

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

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

siemens.com/ipc

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	Up to 1 x PCIe card (optional); (1 x PCIe x 4); max. 6 W					Operating systems (preinstalled and activated)
–	Windows Embedded Standard 7 (E/P), 32-bit/64-bit; Windows 7 Ultimate, MUI ¹⁾ , 64-bit; Windows 10 Enterprise LTSB 2016					Packages/bundles
–	Packages with WinCC RT V7, WinCC RT Professional, WinCC RT Advanced, SIMATIC Software Controller					Power supply / max. power consumption
24 V DC; 19.2 ... 28.8 V; isolated / max. 15 ms (in acc. with NAMUR); On/Off switch	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 ²⁾ ; dimmable from 0 to 100%	Up to 50,000 h ²⁾ ; dimmable from 0 to 100%	Up to 30,000 h ²⁾ ; dimmable from 0 to 100%	Up to 30,000 h ²⁾ ; 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
4 x USB 3.0	Rear: 4 x USB 3.0; Front: 1 x USB 3.0 (Singletouch exclusive)					Ethernet
–	2 x RS 232/RS 485/RS 422 switchable in the BIOS, optional					USB
–	2 x DisplayPort					Serial/parallel
–	Temperature; watchdog; HDD; CFast; SSD; CMOS battery (alarm locally by means of SIMATIC IPC DiagBase software)					Graphics interface
–	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					Monitoring / diagnostics functions
–	IP20 in accordance with IEC 60529/EN 61000-6-3; EN 61000-6-4; CISPR220 Class B; FCC Class A					Basic functionality
–	IP65 (at the front) in accordance with IEC 60529/EN 61000-6-4; CISPR220 Class B; FCC Class A; IP20 (at the rear)					Advanced functions/remote access
–	5 – 9 Hz: 3.5 mm; 9 – 500 Hz: 9.8 ms ²⁾ (approx. 1 g) when operated with CFast/SSD					Ambient conditions
150 ms ²⁾ ; 11 ms (approx. 15 g) when operated with CFast/SSD	50 ms ²⁾ ; 30 ms (approx. 5 g) when operated with CFast/SSD					Degree of protection/EMC
Up to 80% at 25 °C (no condensation)	Up to 85% at 30 °C (no condensation)					Vibration during operation ³⁾
0 – 55 °C	0 – 50 °C	0 – 45 °C	0 – 45 °C	0 – 45 °C		Shock load during operation ⁴⁾
–	CE; cULus (508); ATEX/IECEx Cat 3G Zone 2, shipbuilding approvals ⁵⁾ ; WEEE/RoHS; C-Tick					Relative humidity ⁶⁾
–	415 x 310 mm	483 x 337 mm	560 x 380 mm	585 x 363 mm		Ambient temperature in continuous operation at full processor load
–	398 x 257 mm	464 x 294 mm	529 x 331 mm	542 x 360 x 83 mm		Certification/EU directives
Basic device: approx. 262 x 133 x 55.5 mm; Depth with 1 x PCIe/2 x PCIe expansion: 85 mm/105.3 mm	395 x 290 x 83 mm	464 x 318 x 83 mm	542 x 360 x 83 mm	569 x 347 x 83 mm		Dimensions
–	382 x 241 x 83 mm	448 x 278 x 83 mm	513 x 315 x 83 mm	569 x 347 x 83 mm		Operator panel (W x H) Singletouch
–	–	–	–	–		Operator panel (W x H) Multitouch
–	–	–	–	–		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)

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		
Resolution in pixels	15"/21.5" Multitouch 21.5"; 16:9 (1920 x 1080)		22" Touch 16:10 (1680 x 1050)		24" Touch 16:9 (1920 x 1080); 16:10 (1920 x 1200)		22" Touch 16:10 (1680 x 1050)	24" Touch 16:9 (1920 x 1080); 16:10 (1920 x 1200)	SIMATIC IPC477E PRO 15"/19"/22" Multitouch 22": widescreen (1920 x 1080)	SIMATIC ITP PRO 19"/22" Multitouch 22": widescreen (1920 x 1080)	SIMATIC ITC PRO 19"/22" Multitouch 22": Widescreen (1920 x 1080)	Widescreen (1280 x 800)	Widescreen (1280 x 800) MT (1366 x 768)	Widescreen (1366 x 768) MT (1366 x 768)	Widescreen (1920 x 1080) MT (1920 x 1080)	ST widescreen (1280 x 800)	ST widescreen (1280 x 800) MT widescreen (1920 x 1080)	ST widescreen (1366 x 768) MT widescreen (1920 x 1080)	ST widescreen (1920 x 1080) MT widescreen (1920 x 1080)	Resolution in pixels
Max. distance to computer	–		–		–		Unlimited via Ethernet		–	Unlimited via Ethernet				Standard: 5 m				Max. distance to computer		
Processor	Intel Core i7-3517UE with 1.7 GHz		Intel Atom E3845		Intel Atom E3845		Intel Celeron 827E 1.4 GHz; 1.5 MB SLC or Intel Core i3-3217UE 1.6 GHz; 3 MB SLC or Intel Core i7-3517UE 1.7 (2.8) GHz; 4 MB SLC		–	Intel Celeron (1.2 GHz)				–				Processor		
Main memory	4 GB or 8 GB RAM		4 GB RAM		4 GB RAM		1 GB, 2 GB, 4 GB or 8 GB; 512 KB NVRAM optional		–	–				–				Main memory		
Operating systems (preinstalled and activated) / supported protocols	Windows 7 Ultimate MUI ¹⁾ / Windows Embedded Standard 7 P		Windows 7 Ultimate, Windows 7 Embedded		Win 10 Enterprise + Remote Firmware V5		Windows Embedded Standard 7 (E/P), 32-bit/64-bit; Windows 7 Ultimate MUI ¹⁾ , 32-bit/64-bit; Windows 10 Enterprise		–	Closed Linux with integrated communication protocols: Smb@Access, RDP, VNC, SINUMERIK, WinCC-OA, Web (HTML5); Designo, JAVA, CITRIX Client (possible restriction with MT usage)				–				Operating systems (preinstalled and activated) / supported protocols		
Power supply / max. power consumption	DC 24 V; 4.6 A (6.9 A) ¹⁰⁾ ; AC 110 V; 1.1 A (1.7 A) ¹⁰⁾ ; AC 230 V; 0.6 A (0.8 A) ¹⁰⁾		DC 24 V/AC 100 – 240V		DC 24 V/AC 100 – 240V		DC 24 V/AC 100 – 240V		DC 24 V (DC 19.2 – 28.8 V)	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				Power supply / max. power consumption
MTBF backlighting	–		–		–		Bis zu 50.000 h ²⁾		–	Up to 50,000 h ²⁾ ; dimmable from 0 – 100%				Up to 50,000 h ²⁾ ; 10 to 100% dimming				Up to 80,000 h ²⁾ ; dimmable from 0 to 100%	MTBF backlighting	
Drives	SSD with 80 GB, 160 GB, 240 GB, 300 GB, 480 GB		32 GB SSD/64 GB SSD/128 GB SSD		64 GB SSD		CFast up to 16 GB/SSD 80 GB or 160 GB; CFast up to 16 GB (accessible from outside)		–	–				–				Drives		
Mass storage	–		–		–		–		–	–				–				Mass storage		
Ports	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 10/100/1000 Mbps (RJ45); teaming; Fieldbus: PROFIBUS DP/MPI isolated; PROFINET RT via Ethernet (optional); PROFINET IRT (optional)		–	2x Ethernet 10/100/1000 Mbps (RJ45)				–				Ports		
Ethernet	–		–		–		–		–	–				–				Ethernet		
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)		Rear: 4 x USB 3.0		Rear: 4 x USB 2.0	Rear: 2 x USB 2.0/MT: 4 x USB 2.0				Extended Version: 2 x USB 2.0 (at the rear)				USB		
Serial/parallel	1 x RS 232/RS 422/RS 485 (Ex e)		1 x RS 232 (Ex e)		1 x RS 232 (Ex e)		1 x RS 232		–	–				–				Serial/parallel		
Graphics interface	DVI out (Ex e)		–		–		1 x DVI, 1 x DisplayPort		1 x DVI, 1 x DisplayPort	–				1 x DVI-D; 1 x DisplayPort (partially 1 x Ethernet and 1 x DisplayPort)				Graphics interface		
Ambient conditions	IP66/4X all-round		IP66 (at the front); IP65 (at the rear)		All-round IP65 protection/NEMA 4X		All-round IP65 protection/NEMA 4X			IP65 (front)				IP65 (front)				Ambient conditions		
Degree of protection	EN 61000-6-2:2006 + 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 61000-6-4; CISPR 22 Class A; FCC Class A			EN 61000-6-2; EN 61000-6-4	EN 61000-6-2; EN 61000-6-4				CE; EN 61000-6-4				Degree of protection	
EMV	3 – 22 Hz: 1 mm; 22 – 500 Hz: 9.8 ms ²⁾ (1 g) ³⁾		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		5 – 8,4 Hz: 3,5 mm 8,4 – 200 Hz: 9,8 ms ²⁾ (1 g) 50 ms ²⁾ ; 30 ms (15 g); 11 ms			5 – 8,4 Hz: 3,5 mm 8,4 – 500 Hz: 9,8 ms ²⁾ (1 g) (15 g); 11 ms	5 – 8,4 Hz: 3,5 mm 8,4 – 500 Hz: 9,8 ms ²⁾ (1 g) (15 g); 11 ms				10 – 58 Hz: 0,0375 mm; 58 – 200 Hz: 9,8 ms ²⁾ (1 g)				Vibration during operation ³⁾	
Vibration during operation ³⁾	150 ms ²⁾ (ca. 15 g); 11 ms		–		–		5 – 85% at 30 °C, no condensation ⁶⁾			10 – 90% at 30 °C, no condensation ⁶⁾	10 – 90% at 30 °C, no condensation ⁶⁾				50 ms ²⁾ (5 g); 30 ms				Shock load during operation ⁴⁾	
Shock load during operation ⁴⁾	–		–		–		0 – 45 °C			0 – 45 °C	0 – 50 °C				0 – 45 °C				Relative humidity ⁶⁾	
Relative humidity ⁶⁾	>95% at +65 °C (no condensation)		10 – 90% at +40 °C, no condensation		10 – 90% at +40 °C, no condensation		–20 °C ... +60 °C –30 °C ... +50 °C (with heating option)			–20 °C ... +60 °C –30 °C ... +50 °C (with heating option)	0 – 50 °C (partially up to 45 °C)				95% at 25 °C (no condensation)				Ambient temp. in continuous operation at full processor load	
Ambient temp. in continuous operation at full processor load	–10 °C (opt. –40 °C) ... 65 °C		–		–		CE, cULus, FCC, KC, EAC, RCM, ATEX/IECEx (in preparation), cFmus, Marine KGS DNV/GL			CE, cULus, FCC, RCM, KC, EAC, cFmus, shipbuilding	CE, cULus, FCC, RCM, KC, EAC, cFmus				CE; cULus; C-Tick; KCC; FM				Certification/EU directives	
Certification/EU directives	Gas: II 2 (1) G Ex e q [ia op is Ga] IIC 14 Gb; Staub: II 2 (1) D Ex tb [ia op is Da] IIC T115 °C Db		IEC, ATEX Zonen 1, 21, 2, 22; CE, NEC, CSA, TR-EAC KGS DNV/GL		–		–			–	–				CE; cULus; cULus Hazardous Location; partially or optionally: ATEX; C-Tick; Marine, Ex, KC				Dimensions	
Dimensions	–		660 x 475		660 x 475		–			–	330 x 241	415 x 310	483 x 337	560 x 380	330 x 241	416 x 298	483 x 337	560 x 380	Operator panel (W x H) Singletouch in mm	
Operator panel (W x H) Singletouch in mm	–		–		–		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	–	398 x 257	464 x 294	529 x 331	–	398 x 257	464 x 294	529 x 331	Operator panel (W x H) Multitouch in mm
Operator panel (W x H) Multitouch in mm	15": 380 x 394 x 137 21,5": 553 x 458 x 141		615 x 435 x 110		615 x 435 x 110		–			–	310 x 221 x 82	396 x 291 x 75	465 x 319 x 75	542 x 362 x 75	308 x 219 x 71,1	399 x 291 x 63	465 x 319 x 63	542 x 362 x 63	Installation dimensions (W x H x D) Singletouch in mm	
Installation dimensions (W x H x D) Singletouch in mm	–		–		–		–			–	–	–	–	–	–	–	–	–	–	Installation dimensions (W x H x D) Multitouch in mm