

SIMATIC IPC BX-53B 12th generation box PC Intel Core i5-12500E (6C/12T, 4.5 GHz, 18 MB cache), H 610 chipset M/B 1 TB HDD 32 GB DDR4 SDRAM(1x32 GB DDR4 SDRAM) compact enclosure, 350 W 2 additional COM and 2 additional USB H610 chipset M/B Windows 10 IoT Enterprise 2021 LTSC, multilingual (en, de, fr, it, es), 64-bit; [for processors Pentium/Core i3 / i5] with USB flash drive (D&D) without supply cable

General information	
Product type designation	SIMATIC IPC BX-53B
Installation type/mounting	
Mounting	for horizontal mounting
Supply voltage	
Type of supply voltage	100 - 240 V AC
Line frequency	
<ul style="list-style-type: none"> Rated value 50 Hz Rated value 60 Hz 	Yes Yes
Processor	
Processor type	Intel® Celeron G6900 with 2 cores / 2 threads; Intel® Pentium G7400 with 2 cores / 4 threads; Intel® Core™ i3 with 4 cores / 8 threads, Core™ i5 with 6 cores/12 threads, Core™ i7 with 12 cores / 20 threads, Core™ i9 with 16 cores / 24 threads.
Chipset	Intel H610 / Q670
Drives	
Hard disk	HDD & SSD
Memory	
Type of memory	DDR4-SDRAM DIMM
Main memory	4G up to 128G DDR4
Capacity of main memory, max.	128 Gbyte
Hardware configuration	
Slots	
<ul style="list-style-type: none"> free slots 	H610: 1x PCIe16, 2x PCIe4, 4x PCI; Q670: 2x PCIe16, 3x PCIe4, 2x PCI
Interfaces	
USB port	H610: 4 x USB 3.2, 4 x USB 2.0, 2x USB 2.0 vertical on motherboard; Q670: 8 x USB 3.2, 4 x USB 2.0, 2x USB 2.0 vertical on motherboard
Connection for keyboard/mouse	USB / USB
serial interface	6 x COM (4x RS232, 1x RS232/RS485; 1x RS232/RS422/RS485)
Multimedia	
<ul style="list-style-type: none"> Audio In/Out Microphone In 	Yes Yes
Video interfaces	
<ul style="list-style-type: none"> Graphics interface 	1x DP, 1x HDMI, 1x VGA
Industrial Ethernet	
<ul style="list-style-type: none"> number of interfaces (1 000 Mbps) number of interfaces (2 500 Mbps) 	1 1
Interrupts/diagnostics/status information	
LED status display	POWER, HDD
EMC	
Interference immunity against discharge of static electricity	
<ul style="list-style-type: none"> Interference immunity against discharge of static electricity 	±4 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	
<ul style="list-style-type: none"> Interference immunity against high frequency radiation 	10 V/m for 80 - 1 000 MHz, 80 % AM acc. to IEC 61000-4-3; 3 V/m for 1.4 - 2 GHz, 80 % AM acc. to IEC 61000-4-3; 3 V/m for 2 - 6 GHz, 80 % AM acc. to IEC 61000-4-3; 10 V for 150 kHz - 80 MHz, 80 % AM acc. to IEC 61000-4-6
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)
• Interference immunity on signal cables >30m	±2 kV acc. to IEC 61000-4-4, burst; length > 30 m; ±2 kV acc. to IEC 61000-4-5, surge; length > 30 m
• Interference immunity on signal cables < 30m	± 1 kV; in accordance with IEC 61000-4-4; burst; length < 30 m
Interference immunity against voltage surge	
• asymmetric interference	±2 kV acc. to IEC 61000-4-5, line to earth
• symmetric interference	±1 kV acc. to IEC 61000-4-5, line to line
Emission of conducted and non-conducted interference	
• Interference emission via line/AC current cables	EN 61000-6-4 CAN/CSA CISPR32 Class A, EN 55032 Class A; FCC Class A;
Compliance with line harmonic distortion limits	
• Compliance with line harmonic distortion acc. to IEC 61000-3-2, IEC 61000-3-3	Yes; EN 61000-3-2 Class D; EN 61000-3-3
Degree and class of protection	
IP (at the front)	IP20
IP (rear)	IP20
Standards, approvals, certificates	
CE mark	Yes
UKCA mark	Yes
UL approval	Yes
RCM (formerly C-TICK)	Yes
KC approval	Yes
Ambient conditions	
Ambient temperature during operation	
• min.	0 °C
• max.	45 °C
Operating systems	
pre-installed operating system	Windows 10 IoT Enterprise 2021 LTSC, 64 bit, MUI
without operating system	Yes
Dimensions	
Width	380 mm
Height	164 mm
Depth	316 mm
Approvals / Certificates	
General Product Approval	



EMV	Environment

last modified:

3/2/2026