

SIMATIC IPC427D (Microbox PC), HD graphic onboard, 2x10/100/1000 Mbit/s Ethernet RJ45, 4xUSB V3.0 (high current), PCIe (optional), 24 V DC power supply Celeron U827E; 2x Gbit Ethernet (IE/PN); PROFIBUS DP 12; Wall mounting; 4 GB with NVRAM; 1x RS-232; without PCIE; WIN Embedded Standard 7, 32-bit Replaceable without drive; CFast 8 GB; without SIMATIC software

Installation type/mounting	
Mounting	DIN rail, wall mounting, portrait mounting
Design	Box PC, built-in unit
Supply voltage	
Type of supply voltage	24 V DC
Processor	
Processor type	Celeron 827E (1C/1T, 1.40 GHz, 1.5 MB Cache); Core i3-3217UE (2C/4T, 1.60 GHz, 3 MB Cache); Core i7-3517UE (2C/4T, 1.70 (2.80) GHz, 4 MB Cache, iAMT)
Graphic	
Graphics controller	Intel HD Graphics, Intel HD Graphics 4000
Drives	
Hard disk	2.5" SATA ≥ 320 GB
SSD	Yes; 1x 240 GB SSD, 1x 480 GB SSD
Memory	
Type of memory	DDR3 SO-DIMM
Main memory	2 / 4 / 8 GB; ECC optional
Capacity of main memory, max.	8 Gbyte
Data areas and their retentivity	
Retentive data area (incl. timers, counters, flags), max.	512 kbyte; 128 KB can be stored in the buffer time; optional
Hardware configuration	
Slots	
<ul style="list-style-type: none"> • free slots • Number of PCI slots • Number of compact flash slots 	2x PCIe; optional: 1x PCIe (x4); 2x PCIe (x1, x4), with card retainer 2; Optional 2; CFast
Interfaces	
PROFIBUS/MPI	optionally onboard, isolated, max. 12 Mbps, compatible with CP 5611
Number of PROFINET interfaces	1; 3 ports (incl. switch)
USB port	4x USB 3.0
Connection for keyboard/mouse serial interface	USB / USB COM1: 1x RS 232, COM2 (optional): 1x RS 232
Video interfaces	
<ul style="list-style-type: none"> • Graphics interface 	1x DisplayPort and 1x DVI-I; 1x VGA via adapter cable (optional)
Industrial Ethernet	
<ul style="list-style-type: none"> • Industrial Ethernet interface <ul style="list-style-type: none"> — 100 Mbps — 1000 Mbps 	Onboard, 2x 10/100/1 000 Mbit, RJ45, no plug-in card necessary Yes Yes
Interrupts/diagnostics/status information	
Bus diagnostics	Yes
Integrated Functions	
Monitoring functions	
<ul style="list-style-type: none"> • Temperature monitoring • Watchdog • Status LEDs • Fan • Monitoring function via network 	Yes Yes Yes No Optional
EMC	

Interference immunity against discharge of static electricity	
<ul style="list-style-type: none"> Interference immunity against discharge of static electricity 	±6 kV contact discharge acc. to IEC 61000-4-2; ±8 kV air discharge acc. to IEC 61000-4-2
Interference immunity against high-frequency electromagnetic fields	
<ul style="list-style-type: none"> Interference immunity against high frequency radiation 	10 V/m for 80 - 1 000 MHz and 1.4 - 2 GHz, 80% AM acc. to IEC 61000-4-3; 3 V/m for 2 - 2.7 GHz, 80% AM acc. to IEC 61000-4-3; 10 V for 10 kHz - 80 MHz, 80% AM acc. to IEC 61000-4-6
Interference immunity to cable-borne interference	
<ul style="list-style-type: none"> Interference immunity on supply cables Interference immunity on signal cables >30m Interference immunity on signal cables < 30m 	±2 kV acc. to IEC 61000-4-4, burst; ±1 kV acc. to IEC 61000-4-5, surge symmetric; ±2 kV acc. to IEC 61000-4-5, surge asymmetric ±2 kV acc. to IEC 61000-4-5, surge, length > 30 m ±1 kV acc. to IEC 61000-4-4; burst; length < 3 m; ±2 kV acc. to IEC 61000-4-4; burst; length > 3 m
Interference immunity against voltage surge	
<ul style="list-style-type: none"> asymmetric interference symmetric interference 	±2 kV acc. to IEC 61000-4-5, surge asymmetric ±1 kV acc. to IEC 61000-4-5, surge symmetric
Interference immunity to magnetic fields	
<ul style="list-style-type: none"> Interference immunity to magnetic fields at 50 Hz 	100 A/m; to IEC 61000-4-8
Emission of conducted and non-conducted interference	
<ul style="list-style-type: none"> Interference emission via line/AC current cables 	EN 61000-6-3, EN 61000-6-4, CISPR 22 Class B, FCC Class A
Degree and class of protection	
IP (at the front)	IP20
IP (rear)	IP20
Standards, approvals, certificates	
CE mark	Yes; CE marking / EC Declaration of Conformity
UL approval	Yes
<ul style="list-style-type: none"> UL 508 	Yes
cULus	Yes
RCM (formerly C-TICK)	Yes
KC approval	Yes
FCC	Yes
EMC	CE, EN 55022A, EN 61000-6-4, EN 61000-6-2
Use in hazardous areas	
<ul style="list-style-type: none"> ATEX Zone 2 IECEx Zone 2 cULus Class I Zone 2, Division 2 	Yes; Optional Yes; Optional Yes; Optional
Marine approval	
<ul style="list-style-type: none"> Germanischer Lloyd (GL) American Bureau of Shipping (ABS) Bureau Veritas (BV) Det Norske Veritas (DNV) Korean Register of Shipping (KRS) Lloyds Register of Shipping (LRS) Nippon Kaiji Kyokai (Class NK) 	Yes Yes Yes Yes Yes Yes Yes
Ambient conditions	
Ambient temperature during operation	
<ul style="list-style-type: none"> Ambient temperature during operation 	0 °C up to 55 °C
Ambient temperature during storage/transportation	
<ul style="list-style-type: none"> min. max. 	-40 °C 70 °C
Relative humidity	
<ul style="list-style-type: none"> Relative humidity 	Tested according to IEC 60068-2-78, IEC 60068-2-30: Operation: 5% to 80% at 25 °C (no condensation), Storage: 5% to 95% at 25 °C (no condensation)
Vibrations	
<ul style="list-style-type: none"> Vibration resistance during operation acc. to IEC 60068-2-6 	tested to DIN IEC 60068-2-6: 10 Hz to 58 Hz: 0.075 mm, 58 Hz to 200 Hz: 9.8 m/s ² (1 g)
Shock testing	
<ul style="list-style-type: none"> Shock load during operation 	Tested to DIN IEC 60068-2-29: 50 m/s ² (5 g), 30 ms, 100 shocks
Operating systems	
pre-installed operating system	Windows 7 Ultimate (Multi-Language) 32-bit / 64-bit, Windows Embedded Standard 7 E/P 32-bit / 64-bit
without operating system	Yes; Optional
pre-installed operating system	
<ul style="list-style-type: none"> Windows 7 	Yes; Ultimate 32 bit or 64 bit

Software

SIMATIC Software

Optionally with pre-installed software bundle SIMATIC WinCC RT
Advanced / WinAC RTX

Dimensions

Width

262 mm

Height

139.7 mm

Depth

50.5 mm

last modified:

1/14/2021 