Industrial Peripheral Solution Introduction

Product Division

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Overall Introduction

Tech. Supports

Self-developed Chipsets
Better reliability and supply control

✔ **SDK & API Support:**
For selected models e.g. CAN / DIO

✔ **Sample codes:**
Developer guides provided *e.g. CAN / DIO*

✔ **Multi-OS Support:**
Ensures long-term availability and OS compatibility across versions of Windows and Linux
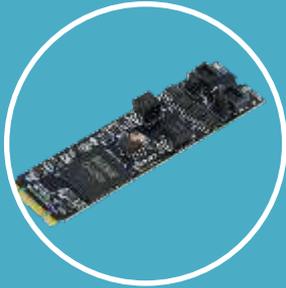
✔ **Driver & Utility Software**:
Simplifies system deployment

Control

✔ Supports multiple serial communication interfaces: RS-232, RS-422, RS-485, ideal for long-distance and noise-resistant data transmission.

✔ Provides high-speed CAN FD communication for automotive and industrial automation control.

✔ Equipped with multiple Digital Input/Output (DIO) ports for easy connection to sensors and control devices

Communication

✔ Supports various industrial communication protocols (e.g., Modbus, CAN FD) to ensure smooth data exchange between devices.

✔ Offers cross-platform drivers and comprehensive development kits for easy integration and development.

✔ HW / FW customization available to optimize features according to project requirements.
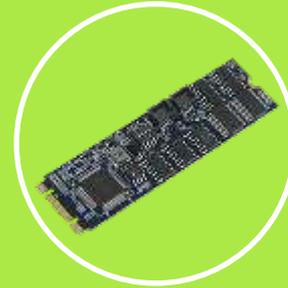
Product Lineup

CAN FD

Unlike many vendors relying on third-party chips, SUNIX **CAN FD** products use our own in-house developed controller IC, optimized for industrial environments and high-reliability communication.

DIO

SUNIX **DIO** modules feature internally developed digital I/O control ICs, delivering precise signal handling, isolation protection, and configurable logic levels.

Serial I/O

SUNIX has been designing its own multi-port serial controller ICs for over 30+ years, making our **Serial I/O** cards among the most compatible, stable, and customizable in the market.

LAN / PoE

SUNIX **LAN / PoE** products offer robust, industrial-grade solutions for delivering both power and data via Ethernet, simplifying deployments in distributed systems and reducing infrastructure costs.

By designing both the hardware and the brains (ICs), SUNIX offers unmatched reliability and flexibility for industrial connectivity.

CAN FD Series

CAN FD Series	CAN-M2102SI	CAN-C2102SI	CAN-E2104SI
Controller	SUNIX Self-Developed PCIe to CANFD Controller		
Data bitrate	8 Mbit/s	8 Mbit/s	8 Mbit/s
Form Factors	M.2 2280 B+M	mPCIe full	PCIe HH
Channel	2	2	2 / 4
Isolation/Surge	0.5KV / 1KV	0.5KV / 1KV	2.5KV / 2KV

High performance
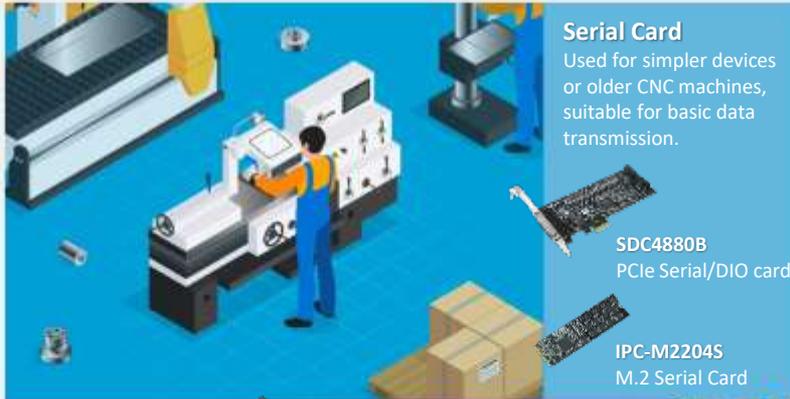Delivers the same level of performance as PEAK and KVASER

Cost Efficiency
Provides high-end performance at a more competitive price, delivering excellent value.

Comprehensive Usage
Easy integration into desktop PCs, embedded systems, IPCs

Serial Card
Used for simpler devices or older CNC machines, suitable for basic data transmission.

SDC4880B
PCIe Serial/DIO card

IPC-M2204S
M.2 Serial Card

CAN-E2102SI
PCIe CAN bus card

CAN-M2102SI
M.2 CAN bus card

CAN bus Card
In some CNC machines, it is used to connect servo drives, I/O modules, or sensors, especially in CNC equipment for vehicles, robotic arms.

Use Case(Scenario)
CNC Machine in Factory Automation

Older transmission protocols continue to be used due to its high reliability, simplicity, long-distance transmission capability, low cost, and compatibility with legacy devices.

Challenges Faced by Customer:
- ☒ **No Vents**
- ☒ **Stability and Reliability**
- ☒ **Legacy Equipment**

SUNIX Solution
With a focus on **PC**, **SBC**, and **MB** designs, **SUNIX peripherals** help customers overcome these challenges by offering:
- ☑ **Passive Cooling**
- ☑ **Harsh Environment Resistance**
- ☑ **Longevity and Backward Compatibility**

SUNIX is the trusted choice for factory automation, meeting the needs of CNC machines and other critical equipment by offering precision, stability, and easy maintenance while integrating with existing systems.

DIO Series

Digital Input / Output Series	IPC-M4884I	IPC-C4884I	SDC0FF0I	SDC4880B
Controller	SUNIX Self-Developed PCIe to DIO Controller			
Form Factors	M.2 2280 B+M	mPCIe full	PCIe HH	PCIe HH
Channel In / Out	4+4 / 8+8	4+4 / 8+8	8+8 / 16+16	8+8
Serial RS232/422/485		n/a		4
Isolation	2.5KV	2.5KV	2.5KV	2.5KV

Built for Developers
With in-house IC design and a full featured SDK, SUNIX empowers your team to develop and debug smoothly, reducing time to market.

Isolation Protection
Industrial-grade isolation ensures stable and safe operation

Comprehensive Usage
PCIe, Mini PCIe, and M.2 form factors with multiple I/O channels for versatile integration

Logicbus

SUNIX

CAN-M2102SI
M.2 CAN Bus Card

IPC-M2204S
M.2 Serial Card

IPC-M4884I
M.2 DIO Card

CAN Bus Card
Get info of core vehicle systems for vehicle status monitoring, fault diagnostics, driver behavior analysis, Remote vehicle management.

Serial Card
Facilitates external device communication for GPS, OBD-II, long-distance multi-device communication, black boxes, LED displays, RFID readers.

DIO Card
Handles safety and alert controls for Door & lock sensors, Emergency button (Panic Button), Warning lights & buzzers, vehicle proximity sensors.

Use Case(Scenario)
Telematics/Fleet Management in Transportation Industry

In the transportation industry, business owners seek to operate efficiently while prioritizing sustainability (ESG), reducing insurance costs, and protecting assets.

Challenges Faced by Customer:
- ☒ **Lack of Real-Time Vehicle Data**
- ☒ **Unmonitored Driver Behavior**
- ☒ **Driver Fatigue Risks**

SUNIX Solution

With a focus on **PC**, **SBC**, and **MB** designs, **SUNIX peripherals** help customers overcome these challenges by offering:
- ☑ **Accurate Fuel, RPM, and Throttle Position Monitoring**
- ☑ **Driver Behavior Analysis & Scoring**
- ☑ **AI Facial Recognition for Fatigue Detection & Alerts**

As a trusted partner in the transportation industry, SUNIX delivers rugged, compact M.2 modules for seamless integration into vehicle gateway systems—enhancing driver safety and operational efficiency.

*Telematics = Telecommunication + Information

Serial IO Series

Logicbus

SUNIX

	MSS6456M	SER6456ST	IPC-M2204S	IPC-M3202
PCIe Serial IO Series				
Controller	SUNIX Self-Developed PCIe to Serial Controller (16C950 UART Compatible)			
Interface	RS232	RS232 powered	RS422/485	RS232/422/485
Form Factors	M.2 2242/2280 B+M	PCIe HH	M.2 2280 B+M	M.2 2280 B+M
No. of Port	2 / 4	4	2 / 4	2
Isolation / Surge	n/a	n/a	2KV	n/a

Trusted Market Leader
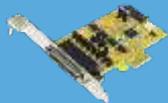SUNIX cards are recognized as leaders in reliability, performance, and variety.

Proven Across Industries
Widely trusted and applied across diverse industries worldwide.

Comprehensive Support
Drivers for Windows, Linux, and more ensure seamless integration.

SER6456ST
PCIe Powered
Serial 4COM card

Powered COM Card
For short-range device connections
like POS systems, barcode scanners,
and payment terminals.

Use Case(Scenario)
POS in Retail Business

In department stores or special sales events, retailers often face the challenge of setting up quickly and efficiently within a short time frame, then moving on to the next location to repeat the process.

Challenges Faced by Customer:
- ☒ **Diverse Devices Connectivity**
- ☒ **Frequent Setup and Teardown**
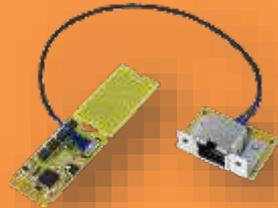- ☒ **Varying Venue Sizes**

SUNIX Solution
With a focus on **PC**, **SBC**, and **MB** designs, **SUNIX peripherals** help customers overcome these challenges by offering:
- ☑ **Comprehensive Certifications**
- ☑ **Fast Setup and Usage**
- ☑ **Quick Switching by Size**

SUNIX is the trusted choice for retail businesses, providing reliable, scalable, and easy-to-integrate solutions that streamline operations and ensure a smooth setup and teardown process across diverse sales environments.

LAN / PoE Series

	M2L1225	LAN2225P	LAN4350PL
LAN / PoE Series			
Controller	Intel I225LM		Intel I350
Data bitrate	2.5GbE	2.5GbE	1GbE
Form Factors	M.2 2242/2280 B+M	PCIe HH	PCIe HH
RJ45 ports	1	1/2	4
IEEE 802.3	Non PoE	AF / AT	AF / AT

Designed for Longevity
Built to last, with long product life cycles and consistent availability that align with industrial planning needs.

High-Efficiency & Trust
SUNIX LAN cards are built with Intel chipsets to guarantee market-proven performance and lasting stability.

Efficient Investment
Designed to maximize performance per dollar, making it ideal for budget-conscious industrial and embedded applications.

Use Case(Scenario)
Smart Healthcare/Assisted Living in Medical Industry

In care facilities, budget constraints and staffing shortages often make it difficult to maintain high-quality care. Caregivers frequently manage multiple residents simultaneously.

Challenges Faced by Customer:
- ☒ **Undetected falls and medical emergencies**
- ☒ **Access control for restricted and hazardous areas**
- ☒ **Balancing privacy and safety**

SUNIX Solution

With a focus on **PC**, **SBC**, and **MB** designs, **SUNIX peripherals** help customers overcome these challenges by offering:
- ☑ **Privacy-preserving fall detection (blurred imaging)**
- ☑ **Real-time access control & alerts**
- ☑ **Behavior monitoring & alerts**

SUNIX is the trusted choice for enhancing resident safety and well-being, delivering high-quality service while optimizing operational efficiency. It's a win-win for both business owners and customers.

LAN4350PL
PCIe LAN Card

SER6456ST
PCIe Serial Card

IPC-M4884I
M.2 DIO Card

PoE LAN Card
Not only connecting cameras but also the management of various smart devices, helping healthcare institutions improve efficiency, enhance patient care, and strengthen security.

Powered COM
Facilitates external device communication for LED displays, RFID readers etc. being utilized in smart healthcare with power and data to enable in one cable.

DIO card
It is widely used in smart healthcare environments for managing digital signals to enhance efficiency, automation, and real-time monitoring.

![Logicbus]

![SUNIX]

LAN4350PL
PCIe LAN Card

IPC-M3202
M.2 Serial Card

IPC-M4884I
M.2 DIO Card

PoE LAN Card
Mainly connecting to cameras, also bridging devices, like access control point, lighting system, audio system, Sensor gateway, the home automation control centers.

RS232/422/485
Facilitates device communication for long-distance multi-device communication, and improving energy management more stable operations.

DIO Card
It is widely used in smart building/home environments for managing the lighting control, access control, appliance control, curtain or blinds control, alert/warming.

Use Case(Scenario)
Smart Building/Smart Home in Construction Industry

Smart buildings and smart homes face a variety of challenges, including issues with interior design, maintenance, and aesthetics, often caused by the numerous devices scattered throughout the facilities.

Challenges Faced by Customer:
- ☒ **Complex Wiring**
- ☒ **Difficult Maintenance and Management**
- ☒ **Space and Aesthetic Issues**

SUNIX Solution
With a focus on **PC**, **SBC**, and **MB** designs, **SUNIX peripherals** help customers overcome these challenges by offering:
- ☑ **Simplified Wiring**
- ☑ **Centralized Management**
- ☑ **One Cable for Space Saving and Easer Installation**

SUNIX is the trusted partner in the construction industry, offering a comprehensive range of add-on cards, including PoE, DIO, and AI solutions, to meet diverse use case requirements.

Why SUNIX

At SUNIX, **our vision is to be the world's No.1 peripheral provider**, delivering cutting-edge connectivity solutions that power businesses across industries. With 4 decades of expertise, we ensure **seamless integration, superior performance, and future-proof technology** for automation, retail, healthcare, and industrial applications.

What Sets SUNIX Apart?

- ✓ **Innovative Design** – Advanced PC, SBC, and MB solutions for diverse industries
- ✓ **Unmatched Reliability** – Industrial-grade products designed for 24/7 operation
- ✓ **Seamless Compatibility** – Broad connectivity support for maximum flexibility
- ✓ **Efficient Deployment** – Quick setup, easy integration, and low maintenance
- ✓ **Global Recognition** – Approved by the worldwide well-known branding companies

The SUNIX Advantage

By going together, you gain more than just a supplier - you gain a **strategic partner** dedicated to **innovation, quality, and customer success**. Our solutions **boost efficiency, reduce costs, and keep businesses ahead of the competition.**

SUNIX - Powering Connectivity, Driving Innovation.

SUNIX

Go Together,
We Go Far and Grow Big!

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