

# Shoebox

Conception /Fabrication **Microcreek Technology Inc**

## 3 Models SB4200, SB1005, SB215

### Base

Material	Machined Aluminum Frame 5052H32 Made in Quebec
Dimensions:	10 x 4,375 x 8" – DIN Rail fixation 35mm EN 60715 TH 35 (2 Holder not provided)
Color	Black Fine texture (Option color: RED, Grey, Green)
LED	LED Bicolor Blue Power On / Red HDD Activity
Fan	1 x Fan 12V in model SB215
On/Off connector	On/Off for Push Button Option
Rack storage	2 x Drive 2.5" Trayless Hot swap Sata mobile Rack
Power connector	DC - 2 + GND + GND screw M4
I/O Options	PCIe LAN RJ 45 2.5GHz / GPIO 4+4 D-SUB 9
Option Port	1 to 4 COM Port D-SUB 9 (only for SB4200 and SB215 models)
Warranty	3 Years Limited Warranty

## Spécifications du modèle SB4200

Motherboard	Industrial Motherboard Long Life
CPU	Intel® Apollo Lake Fanless N4200 Cores 4 L1: 224KB, L2: 2.0MB, L3: 0MB TDP 6W
Chipset	SoC
Video	Intel UHD Graphics 500
Memory	8 GB 2 x 4GB DDR3L SODIMM Maximum 8GB Dual Channel Support 1866MHz
Expansion Slots	1 x PCI Express x1 (2.0), 1 x M.2 2230 slot (PCIe x1 and USB)
Storage	SSD 256GB 1 x M.2 2280/2260/2242 slot (B Key, SATA Only) 2 x SATA 6Gbps, M.2 SATA shared with one SATA_0 port
Audio	Realtek ALC283 audio codec
Network	2 x Intel I211AT Gigabit Ethernet
I/O Panel	1 x DC-IN 4 x USB 3.0 1 x DisplayPort 1 x HDMI 2 x RJ45 Ethernet 2 x Audio I/O
Power	8 - 24 VDC
Certifications	CE, FCC, RoHS, CSA, ErP
O.S.	Windows 10 IoT Ent 2019 LTSC Pre-installed and latest Linux
Environment	Operating Temperature: 0~ 60 °C ; Storage Temperature: -20 ~ 70 °C
Other	Watchdog Timer
Warranty	3 Years Limited Warranty

Information performance N4200

<https://www.cpubenchmark.net/cpu.php?cpu=Intel+Pentium+N4200+%40+1.10GHz>

## Spécifications du modèle SB1005

Motherboard	Industrial Motherboard Long Life
CPU	N97 Intel® Alder Lake-N Fanless Up to 3.6 GHz Cores: 4 Cache: L1: 384KB, L2: 2.0MB, L3: 6MB 12W
Chipset	SoC
Video	Intel UHD Graphics
Memory	8 GB DDR4-3200 1 x slot up 32GB
Slots	PCIe 4.0 x16 slot (Max 70W) - M.2 E-key 2230 (USB2/PCIe/CNVI) 1 x M.2 (Key B, 3042/3052) with PCIe x1, USB 3.2 Gen1, USB2.0 and SIM for 4G/5G
Storage	SSD 256GB on board: 1 x SATA3 6Gb/s ports + 1 x M.2 (Key M, 2242/2260/2280) with PCIe Gen3 x1 or SATA3 for SSD"
Audio	Realtek HD audio ALC897
Network	1 x Intel i225-V 2.5GbE, 1 x Intel i225-LM (iAMT)
I/O Panel	2 x HDMI2.0b 1 x VGA 2 x 2.5 Gigabit LAN Realtek RTL8125BG 2 x USB 3.2 Gen1 2 x USB 2.0 2 (Mic-In, Line-Out) COM1, COM2, COM3 (RS-232/422/485)"
I/O Internal:	2 x USB 3.2 Gen1 (1 x USB3.2 header) 3 x USB 2.0 (1 x 2.54 pitch header, 1 x USB 2.0 Type-A vertical con) COM4 (RS-232) COM5 (RS-232 or TTL (optional)) COM6 (RS-232 or ccTalk (optional)) GPIO 4+4
Power	+12V~28V DC in
Certifications	CE, FCC, RoHS, CSA, ErP
O.S.	Windows 10 IoT Ent 2019 LTSC Pre-installed - and latest Linux
Environment	Operating Temperature: -20 ~ 70 °C ; Storage Temperature: -30 ~ 80 °C
Other	Watchdog Timer
Warranty	3 Years Limited Warranty

Information N97 performances

<https://www.cpubenchmark.net/cpu.php?cpu=Intel+N97&id=5337>

<https://www.cpubenchmark.net/compare/2886vs5337/Intel-Pentium-N4200-vs-Intel-N97>

## Spécifications du modèle SB215

Motherboard	Industrial Motherboard Long Life
CPU	Intel® i3, i5, i7 - 14th/13th/12th Gen Core Processors (Raptor Lake-S/Alder Lake-S) LGA1700 Intel Fan. 65W maximum
Chipset	Intel Q670 - Intel fTPM 2.0 (PTT) Trusted Computing Firmware
Video	Intel HD Graphics (CPU Dependent)
Memory	8 GB DDR5 2 slots up 64GB - Note: 12th Gen CPU only supports 4800MHz
Expansion Slots	PCIe 4.0 x16 slot (Max 70W) (x16 or x8/x8 bifurcation) M.2 E-key 2230 (USB2/PCIe/CNVI) M.2 B-key 3042/3052 with SIM slot for Cellular (USB3/USB2/PCIe)
Storage	SSD 256GB on board: 2 x SATA3 6Gb/s ports M.2 M-key 2242 SATA & PCIe 4.0 x4 M.2 M-key 2280 SATA & PCIe 3.0 x4
Audio	Realtek ALC888S HD Audio
Network	1 x Intel i225-V 2.5GbE, 1 x Intel i225-LM (iAMT)
I/O Panel	4 x USB 3.2 Gen2 (10Gb/s) 2 x RJ45 ports, 1 x line-out/Mic combo4
Displays	2 x HDMI 2.0b 4K@60Hz, 2 x Displayport 1.4a 4K@60Hz,
Power	12-36V DC-in
I/O Internal	1 x USB header for 2 x USB 3.2 Gen1 2 x USB headers for 4 x USB 2.0 ports eDP/LVDS combo header 6 x Serial headers (4 x RS232, 2 x RS232/422/485) AT/ATX mode SMBUS 8bit GPIO
Certifications	CE, FCC, RoHS, CSA, ErP
O.S.	Windows 10 IoT Ent 2019 LTSC Pre-installed - Compatible Windows 11 and latest Linux
Environment	Operating Temperature: -20 ~ 70 °C ; Storage Temperature: -30 ~ 80 °C
Other	Watchdog Timer
Warranty	3 Years Limited Warranty
Remarque	Selon leur disponibilité, les CPU Intel peuvent être d'autres que ceux prévus, dans tous les cas ils seront au minimum des 12th.

Model	CPU
<b>SB215-200A</b>	<b>Intel i3-12100</b>
<b>SB215-200B</b>	<b>Intel i5-12400</b>
<b>SB215-200C</b>	<b>Intel i7-12700</b>

### Information CPU Intel

Intel Core i3-12100 - 3,3 GHz up to 4,3GHz Cores: 4, L1: 320KB, L2: 5.0MB, L3: 12MB TDP: 60W

Intel Core i5-12400 - 2,5 GHz up to 4,4GHz Cores: 6, L1: 480KB, L2: 7,5MB, L3: 12MB TDP: 65W

Intel Core i7-12700 - 2,1 GHz up to 4,9GHz Cores: 12, L1: 1,024KB, L2: 12.0MB, L3: 25MB; TDP: 65W

### Comparatif CPU performances

<https://www.cpubenchmark.net/compare/4687vs4677vs4669/Intel-i3-12100-vs-Intel-i5-12400-vs-Intel-i7-12700>

