## **SIEMENS**

## **Data sheet**

6ES7647-8CA12-2AB1

SIMATIC IPC227G 2x display ports; 3x 10/100/1000 Mbps Ethernet; 4x USB3.0, 2x M.2 expansion slot; 24 V DC industrial power supply Atom X6211E (2-core); 4 GB RAM; 1x COM; 256 GB Eco SSD; without hardware extension; Windows 10 Enterprise 2019 LTSC, 64-bit; MUI (en,de,fr,it,es); mounting onto standard rail;

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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
Mains buffering	
Mains/voltage failure stored energy time	20 ms
Processor	
Processor type	Intel Atom X6211E / X6413E / X6414RE
Chipset	SoC
Graphic	
	Integrated
Graphics controller	Integrated
Drives	V 050 5
SSD	Yes; 256 Eco
Memory	
Type of memory	DDR4 SO-DIMM
Main memory	2 / 4 / 8 / 16 Gbyte; inband ECC optional
Capacity of main memory, max.	16 Gbyte
Hardware configuration	
Slots	
• free slots	2x M.2
Interfaces	
Number of industrial Ethernet interfaces	3; 3x Ethernet (RJ45)
USB port	4x USB 3.1
Connection for keyboard/mouse	USB / USB
serial interface	without / 1x / 2x COM (RS 232 / 485 / 422; selectable)
Video interfaces	
Graphics interface	2x DisplayPort
Industrial Ethernet	
<ul> <li>Industrial Ethernet interface</li> </ul>	3x Ethernet (RJ45)
— 100 Mbps	Yes
— 1000 Mbps	Yes
Integrated Functions	
Monitoring functions	
<ul> <li>Temperature monitoring</li> </ul>	Yes
<ul><li>Watchdog</li></ul>	Yes
Status LEDs	1x power, 3x user
Fan	No
Monitoring function via network	Optional
EMC	
Interference immunity against discharge of static electric	ity
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 electromage	gnetic fields
<ul> <li>Interference immunity against high frequency radiation</li> </ul>	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> <li>Interference immunity on supply cables</li> </ul>	±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
<ul> <li>Interference immunity on signal cables &gt;30m</li> </ul>	±2 kV acc. to IEC 61000-4-5, surge, length > 30 m
<ul> <li>Interference immunity on signal cables &lt; 30m</li> </ul>	±1 kV (5 kHz/100 kHz) acc. to IEC 61000-4-4; burst; length < 30 m; ±2
	kV (5 kHz/100 kHz) acc. to IEC 61000-4-4; burst; length > 30 m
Interference immunity against voltage surge	
<ul> <li>asymmetric interference</li> </ul>	±2 kV acc. to IEC 61000-4-5, surge asymmetric
symmetric interference	±1 kV acc. to IEC 61000-4-5, surge symmetric
Interference immunity to magnetic fields	
<ul> <li>Interference immunity to magnetic fields at 50 Hz</li> </ul>	100 A/m; to IEC 61000-4-8
Emission of conducted and non-conducted interference	
<ul> <li>Interference emission via line/AC current cables</li> </ul>	EN 61000-6-3, EN 61000-6-4, CISPR 22 Class B, FCC Class A
Degree and class of protection	
IP degree of protection	IP40
Standards, approvals, certificates	
CE mark	Yes
cULus	Yes
RCM (formerly C-TICK)	Yes
KC approval	Yes
EAC (formerly Gost-R)	Yes
FCC	Yes
EMC	CE, EN 61000-6-4:2007, EN 61000-6-2:2005
Dust protection	Protection against foreign bodies > 1 mm
·	Protection against loreign bodies > 1 min
Ambient conditions	
Ambient temperature during operation	
Ambient temperature during operation	0 °C to 55 °C
Ambient temperature during storage/transportation	
• min.	-20 °C
• max.	60 °C
Relative humidity	
<ul> <li>Relative humidity</li> </ul>	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	20 / 00 °C (no condendation)
Vibrations     Vibration resistance during operation acc. to IEC	tested according to IEC 60068-2-6: 5 Hz to 8.4 Hz: 3.5 mm, 8.4 Hz to
60068-2-6	200 Hz : 9.8m/s <sup>2</sup> (1 g) (except DIN Rail) 10 Hz to 58 Hz: 0.0375 mm, 58
	Hz to 500 Hz: 4.9 m/s <sup>2</sup> (0.5 g) (DIN Rail)
Shock testing	
<ul> <li>Shock load during operation</li> </ul>	Tested according to IEC 60068-2-27: 150 m/s², 11 ms
Operating systems	
pre-installed operating system	Windows 10 IoT Enterprise 2019 LTSC, 64 bit, MUI
without operating system	Yes; Optional
pre-installed operating system	,
Windows 10	Yes; Windows 10 IoT Enterprise 2019 LTSC, 64 bit, MUI
Windows 10 Enterprise	Yes; Windows 10 IoT Enterprise 2019 LTSC, 64 bit, MUI
Dimensions	
	101 mm
Width	191 mm
Height	100 mm
Depth	64 mm
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