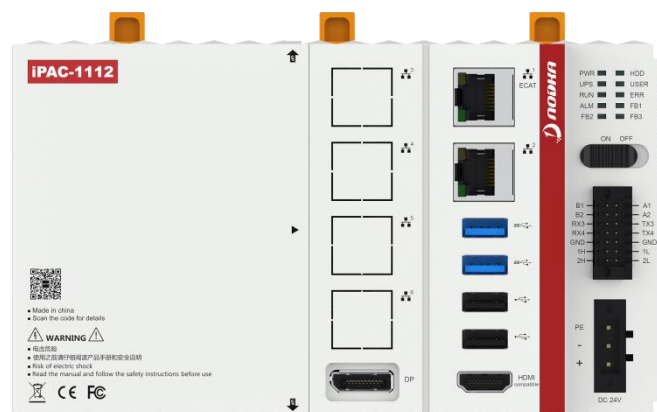


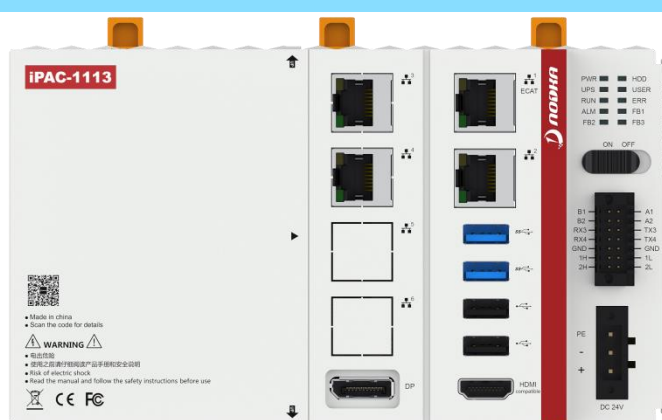
AC-1112



Specifications

Model Name		AC-1112		
System	CPU	Intel® Celeron J6412, 2.0~2.6GHz, 4 cores/4 threads, 1.5MB L2 cache	Intel® Processor N-series N97 4 cores, 6MB Intel® Smart Cache , Max turbo 3.60GHz	Intel® Core ™ Processor N-series i3-N305 8 cores/8 threads, 6MB Intel® Smart Cache , Max turbo 3.80GHz
	TDP	10W	12W	15W
	BIOS	AMI UEFI BIOS		
	Memory	1 x SO-DIMM DDR4, max up to 32GB	1 x SO-DIMM DDR5, max up to 16GB	
	Storage	1 x M.2(B Key, Type 2242) bay support SATA		
	USB	2 x USB3.0, 2 x USB2.0, 1 x USB2.0 Type A on the board for USB dongle		
	COM	2 x RS485(COM1/COM2)		
		2 x RS232(COM3/COM4)		
	Ethernet	1x Intel i210-AT LAN controller		
	IO Expansions	E-BUS		
	Expansions	1 x Full-size PCIe Mini slot with SIM card holder		
	LEDs	1 x POWER, 1 x HDD, 1 x UPS		
		7 x Programmable LEDs(1 x User, 1 x Run, 1 x Error, 1 x ALM, 3 x FB)		
	Switch	1 x Programmable Switch		
	HDMI	Support up to 3840 x 2160 @30Hz		
	DP	Support up to 4096 x 2160 @60Hz		
	Watch Dog	1~255 levels programmable		
OS Support	Microsoft Windows	Windows 10		
	Linux	Ubuntu, CentOS, Debian		
Power	Voltage Input	DC24V -15%/+20%, overcurrent, overvoltage and polarity inverse protection , Super capacitors integrated , Full load for 10s.		
	Power Consumption	Max. 60W		
Chassis	Dimensions	(L)180mm x (W)107mm x (H)97mm		
	Net Weight	1.25Kg		
Environment	Work Temperature	-20°C ~ 60°C (-4°F~140°F) with air flow (SSD)		
	Storage Temperature	-40°C ~ 80°C (-40°F ~ 176°F) with air flow (SSD)		
	Relative Humidity	5~95% (Non-condensing)		
	Operating Vibration	5~500Hz, 1.5Grms@with SSD, Follow IEC60068-2-64		
	Operating Shock	20G peak acceleration(11ms duration) with SSD, Follow IEC60068-2-27		
	EMC	CE/FCC Class A		

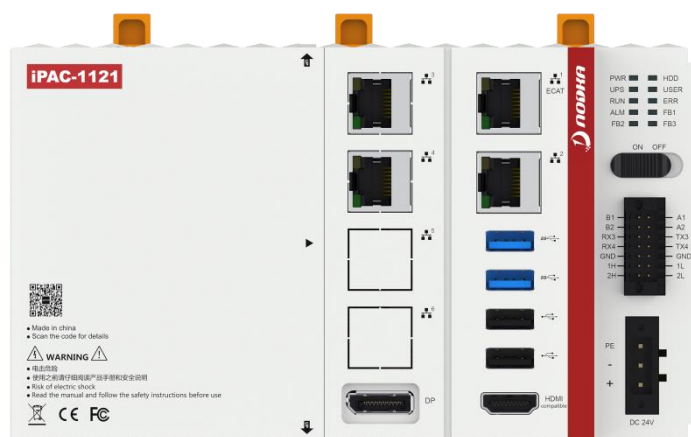
AC-1113



■ Specifications

Model Name		AC-1113		
System	CPU	Intel® Celeron J6412, 2.0~2.6GHz, 4 cores/4 threads, 1.5MB L2 cache	Intel® Processor N-series N97 4 cores, 6MB Intel® Smart Cache , Max turbo 3.60GHz	Intel® Core™ Processor N-series i3-N305 8 cores/8 threads, 6MB Intel® Smart Cache , Max turbo 3.80GHz
	TDP	10W	12W	15W
	BIOS	AMI UEFI BIOS		
	Memory	1 x SO-DIMM DDR4, max up to 32GB	1 x SO-DIMM DDR5, max up to 16GB	
	Storage	1 x M.2(B Key, Type 2242) bay support SATA		
	USB	2 x USB3.0, 2 x USB2.0, 1 x USB2.0 Type A on the board for USB dongle		
	COM	2 x RS485(COM1/COM2)		
		2 x RS232(COM3/COM4)		
	Ethernet	3 x Intel i210-AT LAN controller		
	IO Expansions	E-BUS		
	Expansions	1 x Full-size PCIe Mini slot with SIM card holder		
	LEDs	1 x POWER, 1 x HDD, 1 x UPS		
		7 x Programmable LEDs(1 x User, 1 x Run, 1 x Error, 1 x ALM, 3 x FB)		
	Switch	1 x Programmable Switch		
	HDMI	Support up to 1920 x 1080 @30Hz		
DP	Support up to 1920 x 1080 @60Hz			
Watch Dog	1~255 levels programmable			
OS Support	Microsoft Windows	Windows 10		
	Linux	Ubuntu, CentOS, Debian		
Power	Voltage Input	DC24V -15%/+20%, overcurrent, overvoltage and polarity inverse protection , Super capacitors integrated , Full load for 10s.		
	Power Consumption	Max. 60W		
Chassis	Dimensions	(L)180mm x (W)107mm x (H)97mm		
	Net Weight	1.25Kg		
Environment	Work Temperature	-20°C ~ 60°C (-4°F~140°F) with air flow (SSD)		
	Storage Temperature	-40°C ~ 80°C (-40°F ~ 176°F) with air flow (SSD)		
	Relative Humidity	5~95% (Non-condensing)		
	Operating Vibration	5~500Hz, 1.5Grms@with SSD, Follow IEC60068-2-64		
	Operating Shock	20G peak acceleration(11ms duration) with SSD, Follow IEC60068-2-27		
	EMC	CE/FCC Class A		

AC-1121



Specifications

Model Name		AC-1121
System	CPU	Intel® Core™ 6th/7th/8th gen i7/i5/i3/Pentium/Celeron LGA1151 type CPU
	TDP	Max. 65W
	BIOS	AMI UEFI BIOS
	Memory	2 x SO-DIMM DDR4, max up to 32GB
	Storage	1 x M.2(B Key, Type 2242) bay support SATA
	USB	2 x USB3.0, 2 x USB2.0, 1 x USB2.0 Type A on the board for USB dongle
	COM	2 x RS485(COM1/COM2)
		2 x RS232(COM3/COM4)
	Ethernet	3 x Intel i210-AT LAN controller
	IO Expansions	E-BUS
	Expansions	1 x Full-size PCIe Mini slot with SIM card holder
	LEDs	1 x POWER, 1 x HDD, 1 x UPS
		7 x Programmable LEDs(1 x User, 1 x Run, 1 x Error, 1 x ALM, 3 x FB)
	Switch	1 x Programmable Switch
OS Support	Microsoft Windows	Windows 10
	Linux	Ubuntu, CentOS, Debian
Power	Voltage Input	DC24V -15%/+20%, overcurrent, overvoltage and polarity inverse protection , Super capacitors integrated , Full load for 10s.
	Power Consumption	Max. 160W
Chassis	Dimensions	(L)180mm x (W)107mm x (H)97mm
	Net Weight	1.25Kg
Environment	Work Temperature	-20°C ~ 60°C (-4°F~140°F) with air flow (SSD)
	Storage Temperature	-40°C ~ 80°C (-40°F ~ 176°F) with air flow (SSD)
	Relative Humidity	5~95% (Non-condensing)
	Operating Vibration	5~500Hz, 1.5Grms@with SSD, Follow IEC60068-2-64
	Operating Shock	20G peak acceleration(11ms duration) with SSD, Follow IEC60068-2-27
EMC		CE/FCC Class A

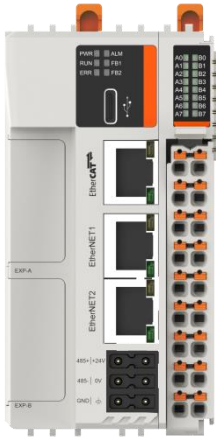
AC-1122



■ Specifications

Model Name		AC-1122
System	CPU	Intel® Core™ 6th/7th/8th gen i7/i5/i3/Pentium/Celeron LGA1151 type CPU
	TDP	Max. 65W
	BIOS	AMI UEFI BIOS
	Memory	2 x SO-DIMM DDR4, max up to 32GB
	Storage	1 x M.2(B Key, Type 2242) bay support SATA
	USB	2 x USB3.0, 2 x USB2.0, 1 x USB2.0 Type A on the board for USB dongle
	COM	2 x RS485(COM1/COM2)
		2 x RS232(COM3/COM4)
	Ethernet	5 x Intel i210-AT LAN controller
	IO Expansions	E-BUS
	Expansions	1 x Full-size PCIe Mini slot with SIM card holder
	LEDs	1 x POWER, 1 x HDD, 1 x UPS
		7 x Programmable LEDs(1 x User, 1 x Run, 1 x Error, 1 x ALM, 3 x FB)
	Switch	1 x Programmable Switch
	HDMI	Support up to 3840 x 2160 @30Hz
	DP	Support up to 4096 x 2160 @60Hz
OS Support	Watch Dog	1~255 levels programmable
	Microsoft Windows	Windows 10
Power	Linux	Ubuntu, CentOS, Debian
	Voltage Input	DC24V -15%/+20%, overcurrent, overvoltage and polarity inverse protection, Super capacitors integrated, Full load for 10s.
Chassis	Power Consumption	Max. 160W
	Dimensions	(L)180mm x (W)107mm x (H)97mm
Environment	Net Weight	1.25Kg
	Work Temperature	-20°C ~ 60°C (-4°F~140°F) with air flow (SSD)
	Storage Temperature	-40°C ~ 80°C (-40°F ~ 176°F) with air flow (SSD)
	Relative Humidity	5~95% (Non-condensing)
	Operating Vibration	5~500Hz, 1.5Grms@with SSD, Follow IEC60068-2-64
	Operating Shock	20G peak acceleration(11ms duration) with SSD, Follow IEC60068-2-27
EMC		CE/FCC Class A

AC-1181



■ Specifications

Model Name		AC-1181
System	CPU	ARM T507 Quad-core Cortex™-A53 1.5GHz
	Memory	LPDDR4 2GB
	Storage	eMMC5.0 16GB
	USB	1 x USB Type-C OTG
	COM	1 x RS485
	Ethernet	2 x RJ45 10/100 Mbit/s
	IO Expansions	E-BUS
	LEDs	1 x POWER 5 x Programmable LEDs(1 x Run, 1 x Error, 1 x ALM, 2 x FB)
	Watch Dog	1~255 levels programmable
OS Support	Linux	Ubuntu
Power	Voltage Input	DC24V -15%/+20%, overcurrent, overvoltage and polarity inverse protection , Super capacitors integrated , Full load for 10s.
	Power Consumption	Max. 10W
Chassis	Dimensions	(L)100mm x (W)53mm x (H)80mm
	Net Weight	190g
Environment	Work Temperature	-20°C ~ 60°C (-4°F~140°F)
	Storage Temperature	-40°C ~ 80°C (-40°F ~ 176°F)
	Relative Humidity	5~95% (Non-condensing)
	Operating Vibration	5~500Hz, 1.5Grms, Follow IEC60068-2-64
	Operating Shock	20G peak acceleration(11ms duration) , Follow IEC60068-2-27
	EMC	CE/FCC Class A

AC-1201



■ Specifications

Model Name		AC-1201
System	Task within EtherCAT system	Coupling of EtherCAT Terminals to 100BASE-TX EtherCAT networks
	Data transfer medium	Ethernet/EtherCAT cable(min. Cat.5),shielded
	Distance between stations	Max. 100m(100BASE-TX)
	Number of EtherCAT Terminals	Up to 65535
	Protocol	EtherCAT
	Delay	Approx. 1us
	Data transfer rates	100 Mbit/s
	Bus interface	2 x RJ45
Power	Voltage Input	DC24V -15%/+20%
Chassis	Dimensions	(L)100mm x (W)24mm x (H)80mm
	Net Weight	90g
Environment	Work Temperature	-20°C ~ 60°C (-4°F~140°F)
	Storage Temperature	-40°C ~ 80°C (-40°F ~ 176°F)
	Relative Humidity	5~95% (Non-condensing)
	Operating Vibration	5~500Hz, 1.5Grms, Follow IEC60068-2-64
	Operating Shock	20G peak acceleration(11ms duration) , Follow IEC60068-2-27
EMC		CE/FCC Class A

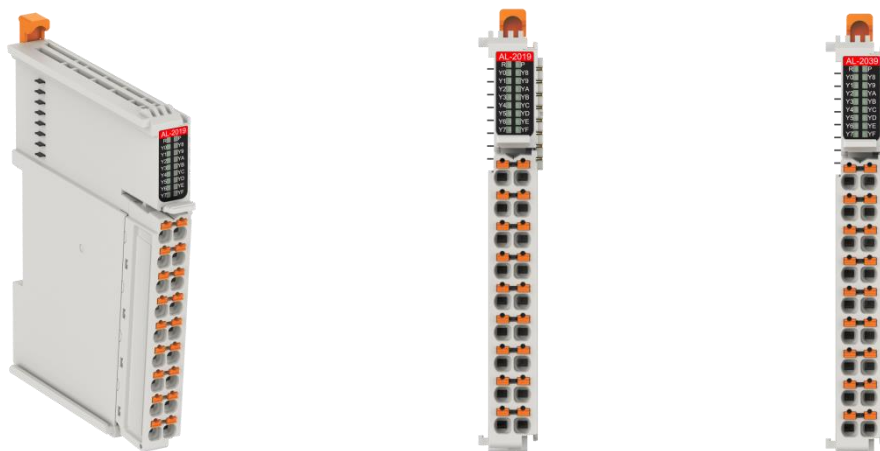
AL-1xxx



■ Specifications

Model Name	AL-1219	AL-1229
Field bus	E-Bus	
Specification	EN 61131-2(COM connects to 0V)	
Number of Inputs	16	
Signal Type	NPN/PNP	
Signal voltage "0"	18...30V(NPN), -3...+5V(PNP)	
Signal voltage "1"	0...7V(NPN), 11...30V(PNP)	
Input filter	Typically 3ms	Typically 10us
Electrical isolation	500V(EtherCAT/field voltage)	
Nominal voltage of the inputs	DC24V -15%/+20%	
Dimensions(W x H x D)	(L)100mm x (W)12mm x (H)80mm	
Weight	60g	
Operating temperature range	-20°C ~ 60°C (-4°F~140°F)	
Storage temperature range	-40°C ~ 80°C (-40°F ~ 176°F)	
Relative humidty	95%, no condensation	
Operating Vibration	5~500Hz, 1.5Grms, Follow IEC60068-2-64	
Operating Shock	20G peak acceleration(11ms duration) , Follow IEC60068-2-27	
EMC	CE/FCC Class A	

AL-2xxx



■ Specifications

Model Name	AL-2019	AL-2319
Field bus	E-Bus	
Number of Outputs	16	
Signal Type	NPN	PNP
Load type	resistance, inductive, lamp load	
Max. output current	0.5A (short-circuit proof) per channel	
Short-circuit current	< 1.5A	
Electrical isolation	500V(EtherCAT/field voltage)	
Nominal voltage of the inputs	DC24V -15%/+20%	
Dimensions(W x H x D)	(L)100mm x (W)12mm x (H)80mm	
Weight	60g	
Operating temperature range	-20°C ~ 60°C (-4°F~140°F)	
Storage temperature range	-40°C ~ 80°C (-40°F ~ 176°F)	
Relative humidity	95%, no condensation	
Operating Vibration	5~500Hz, 1.5Grms, Follow IEC60068-2-64	
Operating Shock	20G peak acceleration(11ms duration) , Follow IEC60068-2-27	
EMC	CE/FCC Class A	

AL-3xxx



■ Specifications

Model Name	AL-3238	AL-3438	AL-3538
Field bus	E-Bus		
Number of Inputs	8		
Signal Type	-10V...+10V	0...20mA	4...20mA
Technology	Differential input		
Internal resistance	~240kΩ	240kΩ	240kΩ
Resolution	16 bit		
Electrical isolation	500V(EtherCAT/field voltage)		
Nominal voltage of the inputs	DC24V -15%/+20%		
Dimensions(W x H x D)	(L)100mm x (W)12mm x (H)80mm		
Weight	60g		
Operating temperature range	-20°C ~ 60°C (-4°F ~ 140°F)		
Storage temperature range	-40°C ~ 80°C (-40°F ~ 176°F)		
Relative humidity	95%, no condensation		
Operating Vibration	5~500Hz, 1.5Grms, Follow IEC60068-2-64		
Operating Shock	20G peak acceleration(11ms duration) , Follow IEC60068-2-27		
EMC	CE/FCC Class A		

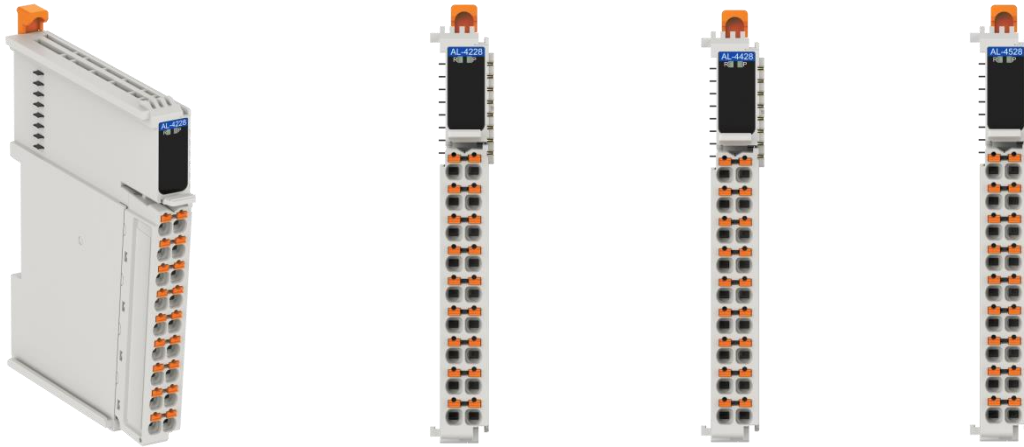
AL-3xxx



■ Specifications

Model Name	AL-3608	AL-3614
Field bus	E-Bus	
Number of Inputs	8	4
Signal Type	Type K/J/T	PT100,PT1000
Connection method	2 wire	2,3,4 wire
Conversion time	Configurable, acquiesce 400ms (50Hz/60Hz filter)	Configurable, acquiesce 200ms (50Hz/60Hz filter)
Measuring range	Depends on the sensor type	
Resolution	0.1°C	
Measurement error/uncertainty	±0.3% full-scale	
Electrical isolation	500V(EtherCAT/field voltage)	
Nominal voltage of the inputs	DC24V -15%/+20%	
Dimensions(W x H x D)	(L)100mm x (W)12mm x (H)80mm	
Weight	60g	
Operating temperature range	-20°C ~ 60°C (-4°F~140°F)	
Storage temperature range	-40°C ~ 80°C (-40°F ~ 176°F)	
Relative humidity	95%, no condensation	
Operating Vibration	5~500Hz, 1.5Grms, Follow IEC60068-2-64	
Operating Shock	20G peak acceleration(11ms duration) , Follow IEC60068-2-27	
EMC	CE/FCC Class A	

AL-4xxx



■ Specifications

Model Name	AL-4228	AL-4428	AL-4528
Field bus	E-Bus		
Number of Outputs	8		
Signal Type	-10V...+10V	0...20mA	4...20mA
Load	> 5k Ω (short-circuit proof)	<500 Ω	<500 Ω
Output error	< $\pm$ 1%		
Resolution	16 bit		
Conversion time	~400 μ s		
Electrical isolation	500V(EtherCAT/field voltage)		
Nominal voltage of the inputs	DC24V -15%/+20%		
Dimensions(W x H x D)	(L)100mm x (W)12mm x (H)80mm		
Weight	60g		
Operating temperature range	-20°C ~ 60°C (-4°F~140°F)		
Storage temperature range	-40°C ~ 80°C (-40°F ~ 176°F)		
Relative humidity	95%, no condensation		
Operating Vibration	5~500Hz, 1.5Grms, Follow IEC60068-2-64		
Operating Shock	20G peak acceleration(11ms duration) , Follow IEC60068-2-27		
EMC	CE/FCC Class A		

AL-5002



■ Specifications

Model Name	AL-5002
Field bus	E-Bus
Number of channels	2 x incremental encoder
Encoder connection	A/B/Z phase differential RS422 input
Counter	32 bit, binary
Limit frequency	Max. 5Mbps
Conversion time	1ms
Electrical isolation	500V(EtherCAT/field voltage)
Nominal voltage of the inputs	DC24V -15%/+20%
Dimensions(W x H x D)	(L)100mm x (W)12mm x (H)80mm
Weight	60g
Operating temperature range	-20°C ~ 60°C (-4°F~140°F)
Storage temperature range	-40°C ~ 80°C (-40°F ~ 176°F)
Relative humidty	95%, no condensation
Operating Vibration	5~500Hz, 1.5Grms, Follow IEC60068-2-64
Operating Shock	20G peak acceleration(11ms duration) , Follow IEC60068-2-27
EMC	CE/FCC Class A