## SIEMENS

## Data sheet

## 6AV7880-0CA12-0AA2

SIMATIC ITP1000, 8 function keys, Ethernet 10/100/1000 Mbit/s, 1x RS232, 2x USB 3.0, 1x UAJ, 1x USB type-C, 1x SD card reader, Wifi 802.11 a/b/c/g, Bluetooth, Lithium-ion battery; 10" Multitouch (1280 x 800); RFID reader; 256 GB SSD; Windows 7 Ultimate 64 bit SP1, MUI (de, en, fr, es, it); Core I5-6442EQ; 4 GB RAM; 110/230 V AC power supply unit, Power supply cable for Europe; without software (included);

General information	
Design of the programming device	Tablet PC
Display	
Design of display	10" multi-touch
Resolution (pixels)	
Horizontal image resolution	1 280 pixel; 1 920 pixels
Vertical image resolution	800 pixel; 1 200 pixels
General features	
Luminance	220 cd/m <sup>2</sup> ; 350 cd/m <sup>2</sup>
Backlighting	
<ul> <li>Type of backlighting</li> </ul>	LED
Control elements	
Keyboard fonts	
• Design	Touch
Touch operation	
<ul> <li>Integrated touch pad</li> </ul>	No
Supply voltage	
Design of the power supply	External wide-range power supply; 3-pole
permissible range, lower limit (AC)	100 V; ±10 %, sinusoidal
permissible range, upper limit (AC)	240 V; ±10 %, sinusoidal
Line frequency	
<ul> <li>permissible range, lower limit</li> </ul>	47 Hz
<ul> <li>permissible range, upper limit</li> </ul>	63 Hz
Processor	
Processor type	Celeron G3902 (2C/2T, 1.6 GHz, 2 MB cache); Intel Core i5-6442EQ (6 MB cache, up to 2.70 GHz, iAMT)
Hyper-threading	No
Turbo Boost Technology 2.0	Yes
Graphic	
Graphics controller	Intel® HD graphics 530
Drives	
SSD	Yes
Memory capacity	256 Gbyte; Up to 512 GB SSD
TPM Security Chip	Yes
Memory	
Type of memory	DDR4-SDRAM SO-DIMM
Work memory	
• integrated	4 Gbyte; 8 GB or 16 GB
Accumulator	
Replaceable	Yes; Lithium-ion battery
Capacity	5 900 mA·h
Battery runtime, min.	6 h; According to MobileMark 2014
Interfaces	
Number of industrial Ethernet interfaces	1
Number of RS 232 interfaces	1
Number of USB interfaces	3; USB 3.0
	-,
• Туре А	2

Bluetooth radio standard	Yes: V4.0
Multimedia card/SD card slot	2 in 1 (SDHC UHS-II, MMC)
Universal Audio Jack	Yes; Audio socket for 3.5 mm jack
Video interfaces	
DisplayPort	Yes; DP 1.2 (Mini DisplayPort)
Industrial Ethernet	
Industrial Ethernet interface	1x Ethorpot (P 145)
- 100 Mbps	1x Ethernet (RJ45)
	Yes
— 1000 Mbps	Yes
IAMT (Intel Active Management Technology) WLAN	
	IEEE 902.11 a/b/a/b and as
• Type	IEEE 802.11 a/b/g/n and ac
Wireless transmission     Protocol for wireless transmission	Logia Drima Logia Advant ISO 15602 ISO 14442 A/D
	Legic Prime, Legic Advant, ISO 15693, ISO 14443 A/B 13.56 MHz
Operating frequency (rated value)     Pange may	
Range, max.	30 mm; Range depends on transponder
Interrupts/diagnostics/status information	
LED status display	Battery charge level, device status, access to drive, WLAN active, SD card, application LED
EMC	
Interference immunity against discharge of static electricity	
Interference immunity against discharge of static	Yes; ±4 kV contact discharge (to IEC 801-2/IEC 1000-4-2; ESD), ±8 kV air
electricity acc. to IEC 61000-4-2	discharge (to IEC 801-2/IEC 1000-4-2; ESD), ±8 kV all
Interference immunity to cable-borne interference	
• Interference immunity on supply cables	±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)
<ul> <li>Interference immunity on signal cables</li> </ul>	$\pm 1$ kV (according to IEC 61000-4-4, burst, length < 30 m); $\pm 2$ kV (according to IEC 61000-4-4, burst, length > 30 m); $\pm 2$ kV (according to IEC 61000-4-5, surge
	sym./line to ground, length > 30 m)
Degree and class of protection	1040
IP degree of protection	IP40
Standards, approvals, certificates	
CE mark	Yes
UL approval	Yes
DIN/ISO 9001	Yes
Military use	
Military use • Conforms to MIL-STD-810G	Yes
Military use • Conforms to MIL-STD-810G Ambient conditions	Yes
Military use  Conforms to MIL-STD-810G  Ambient conditions  Ambient temperature during operation	
Military use • Conforms to MIL-STD-810G Ambient conditions	5 °C; Max. 10 °C/h (no condensation)
Military use • Conforms to MIL-STD-810G Ambient conditions Ambient temperature during operation • min. • max.	
Military use • Conforms to MIL-STD-810G Ambient conditions Ambient temperature during operation • min. • max. Ambient temperature during storage/transportation	5 °C; Max. 10 °C/h (no condensation) 45 °C; Max. 10 °C/h (no condensation)
Military use • Conforms to MIL-STD-810G Ambient conditions Ambient temperature during operation • min. • max. Ambient temperature during storage/transportation • min.	5 °C; Max. 10 °C/h (no condensation) 45 °C; Max. 10 °C/h (no condensation) -20 °C; Max. 20 °C/h (no condensation)
Military use • Conforms to MIL-STD-810G Ambient conditions Ambient temperature during operation • min. • max. Ambient temperature during storage/transportation • min. • max.	5 °C; Max. 10 °C/h (no condensation) 45 °C; Max. 10 °C/h (no condensation)
Military use • Conforms to MIL-STD-810G Ambient conditions Ambient temperature during operation • min. • max. Ambient temperature during storage/transportation • min. • max. Relative humidity	5 °C; Max. 10 °C/h (no condensation) 45 °C; Max. 10 °C/h (no condensation) -20 °C; Max. 20 °C/h (no condensation) 60 °C; Max. 20 °C/h (no condensation)
Military use • Conforms to MIL-STD-810G Ambient conditions Ambient temperature during operation • min. • max. Ambient temperature during storage/transportation • min. • max.	<ul> <li>5 °C; Max. 10 °C/h (no condensation)</li> <li>45 °C; Max. 10 °C/h (no condensation)</li> <li>-20 °C; Max. 20 °C/h (no condensation)</li> <li>60 °C; Max. 20 °C/h (no condensation)</li> <li>5 %; At 30 °C/h (no condensation); Tested according to IEC 60068-2-78, IEC</li> </ul>
Military use • Conforms to MIL-STD-810G Ambient conditions Ambient temperature during operation • min. • max. Ambient temperature during storage/transportation • min. • max. Relative humidity	5 °C; Max. 10 °C/h (no condensation) 45 °C; Max. 10 °C/h (no condensation) -20 °C; Max. 20 °C/h (no condensation) 60 °C; Max. 20 °C/h (no condensation)
Military use • Conforms to MIL-STD-810G Ambient conditions Ambient temperature during operation • min. • max. Ambient temperature during storage/transportation • min. • max. Relative humidity • Operation, min.	<ul> <li>5 °C; Max. 10 °C/h (no condensation)</li> <li>45 °C; Max. 10 °C/h (no condensation)</li> <li>-20 °C; Max. 20 °C/h (no condensation)</li> <li>60 °C; Max. 20 °C/h (no condensation)</li> <li>5 %; At 30 °C/h (no condensation); Tested according to IEC 60068-2-78, IEC 60068-2-30, IEC 60068-2-14</li> <li>85 %; At 30 °C/h (no condensation); Tested according to IEC 60068-2-78, IEC</li> </ul>
Military use • Conforms to MIL-STD-810G Ambient conditions Ambient temperature during operation • min. • max. Ambient temperature during storage/transportation • min. • max. Relative humidity • Operation, min. • Operation, max. Vibrations	<ul> <li>5 °C; Max. 10 °C/h (no condensation)</li> <li>45 °C; Max. 10 °C/h (no condensation)</li> <li>-20 °C; Max. 20 °C/h (no condensation)</li> <li>60 °C; Max. 20 °C/h (no condensation)</li> <li>5 %; At 30 °C/h (no condensation); Tested according to IEC 60068-2-78, IEC 60068-2-30, IEC 60068-2-14</li> <li>85 %; At 30 °C/h (no condensation); Tested according to IEC 60068-2-78, IEC</li> </ul>
Military use • Conforms to MIL-STD-810G Ambient conditions Ambient temperature during operation • min. • max. Ambient temperature during storage/transportation • min. • max. Relative humidity • Operation, min. • Operation, max.	<ul> <li>5 °C; Max. 10 °C/h (no condensation)</li> <li>45 °C; Max. 10 °C/h (no condensation)</li> <li>-20 °C; Max. 20 °C/h (no condensation)</li> <li>60 °C; Max. 20 °C/h (no condensation)</li> <li>5 %; At 30 °C/h (no condensation); Tested according to IEC 60068-2-78, IEC 60068-2-30, IEC 60068-2-14</li> <li>85 %; At 30 °C/h (no condensation); Tested according to IEC 60068-2-78, IEC 60068-2-30, IEC 60068-2-14</li> </ul>
Military use • Conforms to MIL-STD-810G Ambient conditions Ambient temperature during operation • min. • max. Ambient temperature during storage/transportation • min. • max. Relative humidity • Operation, min. • Operation, max. Vibrations • Operation, tested according to IEC 60068-2-6 Shock testing	<ul> <li>5 °C; Max. 10 °C/h (no condensation)</li> <li>45 °C; Max. 10 °C/h (no condensation)</li> <li>-20 °C; Max. 20 °C/h (no condensation)</li> <li>60 °C; Max. 20 °C/h (no condensation)</li> <li>5 %; At 30 °C/h (no condensation); Tested according to IEC 60068-2-78, IEC 60068-2-30, IEC 60068-2-14</li> <li>85 %; At 30 °C/h (no condensation); Tested according to IEC 60068-2-78, IEC 60068-2-30, IEC 60068-2-14</li> </ul>
Military use • Conforms to MIL-STD-810G Ambient conditions Ambient temperature during operation • min. • max. Ambient temperature during storage/transportation • min. • max. Relative humidity • Operation, min. • Operation, max. Vibrations • Operation, tested according to IEC 60068-2-6 Shock testing • tested according to IEC 60068-2-27	<ul> <li>5 °C; Max. 10 °C/h (no condensation)</li> <li>45 °C; Max. 10 °C/h (no condensation)</li> <li>-20 °C; Max. 20 °C/h (no condensation)</li> <li>60 °C; Max. 20 °C/h (no condensation)</li> <li>5 %; At 30 °C/h (no condensation); Tested according to IEC 60068-2-78, IEC 60068-2-30, IEC 60068-2-14</li> <li>85 %; At 30 °C/h (no condensation); Tested according to IEC 60068-2-78, IEC 60068-2-30, IEC 60068-2-14</li> <li>Yes</li> </ul>
Military use • Conforms to MIL-STD-810G Ambient conditions Ambient temperature during operation • min. • max. Ambient temperature during storage/transportation • min. • max. Relative humidity • Operation, min. • Operation, max. Vibrations • Operation, tested according to IEC 60068-2-6 Shock testing • tested according to IEC 60068-2-27	<ul> <li>5 °C; Max. 10 °C/h (no condensation)</li> <li>45 °C; Max. 10 °C/h (no condensation)</li> <li>-20 °C; Max. 20 °C/h (no condensation)</li> <li>60 °C; Max. 20 °C/h (no condensation)</li> <li>5 %; At 30 °C/h (no condensation); Tested according to IEC 60068-2-78, IEC 60068-2-30, IEC 60068-2-14</li> <li>85 %; At 30 °C/h (no condensation); Tested according to IEC 60068-2-78, IEC 60068-2-30, IEC 60068-2-14</li> <li>Yes</li> </ul>
Military use • Conforms to MIL-STD-810G Ambient conditions Ambient temperature during operation • min. • max. Ambient temperature during storage/transportation • min. • max. Relative humidity • Operation, min. • Operation, min. • Operation, max. Vibrations • Operation, tested according to IEC 60068-2-6 Shock testing • tested according to IEC 60068-2-27 Operating systems	<ul> <li>5 °C; Max. 10 °C/h (no condensation)</li> <li>45 °C; Max. 10 °C/h (no condensation)</li> <li>-20 °C; Max. 20 °C/h (no condensation)</li> <li>60 °C; Max. 20 °C/h (no condensation)</li> <li>5 %; At 30 °C/h (no condensation); Tested according to IEC 60068-2-78, IEC 60068-2-30, IEC 60068-2-14</li> <li>85 %; At 30 °C/h (no condensation); Tested according to IEC 60068-2-78, IEC 60068-2-30, IEC 60068-2-14</li> <li>Yes</li> <li>Yes</li> <li>Multi-Language User Interface (MUI): 6 languages (English, German, French,</li> </ul>
Military use • Conforms to MIL-STD-810G Ambient conditions Ambient temperature during operation • min. • max. Ambient temperature during storage/transportation • min. • max. Relative humidity • Operation, min. • Operation, min. • Operation, max. Vibrations • Operation, tested according to IEC 60068-2-6 Shock testing • tested according to IEC 60068-2-27 Operating systems Local language of operating system	<ul> <li>5 °C; Max. 10 °C/h (no condensation)</li> <li>45 °C; Max. 10 °C/h (no condensation)</li> <li>-20 °C; Max. 20 °C/h (no condensation)</li> <li>60 °C; Max. 20 °C/h (no condensation)</li> <li>5 %; At 30 °C/h (no condensation); Tested according to IEC 60068-2-78, IEC 60068-2-30, IEC 60068-2-14</li> <li>85 %; At 30 °C/h (no condensation); Tested according to IEC 60068-2-78, IEC 60068-2-30, IEC 60068-2-14</li> <li>Yes</li> <li>Yes</li> <li>Multi-Language User Interface (MUI): 6 languages (English, German, French,</li> </ul>
Military use • Conforms to MIL-STD-810G Ambient conditions Ambient temperature during operation • min. • max. Ambient temperature during storage/transportation • min. • max. Relative humidity • Operation, min. • Operation, max. Vibrations • Operation, tested according to IEC 60068-2-6 Shock testing • tested according to IEC 60068-2-7 Operating systems Local language of operating system pre-installed operating system	<ul> <li>5 °C; Max. 10 °C/h (no condensation)</li> <li>45 °C; Max. 10 °C/h (no condensation)</li> <li>-20 °C; Max. 20 °C/h (no condensation)</li> <li>60 °C; Max. 20 °C/h (no condensation)</li> <li>5 %; At 30 °C/h (no condensation); Tested according to IEC 60068-2-78, IEC 60068-2-30, IEC 60068-2-14</li> <li>85 %; At 30 °C/h (no condensation); Tested according to IEC 60068-2-78, IEC 60068-2-30, IEC 60068-2-14</li> <li>Yes</li> <li>Yes</li> <li>Multi-Language User Interface (MUI): 6 languages (English, German, French, Spanish, Italian, Chinese)</li> </ul>
Military use • Conforms to MIL-STD-810G Ambient conditions Ambient temperature during operation • min. • max. Ambient temperature during storage/transportation • min. • max. Relative humidity • Operation, min. • Operation, max. Vibrations • Operation, tested according to IEC 60068-2-6 Shock testing • tested according to IEC 60068-2-7 <u>Operating systems</u> Local language of operating system pre-installed operating system • Windows 7	<ul> <li>5 °C; Max. 10 °C/h (no condensation)</li> <li>45 °C; Max. 10 °C/h (no condensation)</li> <li>-20 °C; Max. 20 °C/h (no condensation)</li> <li>60 °C; Max. 20 °C/h (no condensation)</li> <li>5 %; At 30 °C/h (no condensation); Tested according to IEC 60068-2-78, IEC 60068-2-30, IEC 60068-2-14</li> <li>85 %; At 30 °C/h (no condensation); Tested according to IEC 60068-2-78, IEC 60068-2-30, IEC 60068-2-14</li> <li>Yes</li> </ul>
Military use • Conforms to MIL-STD-810G Ambient conditions Ambient temperature during operation • min. • max. Ambient temperature during storage/transportation • min. • max. Relative humidity • Operation, min. • Operation, max. Vibrations • Operation, tested according to IEC 60068-2-6 Shock testing • tested according to IEC 60068-2-27 Operating systems Local language of operating system • Windows 7 • Windows 10	<ul> <li>5 °C; Max. 10 °C/h (no condensation)</li> <li>45 °C; Max. 10 °C/h (no condensation)</li> <li>-20 °C; Max. 20 °C/h (no condensation)</li> <li>60 °C; Max. 20 °C/h (no condensation)</li> <li>5 %; At 30 °C/h (no condensation); Tested according to IEC 60068-2-78, IEC 60068-2-30, IEC 60068-2-14</li> <li>85 %; At 30 °C/h (no condensation); Tested according to IEC 60068-2-78, IEC 60068-2-30, IEC 60068-2-14</li> <li>Yes</li> </ul>
Military use • Conforms to MIL-STD-810G Ambient conditions Ambient temperature during operation • min. • max. Ambient temperature during storage/transportation • min. • max. Relative humidity • Operation, min. • Operation, min. • Operation, max. Vibrations • Operation, tested according to IEC 60068-2-6 Shock testing • tested according to IEC 60068-2-27 Operating systems Local language of operating system pre-installed operating system • Windows 7 • Windows 10 Software	<ul> <li>5 °C; Max. 10 °C/h (no condensation)</li> <li>45 °C; Max. 10 °C/h (no condensation)</li> <li>-20 °C; Max. 20 °C/h (no condensation)</li> <li>60 °C; Max. 20 °C/h (no condensation)</li> <li>5 %; At 30 °C/h (no condensation); Tested according to IEC 60068-2-78, IEC 60068-2-30, IEC 60068-2-14</li> <li>85 %; At 30 °C/h (no condensation); Tested according to IEC 60068-2-78, IEC 60068-2-30, IEC 60068-2-14</li> <li>Yes</li> </ul>

<ul> <li>STEP 7 Professional (TIA Portal)</li> </ul>	No
• STEP 7	No
<ul> <li>WinCC flexible Advanced 2008</li> </ul>	No
<ul> <li>WinCC Advanced (TIA Portal)</li> </ul>	No
• STEP 5	No
Mechanics/material	
Material of housing	metal
Magnesium alloy	Yes
Socket for Kensington lock	Yes
rubber corner guards	Yes
Dimensions	
Width	330 mm
Height	32 mm
Depth	214 mm
Weights	
Weight, approx.	1.6 kg; incl. rechargeable battery
Scope of supply	
Accumulator	Yes
Power supply	Yes
Recovery media	Yes; Restore & Recovery
Other	
free hotline	Yes
Note:	Made in Germany: development and production in Germany

last modified:

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