 SO-DIMM up to 128G
- Support 4G/5G IoT module
- Support up to 7 display output
- Support MXM independent GPU card
- Working Temp. -10~60°C

Motherboard with MXM Slot: EMA-7102

- Intel Coffee Lake-H series CPU
- Support LVDS + DP/HDMI independent display, EDP integrated display
- Dual channel DDR4 up to 64GB
- Support dual M.2 SSD
- Onboard dual Ethernet, support 4G/5G IoT module
- Support MXM independent graphics card
- Support reset button, screen-off button
- 170*170mm



Motherboard with 2 MXM Slots: EZT-Q370A

- Support Gen. 8th/9th Intel Coffee lake S CPU
- Dual channel DDR4 up to 64GB
- Onboard 2 MXM slots, each supporting PCIe 8x
- Support 3 x 10/100/1000Mbps self-adapting ethernet
- Support 6 x USB3.0, 3 x DP, 1 x HDMI
- DC 24V input



Motherboard with MXM Slot: ITX-71101

- Based on Intel Skylake platform
- I7-6700HQ low power consumption CPU低功耗系列处理器
- Dual channel DDR4 RAM up to 32GB
- Support 3 display, EDP output, PCIE * 4 slot at side
- MXM slot, support Type A/B
- Working Temp. supporting -20 - 50°C



Motherboard with MXM Slot: MBC-11001

- Based on Intel Skylake/Kabylake platform
- Support Intel Core 6/7/8/9th Gen i3/i5/i7 CPU
- Dual channel DDR4 RAM up to 64GB
- Support 3 integrated display, 4 independent display
- MXM3.0 slot, support Type A/B GPU card
- Support 9~48V wide input, support car applications, ACC and ITPS

Product Introduction

---AI Modular Core Board

Modular design | Ultra mini size | Stable and extendable | Long life support



Modular Core Board: ECM-6401

- COM Express Type 7 core board
- Intel Xeon D-1500 series, D1508 for default
- Support 2*DDR4 SO-DIMM, up to 128G/3200Mhz
- Support 2*SATA3.0
- Support 2*10G Base-KR port
- Support 4*USB3.0, 4*USB2.0
- Support 1 PCIe4.0 x 16, 1 PCIe3.0 x 8, 7 PCIe3.0 x 1
- Dimension: 125*95mm



Modular Core Board: ECM-6103

- COM Express Type 6 core board
- Intel Tiger Lake-H series CPU, i7-11850H for default
- Support 2*DDR4 SO-DIMM, up to 64G
- Support 4 SATA3.0
- Support 5 display ports, 3 x DDI can be configured to HDMI/DP ,
- 1 x DDI for VGA, 1 x EDP to LVDS can be configured to EDP
- Support 4*USB3.2, 8*USB2.0
- 1 PCIe4.0 x 16, can be configured to 1 x 16 , 2 x 8 , 1 x 8 + 2 x 4 ,
- 8 PCIe3.0 x 1, can be configured to x 4 or x 2
- Dimension: 125*95mm

Modular Core Board: ECM-H301

- COM-HPC protocol core board (Client Type)
- Intel Alder Lake-S platform CPU
- Up to 16 cores, 24 thread, TDP 65W
- Dual channel DDR5 SO-DIMM up to 128GB
- 1 PCIe Gen5 x 16, 1 PCIe Gen4 x 4, 10 PCIe Gen3 x 1
- Working temperature -20~70°C



Modular Core Board: ECM-TGL6U2

- COM Express Type 6 core board
- Intel Tiger Lake-U CPU
- Support 2*DDR4 SO-DIMM, up to 64G
- Low power consumption up to 28W
- 2 x PCIe 4x, 1 x PCIe 1x,
- Working temperature -20~70°C



SMARC Core Board: EZT-E3950A

- Low power consumption Intel Atom x7 E3950 CPU
- Dual channel onboard LPDDR4 up to 8G
- 3 display, supporting 4K/2K HD display
- Onboard 64GB EMMC, support 1 SATA3.0
- Internal dual Ethernet port, 6 * USB
- PCIe2.0 x 4, USB3.0 x 2, USB2.0 x 4



Modular Core Board : ECM-SKY6H1

- COM Express Type 6 core board
- Intel Skylake Lake-H CPU
- Dual channel onboard LPDDR4 up to 8G
- 4 x SATA 3.0
- 3 display, supporting 4K/2K HD display
- USB3.0 x 4, USB2.0 x 8
- 1 x PCIe 16x, 8 x PCIe 8x

Product Introduction

---AI Edge Embedded PC

Modular design | Ultra mini size & Excellent heat dissipation | Stable and extendable

AI Edge Box PC: MIN-EC09A



- Designed for medical digital imaging scenarios
- Supports Intel Coffee Lake S series platforms
- Dual channel DDR4 up to 64GB
- Supports MXM graphics card
- Supports 2 Ethernet, 6 USB2.0, 6 USB3.0, and 6 serial ports
- 1*4-PIN phoenix terminal input (19/24V), 1*2-PIN 12V power output (12V-24V)
- Dimensions: 282*208*80mm

AI Edge Box PC: MIN-EC10



- Designed for medical digital imaging scenarios
- Supports Intel Tiger Lake-H series platforms
- Supports LVDS + DP/HDMI dual display, eDP integrated display output
- Dual channel DDR4 up to 64GB
- Supports dual M.2 SSD
- Supports 4G/5G IOT module
- Supports MXM independent graphics card for easy replacement
- Onboard 2 ethernet ports, 1 PCIE x 4 slot
- Dimension: 260*210*90mm

AI Edge Box PC: EAC-CC02-C00

- Based on Intel Q170 platform
- Support Intel Core 6/7/8/9th Gen i3/i5/i7 CPU
- 2*SO – DIMM slot, support up to 64G RAM
- Support integrated display HDMI + DP
- Support independent display 3*DP + 1*HDMI, support up to 4 display
- 6*USB3.0 + 2*USB2.0
- Support MXM3.1 (type A/B)
- Support 9~48V wide voltage input
- Working temperature -10~50°C



AI Edge Box PC: EAC-Z01-A

- Support Intel Coffee Lake-H series CPU
- One-key restore and one-key screen-off button
- Support MXM graphics card, DP + HDMI dual independent display
- Support 1080P/60fps, dual HDMI IN video capture, support HDMI 1080P/60fps loop output
- Suitable for image acquisition devices for medical equipment such as endoscopes, angiography machines, and ultrasound



AI Edge Box PC: MIN-EC07

- High-performance video image recognition small edge box pc,
- Based on NVIDIA Jetson Xavier NX core module
- Powerful processing capabilities
- Rugged design, meeting safety certifications
- Modular design, configurable based on actual requirements
- Suitable for portable and smart medical scenarios.



AI Edge Box PC: MIN-EC11

- Designed for multiple industrial pc scenarios,
- Support Intel Tiger Lake-H CPU
- Onboard LVDS + DP/HDMI dual display, eDP integrated display
- Dual channel DDR4 RAM up to 64GB
- Support dual M.2 SSD
- Support 4G/5G IOT module
- Support MXM graphics card
- Onboard dual ethernet, 1*PCIE x 4 slot
- Dimensions: 260*210*90mm

Product Introduction

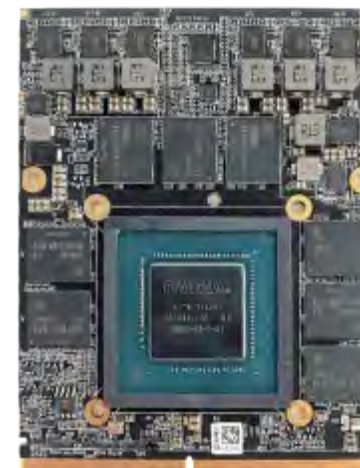
---Industrial Graphics Card

High computational power | Embedded design | High Scalability | Long life support



MXM GPU Card : MMR3500B6-12G

- NVIDIA Quadro RTX3500 Mobility
- 12G 192bit GDDR6
- Single-Precision 23235 GFLOPS
- Power consumption 110W
- MXM3 .1 / up to PCI Express 4.0
- Type B (105 x 82mm)



MXM GPU Card: MMA4500A6-16G

- NVIDIA Quadro A4500 Mobility
- 16G 256bit GDDR6
- Single-Precision 19352 GFLOPS
- Power consumption 130W
- MXM3 .1 / up to PCI Express 4.0
- Type B (105 x 82mm)

MXM GPU Card: MM3080TIB6-16G

- NVIDIA GeForce RTX3080Ti Mobility
- 16G 256bit GDDR6
- Single-precision 19954 GFLOPS
- Power consumption 160W
- MXM3 .1 / up to PCI Express 4.0
- Type B (105 x 82mm)



PCIe GPU Card : RTX3080 10GD6 3DH

- NVIDIA GeForce RTX 3080
- 10G 320bit GDDR6
- Single-precision 13589 GFLOPS
- Power consumption 320W
- PCI-Express 4.0 16x
- ATX/2 Slot (285*112*37mm)



MXM GPU Card: MM3080B6-16G

- NVIDIA GeForce RTX3080 Mobility
- 16G 256bit GDDR6
- Single-precision 17525 GFLOPS
- Power consumption 135W
- MXM3 .1 / up to PCI Express 4.0
- Type B (105 x 82mm)



PCIe GPU Card: A380 6GD6 4H

- Intel Arc A380
- 6G 96bit GDDR6
- Single-precision 3966 GFLOPS
- 显卡功耗 45W
- PCI-Express 4.0 16 x (by 8x)
- SFF/2 Slot (169*70*37mm)

Product Introduction

---Medical All In One PC

high computing power | lightweight and compact | stable and durable

Medical Client: MSC-2201



- Intel Gen.11 Core Tiger Lake- Platform, support Core i5/i7/i9, support up to 64GB DDR4 SO-DIMM,
- Support dual hard disk, M.2 NVME system disk and 2.5"HDD,
- Dust and water resistance up to IPX2, with IP65 panel rating; alcohol wipe disinfection compatible
- 23.8 inch FHD 1920 x 1080 display with 400 nits high contrast
- Capacitive multi-touch screen design for ease of use by medical personnel
- Support 4G/5G IoT module design
- DICOM one-key calibration/office mode switching supported
- Built-in wireless module, Bluetooth module, 800W pixel camera; optional infrared scanner head



Medical Client: MSC-2202

- Intel Gen.11 Core Tiger Lake- Platform, support Core i5/i7/i9, support up to 64GB DDR4 SO-DIMM,
- Support dual hard disk, M.2 NVME system disk and 2.5"HDD,
- Dust and water resistance up to IPX2, with IP65 panel rating; alcohol wipe disinfection compatible
- 21.5-inch FHD 1920 x 1080 display with 400 nits high contrast
- Capacitive multi-touch screen design for ease of use by medical personnel
- Support 4G/5G IoT module design
- DICOM one-key calibration/office mode switching supported
- Built-in wireless module, Bluetooth module, 800W pixel camera; optional infrared scanner head

Product Introduction

---Medical Diagnostic Display

DICOM Standard | Lightweight and Compact | Stable and durable



■ Backlight Stability System

Integrated backlight sensor continuously monitors backlight brightness, enabling quick brightness attainment upon startup

■ Continuous Quality Assurance System

Front-integrated sensors monitor and calibrate grayscale and color on the screen, ensuring continuous automatic assurance of medical image display accuracy and centralized management of platform systems

■ Environmental Brightness Adaptive

Front-integrated brightness sensor continuously monitors environmental brightness, automatically adjusting screen brightness

■ Compliant with DICOM International Standards



■ Split-Screen Independent GAMMA

Split-screen independent GAMMA adjusts brightness separately for different display objects

■ Main Screen Brightness Adaptation

Automatically reduces the brightness of surrounding devices when doctors observe the main screen

■ Low Blue Light Technology

■ Brightness Uniformity Technology

helps balance brightness and color temperature fluctuations in different areas of the screen



Application Cases

www.zit-tech.com



1. Industrial automation production quality inspection equipment

By implementing machine vision solutions, ZRT' s client can achieve the aims to enhance production line efficiency and reduce manual inspection efforts and manpower for identifying faulty components. Through standardized operating procedures, they seek to enhance worker safety and increase productivity by 10-20%.

Solution | Embedded box PC MIN-EC04E

- All metal + quite fan + copper tube cooling design
- Intel Skylake-HQ CPU
- Support DP+HDMI dual independent display
- Support MXM GPU card
- One button reset function





2. Endoscopic All-in-One System

The medical endoscopic integrated system is a convenient and efficient medical device that combines functions such as a camera system, light source, display screen, processing, and storage devices. It enables quick diagnosis and treatment. Customers require a highly scalable and high-definition image display AI hardware solution to meet their needs for integrating multiple system functions into one and displaying high-definition images

Solution | motherboard: EMA-7103

- Intel Tiger Lake-H series based processor
- Support LVDS+DP/HDMI independent display
- Support MXM GPU card
- Support 4G/5G module, M.2 SSD
- One button reset function





3. Surgical robotic equipment

The equipment requires extremely high control performance and image analysis capabilities to enhance surgical efficiency while ensuring precision. It also meets the demand for improving the quality of subsequent diagnostic and therapeutic procedures.

Solution | motherboard: EMA-7303

- Intel Alder Lake S series CPU
- Dual channel DDR5 SODIMM RAM up to 128G
- Support 5G/4G module
- Up to 7 channel display output
- Support MXM independent GPU card
- Working Temp/ -10~60°C



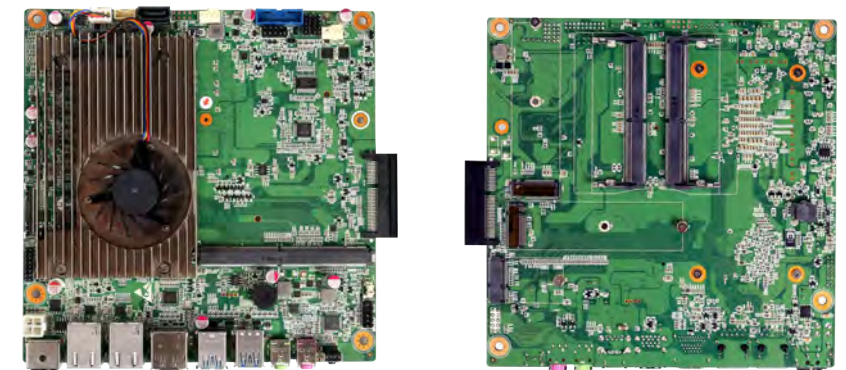


4. Outdoor live working robotic equipment

There is a growing trend towards replacing manual operation with autonomous operation by robots in power system tasks. Transforming labor-intensive, skill-demanding, and high-risk operations into safe and simple robot operations requires equipment with the ability to rapidly process large amounts of data.

Solution | motherboard: ITX-71101

- Based on Intel Skylake platform
- Dual channel DDR4 up to 32GB
- Support 3 display, EDP output, PCIE*4 slot
- MXM slot, support Type A/B GPU card
- Working Temp. -20 - 50°C





5. Smart park video surveillance system

In modernized parks, people can achieve integrated management such as safety supervision, monitoring of hazards, crowd and logistics control, emergency support, and fire prevention through smart park video surveillance systems. Such systems require a high-performance and low-power AI hardware solution to connect numerous cameras for real-time monitoring and identification of potential risks.

Solution | Embedded box PC MIN-EC04E

- High processing ability, nice stability and scalability
- MXM GPU card expandable, support AI accelerator card
- Support Intel Core 6/7th Gen i3/i5/i7 CPU
- Fanless design, 7*24 operation time



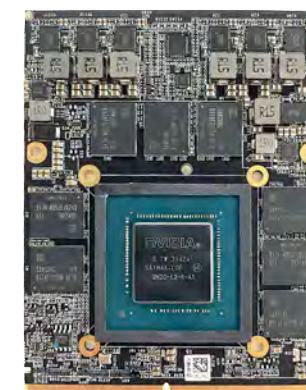


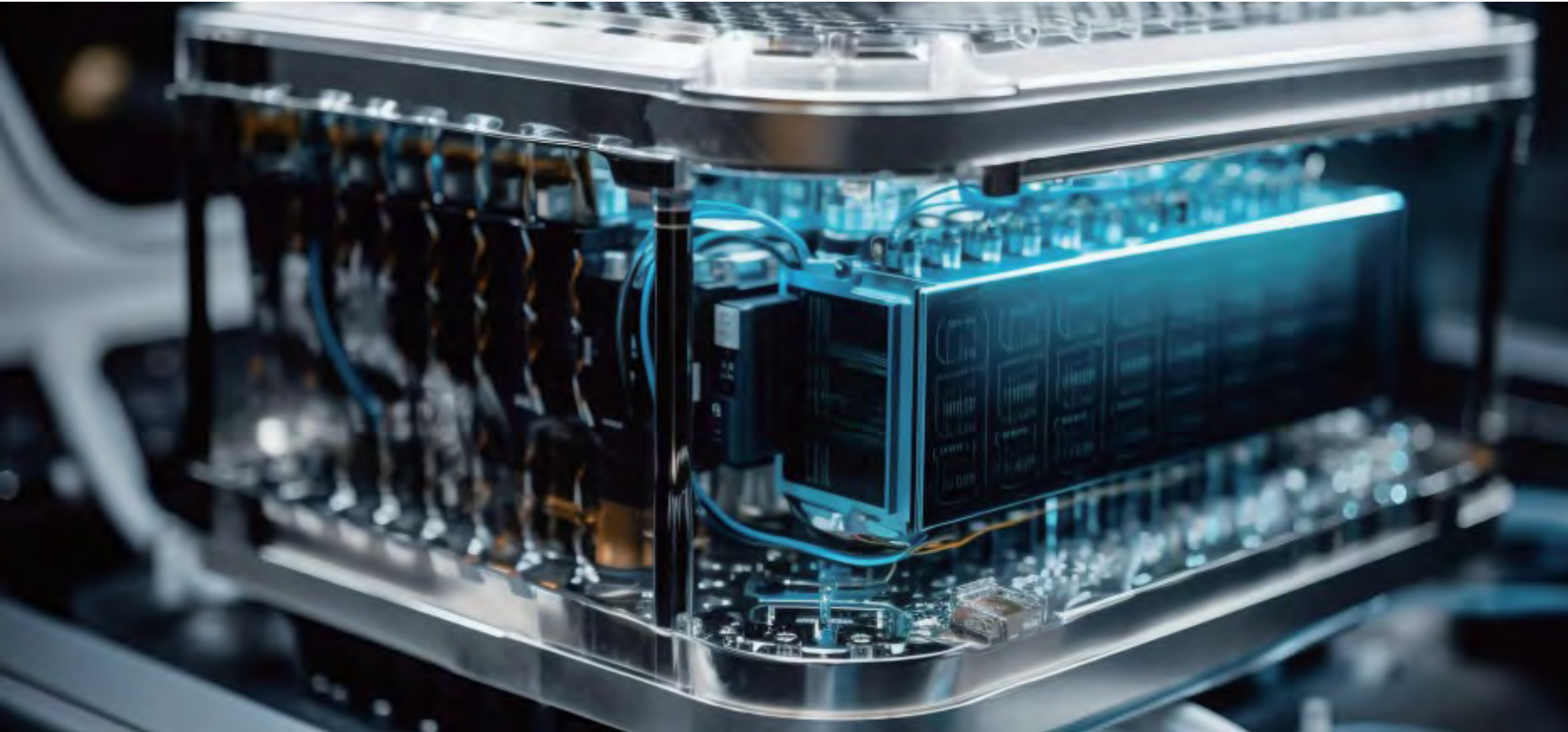
6. Rugged tablet

Rugged laptops are specifically designed for use in harsh environments. They undergo specialized reinforcement designs such as waterproofing, dustproofing, shock resistance, and electromagnetic interference resistance. This allows them to maintain stable operation even in extreme conditions.

Solution | MXM GPU Card

- High-performance computing capabilities
- Compact size
- Low power consumption
- Robust and reliable design
- Resistance to harsh environments



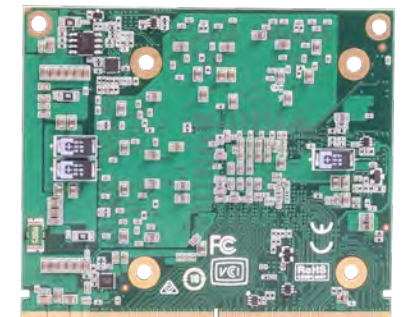


7. Exterior inspection equipment for power batteries

intelligent machine equipment for batteries inspection not only saves manpower but also ensures more reliable detection results. The equipment have the ability to possess high-speed image processing and analysis capabilities to effectively enhance the accuracy of the inspection.

Solution | MXM GPU card: MD1650A5

- NVIDIA GeForce GTX1650 chips
- 4G GDDR5 video memory
- 3DP+HDMI display port
- Type A size, MXM3.1 slot



THANKS

ZRT | Empowering Tomorrow's AI Computing



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