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Data sheet 6AV7886-0DB31-2AB0

SIMATIC IPC277G (nanopanel PC); 15" multi-touch (1920 x 1080); 3x 10/100/1000 Mbps Ethernet RJ45; 2x display port graphic; 4x USB 3.1, 2x M.2 extension slot; 24 V DC industrial power supply Atom X6413E (4-core); 16 GB RAM / with USB flash drive (documentation); without COM; 256 GB Eco SSD; without hardware extension; Windows 10 IoT Enterprise 2019 LTSC, 64-bit, MUI (en/de/fr/it/es), ;

General information	
Product type designation	IPC277G
Display	
Design of display	15" TFT multi-touch
Screen diagonal	15 in
Resolution (pixels)	
● Horizontal image resolution	1 920 pixel
● Vertical image resolution	1 080 pixel
Backlighting	
● MTBF backlighting (at 25 °C)	50 000 h
Control elements	
Touch operation	
● Design as multi-touch screen	Yes; Projective-capacitive
Installation type/mounting	
Mounting	For horizontal and vertical mounting
Design	Panel PC, built-in unit
central design	Yes
Mounting in portrait format possible	Yes
maximum permissible installation angle +/-	45°
Supply voltage	
Type of supply voltage	24 V DC
Rated value (DC)	24 V
Mains buffering	
● Mains/voltage failure stored energy time	20 ms
Power loss	
In full configuration	80 W
Processor	
Processor type	Intel Atom X6211E / X6413E / X6414RE
Chipset	SoC
Graphic	
Graphics controller	Integrated
Drives	
SSD	Yes; 256 Eco / 240 / 480 GB
Storage	
Type of memory	DDR4 SO-DIMM
Main memory	4 / 8 / 16 GB; inband ECC optional
Capacity of main memory, max.	16 Gbyte
Interfaces	
Number of industrial Ethernet interfaces	3; 3x Ethernet (RJ45)
USB port	4x USB 3.1 Gen2 10 GB/s + 2x USB 2.0 pin header
serial interface	without / 1x / 2x COM (RS 232 / 485 / 422; selectable)
Video interfaces	
● Graphics interface	2x DisplayPort
Industrial Ethernet	
● Industrial Ethernet interface	3x Ethernet (RJ45)
— 100 Mbps	Yes
— 1000 Mbps	Yes

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Protocols	
Protocols (Ethernet)	
● DHCP	Yes
Interrupts/diagnostics/status information	
LED status display	No
Integrated Functions	
Monitoring functions	
● Temperature monitoring	Yes
● Watchdog	Yes
● Fan	No
● Monitoring function via network	Optional
EMC	
Interference immunity against discharge of static electricity	
● 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	
● 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	
● Interference immunity on supply cables	±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
● Interference immunity on signal cables >30m	±2 kV acc. to IEC 61000-4-5, surge, length > 30 m
● Interference immunity on signal cables < 30m	±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	
● asymmetric interference	±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	
● Interference immunity to magnetic fields at 50 Hz	100 A/m; to IEC 61000-4-8
Emission of conducted and non-conducted interference	
● 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)	IP65
IP (rear)	20
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
Ambient conditions	
Ambient temperature during operation	
● min.	0 °C
● max.	50 °C; from 19", 22", 24": max. 45 °C
Ambient temperature during storage/transportation	
● min.	-20 °C
● max.	60 °C
Relative humidity	
● 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)
● Operation, max.	85 %
Vibrations	
● Vibration resistance during operation acc. to IEC 60068-2-6	tested according to IEC 60068-2-6: 5 Hz to 8.4 Hz: 3.5 mm, 8.4 Hz to 200 Hz : 9.8m/s² (1 g) (except DIN Rail) 10 Hz to 58 Hz: 0.0375 mm, 58 Hz to 500 Hz: 4.9 m/s² (0.5 g) (DIN Rail)
Shock testing	
● Shock load during operation	Tested according to IEC 60068-2-27: 150 m/s², 11 ms

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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 Enterprise	Yes; Windows 10 IoT Enterprise 2019 LTSC, 64 bit, MUI
Dimensions	
Width of the housing front	398 mm
Height of housing front	257 mm
Mounting cutout, width	382 mm
Mounting cutout, height	241 mm
mounting depth	105 mm
Weights	
Weight, approx.	5.3 kg

Classifications

	Version	Classification
eClass	16	19-20-01-03
eClass	14	19-20-01-03
eClass	12	19-20-01-03
eClass	9.1	19-20-01-03
eClass	9	19-20-01-03
eClass	8	27-24-23-01
eClass	7.1	27-24-23-01
eClass	6	27-24-23-01
ETIM	10	EC001414
ETIM	9	EC001414
ETIM	8	EC001414
ETIM	7	EC001414

Approvals / Certificates

General Product Approval

Miscellaneous

Miscellaneous

General Product Approval

BIS CRS

China RoHS

Maritime application

Maritime application

NK / Nippon Kaiji Kyokai

CCS (China Classification Society)

KR (Korean Register of Shipping)

Dangerous goods

Dangerous goods information

Test Summary Report UN 38.3

Environment

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