

# Intense PC3 Kaby Lake

## 7<sup>th</sup> Generation Intel Core PC

Product Specification v.1.2



Thanks to improved GPU (Intel HD 620 Graphics) and latest generation of Intel CPU (Kaby Lake), Intense PC3 can **render demanding graphics and record-decode videos** faster than ever while consuming less power.

Intense PC3 supports 2x 4K display and is greatly recommended for **CCTV, signage, virtualisation, 24/7 applications and real-time monitoring.**

This miniature fanless PC also provides faster storage and improved booting time thanks to new M.2 B-key slot compatible with SATA drives. Highly customisable thanks to face modules supporting built-in fibre optics, Ethernet bypass, power-over-Ethernet... IPC3 is recommended for **advanced networking.**

### Key Features

- High processing performance
- Fast Clock Speed
- Dual-head Intel HD 620 graphics
- 2x4K display mode (true 4K)
- Generous Memory (up to 32GB)
- Fast booting time (M.2 B-key slot)
- Low power consumption
- Ruggedized die-cast aluminium shell
- Customisable Face Module

### Ideal For

- CCTV, video surveillance
- Real-time monitoring
- 24/7 applications
- Virtualization
- Windows IoT
- Advanced networking
- Signage
- Video recording/decoding
- Rendering graphics

## Product Specifications

Model		
<b>Name</b>	<b>IPC3 i5 Barebone</b>	<b>IPC3 i7 Barebone</b>
<b>Current HW Revision</b>	1.1	1.1
<b>Long Term Availability</b>	2020 - (then product will be available with similar or better CPU)	
Processor		
<b>Type</b>	Intel 7th Gen Core i5-7200U Processor (Kaby Lake)	Intel 7th Gen Core i7-7500U Processor (Kaby Lake)
<b>Cores</b>	64-bit dual core	
<b>Clock speed</b>	2.5GHz (turbo boost up to 3.1GHz)	2.7GHz (turbo boost up to 3.5GHz)
<b>Cache</b>	4MB	4MB
<b>TDP</b>	15W	
<b>Chipset</b>	Intel Mobile PCH (MCP package)	
Memory		
<b>Supported</b>	2x SO-DIMM 204-pin DDR3L SDRAM memory slots Up to 32GB (2x 16GB) Non-ECC DDR3L-1600 (1.35V)	
<b>Installed</b>	Barebone as default. Customise your memory with our purchase options (website).	
Storage		
<b>Supported</b>	1x SATA up to 6 Gbps (SATA 3.0) for internal 2.5" HDD/SSD 1x mSATA slot up to 6 Gbps (SATA 3.0) (on FM-USB3) 1x M.2 B-key slot up to 6 Gbps (SATA 3.0)	
<b>Installed</b>	Barebone as default. Customise your storage with our purchase options (website).	
Graphics		
<b>GPU</b>	Intel HD 620 Graphics Dual display mode supported	

<b>Display Interface 1</b>	HDMI 1.4 up to 4096 x 2160 @ 30 Hz
<b>Display Interface 2</b>	DisplayPort 1.2 up to 4096 x 2304 @ 60 Hz
<b>Display Interface 3</b>	N/A
<b>Audio</b>	
<b>Codec</b>	Realtek ALC886 HD audio codec
<b>Audio Output</b>	Analog stereo output Digital 7.1+2 channels S/PDIF output 3.5mm jack
<b>Audio Input</b>	Analog stereo Microphone input Digital S/PDIF input 3.5mm jack
<b>Networking</b>	
<b>LAN</b>	2x GbE LAN ports LAN1: Intel I219 GbE PHY (MAC integrated into the chipset) (RJ-45) LAN2: Intel I211 GbE controller (RJ-45) LAN3-6: N/A
<b>Wireless</b>	WLAN 802.11ac (2.4/5GHz dual band Intel 7260HMW) Bluetooth 4.0
<b>Connectivity</b>	
<b>USB</b>	2x USB 3.0 (front) 2x USB 3.0 (back) 2x USB 2.0 (back)
<b>Serial</b>	2x Full signal set com port (SuperIO Controller) 2x 4-wire com port  1x Serial Port Embedded Controller: 1x 2-wire com port Renesas H8S/211316-bit MCU
<b>SD</b>	N/A
<b>Special I/O</b>	1x micro SIM slot (6 pins) for use with <a href="#">Cellular Modem Kit</a> .

<b>Expansion</b>	1x M.2 B-key 2230/60 slot (SATA, USB3.0, USB2.0) 1x Full-size mini-PCIe socket FACE Modules available – see Face Module Customisation table.
<b>Advanced Technologies</b>	
<b>vPRO</b>	No
<b>AMT</b>	No
<b>CPU Virtualization</b>	Yes
<b>AES</b>	Yes
<b>Special Functionality</b>	Auto-On, Wake-on-LAN, Wake-on-Timer PXE Boot, Watchdog, Remote power button
<b>Bootloader</b>	
<b>Vendor</b>	American Megatrends Inc.
<b>Features</b>	BIOS Legacy mode UEFI 2.2 mode Secure Boot
<b>Operating System</b>	
<b>Supported</b>	Windows 10 64 bit Windows Server 2012/R2, 2016 Win 10 IoT Enterprise CBB and LTSB High End Linux (Mint / Ubuntu) 32-bit and 64-bit
<b>Official Linux</b>	Linux Mint 18 Cinnamon (64-bit)
<b>Installed</b>	Barebone as default. Customise your OS with our purchase options (website).
<b>Operating Conditions</b>	
<b>Input Voltage</b>	Unregulated 10 – 15VDC input Nominal input voltage: 12V
<b>Power Consumption</b>	6W – 24W
<b>Operating Temperature</b>	<b>Standard: 0°C to +45°C (HDD Models) / 0°C to +70°C (SSD Models)</b>

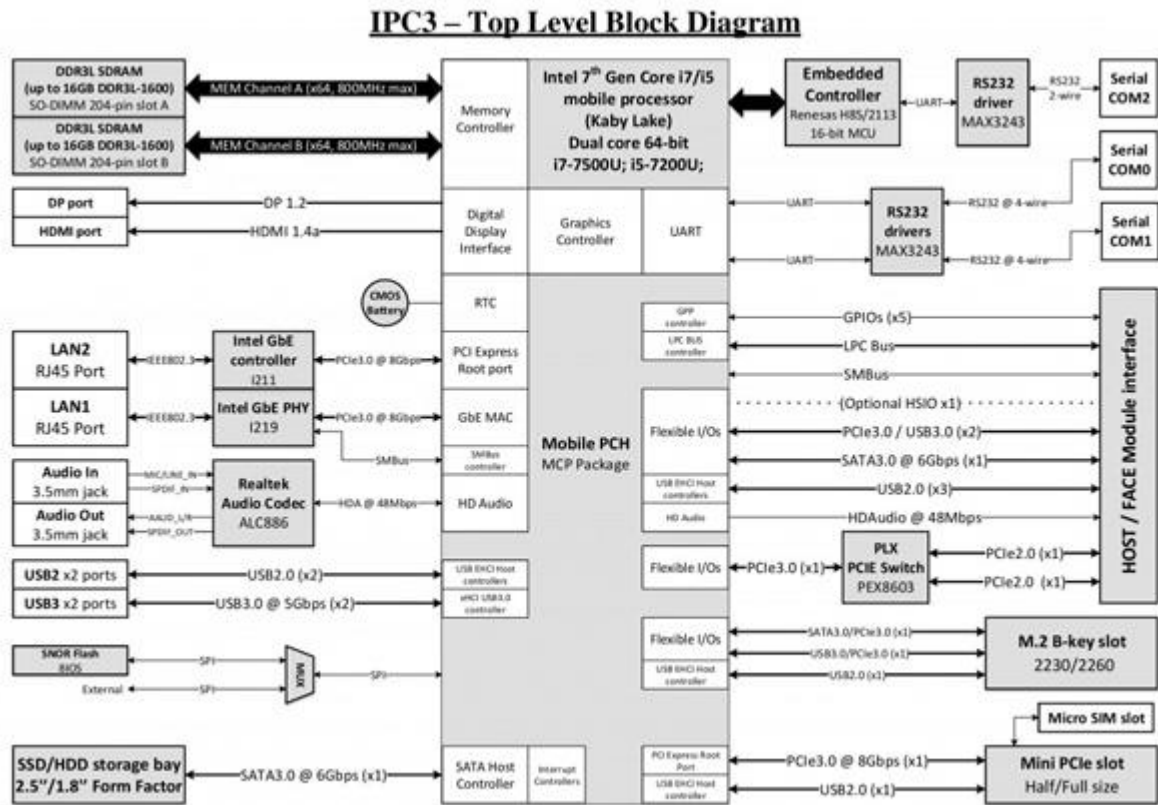
	Custom options are available for this PC - contact us for quotations: Optional - Extended (TE): -20°C to +70°C (SDD models only) Optional - Industrial (TI): -40°C to +70°C (SDD models only)
<b>Relative Humidity</b>	10% to 90% (operation) 5% to 95% (storage)
<b>MTTF</b>	> 100,000 hours*
<b>Enclosure</b>	
<b>Material</b>	Die Cast Aluminium
<b>Cooling</b>	Passive Cooling Fanless Design
<b>Dimensions</b>	19cm x 16cm x 4cm (6.3" x 7.4"x 1.57")
<b>Weight</b>	1015gr
<b>Warranty</b>	
<b>Business</b>	5 years*
<b>Consumer</b>	1 year

\*1 year for consumable (SSD, HDD, RAM)

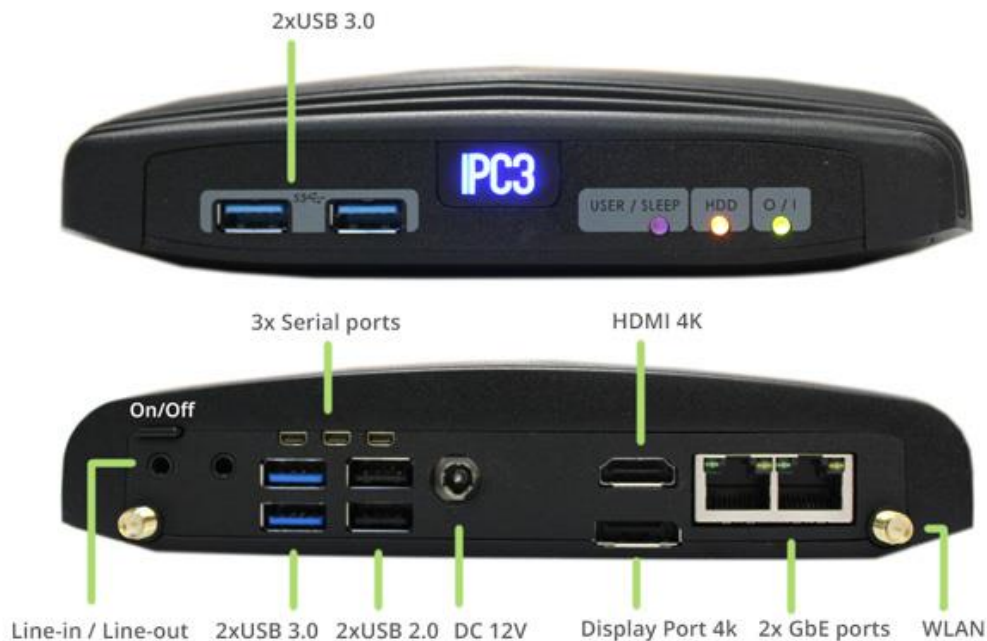
## Package Content

Item	Specifications
1	Intense PC3 Computer
2	Power Supply Input 100-240VAC 50/60Hz, 60W output 12VDC 5A, DC plug lock; North American AC cord
3	Video HDMI to DVI adapter
4	Audio 3.5mm to RCA cable
5	WiFi 2.4GHz/5GHz band 2 antennas
6	Mini-serial to DB9-female adapter cable
7	User manual

## Block Diagram



## Port Diagram



## Face Modules Customisation

<b>FM-OPLN</b>	Adds dual Gbit Ethernet SFP+ ports for fiber-optic LAN built-in. Eliminates the need for external media converter while enabling true fibre-to-the-desk (FTTD) in extremely compact form factor.
<b>FM-POE</b>	Adds 4 Gbit Ethernet ports with Power-over-Ethernet. Each port is IEEE802.3af compliant, can supply up to 15.4W and has a GbE controller (Intel i211) on a dedicated PCIe lane.
<b>FM-EBP</b>	Stand-alone PC with integrated Gigabit Ethernet bypass switching. Enables both passive and active switching without the need for heartbeat packets. Ethernet bypass can be directed to an in-line backup PC.
<b>FM-LAN</b>	Adds 4 GbE ports on top of the built-in dual GbE ports for a total of 6 GbE ports.
<b>FM-SER</b>	Adds 6 RS232/RS485 ports on top of the built-in 3 RS232 ports for a total of 9 serial ports.
<b>FM-XTDM2</b>	Adds two miniPCIe ports on top of the built-in port for a total of 3 miniPCIe ports.

## Contact and Support

For further information and quotations, please contact [risc@swissonline.ch](mailto:risc@swissonline.ch)