

# The perfect solution for every requirement

SIMATIC IPC: all advantages at a glance

- Customized solution**  
Always the right configuration for your requirements
- Efficient from the very start**  
Integrated engineering with Totally Integrated Automation
- Quality guarantees your success**  
Developed and built for industry
- For Today and Tomorrow**  
SIMATIC IPCs combine innovation and continuity
- On-site with everything in view**  
Industrial Flat Panels, Thin Clients, and Tablet PCs
- Ergonomic operation**  
Fast, intuitive operator panels with glass fronts
- Tailored to your application**  
Device versions for special requirements
- A home-field advantage in the digital factory**  
Varied application options for SIMATIC IPCs
- Successful applications**  
SIMATIC IPC: examples of concrete applications
- Always by your side**  
Service and support for SIMATIC IPCs



New product: SIMATIC IPC127E

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SIMATIC IPC427E	SIMATIC IPC477E				General features
Box PC	Panel PC, 15" Touch	Panel PC, 19" Touch	Panel PC, 22" Touch	Panel PC, 24" Touch	Resolution in pixels
–	Widescreen (1280 x 800)	Widescreen (1366 x 768)	Widescreen (1920 x 1080)	Widescreen (1920 x 1080)	Processor
Intel Celeron G3902E (2C/2T, 1.6 GHz, 2 MB cache); Intel Core i3 6102E (2C/4T, 1.90 GHz, 3 MB cache); Intel Core i5-6442EQ (4C/4T, 1.9 (2.7) GHz, 6 MB cache); Intel Xeon Processor E3-1505L v5 (4C/8T, 2.0 (2.8) GHz, 8 MB cache)					Main memory
4 GB, 8 GB or 16 GB; 512 KByte NVRAM optional					Free expansion slots
Up to 2 x PCIe cards (optional); (1 x PCIe x 4 and 1 x PCIe x 1); max. 6 W/12 W					Operating systems (preinstalled and activated)
Windows Embedded Standard 7 (E/P), 32-bit/64-bit; Windows 7 Ultimate, MUI <sup>1)</sup> , 64-bit; Windows 10 Enterprise LTSB 2016					Packages/bundles
24 V DC; 19.2 ... 28.8 V; isolated / max. 15 ms (in acc. with NAMUR); On/Off switch					Power supply / max. power consumption
24 V DC; 19.2 ... 28.8 V; isolated / max. 20 ms (in accordance with NAMUR); or 100–240 V AC, 50/60 Hz; On/Off switch					MTBF backlighting
–	Up to 80,000 h <sup>2)</sup> ; dimmable from 0 to 100%	Up to 50,000 h <sup>2)</sup> ; dimmable from 0 to 100%	Up to 30,000 h <sup>2)</sup> ; dimmable from 0 to 100%	Up to 30,000 h <sup>2)</sup> ; dimmable from 0 to 100%	Drives
CFAST 30 GB (with external access); SSD 240/480 GB; HDD 320 GB					Mass storage
Can optionally be connected through ext. drive via USB					Optical drives
PROFINET RT via Ethernet					Interfaces
3 x 10/100/1000 Mbps (RJ45); teaming					Fieldbus
Rear: 4 x USB 3.0; Front: 1 x USB 3.0 (Singletouch exclusive)					Ethernet
4 x USB 3.0	2 x RS 232/RS 485/RS 422 switchable in the BIOS, optional		2 x DisplayPort		USB
Temperature; watchdog; HDD; CFAST; SSD; CMOS battery (alarm locally by means of SIMATIC IPC DiagBase software)					Serial/parallel
System monitoring: Operating hours counter for preventive maintenance, maintenance mode, networking (LAN), SNMP and OPC interface (optionally via SIMATIC IPC DiagMonitor software) / remote access via Intel AMT Core i5 or higher and via SIMATIC IPC Remote Manager					Graphics interface
IP20 in accordance with IEC 60529/EN 61000-6-3; EN 61000-6-4; CISPR22 Class B; FCC Class A					Monitoring/diagnostics functions
IP65 (at the front) in accordance with IEC 60529/EN 61000-6-4; CISPR22 Class B; FCC Class A; IP20 (at the rear)					Basic functionality
5 – 9 Hz: 3.5 mm; 9 – 500 Hz: 9.8 ms <sup>2)</sup> (approx. 1 g) when operated with CFAST/SSD					Advanced functions/remote access
150 ms <sup>2)</sup> ; 11 ms (approx. 15 g) when operated with CFAST/SSD					Ambient conditions
Up to 80% at 25 °C (no condensation)					Degree of protection/EMC
0 – 55 °C	0 – 50 °C	0 – 45 °C	0 – 45 °C	0 – 45 °C	Vibration during operation <sup>2)</sup>
CE; cULus (508); ATEX/IECEX Cat 3G Zone 2, shipbuilding approvals <sup>2)</sup> ; WEEE/RoHS; C-Tick					Shock load during operation <sup>2)</sup>
–					Relative humidity <sup>2)</sup>
–					Ambient temperature in continuous operation at full processor load
–					Certification/EU directives
–					Dimensions
–					Operator panel (W x H) Singletouch
–					Operator panel (W x H) Multitouch
Basic device: approx. 262 x 133 x 55.5 mm; Depth with 1 x PCIe/2 x PCIe expansion: 85 mm/105.3 mm					Installation dimensions (W x H x D) Singletouch
–					Installation dimensions (W x H x D) Multitouch
–					Base version (W x H x D)
–					Extended version (W x H x D)

Industrial PCs for the Digital Factory  
Higher performance, quality and sustainability with SIMATIC IPC

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## SIMATIC IPCs and Thin Clients for special requirements

## SIMATIC Thin Client & Flat Panel

	SIMATIC Panel PC Ex OG		SIMATIC HMI Panel PC Ex NG		SIMATIC HMI Thin Client Ex NG		SIMATIC PRO Geräte			SIMATIC Industrial Thin Client				SIMATIC Industrial Flat Panel						
																		General features		
General features	15"/21.5" Multitouch	22" Touch	24" Touch	22" Touch	24" Touch	22" Touch	24" Touch	–	–	–	–	–	–	–	–	–	–	–	–	
Resolution in pixels	15": 4:3 (1024 x 768) 21.5": 16:9 (1920 x 1080)	16:10 (1680 x 1050)	16:9 (1920 x 1080); 16:10 (1920 x 1200)	16:10 (1680 x 1050)	16:9 (1920 x 1080); 16:10 (1920 x 1200)	–	–	–	–	–	–	–	–	–	–	–	–	–	–	
Max. distance to computer	–	–	–	Unlimited via Ethernet				–	–	–	Unlimited via Ethernet				–	–	–	–	–	–
Processor	Intel Core i7-3517UE with 1.7 GHz	Intel Atom E3845		Intel Atom E3845		–	–	–	–	Intel Celeron (1.2 GHz)				–	–	–	–	–	–	–
Main memory	4 GB or 8 GB RAM	4 GB RAM		4 GB RAM		–	–	–	–	–				–	–	–	–	–	–	–
Operating systems (preinstalled and activated) / supported protocols	Windows 7 Ultimate MUI <sup>1)</sup> / Windows Embedded Standard 7 P	Windows 7 Ultimate, Windows 7 Embedded		Win 10 Enterprise + Remote Firmware V5		–	–	–	–	Closed Linux with integrated communication protocols: Smb@Access, RDP, VNC, SINUMERIK, WinCC-OA, Web (HTML5); Designo, JAVA, CITRIX Client (possible restriction with MT usage)				–	–	–	–	–	–	–
Power supply / max. power consumption	DC 24 V; 4.6 A (6.9 A) <sup>10)</sup> ; AC 110 V; 1.1 A (1.7 A) <sup>10)</sup> ; AC 230 V; 0.6 A (0.8 A) <sup>10)</sup>	DC 24/AC 100 – 240V	DC 24/AC 100 – 240V	DC 24/AC 100 – 240V	DC 24/AC 100 – 240V	–	–	–	–	DC 24 V; +19.2 V; –28.8 V	DC 24 V; ca. 35 W	DC 24 V; ca. 28 W	DC 24 V; ca. 36 W	DC 24 V; ca. 32 W	DC 24 V; ca. 53 W	24 V DC; 19.2 ... 28.8 V, approx. 40 W; extended version additionally 100–240 V AC, 50/60 Hz		–	–	–
MTBF backlighting	–	Bis zu 50.000 h <sup>2)</sup>				–	–	–	–	Up to 50,000 h <sup>2)</sup> ; dimmable from 0 – 100%				–	–	–	–	–	–	–
Drives	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Mass storage	SSD with 80 GB, 160 GB, 240 GB, 300 GB, 480 GB	32 GB SSD / 64 GB SSD / 128 GB SSD		64 GB SSD		–	–	–	–	–				–	–	–	–	–	–	–
Ports	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Ethernet	2 x Ethernet 10/100/1000 Base Tx (Ex e) or FO 100 Base Fx 100 Mbit (Ex op is)	1 x GB LWL or 2 x 100 Mbit copper		1 x GB LWL or 2 x 100 Mbit copper		–	–	–	–	2 x Ethernet 10/100/1000 Mbps (RJ45)				–	–	–	–	–	–	–
USB	1 x USB (Ex e), 3 x USB (Ex ia)	2 x USB (Ex ia) 1 x USB (Ex e)		2 x USB (Ex ia) 1 x USB (Ex e)		–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Serial/parallel	1 x RS 232/RS 422/RS 485 (Ex e)	1 x RS 232 (Ex e)		1 x RS 232 (Ex e)		–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Graphics interface	DVI out (Ex e)	–		–		–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Ambient conditions	IP66/4X all-round		IP66 (at the front); IP65 (at the rear)				All-round IP65 protection/NEMA 4X			IP65 (front)				IP65 (front)				Ambient conditions		
Degree of protection	–		–				–			–				–				Degree of protection		
EMV	EN 61000-6-2:2005 + AC:2005 EN 61000-6-4:2007 + A1:2011		EN 61000-6-2:2006; EN 61000-6-4: 2007				EN 61000-6-2:2006; EN 61000-6-4: 2007			EN 61000-6-2; EN 61000-6-4				CE; EN 61000-6-4				EMV		
Vibration during operation <sup>2)</sup>	3 – 22 Hz: 1 mm; 22 – 500 Hz: 9.8 ms <sup>2)</sup> (1 g) <sup>11)</sup>		5 bis 13,2 Hz: ±1 mm 13,2 bis 100 Hz: ±0,7 g		5 bis 13,2 Hz: ±1 mm 13,2 bis 100 Hz: ±0,7 g		–	–	–	–	10 – 58 Hz: 0,0375 mm; 58 – 200 Hz: 9,8 ms <sup>2)</sup> (1 g)				10 – 58 Hz: 0,0375 mm; 58 – 200 Hz: 9,8 ms <sup>2)</sup> (1 g)				Vibration during operation <sup>2)</sup>	
Shock load during operation <sup>2)</sup>	150 ms <sup>2)</sup> (ca. 15 g); 11 ms		–		–		–	–	–	–	50 ms <sup>2)</sup> (5 g); 30 ms				150 ms <sup>2)</sup> (ca. 15 g); 11 ms				Shock load during operation <sup>2)</sup>	
Relative humidity <sup>2)</sup>	>95% at +65 °C (no condensation)		10 – 90% at +40 °C, no condensation				5 – 85% at 30 °C, no condensation <sup>11)</sup>			10 – 90% at 30 °C, no condensation <sup>11)</sup>				5 – 85% at 25 °C (no condensation)				Relative humidity <sup>2)</sup>		
Ambient temp. in continuous operation at full processor load	–10 °C (opt. –40 °C) ... 65 °C		–20 °C ... +60 °C –30 °C ... +50 °C (with heating option)				0 – 45 °C			0 – 45 °C				0 – 45 °C				Ambient temp. in continuous operation at full processor load		
Certification/EU directives	Gas: II 2 (I) G Ex e q [la op is Ga] IIC T4 Gb; Staub: II 2 (I) D Ex tb [la op is Da] IIC T115 °C Db		IEC, ATEX Zonen 1, 21, 2, 22; CE, NEC, CSA, TR-EAC KGS DNV/GL				CE, cULus, FCC, KC, EAC, RCM, ATEX/IECEX (in preparation), cFmus, Marine			CE, cULus, FCC, RCM, KC, EAC, cFmus, shipbuilding				CE; cULus; C-Tick; KCC; FM				CE; cULus/cULus Hazardous Location; partially or optionally: ATEX; C-Tick; Marine, Ex, KC	Certification/EU directives	
Dimensions	–		660 x 475		660 x 475		–			–				–				Dimensions		
Operator panel (W x H) Singletouch in mm	–		–		–		–			–				–				Operator panel (W x H) Singletouch in mm		
Operator panel (W x H) Multitouch in mm	15": 380 x 394 x 137 21.5": 553 x 458 x 141		–		–		15": 396 x 255; 19": 475 x 296; 22": 527 x 329			19": 475 x 296; 22": 527 x 329				19": 475 x 296; 22": 527 x 329				Operator panel (W x H) Multitouch in mm		
Installation dimensions Singletouch in mm (W x H x D)	–		615 x 435 x 110		615 x 435 x 110		–			–				–				Installation dimensions Singletouch in mm (W x H x D)		