

# New IPC Project

- Why New IPC?
  - Discontinuation of Analog IO & Digital IO Board Production
    - ❖ Cards with the ISA Slot system are no longer manufactured
    - ❖ Supplying second-hand products has various issues (high-cost, unsustainable)



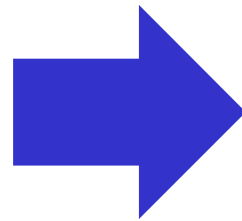
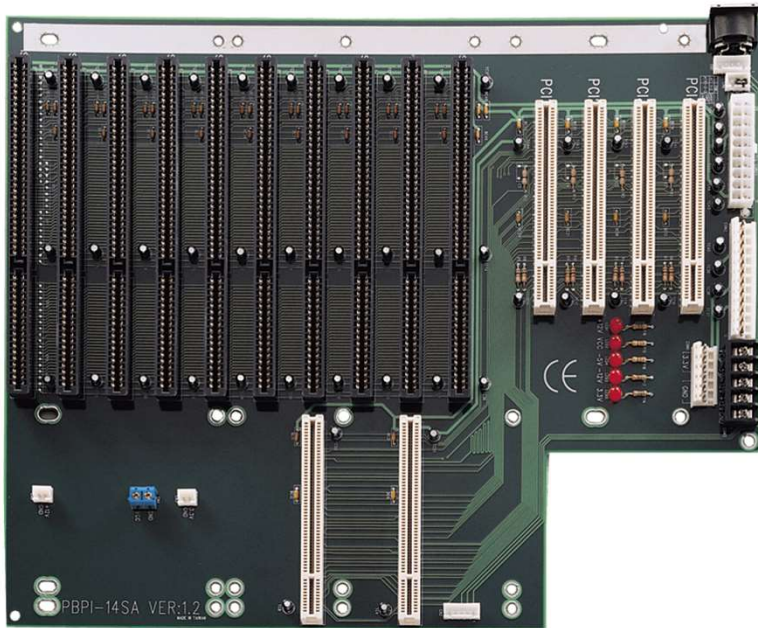
# New IPC Project

- Why New IPC?
  - Discontinuation of SBC(Single board Computer)
    - ❖ Modern SBC does not support Windows 2000 & NT
    - ❖ Although ways to obtain pre-owned products exist, there are numerous problems, such as:
      - ◆ lower system stability
      - ◆ poor product quality
      - ◆ being overpriced



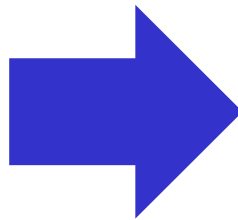
# New IPC Project

- Why New IPC?
  - Discontinuation of Back Plain
    - ❖ Recent version of Back Plain does not include an ISA Slot (previously used Analog & Digital IO Cards = ISA Types)
    - ❖ Back Plain that was originally inserted into IPC is different in size compared to ready-made devices & requires customization



# New IPC Project

- Why New IPC?
  - Power Supply
    - ❖ Deterioration of the power supply causes a decrease in voltage (5V, 12V)
    - ❖ Decrease in 5V voltage causes problems in HDD motion, resulting in SW errors
    - ❖ Strongly encouraged to exchange for a new power supply





# New IPC Project

- Drawbacks of Mattson IPC = Usage of On-Board SBC
- On-Board SBC requires exchange of Rack with Assay when malfunctioning
- Problem: Discontinuation of an identical model of Mattson IPC (Industrial PC manufactured in Simens are upgraded with new versions each year, using different variants of Mattson IPC, therefore old versions are no longer found)



# New IPC Project

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- Solution = Installation of SBC
- Advantage of using SBC instead of On-Board SBC: solely requires the replacement of the SBC without changing other parts
- This solves the problems of IPC with On-Board SBC, which requires replacement of the whole system by changing the Rack with Assay

# New IPC

- All New IPC
  - Windows 7, SHSP 1.6.8
  - Analog IO, Digital IO - PCI type (new)
  - SBC : brand-new, currently distributed with approximately 5 years of guaranteed production without discontinuation
  - Ram : DDR4 4G (new)
  - Dual Ethernet controller 10/100/1000 Base-T
  - 110/220V ATX Power Supply, Maximum Output : 500Watt/0 to 55 - power supply exclusively used for industrial PC
  - 4 SATA port : SATA support 3Gb/s
  - Multi serial controller

# Development Background & Current State of Supply

## Request for Production of 2800 IPC from Company S Line6

- Purpose: applying identical OS (Windows 7) and SW (SHSp1.6.8) for improvement of stability and productivity
- 2900 IPCs are continuously supplied from Mattson; however 2800 IPCs are not supplied, causing problems with compatibility
- Process: 5 IPCs installed after 6 months of development (August 2023)
- Prospective plans: replacement of all 12 devices of 2800 IPC in Company S
- Warranty: 6 months after installment

**All IPC installation takes place on site in all countries**