

PC-based Automation

Industrial PC

Panel PC

SIMATIC IPC377E

Overview



SIMATIC IPC377E

Based on Intel Celeron process technology, the SIMATIC IPC377E Box PC represents a new IPC platform which has been specifically developed for cost-optimized, PC-based applications in industrial and industry-oriented environments.

The SIMATIC IPC377E Panel PC is characterized by industrial touch displays in the sizes 12", 15" and 19" as well as a variety of interfaces. Fast availability from stock as well as the fanless industrial design complete the concept.

Technical specifications

Article number	6AV7230-0....-.... SIMATIC IPC377E
General information	
Product type designation	IPC377E
Installation type/mounting	
Mounting	Panel mount and VESA, horizontal and vertical
Design	Panel PC, built-in unit
Supply voltage	
Type of supply voltage	24 V DC
Mains buffering	
• Mains/voltage failure stored energy time	10 ms
Processor	
Processor type	Intel Celeron N3160
Drives	
Hard disk	500 GB HDD
SSD	Yes; 256 GB SSD
Memory	
Type of memory	DDR3L
Main memory	4 GB, 8 GB
Hardware configuration	
Slots	
• free slots	1x mPCIe (half-size), 1x mSATA (full-size)
Interfaces	
Number of industrial Ethernet interfaces	2; 2x RJ45 (independent)
USB port	2x USB 2.0, 2x USB 3.0 (high current)
Video interfaces	
• Graphics interface	1x DisplayPort, 1x VGA
Industrial Ethernet	
• Industrial Ethernet interface	2x Ethernet (RJ45)
- 100 Mbps	Yes
- 1000 Mbps	Yes
Protocols	
Protocols (Ethernet)	
• TCP/IP	Yes
Integrated Functions	
Monitoring functions	
• Temperature monitoring	Yes
• Watchdog	Yes
• Status LEDs	POWER, HDD
• Fan	No

Technical specifications (continued)

Article number	6AV7230-0....-.... SIMATIC IPC377E
EMC	
Interference immunity against discharge of static electricity	
<ul style="list-style-type: none"> Interference immunity against discharge of static electricity Interference immunity against discharge of static electricity acc. to IEC 61000-4-2 <ul style="list-style-type: none"> - Test voltage at air discharge - Test voltage at contact discharge 	±6 kV contact; ±8 kV air (to IEC 1000-4-2; ESD) 8 kV 6 kV
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, 80 % AM according to IEC 61000-4-3; 3 V/m for 1.4 ... 6 GHz, 80 % AM according to IEC 61000-4-3
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 (according to IEC 61000-4-4, burst); ±1 kV (according to IEC 61000-4-5, surge pulse/line to line); ±2 kV (according to IEC 61000-4-5, surge pulse/line to ground) ±2 kV acc. to IEC 61000-4-4, burst; ±2 kV acc. to IEC 61000-4-5, surge ±1 kV acc. to IEC 61000-4-4, Burst
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
Degree and class of protection	
IP (at the front)	IP65
IP (rear)	IP40

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Standards, approvals, certificates	
CE mark	Yes
UL approval	Yes
cULus	Yes
RCM (formerly C-TICK)	Yes
EAC (formerly Gost-R)	Yes
FCC	Yes
Dust protection	Protection against foreign bodies > 1 mm
Ambient conditions	
Ambient temperature during operation	
<ul style="list-style-type: none"> Ambient temperature during operation 	0 to +45°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 85 % at 30 °C (no condensation), storage / transport: 5 % to 95 % at 25 / 55 °C (no condensation)
Vibrations	
<ul style="list-style-type: none"> Vibration resistance during operation acc. to IEC 60068-2-6 	Tested according to DIN IEC 60068-2-6: 10 Hz to 58 Hz: 0.075 mm; 58 Hz to 500 Hz 9.8 m/s ² (1g)
Shock testing	
<ul style="list-style-type: none"> Shock load during operation 	Tested in accordance with IEC 60068-2-27: with SSD: 150 m/s ² , 11 ms; with HDD: 9.8 m/s ² , 20 ms
Operating systems	
Operating system	Windows 7 Ultimate (Multi-Language), 64 bit; Windows 10 Enterprise 2016 LTSB, 64 bit
pre-installed operating system	Yes
without operating system	Yes

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SIMATIC IPC377E**Ordering data****Article No.****SIMATIC IPC377E****6AV7230 - 0**

1 x display port graphic
 1 x VGA port graphic
 2x 10/100/1 000 Mbps
 Ethernet RJ45; 2 x USB 3.0;
 2 x USB 2.0; 4 x serial ports (COM)

Operating unit

- 12" touch (1 280 x 800)
- 15" touch (1 366 x 768)
- 19" touch (1 366 x 768)

C
D
EProcessor

- Celeron N3160 (4C/4T)

A

Work memory

- 4 GB RAM
- 8 GB RAM

2
3Expansions/interfaces

- 1x mPCIe / 1x mSata

0

Operating system

- Without operating system
- Windows Ultimate SP1,
64-bit MUI (en, de, fr, es, it)

0
1Drives

- None
- 500 GB HDD
- 256 GB SSD

A
B
CPower supply

- 24 V DC

A

Mounting accessories

- Installation, VESA installation

0

Article No.

*Preferred variants (available
 directly ex stock)*

SIMATIC IPC377E**12" Configuration 1**

12" touch (analog resistive);
 Intel Celeron Quad Core N3160
 (1.6 GHz); 500 GB HDD SATA,
 internal; 4 GB RAM (1 x 4 GB);
 without operating system; 24 V DC;
 interfaces: 2 x Gbit Ethernet (RJ45),
 2 x USB 2.0; 2 x USB 3.0;
 4 x serial; 1 x Display Port,
 1 x VGA, audio

6AV7230-0CA20-0BA0**12" Configuration 2**

12" touch (analog resistive);
 Intel Celeron Quad Core N3160
 (1.6 GHz); 500 GB HDD SATA,
 internal; 4 GB RAM (1 x 4 GB);
 Windows 7 Ultimate 64-bit, SP1;
 24 V DC; interfaces: 2 x Gbit
 Ethernet (RJ45), 2 x USB 2.0;
 2 x USB 3.0; 4 x serial;
 1 x Display Port, 1 x VGA, audio

6AV7230-0CA20-1BA0**12" Configuration 3**

12" touch (analog resistive);
 Intel Celeron Quad Core N3160
 (1.6 GHz); 256 GB SSD, internal;
 4 GB RAM (1 x 4 GB); without
 operating system; 24 V DC;
 interfaces: 2 x Gbit Ethernet
 (RJ45), 2 x USB 2.0; 2 x USB 3.0;
 4 x serial; 1 x Display Port,
 1 x VGA, audio

6AV7230-0CA20-0CA0**12" Configuration 4**

12" touch (analog resistive);
 Intel Celeron Quad Core N3160
 (1.6 GHz); 256 GB SSD, internal;
 4 GB RAM (1 x 4 GB);
 Windows 7 Ultim. 64-bit, SP1;
 24 V DC; interfaces:
 2 x Gbit Ethernet (RJ45),
 2 x USB 2.0; 2 x USB 3.0; 4 x serial;
 1 x Display Port, 1 x VGA, audio

6AV7230-0CA20-1CA0**12" Configuration 5**

12" touch (analog resistive);
 Intel Celeron Quad Core N3160
 (1.6 GHz); 256 GB SSD, internal;
 4 GB RAM (1 x 4 GB);
 Windows 10 Enterprise 2016 LTSB;
 24 V DC; interfaces:
 2 x Gbit Ethernet (RJ45),
 2 x USB 2.0; 2 x USB 3.0; 4 x serial;
 1 x Display Port, 1 x VGA, audio

6AV7230-0CA20-2CA0

Ordering data	Article No.	Ordering data	Article No.
15" Configuration 1 15" touch (analog resistive); Intel Celeron Quad Core N3160 (1.6 GHz); 500 GB HDD SATA, internal; 4 GB RAM (1 x 4 GB); without operating system; 24 V DC; interfaces: 2 x Gbit Ethernet (RJ45), 2 x USB 2.0; 2 x USB 3.0; 4 x serial; 1 x Display Port, 1 x VGA, audio	6AV7230-0DA20-0BA0	19" Configuration 1 19" touch (analog resistive); Intel Celeron Quad Core N3160 (1.6 GHz); 500 GB HDD SATA, internal; 4 GB RAM (1 x 4 GB); without operating system; 24 V DC; interfaces: 2 x Gbit Ethernet (RJ45), 2 x USB 2.0; 2 x USB 3.0; 4 x serial; 1 x Display Port, 1 x VGA, audio	6AV7230-0EA20-0BA0
15" Configuration 2 15" touch (analog resistive); Intel Celeron Quad Core N3160 (1.6 GHz); 500 GB HDD SATA, internal; 4 GB RAM (1 x 4 GB); Windows 7 Ultimate 64-bit, SP1; 24 V DC; interfaces: 2 x Gbit Ethernet (RJ45), 2 x USB 2.0; 2 x USB 3.0; 4 x serial; 1 x Display Port, 1 x VGA, audio	6AV7230-0DA20-1BA0	19" Configuration 2 19" touch (analog resistive); Intel Celeron Quad Core N3160 (1.6 GHz); 500 GB HDD SATA, internal; 4 GB RAM (1 x 4 GB); Windows 7 Ultimate 64-bit, SP1; 24 V DC; interfaces: 2 x Gbit Ethernet (RJ45), 2 x USB 2.0; 2 x USB 3.0; 4 x serial; 1 x Display Port, 1 x VGA, audio	6AV7230-0EA20-1BA0
15" Configuration 3 15" touch (analog resistive); Intel Celeron Quad Core N3160 (1.6 GHz); 256 GB SSD, internal; 4 GB RAM (1 x 4 GB); without operating system; 24 V DC; interfaces: 2 x Gbit Ethernet (RJ45), 2 x USB 2.0; 2 x USB 3.0; 4 x serial; 1 x Display Port, 1 x VGA, audio	6AV7230-0DA20-0CA0	19" Configuration 3 19" touch (analog resistive); Intel Celeron Quad Core N3160 (1.6 GHz); 256 GB SSD, internal; 4 GB RAM (1 x 4 GB); without operating system; 24 V DC; interfaces: 2 x Gbit Ethernet (RJ45), 2 x USB 2.0; 2 x USB 3.0; 4 x serial; 1 x Display Port, 1 x VGA, audio	6AV7230-0EA20-0CA0
15" Configuration 4 15" touch (analog resistive); Intel Celeron Quad Core N3160 (1.6 GHz); 256 GB SSD, internal; 4 GB RAM (1 x 4 GB); Windows 7 Ultim. 64-bit, SP1; 24 V DC; interfaces: 2 x Gbit Ethernet (RJ45), 2 x USB 2.0; 2 x USB 3.0; 4 x serial; 1 x Display Port, 1 x VGA, audio	6AV7230-0DA20-1CA0	19" Configuration 4 19" touch (analog resistive); Intel Celeron Quad Core N3160 (1.6 GHz); 256 GB SSD, internal; 4 GB RAM (1 x 4 GB); Windows 7 Ultim. 64-bit, SP1; 24 V DC; interfaces: 2 x Gbit Ethernet (RJ45), 2 x USB 2.0; 2 x USB 3.0; 4 x serial; 1 x Display Port, 1 x VGA, audio	6AV7230-0EA20-1CA0
15" Configuration 5 15" touch (analog resistive); Intel Celeron Quad Core N3160 (1.6 GHz); 256 GB SSD, internal; 4 GB RAM (1 x 4 GB); Windows 10 Enterprise 2016 LTSB; 24 V DC; interfaces: 2 x Gbit Ethernet (RJ45), 2 x USB 2.0; 2 x USB 3.0; 4 x serial; 1 x Display Port, 1 x VGA, audio	6AV7230-0DA20-2CA0	19" Configuration 5 19" touch (analog resistive); Intel Celeron Quad Core N3160 (1.6 GHz); 256 GB SSD, internal; 4 GB RAM (1 x 4 GB); Windows 7 Ultim. 64-bit, SP1; 24 V DC; interfaces: 2 x Gbit Ethernet (RJ45), 2 x USB 2.0; 2 x USB 3.0; 4 x serial; 1 x Display Port, 1 x VGA, audio	6AV7230-0EA20-2CA0

Note:

The SIMATIC IPC377E has a different front panel and is not directly installation-compatible with previous SIMATIC HMI devices.

Additional information is available on the Internet at:

<http://www.siemens.com/simatic-panel-pc>