



NOVAKON



PRODUCT CATALOG

Digitalizing Connectivity. Visualizing the Reality.

NOVAKON

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NOVAKON IIoT Solutions

Bridging the OT and IT systems



About NOVAKON

Drive Digital Transformation and Shape the Future

Novakon Co., Ltd. is a dedicated HMI (Human-Machine Interface) and IIoT (Industrial Internet of Things) software developer and hardware manufacturer, our exceptional customized services provide clients with a wide array of software tailor-made solutions that facilitate unique day-to-day operations without compromise. Over two decades of experience across a vast array of application verticals enables Novakon to offer robust integration services linking data from legacy devices with modern databases.

Company

Founded

September, 2010

Parent Group

iBASE

Technology Inc.
(TPEX 8050)

Solution

Software

HMI / SCADA Software – iFace Designer®

Industrial Protocol Conversion Software – iM-Connect®

Hardware

HMI Control Panel

Industrial Panel PC and Box PC

Industrial IOT Gateway

Service

Hardware and Software

OEM/ODM Customization

NOVAKON Core Competence



- iFace Designer® – HMI Visualization
- iM-Connect® – IIoT Protocol Conversion



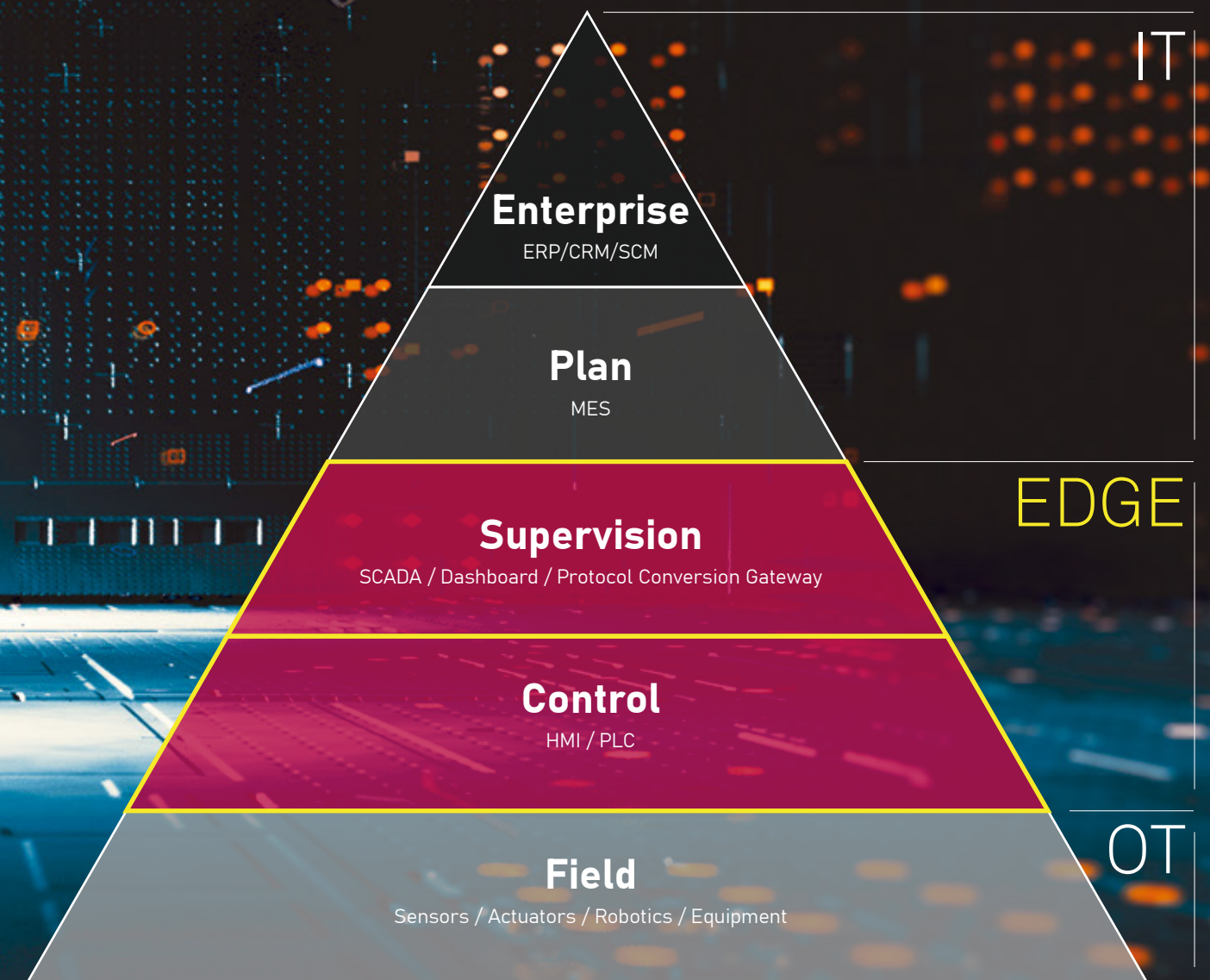
- Software / Hardware
- Application Customization
- Legacy upgrade & replacement



- Industry domain know-how
- Hardware and software integration

Novakon Focused Area

Computer Integrated Manufacturing



Novakon focuses on the edge layer of CIM pyramid for IT/OT convergence. In addition to delivering SCADA and HMI solutions in CIM control and supervision layers, we also provides ideal solutions and customized services for protocol conversion gateway used for data collection as well as dashboard used for enterprise situation room.



Data Center
Power Metering

Application Stories

Novakon is the professional HMI solution provider. We offer products and solutions with proven track of records in various industries and vertical applications, including data center power metering, indoor environmental monitoring, building automation, retail store equipment management, pneumatic torque controller, CNC machine, wastewater treatment, IIoT sewing machine, and all kinds of production and process automation machinery, devoted to create a reliable and flexible interface that connects your facilities or business environments to the Industrial IoT ecosystem.

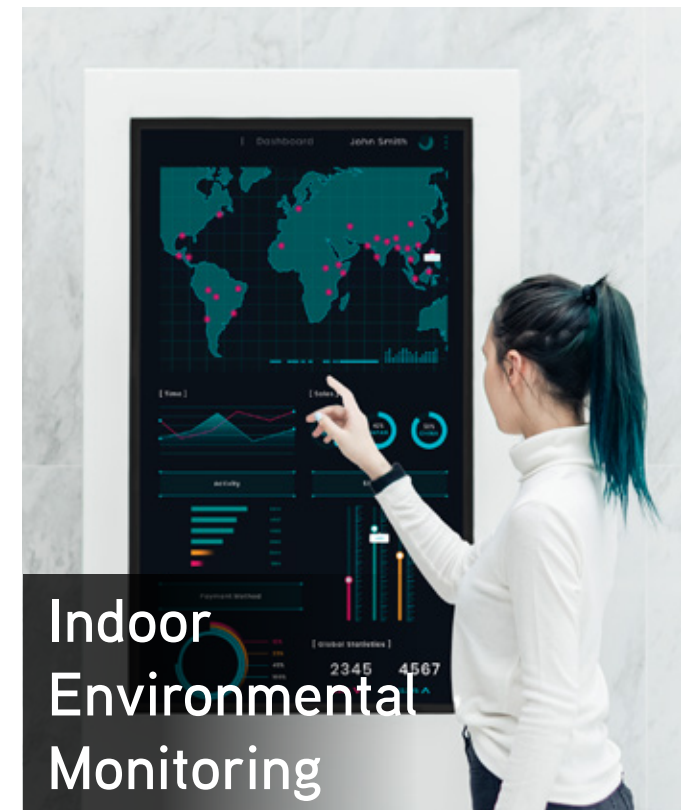
Learn more about our application stories at www.novakon.com.tw



IIoT Sewing
Machine



CNC
Machine



Indoor
Environmental
Monitoring



Pneumatic Torque
Controller



Wastewater
Treatment



Retail Store
Equipment
Management



Building
Automation



Production
Equipment

IIoT Solutions

HMI • Industrial Panel PC • Protocol
Conversion Gateway • Embedded Box PC



iFace Designer®

Intuitive, **F**unctionality, **A**esthetic, **C**onfigurable, **E**asy

iFace Designer® is a cross-platform visualization software, from which the compiled program can be installed and run on both HMI and Industrial Panel PC. Tabs in ribbon UI make it simple and straightforward to develop projects. With a few clicks you can easily reach functions and properties.

01 Quick Toolbar

Small custom toolbar which can include more frequently used commands.

02 File Tab

A file menu with functions for project management.

03 Screen Tab

Quickly alternate between screens for editing.

04 Screen Manager

Screen can be clicked on for editing, viewing, summarizing current content.

05 Screen Editing Area

Edit the content of each screen in the project

06 Sub-Window Shortcuts

Quick commands to open or to close sub-windows.

07 Multi-language & Widget states

Choose from multiple languages and control states to view and to edit.

08 Software Interface Settings

Change the skins or languages for GUI.

09 Ribbon

The ribbon contains multiple tabs with groups of functions for editing convenience and project management.

10 System Widget Library

A rich and elaborate widget library for user to choose from.

11 User Widget Library

User can also easily create a customized library of widgets.

12 Compiled Results

Compilation error messages appear in this window so that user can quickly debug.

13 Zoom, Grid, and Coordinates

Zoom in or out screens for perfect viewing.
Grid and Coordinates for quickly and easily positioning of the widgets on screen.





Diversified Smart Functions

iFace Designer[®] provides smart and powerful functions for visualization, automation, IIoT remote communication and monitoring.

Widget Library
Built-in library of refreshingly designed, easy to use widgets, elegant and stylish.

Macro
Powerful yet simple scripting language for data manipulation, data conversion, and data movement.

Data Logger
High precision sampling time and adjustable data refresh rate. Support data with a max of 32 data fields each log.

Scheduler
Automatic actions according to the pre-defined schedules to increase work efficiency.

Program Simulation
Online and offline simulation to see how your application works with/without connection to controllers right on your PC.

Statistics Charts
Display data logs with charts with a variety of line types and backgrounds.

Trigger Action
According to the programmed conditions to trigger associated actions and alarms.

Report
Data log backup can be further exported into reports in .txt, .csv, or .pdf formats.

Recipe
Easy grouping parameters recipe. Each recipe data field can seamlessly link to widgets.

PLC Drivers and industrial protocols
Support standard industrial communication protocols and mainstream PLC drivers just with simple selection and settings.

CODESYS PLC Handler
Built-in PLCHandler for the communication between CODESYS Soft PLCs controller and HMI. CODESYS symbol .xml file import supported.

PLC Pass Through
Create a tunnel for PC to directly monitor and control PLC, upload and download PLC program to PLC through HMI without extra connection.

VNC
Remote control and monitoring of HMI can be easily achieved through VNC connection.

VPN
VPN enables all the remote control and monitoring across firewalls and networks via a secured tunnel.

FTP
Data logs, historical alarm tables, recipes, screen captures, and HMI project can be remotely upload or download via FTP.

MQTT
Support both MQTT (Message Queuing Telemetry Transport) server and client for message exchange between publisher and subscriber.

RESTful API
Sends requests and receives responses in JSON format while avoiding security breaches with HTTPS encryption algorithm.

OPC UA
Built-in OPC UA server and client for data exchange with standardized communication and interoperability.

Custom Keyboard
Enhance efficiency and experience with customizable on-screen keyboards tailored for flexible, intuitive input.

Label Library
By modifying the Label Library, all text that references it will be automatically updated, eliminating the need to edit each page individually.

iM-Connect®

Intelligent, Machine, Connect

iM-Connect® is a web-based and simple-to-use programming software that supports a variety of industrial communication protocols, PLC drivers, and IIOT cloud connections as a simple but reliable protocol conversion and data acquisition platform for the "Connected" industries.

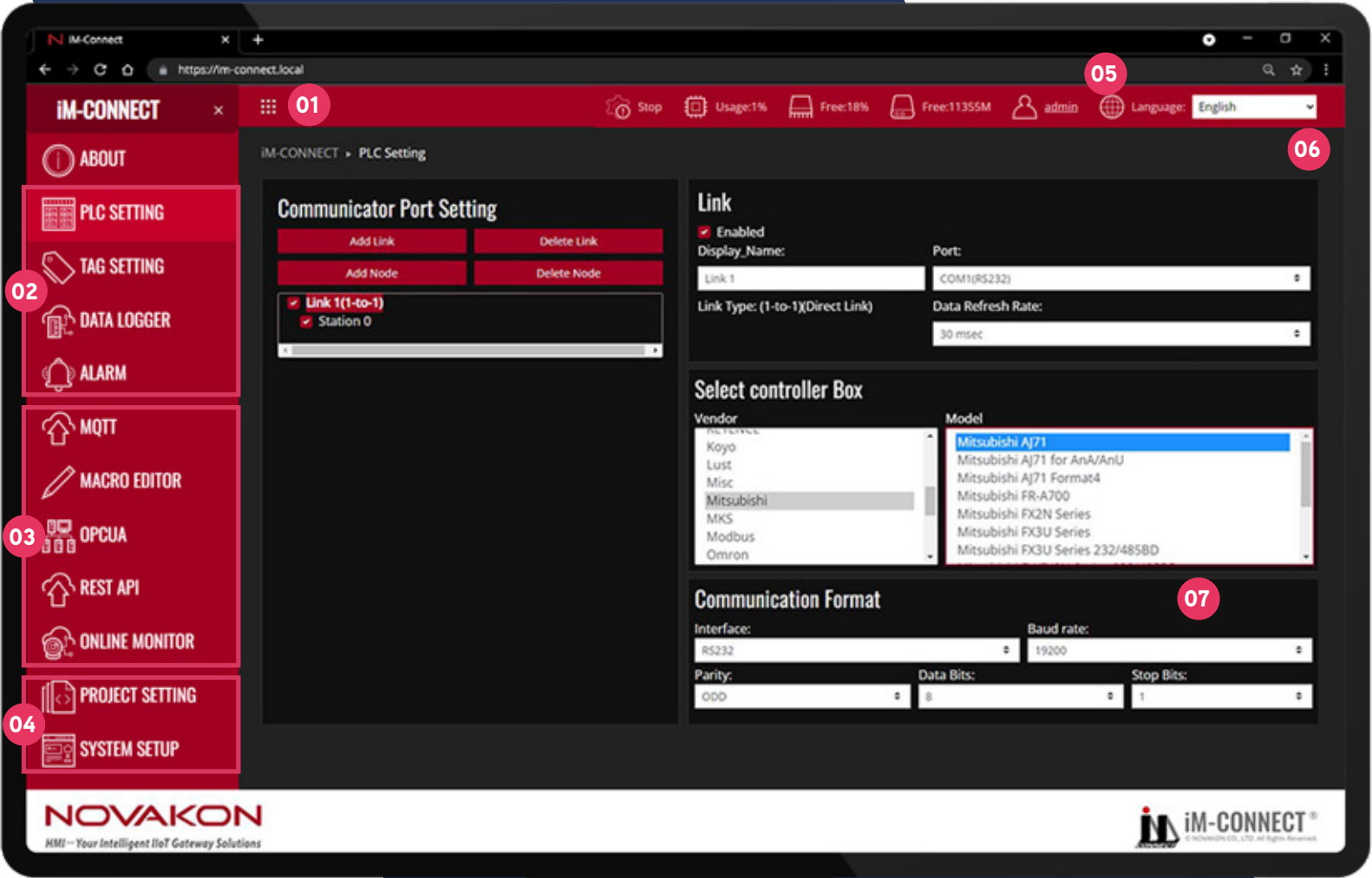
- 01

iM-Connect Menu
Contains the directory of each iM-Connect functions.
- 02

Basic Settings
The setup of PLC, tag, data logger, and alarm are identical to iFace Designer. Easy hands-on across two softwares without efforts.
- 03

Advanced Settings
Advanced functions including MQTT, Macro, OPCUA, Online Monitor, Rest API, etc.
- 04

Project and System Setup
Project and system related settings , such as save and compile, download/upload, start/stop of the project; System operating status, network parameters, date and time, and security settings



- 05

Gateway URL
Enter the URL into the web browser to access the iM-Connect webpage.
- 06

System Status Bar
View the current usage and remaining capacity of the system as well as runtime status, username and current selected language.
- 07

Function Setting Area
Select and configure the parameters of each functions.



Diversified Smart Functions

iM-Connect[®] offers an easy-to-use configuration interface on the web browser to empowers the hardware platform with data acquisition and protocol conversion capabilities, which helps the challenging work for legacy equipment upgrade across industries.

Data Logger

High precision sampling time and adjustable data refresh rate. Support data with a max of 32 data fields each log.

PLC Drivers and industrial protocols

Support standard industrial communication protocols and mainstream PLC drivers just with simple selection and settings.

MQTT

Support both MQTT (Message Queuing Telemetry Transport) server and client for message exchange between publisher and subscriber.

Online Monitor

Real-time monitor the current tag values and status from the controllers connected to gateway.

Report

Data log backup can be further exported into reports in .txt, .csv, or .pdf formats.

CODESYS PLC Handler

Built-in PLCHandler for the communication between CODESYS Soft PLCs controller and Gateway. CODESYS symbol .xml file import supported.

RESTful API

Sends requests and receives responses in JSON format while avoiding security breaches with HTTPS encryption algorithm.

Online Upgrade

Support software version as well as PLC driver library online upgrade.

Macro

Based on JavaScript, it's a powerful yet simple tool for data manipulation, data conversion, and data movement.

VPN

VPN enables all the remote control and monitoring across firewalls and networks possible.

OPC UA

Built-in OPC UA server and client for data exchange with standardized communication and interoperability.

Database Connection

Data log can be pushed to Databases, such as MySQL, MS SQL, and SQLite when triggered by condition or at any given interval.

Security

Login with username and password. User can be set to two different security levels for different access: administrator (modified and view) or user (view only).

FTP

Data log backup can be remotely upload or download via FTP.

Email & LINE Messaging API

Alarm and event messages can be sent through Email and LINE Messaging API when the defined condition is met.

SECS/GEM

Different equipment data can be collected and converted to meet Semiconductor and PCB industry specific standard.

Custom OEM / ODM Services

Servicing the industries and catering to every UNIQUE demand

Novakon is committed to providing customers with tailor-made solutions that facilitate unique day-to-day operations without compromise. We offer custom services from board level, system products, software to turnkey ODM solutions.

- Programming Services
- Application Customization Services
- Legacy Upgrade & Replacement Services

Any custom software requirement, please contact us at sales@novakon.com.tw

NOVAKON



Industrial PC

NPP / NBP Series
NRP / NRB Series
NOF / NFP Series

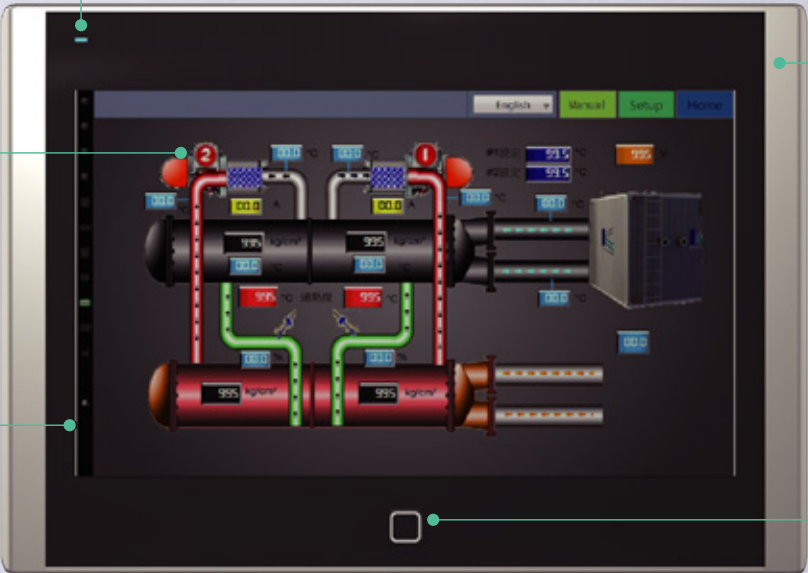
HMI

N Series
P Series
E Series
NWH Series

Gateway
GW Series

Industria IIoT Gateway

Blue LED power indicator



Bright, wide viewing angle, full color TFT

Customizable status bar

Brushed silver, metal-look frame

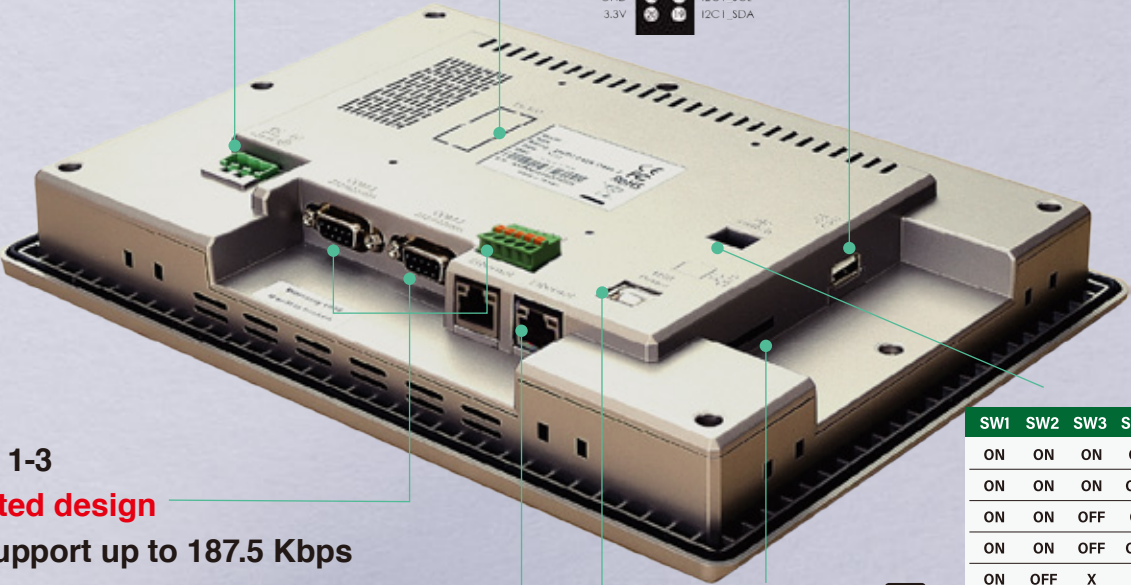
Customizable home key (min. 100,000 cycles)

DC Power
Isolated design
24V ± 20%

GPIO

GPIO	
5V/3.3V	nSPI_CS0
GND	nSPI_INT0
SPI1_SCL	nSPI_CS1
SPI1_DC	nSPI_INT1
SPI1_DI	nSPI_CS2
UART_TX	nSPI_INT2
UART_RX	nSPI_CS3
nSPI_CS4	nSPI_INT3
GND	I2C1_SCL
3.3V	I2C1_SDA

USB (master)



COM 1-3
Isolated design
All support up to 187.5 Kbps

SW1	SW2	SW3	SW4	Main Function
ON	ON	ON	ON	Normal Operation
ON	ON	ON	OFF	Bypass Self-Test
ON	ON	OFF	OF	Reserved
ON	ON	OFF	OFF	System Menu
ON	OFF	X	X	Reserved
OFF	ON	X	X	COM Port Test
OFF	OFF	OFF	OFF	Bench Test
OFF	OFF	OFF	ON	Individual Function Test
OFF	OFF	ON	X	Reserved

SD Card



Ethernet 1 & 2 (option)

USB (device)



DIN-rail Clip



DC Power
Isolated Design
24V ± 20%

Recovery USB Drive



COM
RS-232
RS-422/485

*1 connector split to 2 types of serial connections

LAN1
10/100 Mbit Ethernet Port

LAN2
10/100 Mbit Ethernet Port

Modular Panel PC



Fully **IP66** and **IP69K**-rated
SUS316 stainless steel
chassis

Side button for Touchscreen and Backlight on/off

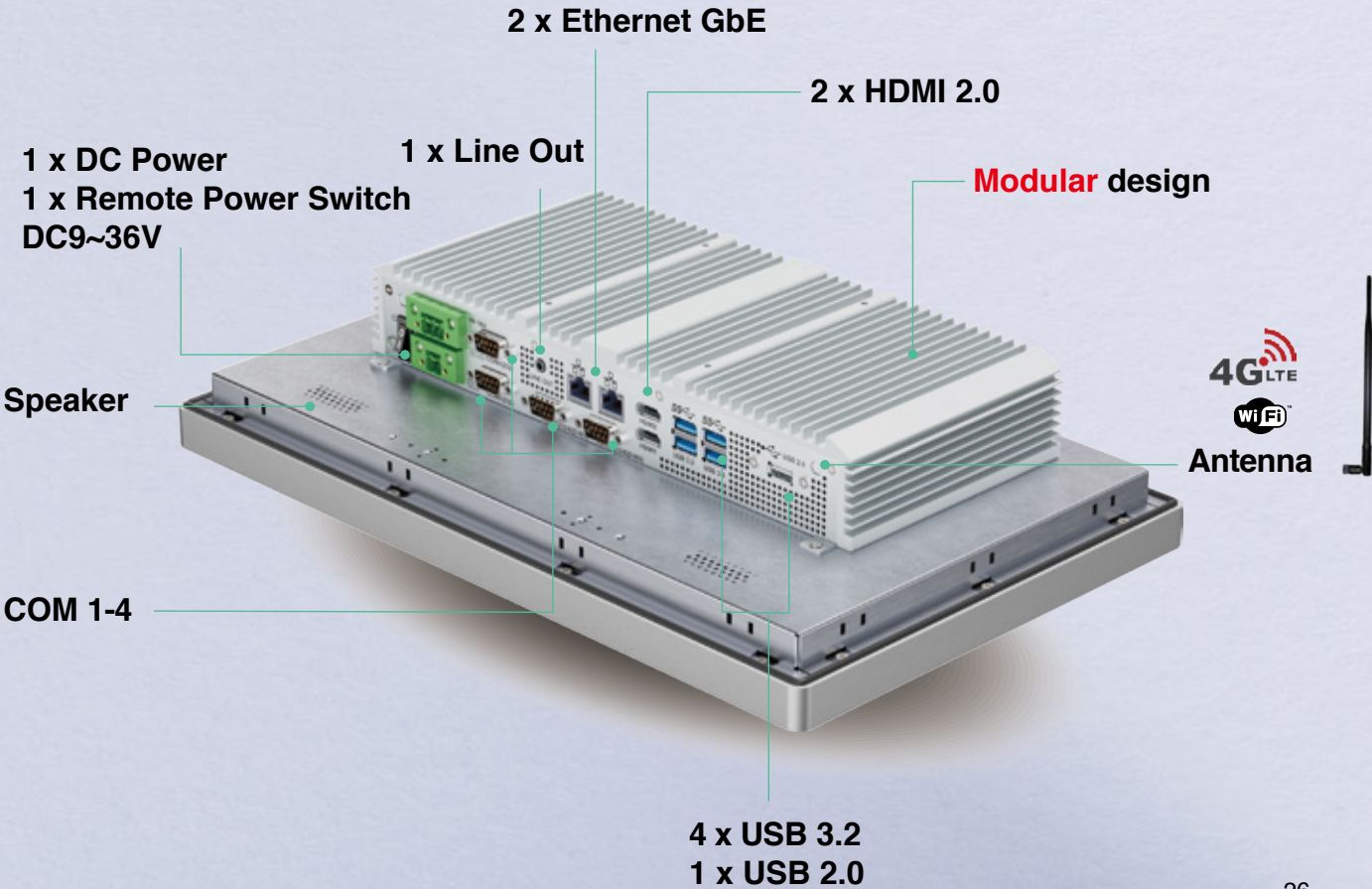


Rear M12 I/Os



Full HD
1920x1080
TFT-LCD

IP66-rated
aluminum
front narrow
bezel and steel
chassis



1 x DC Power
1 x Remote Power Switch
DC9~36V

1 x Line Out

2 x Ethernet GbE

2 x HDMI 2.0

Modular design

Speaker

COM 1-4

4 x USB 3.2
1 x USB 2.0

4G^{LTE}
WiFi
Antenna

Slim Bezel Panel PC

Front Panel **IP66**

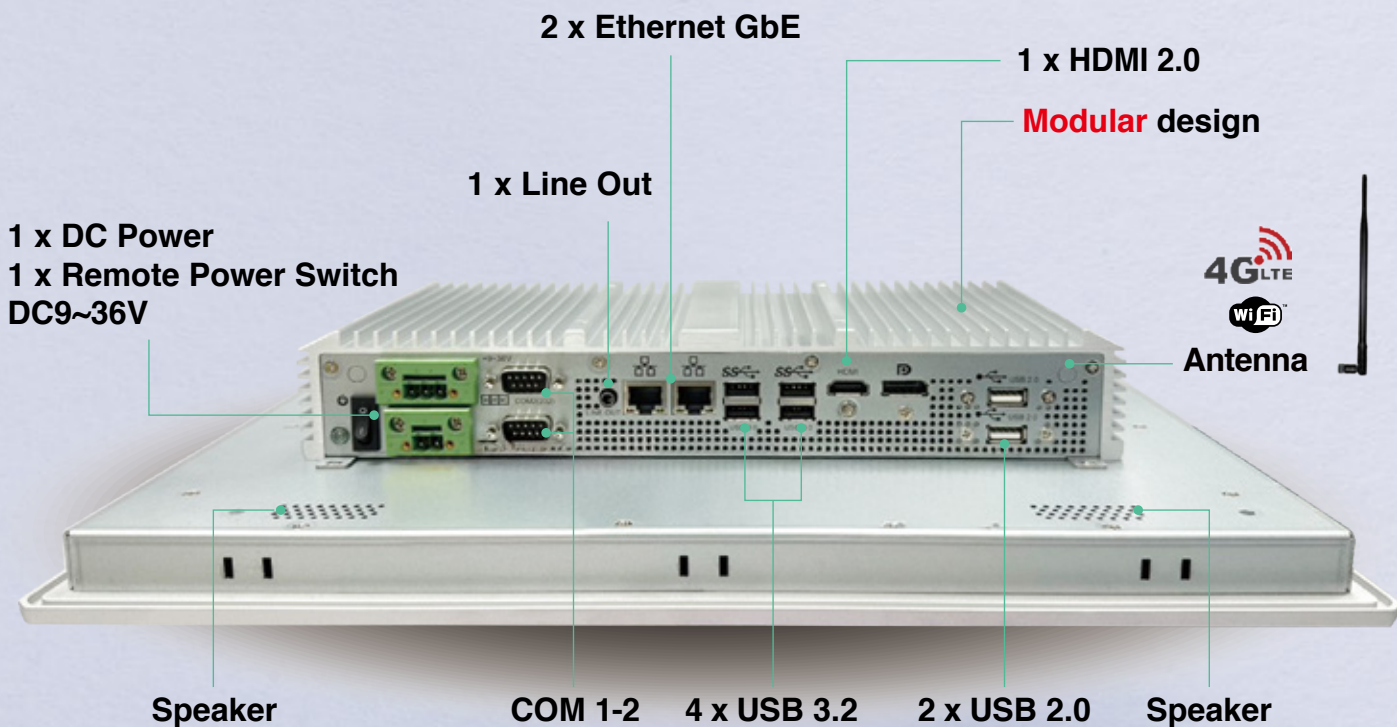
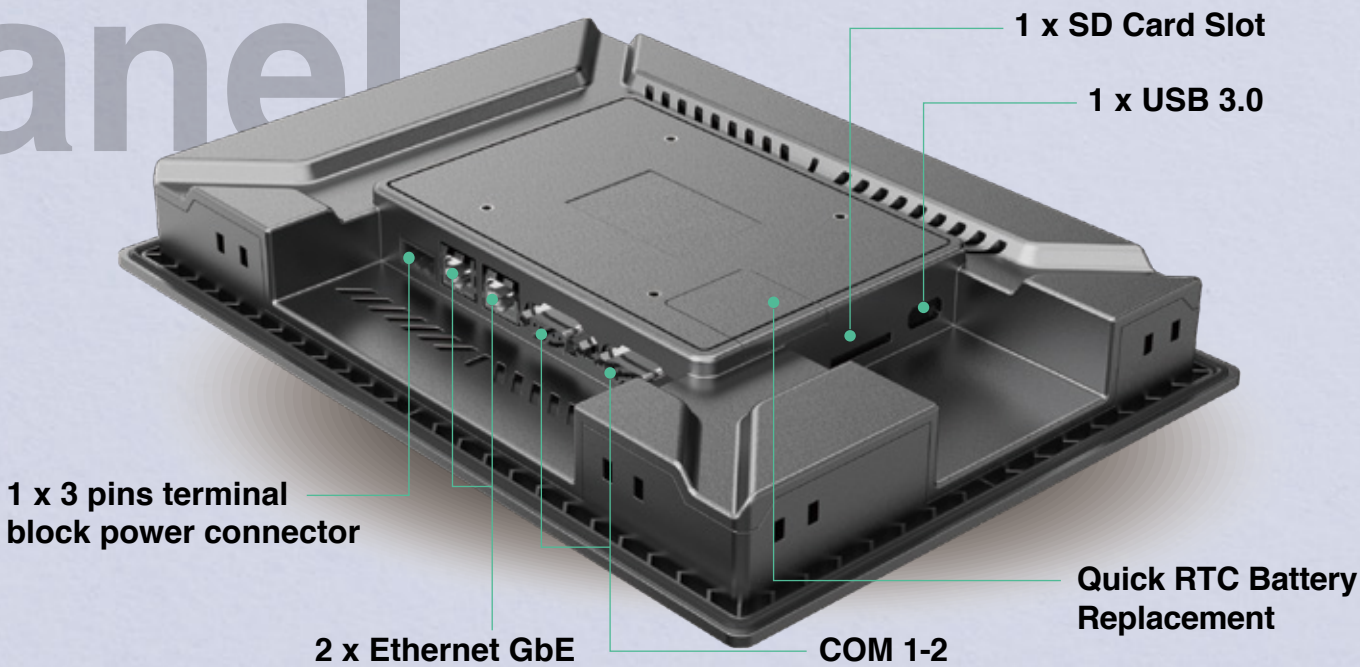


Front Panel **IP66**

Slim Bezel



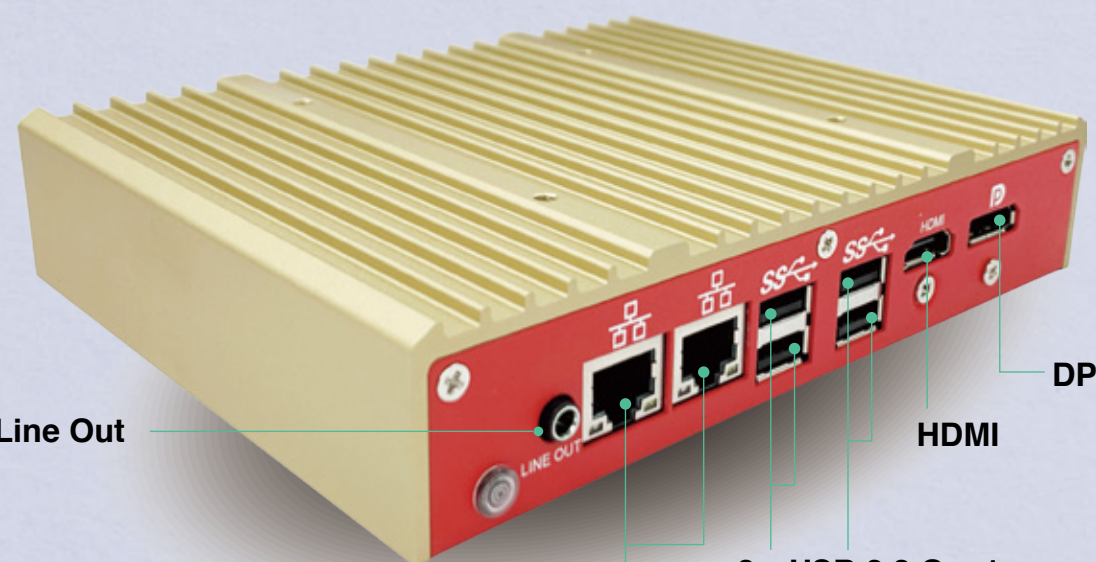
ARM-based Control Panel



Compact Box PC



Power Button 3 pins terminal block power connector COM RS-232 COM RS-232/422/485



1 x Line Out 2 x 2.5GbE 2 x USB 3.2 Gen1, 2 x USB 3.2 Gen2 HDMI DP

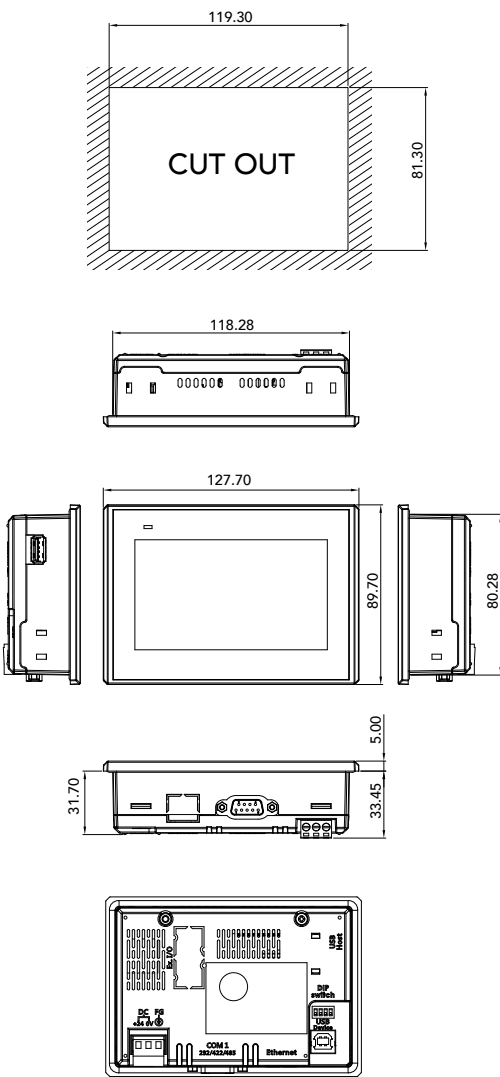
Waterproof Box PC



Industrial HMI Operator Panel

N04

HMI
N SERIES



Features

- ARM 9 (400 MHz)
- 4.3" TFT 480 x 272, 500 cd/m², 20,000 hours
- 19.2 ~ 28.8V, Isolated Power
- Plastic chassis, fan-less design
- Panel mount, IP65 front bezel
- Suitable for industrial applications

Specifications

CPU	ARM 9 (400 MHz)
Memory	128MB SDRAM
Storage	128MB NAND Flash
I/O	1 x USB 1.1 host Type A 1 x USB 2.0 device Type B 1 x RS232 1 x RS422/485, COM1 1 x 10/100 Mbit Ethernet Port
Display	4.3" TFT, 480 x 272 Luminance 500 (cd/m ²) View angle 140/120 (H°/V°) Backlight Lifetime 20,000 hours Contrast ratio 500:1
Touch Screen	4-wire resistive touch
Power	19.2 ~ 28.8V Isolated Power
Construction	Plastic IP65 front bezel
Net Weight(Kgs)	0.25 Kg
Mounting	Panel mount
Dimensions (mm)	127.7(W) x 89.7(H) x 36.7(D)
Operating Temp.	0°C ~ 45°C
Storage Temp.	-20°C ~ 60°C
Humidity	10% to 90% @ 40°C, (non-condensing)
Certification	CE/FCC (EN 61000-6-4, EN 61000-6-2)/UL

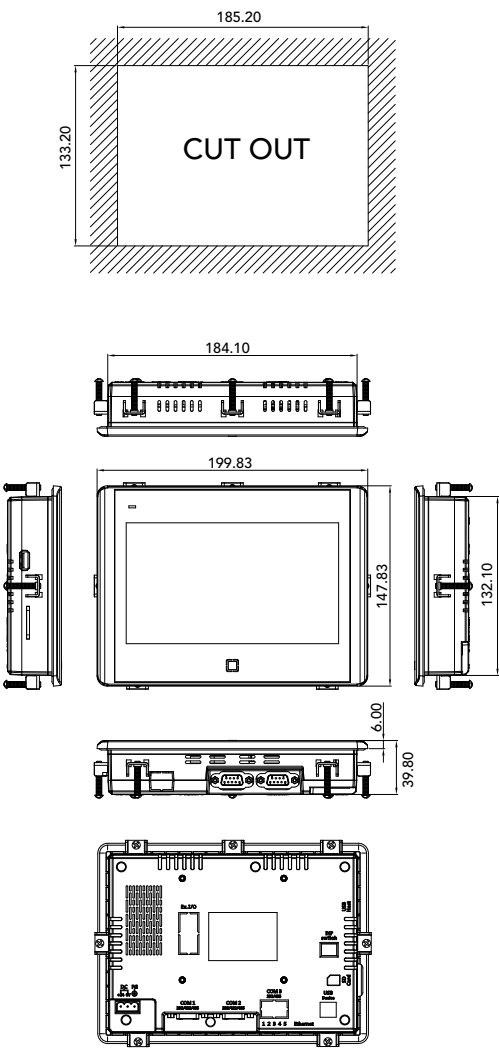
Ordering Information

N04F-N
4.3" TFT 480 x 272 fan-less HMI with ARM 9 (400 MHz) CPU, 128MB RAM, 128M Flash, resistive touch screen, Ethernet, 19.2 ~ 28.8V isolated power, plastic chassis and IP65 front bezel

Industrial HMI Operator Panel

N07

HMI
N SERIES



Features

- ARM 9 (400 MHz)
- 7" TFT 800 x 480, 250 cd/m², 20,000 hours
- 19.2 ~ 28.8V, Isolated Power
- Painted plastic chassis, fan-less design
- Panel or VESA 75mm x 75 mm mount, IP65 front bezel
- Suitable for industrial applications

Specifications

CPU	ARM 9 (400 MHz)
Memory	128MB SDRAM
Storage	128MB NAND Flash
I/O	1 x USB 1.1 host Type A 1 x USB 2.0 device Type B 2 x RS232/422/485, COM1, COM2 1 x RS232/485, COM3 1 x 10/100 Mbit Ethernet Port 1 x SD Card Slot
Display	7" TFT, 800 x 480 Luminance 250 (cd/m ²) View angle 140/120 (H°/V°) Backlight Lifetime 20,000 hours Contrast ratio 500:1
Touch Screen	4-wire resistive touch
Power	19.2 ~ 28.8V Isolated Power
Construction	Painted Plastic IP65 front bezel
Net Weight(Kgs)	0.68 Kg
Mounting	Panel or VESA 75 x 75 mount
Dimensions (mm)	199.8(W) x 147.8(H) x 39.8(D)
Operating Temp.	0°C ~ 50°C
Storage Temp.	-20°C ~ 60°C
Humidity	10% to 90% @ 40°C, (non-condensing)
ESD Protection	Level 4 (Contact Discharge 8KV, Air-Gap Discharge 15KV), Class A (Option)
Certification	CE/FCC (EN 61000-6-4, EN 61000-6-2)/UL

Ordering Information

N07F-N
7" TFT 800 x 480 fan-less HMI with ARM9 (400 MHz) CPU, 128MB RAM, 128M Flash, resistive touch screen, Ethernet, 19.2 ~ 28.8V isolated power, painted plastic chassis and IP65 front bezel

Industrial HMI Operator Panel

P07

HMI
P SERIES

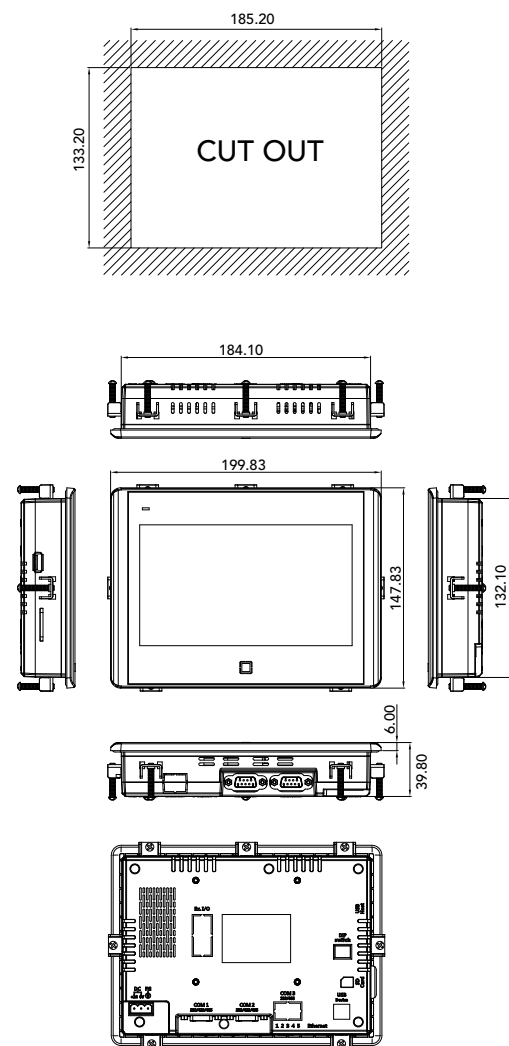


Features

- ARM® Cortex™-A8 (1GHz)
- 7" TFT 800 x 480, 250 cd/m², 20,000 hours
- 19.2 ~ 28.8V, Isolated Power
- Painted plastic chassis, fan-less design
- Panel or VESA 75mm x 75 mm mount, IP65 front bezel
- ESD Protection : Level 4 (Contact Discharge 8KV, Air-Gap Discharge 15KV), Class A
- Suitable for industrial applications

Specifications

CPU	ARM® Cortex™-A8 (1GHz)
Memory	512MB SDRAM
Storage	4GB eMMC
I/O	1 x USB 2.0 host Type A 1 x USB 2.0 device Type B 2 x RS232/422/485, COM1, COM2 1 x RS232/485, COM3 or CAN Bus (Option) 1 x 10/100 Mbit Ethernet Port 1 x SD Card Slot
Display	7" TFT, 800 x 480 Luminance 250 (cd/m²) View angle 140/120 (H°/V°) Backlight Lifetime 20,000 hours Contrast ratio 500:1
Touch Screen	4-wire resistive touch
Power	19.2 ~ 28.8V Isolated Power
Construction	Painted Plastic IP65 front bezel
Net Weight(Kgs)	0.68 Kg
Mounting	Panel or VESA 75 x 75 mount
Dimensions (mm)	199.8(W) x 147.8(H) x 39.8(D)
Operating Temp.	0°C ~ 50°C
Storage Temp.	-20°C ~ 60°C
Humidity	10% to 90% @ 40°C, (non-condensing)
ESD Protection	Level 4 (Contact Discharge 8KV, Air-Gap Discharge 15KV), Class A
Certification	CE/FCC (EN 61000-6-4, EN 61000-6-2)/UL



Ordering Information

P07F-N

7" TFT 800 x 480 fan-less HMI with ARM Cortex-A8(1GHz) CPU, 512MB RAM, 4GB eMMC, resistive touchscreen, Ethernet, 19.2 ~ 28.8V isolated power, painted plastic chassis and IP65 front bezel

Industrial HMI Operator Panel

P10

HMI
P SERIES

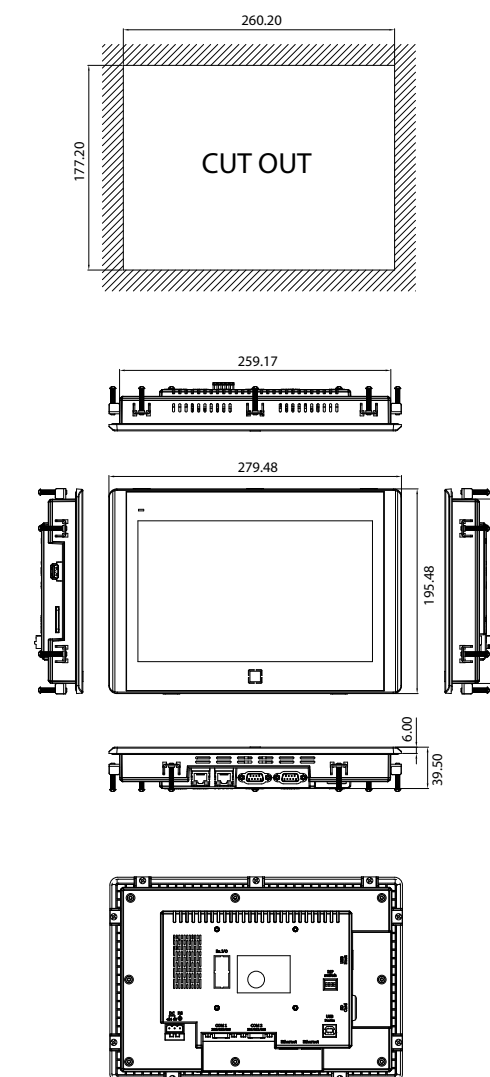


Features

- ARM® Cortex™-A8 (1GHz)
- 10.2" TFT 800 x 480, 350 cd/m², 20,000 hours
- 19.2 ~ 28.8V, Isolated Power
- Painted plastic chassis, fan-less design
- Panel or VESA 75mm x 75 mm mount, IP65 front bezel
- ESD Protection : Level 4 (Contact Discharge 8KV, Air-Gap Discharge 15KV), Class A
- Suitable for industrial applications

Specifications

CPU	ARM® Cortex™-A8 (1GHz)
Memory	512MB SDRAM
Storage	4GB eMMC
I/O	1 x USB 2.0 host Type A 1 x USB 2.0 device Type B 2 x RS232/422/485, COM1, COM2 1 x RS232/485, COM3 or CAN Bus (Option) 1 x 10/100 Mbit Ethernet Port 1 x SD Card Slot
Display	10.2" TFT, 800 x 480 Luminance 350 (cd/m²) View angle 130/110 (H°/V°) Backlight Lifetime 20,000 hours Contrast ratio 300:1
Touch Screen	4-wire resistive touch
Power	19.2 ~ 28.8V Isolated Power
Construction	Painted Plastic
Net Weight(Kgs)	1.1 Kg
Mounting	Panel or VESA 75 x 75 mount
Dimensions (mm)	279.5(W) x 195.5(H) x 39.5(D)
Operating Temp.	0°C ~ 50°C
Storage Temp.	-20°C ~ 60°C
Humidity	10% to 90% @ 40°C, (non-condensing)
ESD Protection	Level 4 (Contact Discharge 8KV, Air-Gap Discharge 15KV), Class A
Certification	CE/FCC (EN 61000-6-4, EN 61000-6-2)/UL



Ordering Information

P10F-N

10.2" TFT 800 x 480 fan-less HMI with ARM Cortex-A8 (1GHz) CPU, 512MB RAM, 4GB eMMC, resistive touch screen, Ethernet, 19.2 ~ 28.8V isolated power, painted plastic chassis and IP65 front bezel

Industrial HMI Operator Panel

P12

HMI
P SERIES

Industrial HMI Operator Panel

P15

HMI
P SERIES

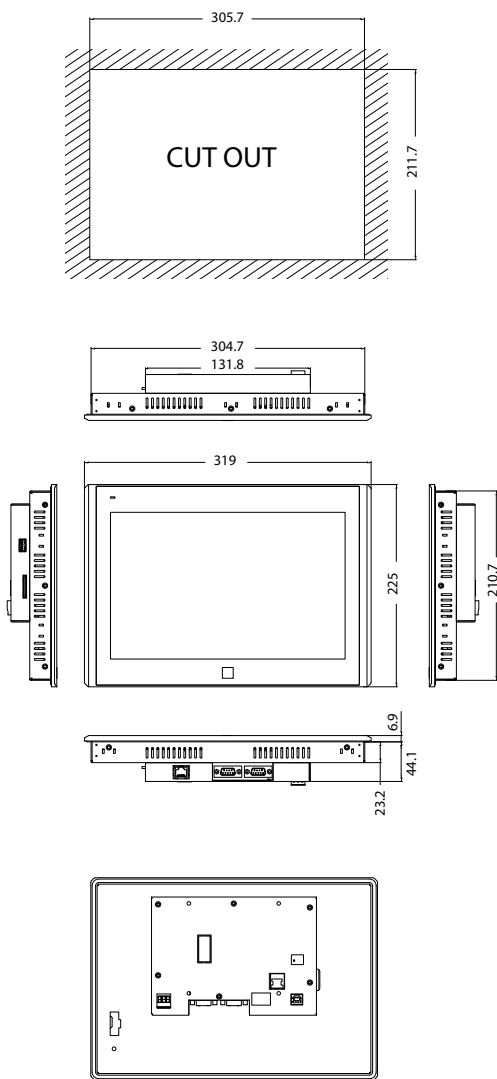


Features

- ARM® Cortex™-A8 (1GHz)
- 12.1" TFT 1280 x 800, 600 cd/m², 50,000 hours
- 19.2 ~ 28.8V, Isolated Power
- Aluminum IP65 front bezel and steel chassis
- Panel or VESA 100 mm x 100 mm mount
- Suitable for industrial applications

Specifications

CPU	ARM® Cortex™-A8 (1GHz)
Memory	512MB SDRAM
Storage	4GB eMMC
I/O	1 x USB 2.0 host Type A 1 x USB 2.0 device Type B 2 x RS232/422/485, COM1, COM2 1 x RS232/485, COM3 or CAN Bus (Option) 1 x 10/100 Mbit Ethernet Port 1 x SD Card Slot
Display	12.1" TFT, 1280 x 800 Luminance 600 (cd/m²) View angle 176/176 (H°/V°) Backlight Lifetime 50,000 hours Contrast ratio 1000:1
Touch Screen	5-wire resistive touch
Power	19.2 ~ 28.8V Isolated Power
Construction	Aluminum IP65 front bezel and steel chassis
Net Weight(Kgs)	4.3 Kg
Mounting	Panel or VESA 100 x 100 mount
Dimensions (mm)	319.0(W) x 225.0(H) x 50.6(D)
Operating Temp.	0°C ~ 50°C
Storage Temp.	-20°C ~ 60°C
Humidity	10% to 90% @ 40°C, (non-condensing)
Certification	CE/FCC (EN 61000-6-4, EN 61000-6-2)



Ordering Information

P12F-N
12.1" TFT 1280 x 800 fan-less HMI with ARM Cortex-A8 (1GHz) CPU, 512MB RAM, 4GB eMMC, resistive touch screen, Ethernet, 19.2 ~ 28.8V isolated power, aluminum front bezel, steel rear chassis

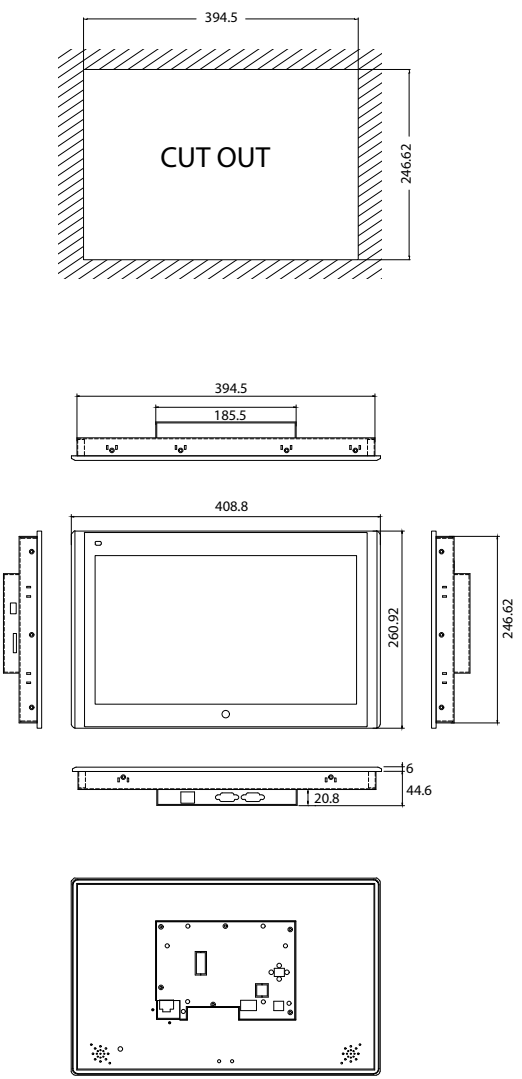


Features

- ARM® Cortex™-A8 (1GHz)
- 15.6" TFT 1366 x 768, 500 cd/m², 50,000 hours
- 19.2 ~ 28.8V, Isolated Power
- Aluminum IP65 front bezel and steel chassis
- Panel or VESA 100 mm x 100 mm mount
- Suitable for industrial applications

Specifications

CPU	ARM® Cortex™-A8 (1GHz)
Memory	512MB SDRAM
Storage	4GB eMMC
I/O	1 x USB 2.0 host Type A 1 x USB 2.0 device Type B 2 x RS232/422/485, COM1, COM2 1 x RS232/485, COM3 or CAN Bus (Option) 1 x 10/100 Mbit Ethernet Port 1 x SD Card Slot
Display	15.6" TFT, 1366 x 768 Luminance 500 (cd/m²) View angle 160/150 (H°/V°) Backlight Lifetime 50,000 hours Contrast ratio 600:1
Touch Screen	5-wire resistive touch
Power	19.2 ~ 28.8V Isolated Power
Construction	Aluminum IP65 front bezel and steel chassis
Net Weight(Kgs)	5.8 Kg
Mounting	Panel or VESA 100 x 100 mount
Dimensions (mm)	408.8(W) x 260.9(H) x 50.6(D)
Operating Temp.	0°C ~ 50°C
Storage Temp.	-20°C ~ 60°C
Humidity	10% to 90% @ 40°C, (non-condensing)
Certification	CE/FCC (EN 61000-6-4, EN 61000-6-2)



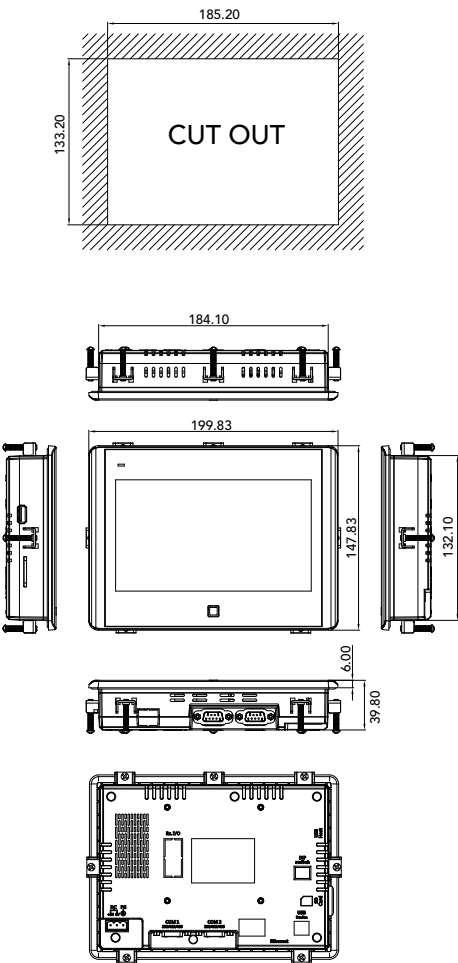
Ordering Information

P15F-N
15.6" TFT 1366 x 768 fan-less HMI with ARM Cortex-A8 (1GHz) CPU, 512MB RAM, 4GB eMMC, resistive touch screen, Ethernet, 19.2 ~ 28.8V isolated power, aluminum front bezel, steel rear chassis

Industrial HMI Operator Panel

E07

HMI
E SERIES



Features

- ARM® Cortex™-A8 (1GHz)
- 7" TFT 800 x 480, 400 cd/m², 20,000 hours
- 19.2 ~ 28.8V power Input
- Painted plastic chassis, fan-less design
- Panel or VESA 75 x 75 (mm) mount, IP65 front bezel

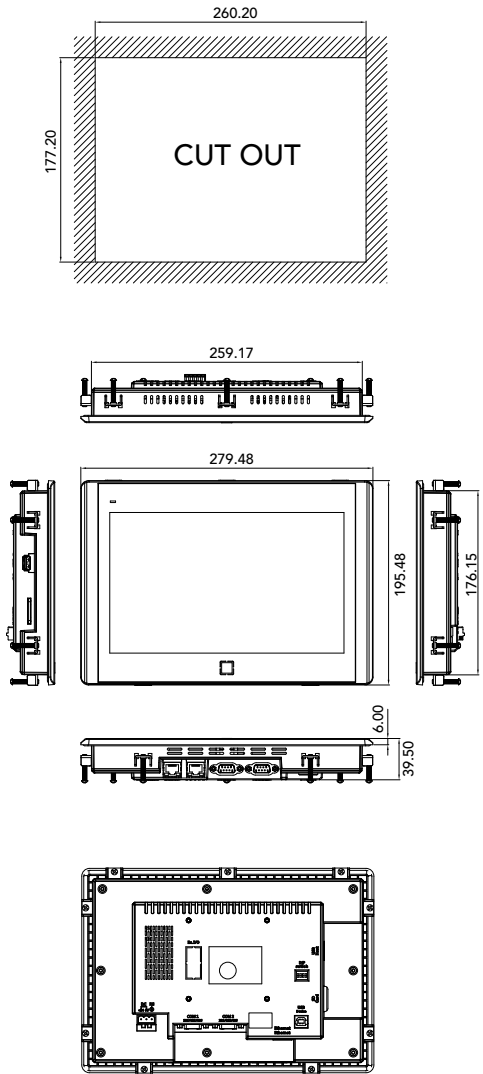
Specifications

CPU	ARM® Cortex™-A8 (1GHz)
Memory	512MB SDRAM
Storage	4GB eMMC
I/O	1 x USB 2.0 host Type A 1 x USB 2.0 device Type B 2 x RS232/422/485, COM1, COM2 1 x 10/100 Mbit Ethernet Port 1 x SD Card Slot
Display	7" TFT, 800 x 480 Luminance 400 (cd/m²) View angle 160/130 (H°/V°) Backlight Lifetime 20,000 hours Contrast ratio 800:1
Touch Screen	4-wire resistive touch
Power	19.2 ~ 28.8V
Construction	Painted Plastic
Net Weight(Kgs)	0.68 Kg
Mounting	Panel or VESA 75 x 75 (mm) mount
Dimensions (mm)	199.8(W) x 147.8(H) x 39.8(D)
Operating Temp.	0°C~ 50°C
Storage Temp.	-20°C ~ 60°C
Humidity	10% to 90% @ 40°C, (non-condensing)
Certification	CE/FCC (EN 61000-6-4, EN 61000-6-2)

Industrial HMI Operator Panel

E10

HMI
E SERIES



Features

- ARM® Cortex™-A8 (1GHz)
- 10.2" TFT 800 x 480, 350 cd/m², 20,000 hours
- 19.2 ~ 28.8V power input
- Painted plastic chassis, fan-less design
- Panel or VESA 75 x 75 (mm) mount, IP65 front bezel

Specifications

CPU	ARM® Cortex™-A8 (1GHz)
Memory	512MB SDRAM
Storage	4GB eMMC
I/O	1 x USB 2.0 host Type A 1 x USB 2.0 device Type B 2 x RS232/422/485, COM1, COM2 1 x 10/100 Mbit Ethernet Port 1 x SD Card Slot
Display	10.2" TFT, 800 x 480 Luminance 350 (cd/m²) View angle 130/110 (H°/V°) Backlight Lifetime 20,000 hours Contrast ratio 300:1
Touch Screen	4-wire resistive touch
Power	19.2 ~ 28.8V
Construction	Painted Plastic
Net Weight(Kgs)	1.1 Kg
Mounting	Panel or VESA 75 x 75 (mm) mount
Dimensions (mm)	279.5(W) x 195.5(H) x 39.5(D)
Operating Temp.	0°C~ 50°C
Storage Temp.	-20°C ~ 60°C
Humidity	10% to 90% @ 40°C, (non-condensing)
Certification	CE/FCC (EN 61000-6-4, EN 61000-6-2)

Selection Guide

HMI
SERIES

N-SERIES / E-SERIES

Model		N04	N07	E07	E10
		N04F-N	N07F-N	E07F-N	E10F-N
Display	Display type	4.3" TFT	7" TFT	7" TFT	10.2" TFT
	Resolution	480 x 272	800 x 480		
	Color depth	64K		16.7M	
	Backlight type	LED			
	Luminance (cd/m²)	500	250	400	350
	Backlight lifetime	20,000 hours		20,000 hours	
	Viewing angle (H°/V°)	140/120	140/120	160/130	130/110
	Contrast	500:1		800:1	300:1
	Dimming	20 levels			
System	CPU	ARM9 (400 MHz)		ARM® Cortex™-A8 (1GHz)	
	Storage	128MB NAND Flash		4GB eMMC	
	Memory	128MB		512MB	
	RTC	Yes			
Interface	Touch Screen	4-wire resistive type			
	COM1	1 x RS232, 1 x RS422/485	RS232/422/485		
	COM2	-	RS232/422/485		
	COM3	-	RS232/485	-	
	Ethernet	1 x 10/100Mbit			
	USB	1 x Type A (Host), 1 x Type B (Device)			
	Memory card	-	SD Card		
Ratings	Power supply voltage	19.2 ~ 28.8V, Isolated Power			
	Power consumption	6W	8W	8W	10W
	Weight (kg)	0.25	0.68	0.68	1.1
	Battery	CR2032 Replaceable			
Environment	Operation temperature	0 ~ 45°C	0 ~ 50°C		
	Storage temperature	-20 ~ 60°C			
	Humidity	10% ~ 90% (non-condensing)@40°C			
Mechanical	Construction	Plastic			
	Protection	IP65 (Front)			
	Mounting (mm)	Panel Mount	Panel Mount, VESA 75 x 75		
	Dimension (mm)	127.7(W) x 89.7(H) x 36.7(D)	199.8(W) x 147.8(H) x 39.8(D)	199.8(W) x 147.8(H) x 39.8(D)	279.5(W) x 195.5(H) x 39.5(D)
	Cut-out (mm)	119.3(W) x 81.3(H)	185.2(W) x 133.2(H)	185.2(W) x 133.2(H)	260.2(W) x 177.2(H)
Approvals	Certification	CE / FCC (EN 61000-6-4, EN 61000-6-2) / UL		CE / FCC (EN 61000-6-4, EN 61000-6-2)	
Software		iFace Designer®			

Selection Guide

HMI
SERIES

P-SERIES

Model		P07	P10	P12	P15
		P07F-N	P10F-N	P12F-N	P15F-N
Display	Display type	7" TFT	10.2" TFT	12.1" TFT	15.6" TFT
	Resolution	800 x 480		1280 x 800	1366 x 768
	Color depth	16.7M			
	Backlight type	LED			
	Luminance (cd/m ²)	250	350	600	500
	Backlight lifetime	20,000 hours		50,000 hours	
	Viewing angle (H°/V°)	140/120	130/110	176/176	160/150
	Contrast	500:1	300:1	1000:1	600:1
	Dimming	20 levels			
System	CPU	ARM® Cortex™-A8 (1GHz)			
	Storage	4GB eMMC			
	Memory	512MB			
	RTC	Yes			
Interface	Touch Screen	4-wire resistive type		5-wire resistive type	
	COM1	RS232/422/485			
	COM2	RS232/422/485			
	COM3	RS232/485 or CAN bus (option)			
	Ethernet	1 x 10/100 Mbit			
	USB	1 x Type A (Host), 1 x Type B (Device)			
	Memory card	SD Card			
Ratings	Power supply voltage	19.2 ~ 28.8V Isolated Power			
	Power consumption	8W	10W	22W	28W
	Weight (kg)	0.68	1.1	4.3	5.8
	Battery	CR2032 Replaceable			
Environment	Operation temperature	0 ~ 50°C			
	Storage temperature	-20 ~ 60°C			
	Humidity	10% ~ 90% (non-condensing) @ 40°C			
Mechanical	Construction	Plastic		Aluminum front bezel and steel chassis	
	Protection	IP65(Front)			
	Mounting (mm)	Panel Mount, VESA 75 x 75		Panel Mount, VESA 100 x 100	
	Dimension (mm)	199.8(W) x 147.8(H) x 39.8(D)	279.5(W) x 195.5(H) x 39.5(D)	319.0(W) x 225.0(H) x 50.6(D)	408.8(W) x 260.9(H) x 50.6(D)
	Cut-out (mm)	185.2(W) x 133.2(H)	260.2(W) x 177.2(H)	305.7(W) x 211.7(H)	394.5(W) x 246.62(H)
Approvals	ESD Protection	Level 4 (Contact Discharge 8KV, Air-Gap Discharge 15KV), Class A		-	
	Certification	CE / FCC (EN 61000-6-4, EN 61000-6-2) / UL		CE/FCC (EN 61000-6-4, EN 61000-6-2)	
Software		iFace Designer®			

Compact Box PC

NBP-01 /02 /05

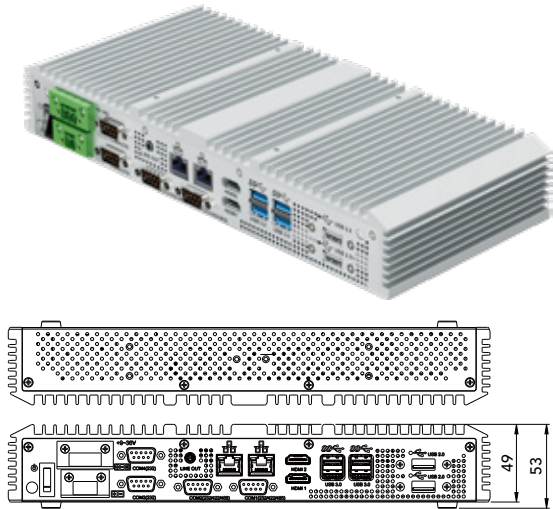
Embedded Box PC
NBP SERIES

Compact Box PC

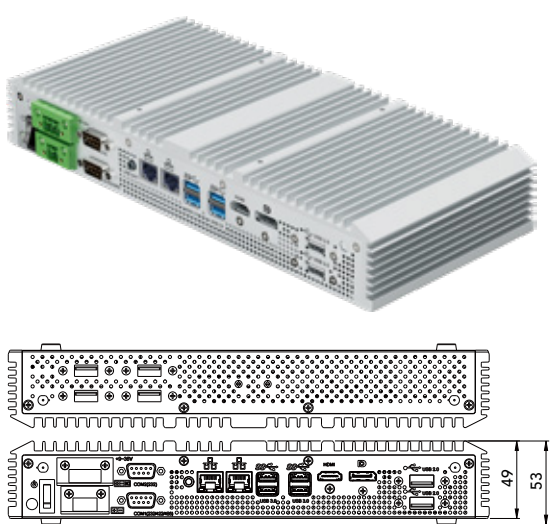
NBP-01 /02 /05

Embedded Box PC
NBP SERIES

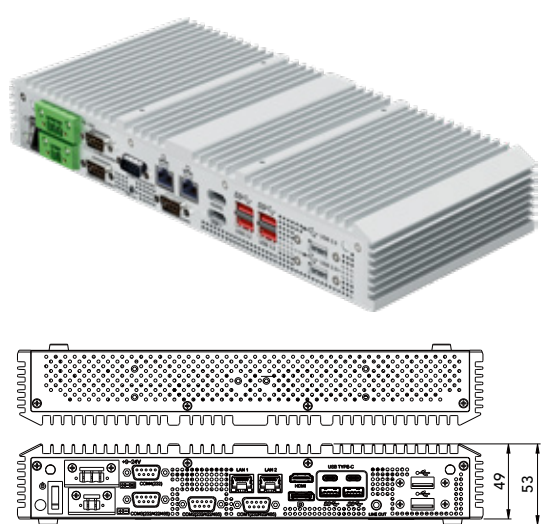
NBP-01



NBP-02



NBP-05



Features

Intel® Celeron® J6412 Processor Embedded Box PC

- Intel® Celeron® Processor J6412 (Elkhart Lake)
2.0 GHz (up to 2.6 GHz)
- GbE Ethernet ports x 2
- COM port x 4 (RS-232 x 2, RS-232/422/485 x 2)
- USB x 6 (4 x 3.2 Gen1 , 2 x USB 2.0)
- DC 9~36V wide range power input
- Fan-less, modular detachable design
- VESA/ Desk/ DIN Rail Wall mounting

Intel® N-series N97 Processor Embedded Box PC

- Intel® Alder Lake-N Processor N97 2.0 GHz (up to 3.6 GHz)
- 2.5 GbE Ethernet ports x 2
- COM port x 2 (RS-232 x 1, RS-232/422/485 x 1)
- USB x 10 (2 x 3.2 Gen1, 2 x 3.2 Gen2, 6 x USB 2.0)
- DC 9~36V wide range power input
- Fan-less, modular detachable design
- VESA/ Desk/ DIN Rail Wall mounting

Intel® Core™ i5-1335U Processor Embedded Box PC

- Intel® Core™ i5-1335U Processor
(12M Cache, up to 4.60 GHz)
- 2.5 GbE Ethernet ports x 2
- COM port x 4
(RS-232 x 1, RS-232/422/485 x 3)
- USB x 6 (2 x USB 3.2 Gen 2, 2 x USB 2.0, 2 x USB 3.2 Gen 2x2 for Type C)
- DC 9~24V wide range power input
- Fan-less, modular detachable design
- VESA Mount / Desk Mount / DIN Rail

Specifications

Model No.		NBP-01	NBP-02	NBP-05
System	CPU	Intel® Celeron® J6412 2.0GHz, quad-core, 4 threads, (up to 2.6GHz)	Intel® Alder Lake-N Processor N97 2.0GHz, quad-core, 4 threads, (up to 3.6GHz)	Intel® Core™ i5-1335U Processor, 1.3GHz, 10 cores, 12 threads, up to 4.60 GHz)
	System Chipset	SoC		
	System Memory	2 x SO-DIMM, DDR4 3200MHz, up to 32GB	1 x SO-DIMM, DDR5 4800MHz, up to 16GB	2 x SO-DIMM, DDR5 4800MHz, up to 64GB
Storage	SSD / HDD	1 x M.2 key M (2280), SATA 6Gb/s/ PCIe x2	1 x M.2 key B (2280), SATA 6Gb/s/ PCIe x1	1 x M.2 key M (2242/2260/2280), PCIe x4
Expansion	Expansion Slot	1 x Full-size mini PCIe with SIM slot	1 x M.2 key E (2230) PCIe x1, USB 2.0	1 x M.2 key B (3042/3052) PCIe x1 + USB 3.0 with SIM slot (4G/5G) 1 x M.2 key E (2230) PCIe x1 + USB 2.0, support CNVI
I/O Interface	Audio	1 x Line Out	1 x Line Out	1 x Line Out
	HDMI 2.0	2	1	1
	Display Port	-	1	1
	LAN (RJ45)	2 x GbE	2 x 2.5GbE	2 x 2.5GbE
	Power	1 x 2 pins terminal block for external power switch 1 x 3 pins terminal block power connector 1 x power switch on/off	1 x 2 pins terminal block for external power switch 1 x 3 pins terminal block power connector 1 x power switch on/off	1 x 2 pins terminal block for external power switch 1 x 3 pins terminal block power connector 1 x power switch on/off
	Serial	1 x DB9 (RS-232/422/485 & RI/5V/12V) 1 x DB9 (RS-232/422/485) 2 x DB9 (RS-232)	1 x DB9 (RS-232/422/485 & RI/5V/12V) 1 x DB9 (RS-232)	3 x DB9 (RS-232/422/485 & RI/5V/12V) 1 x DB9 (RS-232)
	USB	4 x USB 3.2 Gen 1, 2 x USB 2.0	2 x USB 3.2 Gen 1, 2 x USB 3.2 Gen 2, 6 x USB 2.0	2 x USB 3.2 Gen 2, 2 x USB 2.0, 2 x USB 3.2 Gen 2x2 for Type C
	Power Input	9~36V	9~36V	9~24V
Power	Power Consumption	90W		
	Operating Temp.	0~50° C (32~122° F)		
	Operating Humidity	10 to 90% (non-condensing)		
	Storage Temp.	-20~60° C (-4~140° F)		
	Operating System	Windows 10 IoT, Windows 11 IoT, Debian 11		
Environment	Certification	CE / FCC CLASS A		
	Construction	Metal Housing		
	Mounting	VESA (100x100mm)/ Desk/ Wall mounting, DIN Rail		
	Dimension(mm)	304(W) x 135(H) x 53(D)		
	Net Weight(Kgs)	2.1		
Mechanical				

Ordering Information

NBP-01	Intel Celeron J6412 2.0 GHz, 8GB DDR4 3200MHz, 9~36V DC input with adapter, Aluminum/Steel chassis
NBP-02	Intel Alder Lake-N Processor N97 2.0 GHz, 8GB DDR5 4800MHz, 9~36V DC input with adapter, Aluminum/Steel chassis
NBP-05	Intel Core™ i5-1335U Processor 1.3 GHz, 8GB DDR5 4800MHz, 9~24V DC input with adapter, Aluminum/Steel chassis

Compact Box PC

NBP-02S

Embedded Box PC
NBP SERIES

Waterproof Box PC

NRB-03

Industrial Box PC
NRB SERIES

Features

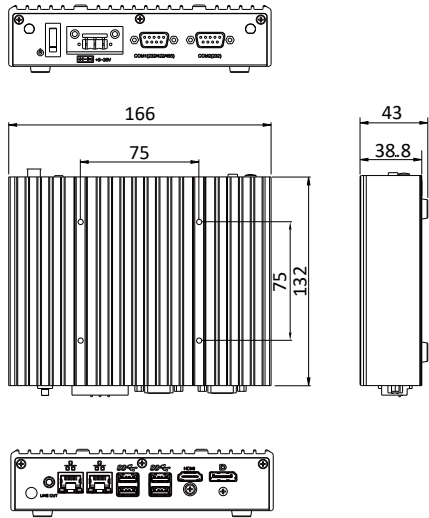
Intel® N-series N97 Processor Embedded Box PC

- Intel® Alder Lake-N Processor N97 2.0 GHz (up to 3.6 GHz)
- 2.5 GbE Ethernet ports x 2
- COM port x 2 (RS-232 x 1, RS-232/422/485 x 1)
- USB x 4 (3.2 Gen1 x 2, 3.2 Gen2 x 2)
- DC 9~36V wide range power input
- Fan-less, modular detachable design
- VESA/ Desk/ DIN Rail Wall mounting



Specifications

Model No.		NBP-02S
System	CPU	Intel® Alder Lake-N Processor N97 2.0GHz, quad-core, 4 threads, (up to 3.6GHz)
	System Chipset	SoC
	System Memory	1 x SO-DIMM, DDR5 4800MHz, up to 16GB
Storage	SSD / HDD	1 x 2280 M.2 key B (SATA/PCIe x1)
Expansion	Expansion Slot	1 x M.2 key E (2230), PCIe x1, USB 2.0
I/O Interface	Audio	1 x Line Out
	HDMI 2.0	1
	Display Port	1
	LAN (RJ45)	2 x 2.5GbE
	Power	1 x 3 pins terminal block power connector 1 x power switch on/off
	Serial	1 x DB9 (RS-232/422/485 & RI/5V/12V) 1 x DB9 (RS-232)
	USB	2 x USB 3.2 Gen 1, 2 x USB 3.2 Gen 2
Power	Power Input	DC 9~36V
	Power Consumption	90W
Environment	Operating Temp.	0~50° C (32~122° F)
	Operating Humidity	10 to 90% (non-condensing)
	Storage Temp.	-20~60° C (-4~140° F)
	Operating System	Windows 10 IoT, Windows 11 IoT, Debian 11
	Certification	CE / FCC CLASS A
Mechanical	Construction	Metal Housing
	Mounting	VESA 100x100mm/ Desk/ DIN Rail/ Wall mounting
	Dimension(mm)	166(W) x 132(H) x 43(D)
	Net Weight(Kgs)	1

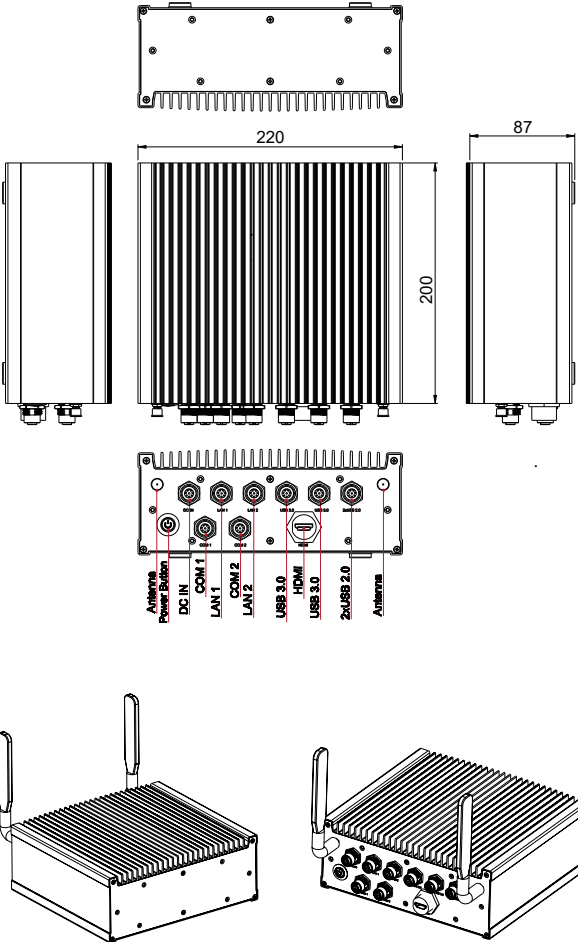


Features

- IP66 / IP69K waterproof computer with M12 connectors
- -40°C to 70°C wide-temperature fanless operation
- 1 x DB9 (RS-232/422/485), 1 x DB9 (RS-232) and 2 x USB 3.0, 2 x USB 2.0
- 2 x GbE with RJ45
- DC 9~36V wide range power input

Specifications

Model No.		NRB-03
System	CPU	Intel® Amston Lake Processors X7433RE, QC, Max Speed Up to 3.4GHz
	System Chipset	SoC
	System Memory	1 x SO-DIMM, DDR5 4800 MHz, up to 32GB
I/O Port	HDMI 2.0 (M20*1)	1
	LAN (M12*2)	2 x GbE with RJ45
	DC IN (M12*1)	5 pins
	Serial (M12*2)	1 x DB9 (RS-232/422/485) 1 x DB9 (RS-232)
	USB (M12*3)	2 x USB 3.0, 2 x USB 2.0
TPM		Intel® PTT
Storage	SSD / HDD	1 x M.2 (Key M, 2242/2280) with PCIe Gen3 x1 and SATA3 for SSD
Expansion	Expansion slot	1 x M.2 (Key E, 2230) with PCIe Gen3 x1, USB 2.0 and CNVi for Wireless 1 x M.2 (Key B, 3042/3052) with PCIe Gen3 x1, USB 2.0 and SIM for 4G/5G 1 x SIM socket connected to M.2 key B
Power	Power Input	DC 9~36V
	Power Consumption	90W
Mechanical	Construction	Metal Housing Reserved holes for optional antenna installation
	IP Rating	IP66 / IP69K Waterproof
	Mounting	VESA Mount / Desk Mount / DIN Rail
	Dimension(mm)	220 x 200 x 87.5
	Net Weight(Kgs)	TBD
Environment	Operating Temp.	-40~70° C
	Operating Humidity	10 to 90% @ 40°C (non-condensing)
	Storage Temp.	-40~85° C
	Operating System	Windows 10 IoT, Debian 11
	Certification	CE / FCC CLASS A



Protocol Conversion Gateway GW-01

Gateway
SERIES

ARM-based Control Panel NWH10

ARM-based Control Panel
NWH10



Features

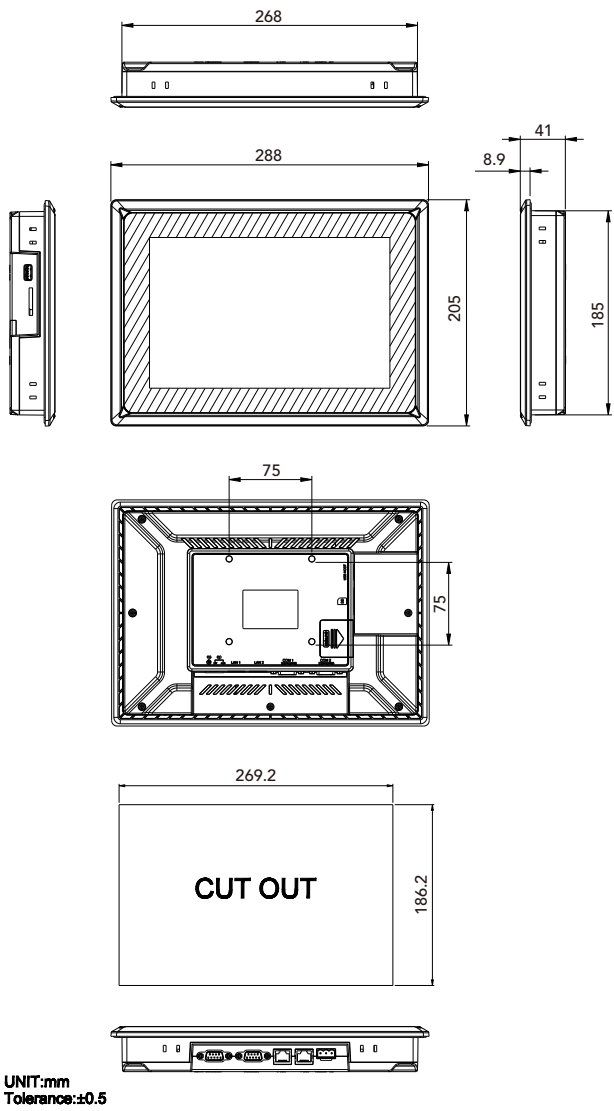
- TI Sitara™ AM3352 ARM® Cortex™-A8 1GHz CPU
- Ethernet ports x 2 ; COM port x 2 (DB9 x1)
- 19.2 ~ 28.8V, Isolated Power
- Isolated Communication Port
- Fan-less, compact design
- PCB conformal coating protection
- -20°C~70°C wide operating temperature
- Metal chassis, DIN-rail mounting
- Powered by Novakon Software iM-Connect®

Specifications

CPU	TI Sitara™ AM3352 ARM® Cortex™-A8 1GHz CPU
Memory	512MB SDRAM (1GB option)
Thermal Design	Fanless
Conformal Coating	Yes
Storage	4GB eMMC (8GB option)
USB Host	1
Serial Port	1 x DB9 (RS-232/422/485)
Ethernet	2 x 10/100 Mbit Ethernet Port
Power Connector	3-Pin terminal block
Dimensions (mm)	120 x 85.45 x 31.25
Net Weight (kgs)	0.45
Power Input Range	19.2 ~ 28.8V, Isolated Power
LED Indicator	1
Chassis Material	SECC
Mounting	25mm DIN-rail mounting
Accessories	Setup Manual x 1, 25mm DIN Rail Clip x 1, M3x6mm flat head screw x 2, Recovery USB Drive x 1
Operating Temp.	-20°C~70°C (-4~158° F)
Storage Temp.	-20°C~80°C (-4~176° F)
Storage Humidity	10%~90% @40°C (non-condensing)
ESD Protection	Contact Discharge 4kV, Air Discharge 8kV
Certification	CE/FCC (EN 61000-6-4, EN 61000-6-2, EN55032, EN55035), Class A
Software	iM-Connect®

Ordering Information

GW-01
Compact DIN-rail Gateway with ARM Cortex-A8 (1GHz) CPU, 512MB RAM, 4GB eMMC, dual Ethernet ports, 19.2 ~ 28.8V isolated power, metal chassis, iM-Connect®



Features

- TI Sitara™ AM3352 ARM® Cortex™-A8 1GHz CPU
- Ethernet ports x 2 ; COM port x 2 (DB9 x1)
- 19.2 ~ 28.8V, Isolated Power
- Isolated Communication Port
- Fan-less, compact design
- PCB conformal coating protection
- -20°C~70°C wide operating temperature
- Metal chassis, DIN-rail mounting
- Powered by Novakon Software iM-Connect®

Specifications

Model No.		NWH10
System	CPU	ARM® Cortex® - A55 Quad-core (1.8GHz)
	System Chipset	SoC
	System Memory	4GB DDR4
Storage	SSD / HDD	Flash 32GB eMMC
Expansion	Expansion Slot	SD Card
Display & Touch Screen	LCD Size	10.1 inches TFT-LCD
	Luminance (cd/m²)	500 / 1000 nits
	Backlight Lifetime (hrs)	50000
	Contrast	800:1
	Max. Colors	16.7M
	Max. Resolution	1280x800
	Viewangle (H°/V°)	178 / 178
	Touch Type	Projected Capacitive Touch
Interface	Light Transmission (%)	over 84% / 70%
	LAN (RJ45)	2 x GbE
	Power	1 x 3 pins terminal block power connector
	Serial	2 x DB9 (RS-232/422/485)
	USB	1 x USB 3.0
Power	Power Input	DC 24V
	Power Consumption	20W
Environment	Operating Temp.	0~50° C (32~122° F)
	Operating Humidity	10 to 90% (non-condensing)
	Storage Temp.	-20~60° C (-4~140° F)
	Web browser	Chromium
	Operating System	Debian 11
	Certification	CE / FCC CLASS A
Mechanical	Construction	Plastic chassis
	IP Rating	Front Panel IP66
	Mounting	VESA / Panel mounting 75x75mm
	Dimension(mm)	288(W) x 205(H) x 41(D)
		Net Weight(Kgs) 1.4

Modular Panel PC

NPP-156P

Industrial Panel PC
NPP SERIES

Modular Panel PC

NPP-156P

Industrial Panel PC
NPP SERIES

Features

Intel® Celeron® J6412 Processor Fanless Industrial Modular Panel PC

Compatible with
Siemens
Industrial Edge

A Siemens Industrial Edge Device

- Intel® Celeron® Processor J6412 (Elkhart Lake) 2.0 GHz (up to 2.6 GHz)
- 15.6" Full HD 1920x1080, TFT-LCD
- Resistive Touch / Projected Capacitive Touch
- IP66-rated aluminum front bezel and steel chassis
- GbE Ethernet ports x 2
- COM port x 4 (RS-232 x 2, RS-232/422/485 x 2)
- USB x 5 (4 x 3.2 Gen1 , 1 x USB 2.0)
- DC 9~36V wide range power input
- Fan-less, modular detachable design
- VESA mounting 100x100mm / Panel mounting
- Optional high brightness & UV/IR protection for outdoor applications

Intel® Processor N-series N97 Fanless Industrial Modular Panel PC

Compatible with
Siemens
Industrial Edge

A Siemens Industrial Edge Device

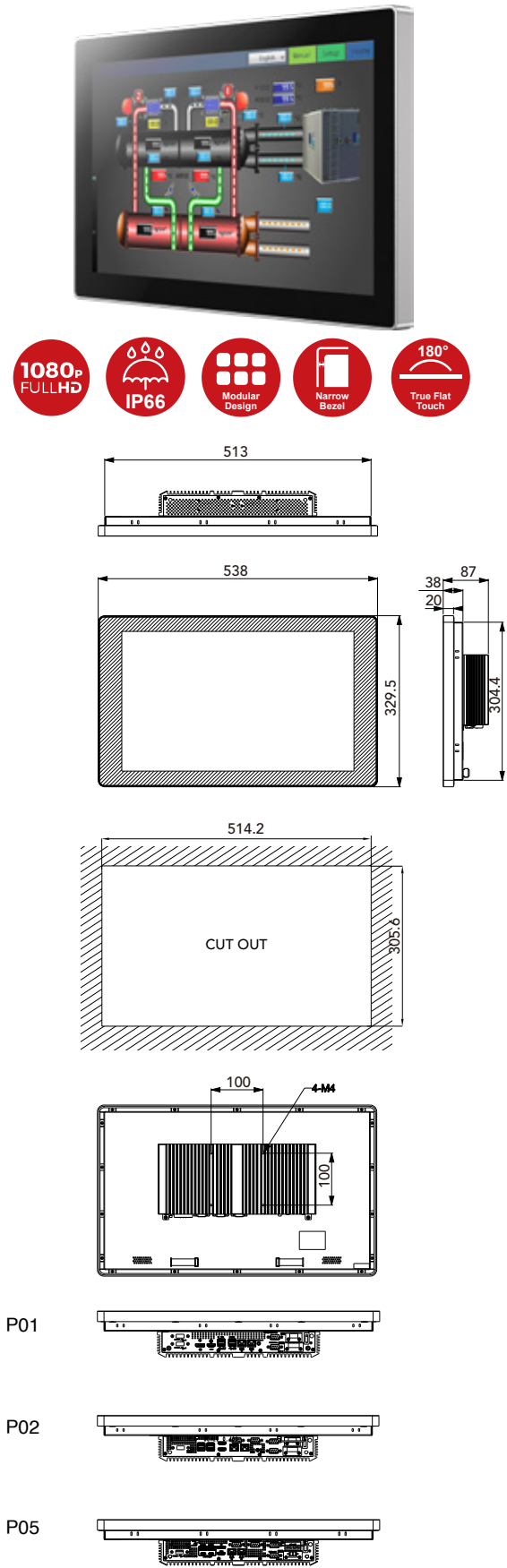
- Intel® Alder Lake-N Processor N97 2.0 GHz (up to 3.6 GHz)
- 15.6" Full HD 1920x1080, TFT-LCD
- Resistive Touch / Projected Capacitive Touch
- IP66-rated aluminum front bezel and steel chassis
- 2.5 GbE Ethernet ports x 2
- COM port x 2 (RS-232 x 1, RS-232/422/485 x 1)
- USB x 6 (2 x 3.2 Gen1, 2 x 3.2 Gen2, 2 x USB 2.0)
- DC 9~36V wide range power input
- Fan-less, modular detachable design
- VESA mounting 100x100mm / Panel mounting
- Optional high brightness & UV/IR protection for outdoor applications

Intel® Core™ i5-1335U Processor Fanless Industrial Modular Panel PC

- Intel® Core™ i5-1335U Processor 1.8GHz,8 cores, 8 threads, (up to 3.8GHz)
- 15.6" Full HD 1920x1080, TFT-LCD
- Resistive Touch / Projected Capacitive Touch
- IP66-rated aluminum front bezel and steel chassis
- 2.5 GbE Ethernet ports x 2
- COM port x 4 (RS-232 x 1, RS-232/422/485 x 3)
- USB x 5 (2 x 3.2 Gen2, 1 x USB 2.0, 2 x USB 3.2 Gen 2x2 for Type C)
- DC 9~36V wide range power input
- Fan-less, modular detachable design
- VESA mounting 100x100mm / Panel mounting
- Optional high brightness & UV/IR protection for outdoor applications

Specifications

Model No.		NPP-156P01	NPP-156P02	NPP-156P05
System	CPU	Intel® Celeron® J6412 2.0GHz, quad-core, 4 threads, (up to 2.6GHz)	Intel® Alder Lake-N Processor N97 2.0GHz, quad-core, 4 threads, (up to 3.6GHz)	Intel® Core™ i5-1335U Processor 1.8GHz,8 cores, 8 threads, (up to 4.6GHz)
	System Chipset	SoC		
	System Memory	2 x SO-DIMM, DDR4 3200MHz, up to 32GB	1 x SO-DIMM, DDR5 4800MHz, up to 16GB	2 x SO-DIMM, DDR5 4800MHz, up to 64GB
Storage	SSD / HDD	1 x M.2 key M (2280), SATA 6Gb/s/ PCIe x2	1 x M.2 key B (2280), SATA 6Gb/s/ PCIe x1	1 x M.2 Key M (2242/2260/2280), PCIe x4
Expansion	Expansion Slot	1 x Full-size mini PCIe with SIM slot	1 x M.2 key E (2230) PCIe x1, USB 2.0	1 x M.2 key B (3042/3052) PCIe x1 + USB 3.0 with SIM slot (4G/5G) 1 x M.2 Key E (2230) PCIe x 1 + USB 2.0, support CNVI
Display & Touch Screen	LCD Size	15.6" TFT-LCD		
	Luminance (cd/m²)	350 (Typ.) / 1200 (Typ.)		
	Backlight Lifetime (hrs)	50000		
	Contrast	800:1		
	Max. Colors	16.7M		
	Max. Resolution	1920x1080		
	Viewangle (H°/V°)	178 / 178		
	Touch Type	Projected Capacitive Touch / Touch with UV/IR cut & Anti-Fog film(for HS model)		
	Touch Interface	USB		
	Light Transmission (%)	Over 85%, 70%(for HS model)		
I/O Interface	Audio	1 x Line Out		
	HDMI 2.0	2	1	
	Display Port	-	1	
	LAN (RJ45)	2 x GbE	2 x 2.5GbE	
	Power	1 x 2 pins terminal block for external power switch 1 x 3 pins terminal block power connector 1 x power switch on/off		
	Serial	1 x DB9 (RS-232/422/485 & RI/5V/12V) 1 x DB9 (RS-232/422/485) 2 x DB9 (RS-232)	1 x DB9 (RS-232/422/485 & RI/5V/12V) 1 x DB9 (RS-232)	3 x DB9 (RS-232/422/485 & RI/5V/12V) 1 x DB9 (RS-232 & RI/5V/12V)
	USB	4 x USB 3.2 Gen 1, 1 x USB 2.0	2 x USB 3.2 Gen 1, 2 x USB 3.2 Gen 2, 2 x USB 2.0	2 x USB 3.2 Gen 2, 1 x USB 2.0, 2 x USB 3.2 Gen 2x2 for Type C
Power	Power Input	DC 9~36V		DC 9~24V
	Power Consumption	90W / 120W (for HS model)		
Environment	Operating Temp.	0~50° C (32~122° F)		
	Operating Humidity	10 to 90% (non-condensing)		
	Storage Temp.	-20~60° C (-4~140° F)		
	Software	iFace Designer® Runtime, Siemens Industrial Edge Runtime, Siemens Industrial Management		
	Operating System	Windows 10 IoT, Windows 11 IoT, Debian 11 / Siemens Industrial Edge Platform		
	Certification	CE/FCC CLASS A		
Mechanical	Construction	Aluminum front bezel and steel chassis		
	IP Rating	Front Panel IP66		
	Mounting	VESA mounting 100x100mm / Panel mounting		
	Dimension(mm)	400 x 249.1 x 87		
	Net Weight(Kgs)	5.5		



Modular Panel PC

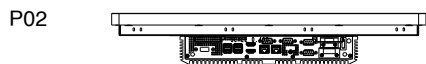
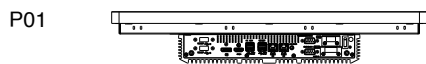
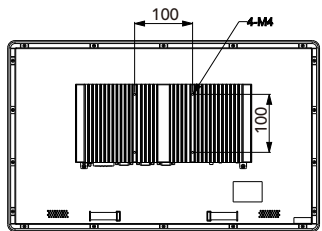
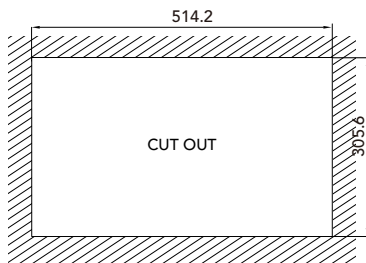
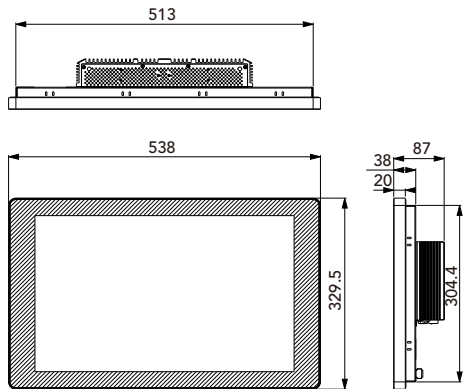
NPP-215P

Industrial Panel PC
NPP SERIES

Modular Panel PC

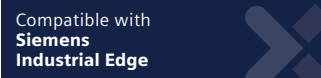
NPP-215P

Industrial Panel PC
NPP SERIES



Features

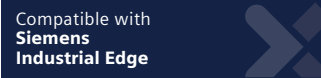
Intel® Celeron® J6412 Processor Fanless Industrial Modular Panel PC



A Siemens Industrial Edge Device

- Intel® Celeron® Processor J6412 (Elkhart Lake) 2.0 GHz (up to 2.6 GHz)
- 21.5" Full HD 1920x1080, TFT-LCD
- Resistive Touch / Projected Capacitive Touch
- IP66-rated aluminum front bezel and steel chassis
- GbE Ethernet ports x 2
- COM port x 4 (RS-232 x 2, RS-232/422/485 x 2)
- USB x 5 (4 x 3.2 Gen1 , 1 x USB 2.0)
- DC 9~36V wide range power input
- Fan-less, modular detachable design
- VESA mounting 100x100mm / Panel mounting
- Optional high brightness & UV/IR protection for outdoor applications

Intel® Processor N-series N97 Fanless Industrial Modular Panel PC



A Siemens Industrial Edge Device

- Intel® Alder Lake-N Processor N97 2.0 GHz (up to 3.6 GHz)
- 21.5" Full HD 1920x1080, TFT-LCD
- Resistive Touch / Projected Capacitive Touch
- IP66-rated aluminum front bezel and steel chassis
- 2.5 GbE Ethernet ports x 2
- COM port x 2 (RS-232 x 1, RS-232/422/485 x 1)
- USB x 6 (2 x 3.2 Gen1, 2 x 3.2 Gen2, 2 x USB 2.0)
- DC 9~36V wide range power input
- Fan-less, modular detachable design
- VESA mounting 100x100mm / Panel mounting
- Optional high brightness & UV/IR protection for outdoor applications

Intel® Core™ i5-1335U Processor Fanless Industrial Modular Panel PC

- Intel® Core™ i5-1335U Processor 1.8GHz,8 cores, 8 threads, (up to 3.8GHz)
- 21.5" Full HD 1920x1080, TFT-LCD
- Resistive Touch / Projected Capacitive Touch
- IP66-rated aluminum front bezel and steel chassis
- 2.5 GbE Ethernet ports x 2
- COM port x 4 (RS-232 x 1, RS-232/422/485 x 3)
- USB x 5 (2 x 3.2 Gen2, 1 x USB 2.0, 2 x USB 3.2 Gen 2x2 for Type C)
- DC 9~36V wide range power input
- Fan-less, modular detachable design
- VESA mounting 100x100mm / Panel mounting
- Optional high brightness & UV/IR protection for outdoor applications

Specifications

Model No.		NPP-215P01	NPP-215P02	NPP-215P05
System	CPU	Intel® Celeron® J6412 2.0GHz, quad-core, 4 threads, (up to 2.6GHz)	Intel® Alder Lake-N Processor N97 2.0GHz, quad-core, 4 threads, (up to 3.6GHz)	Intel® Core™ i5-1335U Processor 1.8GHz,8 cores, 8 threads, (up to 4.6GHz)
	System Chipset	SoC		
	System Memory	2 x SO-DIMM, DDR4 3200MHz, up to 32GB	1 x SO-DIMM, DDR5 4800MHz, up to 16GB	2 x SO-DIMM, DDR5 4800MHz, up to 64GB
Storage	SSD / HDD	1 x M.2 key M (2280), SATA 6Gb/s/ PCIe x2	1 x M.2 key B (2280), SATA 6Gb/s/ PCIe x1	1 x M.2 Key M (2242/2260/2280), PCIe x4
Expansion	Expansion Slot	1 x Full-size mini PCIe with SIM slot	1 x M.2 key E (2230) PCIe x1, USB 2.0	1 x M.2 key B (3042/3052) PCIe x1 + USB 3.0 with SIM slot (4G/5G) 1 x M.2 Key E (2230) PCIe x1 + USB 2.0, support CNVI
Display & Touch Screen	LCD Size	21.5" TFT-LCD		
	Luminance (cd/m²)	500 (Typ.) / 1400 (Typ.)		
	Backlight Lifetime (hrs)	50000		
	Contrast	1000:1		
	Max. Colors	16.7M		
	Max. Resolution	1920x1080		
	Viewangle (H°/V°)	178 / 178		
	Touch Type	Projected Capacitive Touch / Touch with UV/IR cut & Anti-Fog film(for HS model)		
	Touch Interface	USB		
	Light Transmission (%)	Over 85%, 70%(for HS model)		
I/O Interface	Audio	1 x Line Out	1 x Line Out	
	HDMI 2.0	2	1	
	Display Port	-	1	
	LAN (RJ45)	2 x GbE	2 x 2.5GbE	
	Power	1 x 2 pins terminal block for external power switch 1 x 3 pins terminal block power connector 1 x power switch on/off		
	Serial	1 x DB9 (RS-232/422/485 & RI/5V/12V) 1 x DB9 (RS-232/422/485) 2 x DB9 (RS-232)	1 x DB9 (RS-232/422/485 & RI/5V/12V) 1 x DB9 (RS-232)	3 x DB9 (RS-232/422/485 & RI/5V/12V) 1 x DB9 (RS-232 & RI/5V/12V)
	USB	4 x USB 3.2 Gen 1, 1 x USB 2.0	2 x USB 3.2 Gen 1, 2 x USB 3.2 Gen 2, 2 x USB 2.0	2 x USB 3.2 Gen 2, 1 x USB 2.0, 2 x USB 3.2 Gen 2x2 for Type C
Power	Power Input	DC 9~36V		DC 9~24V
	Power Consumption	90W/120W		
Environment	Operating Temp.	0~50° C (32~122° F)		
	Operating Humidity	10 to 90% (non-condensing)		
	Storage Temp.	-20~60° C (-4~140° F)		
	Software	iFace Designer® Runtime, Siemens Industrial Edge Runtime, Siemens Industrial Management		
	Operating System	Windows 10 IoT, Windows 11 IoT, Debian 11 / Siemens Industrial Edge Platform		
	Certification	CE/FCC CLASS A		
Mechanical	Construction	Aluminum front bezel and steel chassis		
	IP Rating	Front Panel IP66		
	Mounting	VESA mounting 100x100mm / Panel mounting		
	Dimension(mm)	538 x 329.5 x 87		
	Net Weight(Kgs)	7.2		

Slim Bezel Panel PC

NFP-121P

Industrial Panel PC
NFP SERIES

Slim Bezel Panel PC

NFP-121P

Industrial Panel PC
NFP SERIES



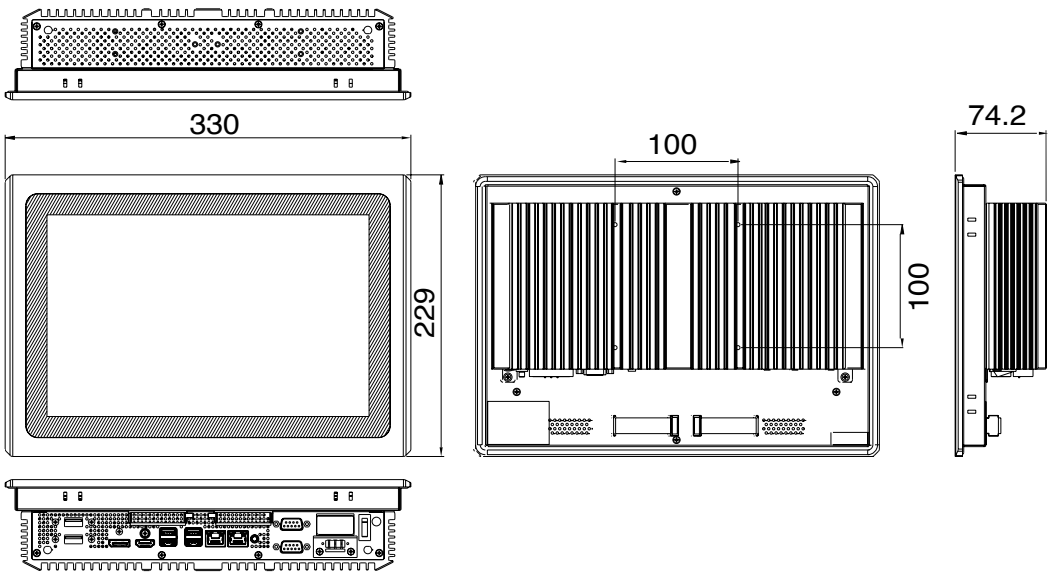
Features

Intel® Processor N-series N97 Slim Bezel Panel PC

- Intel® Alder Lake-N Processor N97 2.0 GHz (up to 3.6 GHz)
- 12.1" Full HD 1280x800, TFT-LCD
- Resistive Touch / Projected Capacitive Touch
- IP66-rated aluminum front bezel and steel chassis
- 2.5 GbE Ethernet ports x 2
- COM port x 2 (RS-232 x 1, RS-232/422/485 x 1)
- USB x 6 (2 x 3.2 Gen1, 2 x 3.2 Gen2, 2 x USB 2.0)
- DC 9~36V wide range power input
- VESA mounting 100x100mm / Panel mounting
- Optional high brightness & UV/IR protection for outdoor applications

Intel® Core™ i5-1335U Processor Slim Bezel Panel PC

- Intel® Alder Lake-N Core i3-N305 1.8GHz,8 cores, 8 threads, (up to 3.8GHz)
- 15.6" Full HD 1280x800, TFT-LCD
- Resistive Touch / Projected Capacitive Touch
- IP66-rated aluminum front bezel and steel chassis
- 2.5 GbE Ethernet ports x 2
- COM port x 4 (RS-232 x 1, RS-232/422/485 x 3)
- USB x 5 (2 x 3.2 Gen2, 1 x USB 2.0, 2 x USB 3.2 Gen 2x2 for Type C)
- DC 9~24V wide range power input
- VESA mounting 100x100mm / Panel mounting
- Optional high brightness & UV/IR protection for outdoor applications



Specifications

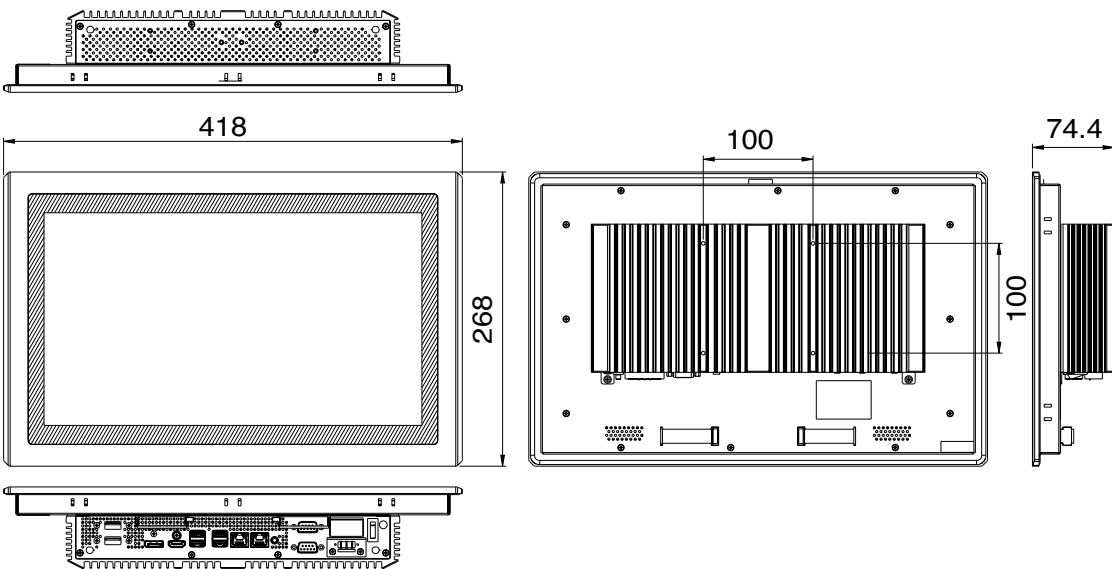
Model No.		NFP-121P02	NFP-121P05
System	CPU	Onboard Intel® Alder Lake-N Processor N97 2.0GHz, quad-core, 4 threads, (up to 3.6GHz)	Intel® Core™ i5-1335U Processor, 10 cores,12 threads, up to 4.6 GHz
	System Chipset	SoC	
	System Memory	1 x SO-DIMM, DDR5 4800MHz, up to 16GB	2 x SO-DIMM, DDR5 4800MHz, up to 64GB
Storage	SSD / On Board Flash	1 x M.2 key B (2280), SATA 6Gb/s/ PCIe x1	1 x M.2 Key M (2242/2260/2280), PCIe x4
Expansion	Expansion Slot	1 x M.2 key E (2230) PCIe x1, USB 2.0	1 x M.2 key B (3042/3052) PCIe x1 + USB 3.0 with SIM slot (4G/5G) 1 x M.2 Key E (2230) PCIe x 1 + USB 2.0, support CNVI
Display & Touch Screen	LCD Size	12.1" TFT-LCD	
	Luminance (cd/m²)	600 (Typ.)	
	Backlight Lifetime (hrs)	50000	
	Contrast	1000:1 (Typ.)	
	Max. Colors	16.7M	
	Max. Resolution	1280x800	
	Viewangle (H°/V°)	178 / 178 (Min.)	
	Touch Type	Projected Capacitive Touch	
	Touch with UV/IR Cut & Anti-Fog film	Option	
	Touch Interface	USB	
I/O Interface	Light Transmission (%)	Projected Capacitive Touch: over 84%	
	Audio	1 x Line Out	
	HDMI 2.0	1	
	Display Port	1	
	LAN (RJ45)	2 x 2.5GbE	
	Power	1 x 2 pins terminal block for external power switch 1 x 3 pins terminal block power connector 1 x power switch on/off	
	Serial	1 x DB9 (RS-232/422/485 & RI/5V/12V) 1 x DB9 (RS-232)	3 x DB9 (RS-232/422/485 & 5V/12V) 1 x DB9 (RS-232 & 5V/12V)
	USB	2 x USB 3.2 Gen 1, 2 x USB 3.2 Gen 2, 2 x USB 2.0	2 x USB 3.2 Gen 2, 1 x USB 2.0, 2 x USB 3.2 Gen 2x2 for Type C
	Speaker	2 X 2W Speaker	
	Power Input	DC 9~36V	
Power	Power Consumption	90W	
	Operating Temp.	0~50° C (32~122° F)	
	Operating Humidity	10 to 90% (non-condensing)	
	Storage Temp.	-20~60° C (-4~140° F)	
	Operating System	Windows 10 IoT, Windows 11 IoT, Debian 11	
	TPM	TPM 2.0	
	Certification	CE / FCC CLASS A	
Mechanical	Construction	Aluminum front bezel and steel chassis	
	IP Rating	Front Panel IP66	
	Mounting	Panel Mount / VESA Mount	
	Ambient Light Sensor	N	
	Dimension(mm)	330(W) x 229(H) x 74.2(D)	
	Net Weight(Kgs)	4.2	

Slim Bezel Panel PC
NFP-156P

Industrial Panel PC
NFP SERIES

Slim Bezel Panel PC
NFP-156P

Industrial Panel PC
NFP SERIES



Features

Intel® Processor N-series N97
Slim Bezel Panel PC

- Intel® Alder Lake-N Processor N97 2.0 GHz (up to 3.6 GHz)
- 15.6" Full HD 1920x1080, TFT-LCD
- Resistive Touch / Projected Capacitive Touch
- IP66-rated aluminum front bezel and steel chassis
- 2.5 GbE Ethernet ports x 2
- COM port x 2 (RS-232 x 1, RS-232/422/485 x 1)
- USB x 6 (2 x 3.2 Gen1, 2 x 3.2 Gen2, 2 x USB 2.0)
- DC 9~36V wide range power input
- VESA mounting 100x100mm / Panel mounting
- Optional high brightness & UV/IR protection for outdoor applications

Intel® Core™ i5-1335U Processor
Slim Bezel Panel PC

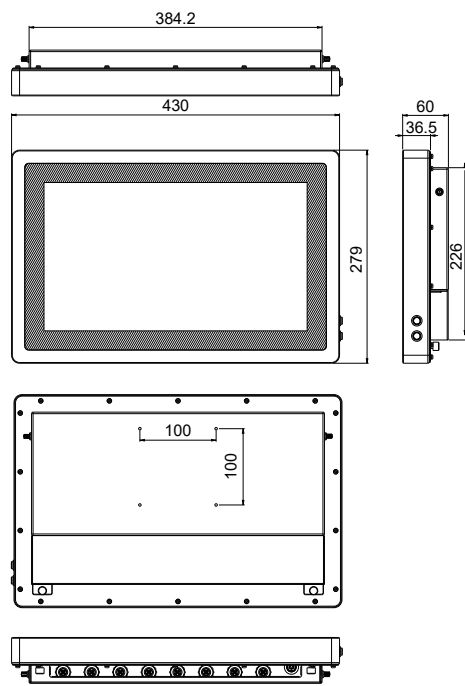
- Intel® Alder Lake-N Core i3-N305 1.8GHz,8 cores, 8 threads, (up to 3.8GHz)
- 15.6" Full HD 1920x1080, TFT-LCD
- Resistive Touch / Projected Capacitive Touch
- IP66-rated aluminum front bezel and steel chassis
- 2.5 GbE Ethernet ports x 2
- COM port x 4 (RS-232 x 1, RS-232/422/485 x 3)
- USB x 5 (2 x 3.2 Gen2, 1 x USB 2.0, 2 x USB 3.2 Gen 2x2 for Type C)
- DC 9~24V wide range power input
- VESA mounting 100x100mm / Panel mounting
- Optional high brightness & UV/IR protection for outdoor applications

Specifications

Model No.		NFP-156P02	NFP-156P05
System	CPU	Onboard Intel® Alder Lake-N Processor N97 2.0GHz, quad-core, 4 threads, (up to 3.6GHz)	Intel® Core™ i5-1335U Processor, 10 cores,12 threads, up to 4.6 GHz
	System Chipset	SoC	
	System Memory	1 x SO-DIMM, DDR5 4800MHz, up to 16GB	2 x SO-DIMM, DDR5 4800MHz, up to 64GB
Storage	SSD / On Board Flash	1 x M.2 key B (2280), SATA 6Gb/s/ PCIe x1	1 x M.2 Key M (2242/2260/2280), PCIe x4
Expansion	Expansion Slot	1 x M.2 key E (2230) PCIe x1, USB 2.0	1 x M.2 key B (3042/3052) PCIe x1 + USB 3.0 with SIM slot (4G/5G) 1 x M.2 Key E (2230) PCIe x1 + USB 2.0, support CNVI
Display & Touch Screen	LCD Size	15.6" TFT-LCD	
	Luminance (cd/m²)	350 (Typ.)	
	Backlight Lifetime (hrs)	50000	
	Contrast	800:1 (Typ.)	
	Max. Colors	16.7M	
	Max. Resolution	1920x1080	
	Viewangle (H°/V°)	178 / 178 (Min.)	
	Touch Type	Projected Capacitive Touch	
	Touch with UV/IR Cut & Anti-Fog film	Option	
	Touch Interface	USB	
I/O Interface	Light Transmission (%)	Projected Capacitive Touch: over 84%	
	Audio	1 x Line Out	
	HDMI 2.0	1	
	Display Port	1	
	LAN (RJ45)	2 x 2.5GbE	
	Power	1 x 2 pins terminal block for external power switch 1 x 3 pins terminal block power connector 1 x power switch on/off	
	Serial	1 x DB9 (RS-232/422/485 & RI/5V/12V) 1 x DB9 (RS-232)	3 x DB9 (RS-232/422/485 & 5V/12V) 1 x DB9 (RS-232 & 5V/12V)
	USB	2 x USB 3.2 Gen 1, 2 x USB 3.2 Gen 2, 2 x USB 2.0	2 x USB 3.2 Gen 2, 1 x USB 2.0, 2 x USB 3.2 Gen 2x2 for Type C
	Speaker	2 X 2W Speaker	
Power	Power Input	DC 9~36V	DC 9~24V
	Power Consumption	90W	
Environment	Operating Temp.	0~50° C (32~122° F)	
	Operating Humidity	10 to 90% (non-condensing)	
	Storage Temp.	-20~60° C (-4~140° F)	
	Operating System	Windows 10 IoT, Windows 11 IoT, Debian 11	
	TPM	TPM 2.0	
	Certification	CE / FCC CLASS A	
Mechanical	Construction	Aluminum front bezel and steel chassis	
	IP Rating	Front Panel IP66	
	Mounting	Panel Mount / VESA Mount	
	Ambient Light Sensor	N	
	Dimension(mm)	418(W) x 268(H) x 74.4(D)	330(W) x 229(H) x 74.2(D)
	Net Weight(Kgs)	5.2	4.2

Stainless Steel Panel PC

NRP-156P



Stainless Steel Panel PC

NRP SERIES

Features

15.6" Intel® Processor N-Series N97 Stainless Steel Panel PC

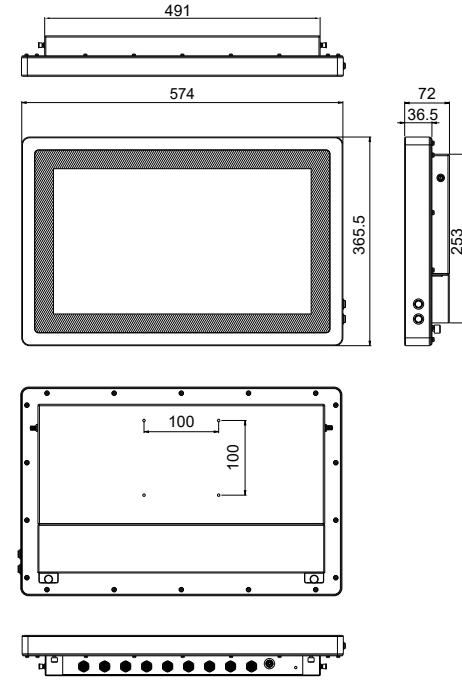
- Intel® Alder Lake-N Processor N97 2.0GHz, quad-core, 4 threads, (up to 3.6GHz)
- 15.6" Full HD 1920x1080, TFT-LCD
- Projected Capacitive Touch
- Fully IP66 and IP69K Stainless Enclosure
- 2 x 2.5 GbE ports
- 2 x COM ports (RS-232/422/485 & RI/5V/12V x 1 x RS-232 x 1)
- 5 x USB (1 x USB3.0, 4 x USB2.0)
- DC 9~36V wide range power input
- VESA mounting

Specifications

Model No.		NRP-156P02
System	CPU	Intel® Alder Lake-N Processor N97 2.0GHz, 4 cores, 4 threads,(up to 3.6GHz)
	System Chipset	SoC
	System Memory	1 x SO-DIMM, DDR5 4800MHz, up to 16GB
Storage	SSD / HDD	1 x M.2 key B (2280), SATA 6Gb/s/ PCIe x1
Expansion	Expansion Slot	1 x M.2 key E (2230) PCIe x1, USB 2.0
Display & Touch Screen	LCD Size	15.6" TFT-LCD
	Luminance (cd/m²)	350 / 1200
	Backlight Lifetime (hrs)	50000 (Ta 25°C)
	Contrast	800:1
	Max. Colors	16.7M
	Max. Resolution	1920x1080
	Viewangle (H°/V°)	178 / 178
	Touch Type	Projected Capacitive Touch
I/O Port (M12)	Touch Interface	USB
	Light Transmission (%)	Projected Capacitive Touch: over 84%
	LAN (RJ45)	2 x 2.5GbE
	Power	DC IN
Power	Serial	1 x DB9 (RS-232/422/485 & RI/5V/12V), 1 x DB9 (RS-232)
	USB	1 x USB 3.0, 4 x USB 2.0
	Power Input	DC 9~36V
Environment	Power Consumption	90W / 120W
	Operating Temp.	0~50° C (32~122° F)
	Operating Humidity	10 to 90% (non-condensing)
	Storage Temp.	-20~60° C (-4~140° F)
	Software	iFace Designer® Runtime, Siemens Industrial Edge Runtime, Siemens Industrial Management
	Operating System	Windows 10 IoT, Windows 11 IoT, Debian 11
	Certification	CE / FCC CLASS A
Mechanical	Construction	316 Stainless Steel Enclosure
	IP Rating	Full IP66 & IP69K Waterproof
	Mounting	VESA mounting 100x100mm
	Dimension(mm)	430(W) x 279(H) x 60(D)
	Net Weight(Kgs)	7.5

Stainless Steel Panel PC

NRP-215P



Features

21.5" Intel® Processor N-Series N97 Stainless Steel Panel PC

- Intel® Alder Lake-N Processor N97 2.0GHz, quad-core, 4 threads, (up to 3.6GHz)
- 21.5" Full HD 1920x1080, TFT-LCD
- Projected Capacitive Touch
- Fully IP66 and IP69K Stainless Enclosure
- 2 x 2.5 GbE ports
- 2 x COM ports (RS-232/422/485 & RI/5V/12V x 1 x RS-232 x 1)
- 6 x USB (2 x USB3.0, 4 x USB2.0)
- DC 9~36V wide range power input
- VESA mounting

Specifications

Model No.		NRP-215P02
System	CPU	Intel® Alder Lake-N Processor N97 2.0GHz, 4 cores, 4 threads,(up to 3.6GHz)
	System Chipset	SoC
	System Memory	1 x SO-DIMM, DDR5 4800MHz, up to 16GB
Storage	SSD / HDD	1 x M.2 key B (2280), SATA 6Gb/s/ PCIe x1
Expansion	Expansion Slot	1 x M.2 key E (2230) PCIe x1, USB 2.0
Display & Touch Screen	LCD Size	21.5" TFT-LCD
	Luminance (cd/m²)	500 / 1400
	Backlight Lifetime (hrs)	50000 (Ta 25°C)
	Contrast	1000:1
	Max. Colors	16.7M
	Max. Resolution	1920x1080
	Viewangle (H°/V°)	178 / 178
	Touch Type	Projected Capacitive Touch
I/O Port (M12)	Touch Interface	USB
	Light Transmission (%)	Projected Capacitive Touch: over 84%
	LAN (RJ45)	2 x 2.5GbE
	Power	DC IN
Power	Serial	1 x DB9 (RS-232/422/485 & RI/5V/12V), 1 x DB9 (RS-232)
	USB	2 x USB 3.0, 4 x USB 2.0
	Power Input	DC 9~36V
Environment	Power Consumption	90W / 120W
	Operating Temp.	0~50° C (32~122° F)
	Operating Humidity	10 to 90% (non-condensing)
	Storage Temp.	-20~60° C (-4~140° F)
	Software	iFace Designer® Runtime, Siemens Industrial Edge Runtime, Siemens Industrial Management
	Operating System	Windows 10 IoT, Windows 11 IoT, Debian 11
	Certification	CE / FCC CLASS A
Mechanical	Construction	316 Stainless Steel Enclosure
	IP Rating	Full IP66 & IP69K Waterproof
	Mounting	VESA mounting 100x100mm
	Dimension(mm)	574(W) x 365.5(H) x 72(D)
	Net Weight(Kgs)	9.8

Open Frame Panel PC
NOF-156P

Open Frame Panel PC
NOF SERIES

Open Frame Panel PC
NOF-156P

Open Frame Panel PC
NOF SERIES



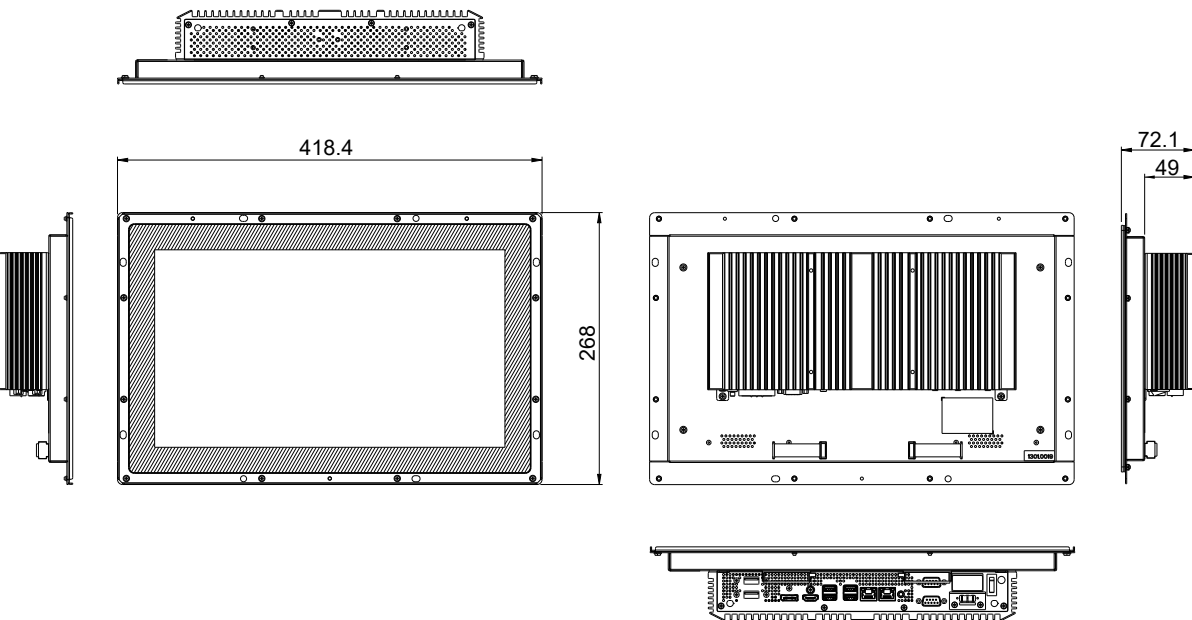
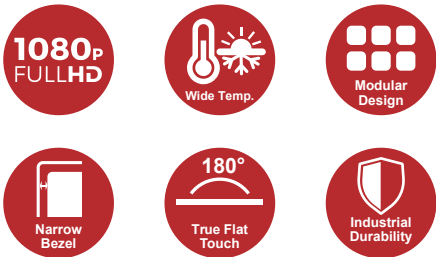
Features

15.6" Intel® Processor N-series N97
Fanless Industrial Open Frame Panel PC

- Intel® Alder Lake-N Processor N97 2.0 GHz (up to 3.6 GHz)
- 15.6" Full HD 1920x1080, TFT-LCD
- Projected Capacitive Touch
- 2.5 GbE Ethernet ports x 2
- COM port x 2 (RS-232 x 1, RS-232/422/485 x 1)
- USB x 6 (2 x 3.2 Gen1, 2 x 3.2 Gen2, 2 x USB 2.0)
- DC 9~36V wide range power input
- Fan-less, modular detachable design
- Open Frame Rear mounting / VESA mounting

15.6" Intel® Core™ i5-1335U Processor
Fanless Industrial Open Frame Panel PC

- Intel® Core™ i5-1335U, 10 cores,12 threads, (up to 4.6 GHz)
- 15.6" Full HD 1920x1080, TFT-LCD
- Projected Capacitive Touch
- 2.5 GbE Ethernet ports x 2
- COM port x 4 (RS-232 x 1, RS-232/422/485 x 3)
- USB x 5 (2 x 3.2 Gen2, 1 x USB 2.0, 2 x USB 3.2 Gen 2x2 for Type C)
- DC 9~24V wide range power input
- Fan-less, modular detachable design
- Open Frame Rear mounting / VESA mounting



Specifications

Model No.		NOF-156P02	NOF-156P05
System	CPU	Intel® Alder Lake-N Processor N97 2.0GHz, quad-core, 4 threads,(up to 3.6GHz)	Intel® Core™ i5-1335U, 10 cores,12 threads, up to 4.6 GHz
	System Chipset	SoC	
	System Memory	1 x SO-DIMM, DDR5 4800MHz, up to 16GB	2 x SO-DIMM, DDR5 4800MHz, up to 64GB
Storage	SSD / HDD	1 x M.2 key B (2280), SATA 6Gb/s/ PCIe x1	1 x M.2 Key M (2242/2260/2280), PCIe x4
Expansion	Expansion Slot	1 x M.2 key E (2230) PCIe x1, USB 2.0	1 x M.2 key B (3042/3052) PCIe x1 + USB 3.0 with SIM slot (4G/5G) 1 x M.2 Key E (2230) PCIe x1 + USB 2.0, support CNVI
Display & Touch Screen	LCD Size	15.6" TFT-LCD	
	Luminance (cd/m²)	350/1200	
	Backlight Lifetime (hrs)	50000	
	Contrast	800:1	
	Max. Colors	16.7M	
	Max. Resolution	1920x1080	
	Viewangle (H°/V°)	178 / 178	
	Touch Type	Projected Capacitive Touch	
	Touch Interface	USB	
I/O Interface	Light Transmission (%)	Projected Capacitive Touch: over 84%	
	Audio	1 x Line Out	
	HDMI 2.0	1	
	Display Port	1	
	LAN (RJ45)	2 x 2.5GbE	
	Power	1 x 2 pins terminal block for external power switch 1 x 3 pins terminal block power connector 1 x power switch on/off	
	Serial	1 x DB9 (RS-232/422/485 & RI/5V/12V) 1 x DB9 (RS-232)	3 x DB9 (RS-232/422/485 & 5V/12V) 1 x DB9 (RS-232 & 5V/12V)
	USB	2 x USB 3.2 Gen 1, 2 x USB 3.2 Gen 2, 2 x USB 2.0	2 x USB 3.2 Gen 2, 1 x USB 2.0, 2 x USB 3.2 Gen 2x2 for Type C
Power	Power Input	DC 9~36V	DC 9~24V
	Power Consumption	90W	
Environment	Operating Temp.	0~50° C (32~122° F)	
	Operating Humidity	10 to 90% (non-condensing)	
	Storage Temp.	-20~60° C (-4~140° F)	
	Software	iFace Designer® Runtime, Siemens Industrial Edge Runtime, Siemens Industrial Management	
	Operating System	Windows 10 IoT, Windows 11 IoT, Debian 11	
	Certification	CE / FCC CLASS A	
Mechanical	Construction	Open Frame steel chassis and Aluminum Heat Sink	Open Frame steel chassis and Aluminum Heat Sink
	Mounting	VESA mounting(100x100mm) / Panel mounting	
	Dimension(mm)	418.4(W) x 268(H) x 72.1(D)	
	Net Weight(Kgs)	5	5

Open Frame Panel PC

NOF-215P

Open Frame Panel PC
NOF SERIES

Open Frame Panel PC

NOF-215P

Open Frame Panel PC
NOF SERIES



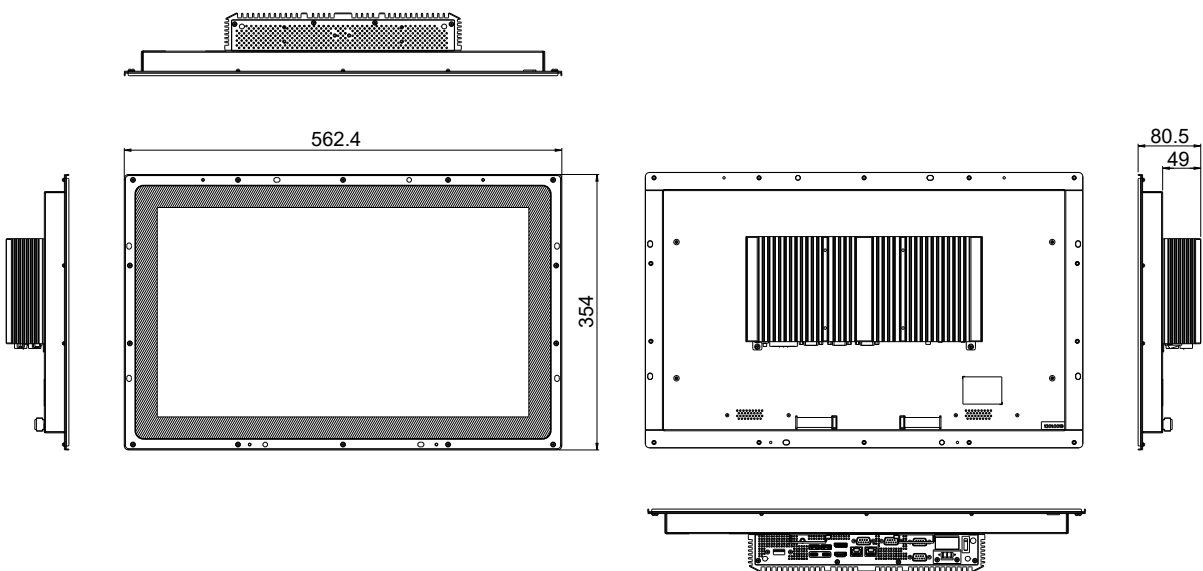
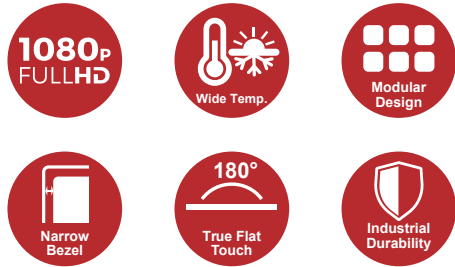
Features

21.5" Intel® Processor N-series N97 Fanless Industrial Open Frame Panel PC

- Intel® Alder Lake-N Processor N97 2.0 GHz (up to 3.6 GHz)
- 21.5" Full HD 1920x1080, TFT-LCD
- Projected Capacitive Touch
- 2 x 2.5 GbE Ethernet ports
- 2 x COM port (1 x RS-232, 1 x RS-232/422/485)
- USB x 6 (2 x 3.2 Gen1, 2 x 3.2 Gen2, 2 x USB 2.0)
- DC 9~36V wide range power input
- Fan-less, modular detachable design
- Open Frame Rear mounting / VESA mounting

21.5" Intel® Core™ i5-1335U Processor Fanless Industrial Open Frame Panel PC

- Intel® Core™ i5-1335U, 10 cores,12 threads, (up to 4.6 GHz)
- 21.5" Full HD 1920x1080, TFT-LCD
- Projected Capacitive Touch
- 2 x 2.5 GbE Ethernet ports
- 4 x COM port (1 x RS-232, 3 x RS-232/422/485)
- USB x 5 (2 x 3.2 Gen2, 1 x USB 2.0, 2 x USB 3.2 Gen 2x2 for Type C)
- DC 9~24V wide range power input
- Fan-less, modular detachable design
- Open Frame Rear mounting / VESA mounting



Specifications

Model No.		NOF-215P02	NOF-215P05
System	CPU	Intel® Alder Lake-N Processor N97 2.0GHz, quad-core, 4 threads,(up to 3.6GHz)	Intel® Core™ i5-1335U, 10 cores,12 threads, up to 4.6 GHz
	System Chipset	SoC	
	System Memory	1 x SO-DIMM, DDR5 4800MHz, up to 16GB	2 x SO-DIMM, DDR5 4800MHz, up to 64GB
Storage	SSD	1 x 2280 M.2 B key (SATA/PCIe x1)	1 x 2280 M.2 M-Key (PCIe Gen4x4, SATA 6Gb/s)
Expansion	Expansion Slot	1 x M.2 E key (PCIe x1, USB 2.0), 2230	1 x Full-size Mini PCIe with SIM slot 1 x 2230 M.2 E-Key
Display & Touch Screen	LCD Size	21.5" TFT-LCD	
	Luminance (cd/m²)	500/1400	
	Backlight Lifetime (hrs)	50000	
	Contrast	1000:1	
	Max. Colors	16.7M	
	Max. Resolution	1920x1080	
	Viewangle (H°/V°)	178 / 178	
	Touch Type	Projected Capacitive Touch	
	Touch Interface	USB	
I/O Interface	Light Transmission (%)	Projected Capacitive Touch: over 84%	
	Audio	1 x Line Out	
	HDMI 2.0	1	
	Display Port	1	
	LAN (RJ45)	2 x 2.5GbE	
	Power	1 x 2 pins terminal block for external power switch 1 x 3 pins terminal block power connector 1 x power switch on/off	
	Serial	1 x DB9 (RS-232/422/485 & RI/5V/12V) 1 x DB9 (RS-232)	3 x DB9 (RS-232/422/485 & 5V/12V) 1 x DB9 (RS-232 & 5V/12V)
	USB	2 x USB 3.2 Gen 1, 2 x USB 3.2 Gen 2, 2 x USB 2.0	2 x USB 3.2 Gen 2, 1 x USB 2.0, 2 x USB 3.2 Gen 2x2 for Type C
Power	Power Input	DC 9~36V	DC 9~24V
	Power Consumption	90W	
Environment	Operating Temp.	0~50° C (32~122° F)	
	Operating Humidity	10 to 90% (non-condensing)	
	Storage Temp.	-20~60° C (-4~140° F)	
	Software	iFace Designer® Runtime, Siemens Industrial Edge Runtime, Siemens Industrial Management	
	Operating System	Windows 10 IoT, Windows 11 IoT, Debian 11	
	Certification	CE / FCC CLASS A	
Mechanical	Construction	Open Frame steel chassis and Aluminum Heat Sink	Open Frame steel chassis and Aluminum Heat Sink
	Mounting	VESA mounting(100x100mm) / Panel mounting	
	Dimension(mm)	562.4(W) x 354(H) x 80.5(D)	
	Net Weight(Kgs)	7.5	

Built-in PLC drivers and open industrial communication protocols.



Brand	Series	Support Models
Allen-Bradley	Controllogix, CompactLogix Ethernet	All models
	MicroLogix DF1 RS232	All models
	MicroLogix Ethernet	All models
	Micro800/850 Ethernet	All models
	PLC5 DF1 CRC	All models
BACnet	BACnet / IP	All models
Beckhoff	TwinCAT 2/3 Runtime	All models
	TwinCAT 2/3 SoftPLC	All models
CODESYS	CoDeSys V3	Ethernet over ARTI
Delta	DVP	All models
FATEK	FBs/Fbe/B1/B1z	All models
	FBs/Fbe/B1/B1z TCP	All models
Hitachi	MICRO-EH/EHV UDP	All models
	MICRO-EH/EHV TCP	All models
	MICRO-EH/EHV	All models
HUST	H Series CNC Controller	H4D Series/H6D Series
	A6 CNC Controller	A6 Series
INOVANCE	H5U Series Ethernet	All models
	H5U MODBUS TCP/IP	All models
KEYENCE	KV-1000	All models
	KV-L20V Host Link/KV-nano	All models
	KV-3000/5000/5500 Series	All models
	KV-7300/7500/8000 Series	All models
	KV-NC1EP	All models
KOYO	SU/DL Series	All models
Lust	LustBus ServoC/CDE Series	All models
Mitsubishi	A Series/J71UC24 Computer Link	All models
	A Series/J71 for AnA/AnU	All models
	A Series/J71 Format4	All models
	FR Series/A700	All models
	FX Series	All models
	FX/FX2N Series Computer Link	All models
	FX2N Series	All models
	FX3U Series	All models
	FX3U Series Computer Link	All models
	FX3U Ethernet	All models
	FX5U Ethernet	All models

Mitsubishi	Q Series	All models
	Q Series Computer Link	All models
	Q Series Ethernet	All models
	FX5U Ethernet	All models
	Servo MR-J4	All models
	iQ-R	All models
MODBUS	MODBUS ASCII Slave	All models
	MODBUS ASCII Master	All models
	MODBUS ASCII Client	All models
	MODBUS ASCII Server	All models
	MODBUS RTU Slave	All models
	MODBUS RTU Master	All models
	MODBUS RTU Client	All models
	MODBUS RTU Server	All models
	MODBUS TCP Slave	All models
	MODBUS TCP Master	All models
MOTRONA	MKS MC700 Motion Controller	All models
	CS/CJ Series	TPM1A, CP1E, CP1L
Omron	CS/CJ Series	All models
	CS/CJ Series FINS TCP	All models
	NX/NJ Series EtherNet/IP	All models
OPTEX	CD33 Series Sensor	All models
	CD5 Series Sensor	All models
Panasonic	FP Series	All models
	FP TCP	All models
Siemens	S7-200	All models
	300/1200/1500 (ISO on TCP)	All models
Toshiba	TMFCD91A	All models
Vigor	VB/VH/M Series	All models
	VS Series	All models
	VS TCP	All models
	VS UDP	All models
Yamatake	DCP30	All models
	DMC50	All models
	SDC35/SDC45	All models
	NX-D15/25	All models
YASKAWA	MP2000 Series Extension	All models
	MP3000 Series Extension	All models
	MP2000 Extension UDP	All models
Yokogawa	FA-M3 Series TCP	All models
Accessories	Led Controller	EV12048W11JX
	Scale	SKW-II
	Barcode Reader	All models
	Barcode Printer	All models
Shihlin	AX3G/AX3SA/AX3GA	All models