

Fitlet2 Product Datasheet

Best Engineered Apollo Lake IoT Micro PC

Product Specification v.1.2



Capable, compact, customisable, affordable: Fitlet2 is cleverly designed to answer your needs, from processing performance to size, connectivity and reliability.

Processing Performance in passively cooled Micro PC

Fitlet2 features impressive processing performance in a small and passively cooled case (11.2 x 8.4 x 3.4 cm). The E3950, for example, comes with 4 cores, a speed range of 1.6 to 2 GHz and a Geekbench3 score of 4325. Not long ago, this processing performance could not be fitted in such a small passively-cooled footprint due to technology restriction. The heat dissipation is stunning thanks to built-in heatsink with new cooling fins and new heat plate for storage cooling.

Best IoT Micro PC

Fitlet2 is built around Atom Apollo Lake processors, developed especially by Intel for the IoT world. Apollo Lake also brings improved data communications, enhanced security features, reliability and performance over previous generations. Choose 64-bit Quad Core CPU performance for faster processing tasks and Windows 10 IoT Enterprise LTSB or Linux Operating Systems to use the PC as IoT Gateway.

Fully Customisation

Fitlet2 has been designed to offer the best flexibility to customers. Please consult the Fitlet2 Range Datasheet to see all connectivity, housing & mounting options.

Key Features

- Dual/Quad Core Intel Apollo Lake CPUs
- Ultra-small form factor
- Up to 16GB DDR3L-1866MT/s
- Efficient Storage Technology
- Impressive Customisation
- 24/7 Reliability

Product Specifications

Model	Fitlet2 E3930	Fitlet2 E3950	Fitlet2 J3455
Name	Fitlet2 E3930	Fitlet2 E3950	Fitlet2 J3455
Current HW Revision	1.2	1.2	1.2
Processor			
Type	Intel Atom™ Processor x5 Series E3930	Intel Atom™ Processor x7 Series E3950	Intel® Celeron® Processor J Series
Cores	64-bit Dual Core	64-bit Quad Core	64-bit Quad Core
Clock speed	1.3GHz to 1.8GHz	1.6GHz to 2GHz	1.5GHz to 2.3GHz
Cache	2 MB L2		
TDP	6.5W	12W	10W
Memory			
Supported	1x SO-DIMM 204-pin DDR3L Non-ECC DDR3L-1866 (1.35V) Up to 16GB		
Installed	Barebone as default. Options are: 2GB / 4GB / 8GB / 16GB – DDR3L-1600MT/s Non-ECC		
Storage			
M.2	1x M.2 M-Key 2242/2260* on board <i>*M.2 2280 optional on some facet cards – consult Range Datasheet</i>		
2.5"	Supported through special option. <i>Consult the Range Datasheet.</i>		
Installed	Barebone as default. Options are: M.2: SATA 3.0: 30GB / 120GB / 256GB HDD: 1TB		
Graphics			
GPU	Intel® HD Graphics 500 Dual display mode supported	Intel® HD Graphics 505 Dual display mode supported	Intel® HD Graphics 500 Dual display mode supported
Display Interface 1	HDMI 1.4 3840x2160 @30Hz		

Display Interface 2	Mini DP 1.2 4096x2160 @60Hz	Mini DP 1.2 3840x2160 @30Hz
Audio		
Codec	Realtek ALC1150 audio codec	
Audio Output	Stereo line-output Digital 7.1 S/PDIF output (requires a 3.5mm to SMA cable - sold separately). 3.5mm jack HDMI & DP audio	
Audio Input	Stereo line-in / Microphone Digital S/PDIF input (requires a 3.5mm to SMA cable - sold separately). 3.5mm jack	
Networking		
LAN	2x GbE LAN ports (RJ-45) LAN1: Intel I211 GbE controller LAN2: Intel I211 GbE controller Optional 2 additional LAN ports via FACET. <i>Consult the Range Datasheet.</i>	
Wireless	WIFI/BT	Optional WIFI/BT module via FACET. <i>Consult the Range Datasheet.</i>
	Cellular	Optional Cellular modules with FACET integration (4G/GNSS). <i>Consult the Range Datasheet.</i>
Connectivity		
USB	2x USB 3.0, 2x USB 2.0 Optional 4x USB 2.0 Ports with FACET integration. <i>Consult the Range Datasheet.</i>	
Serial	1x RS232 Serial communication port. Requires a mini-serial to DB-9 Male adapter cable - sold separately.	
SD	Micro-SD slot support SD/SDHC cards Transfer rates up to 25 MB/s	
Advanced Technologies		
vPRO	No	
AMT	No	
CPU Virtualization	Intel® Virtualization Technology (VT-x) Intel® Virtualization Technology for Directed I/O (VT-d)	
AES	Yes	

Special Functionality	Auto-On, Wake-on-LAN, Wake-on-Timer, PXE Boot, Watchdog (not available yet) Trusted Platform Module (TPM) Remote power button (requires a remote power button cable - sold separately)
Functional Features	Programmable indicator LEDs, Removable RTC battery, Auxiliary power header, RTC reset tactile switch,
Mechanical Features	Kensington lock optional Power plug twist lock Mechanical disabling of power button
Bootloader	
Vendor	AMI Aptio V
Operating System	
Supported	Windows 10 Pro 64-bit Windows 10 IoT Enterprise LTSB Entry Linux Mint 64-bit Compatible with: Windows 10 variants, Linux variants, hypervisors and operating systems (e.g. ESXi, FreeBSD)
Official Linux	Linux Mint 19 Tara (64-bit)
Operating Conditions	
Input Voltage	Unregulated 7 – 20VDC* input Optional: <i>Extended input voltage range available 9V – 36V</i>
Power Consumption	5W-15W. Consumption will depend on the use of the CPU and peripherals.
Operating Temperature	Standard: 0°C to +45°C* Following options available: Optional - Extended (TE): -20°C to +70°C Optional - Industrial (TI): -40°C to +70°C <i>* Operating Temperature stated is for the Fitlet2 base product only. Any accessories or consumables added on must be adapted to the options</i>
Relative Humidity	5% to 95% (non-condensing)
MTTF	> 100,000 hours*
Certifications	CE, FCC, EMC and Safety
Enclosure	

Material	Die Cast Aluminium
Cooling	Fanless convection cooling through the housing. No vents.
Dimensions	Performance Housing (built-in heatsink): 11.2cm x 8.4cm x 3.4cm Other housings available: please consult the Datasheet Range.
Weight	350gr with Performance Heat Sink and Standard Bottom Cover. FACET and Consumable not included
Warranty	
PC	5 years*
Consumable	1 year

*Supplied by Tiny Green PC, trading division of Anders Electronics plc. Manufactured by CompuLab.

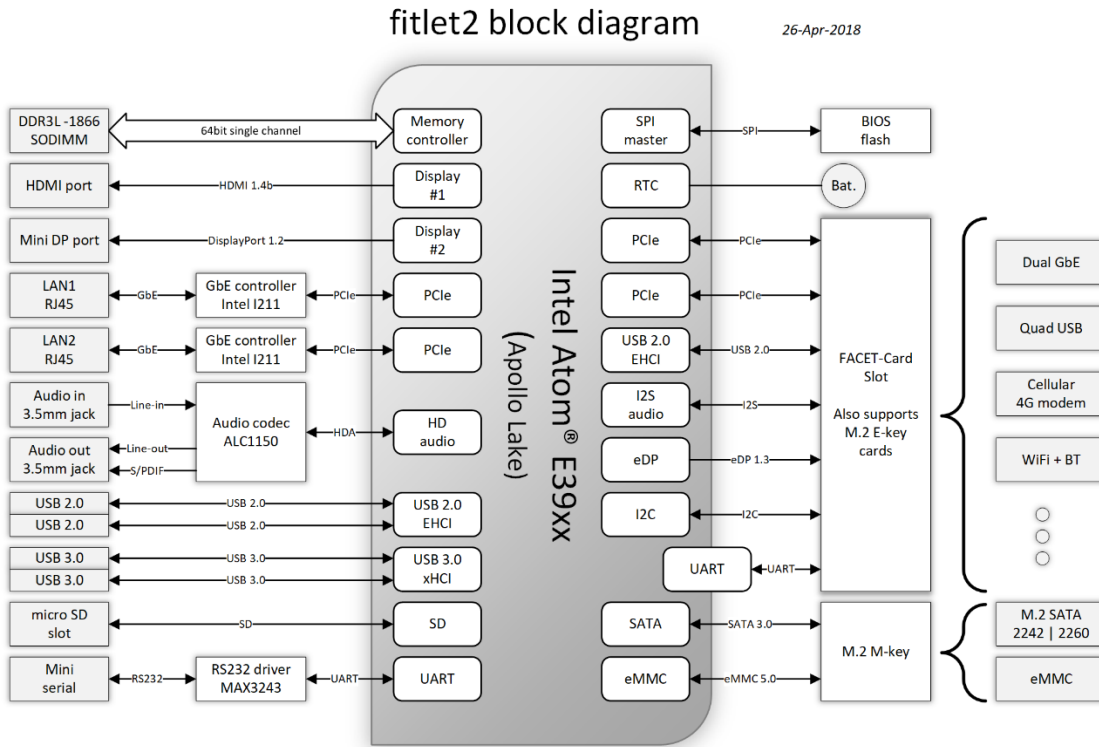
Package Content

Item	Specifications
1	Fitlet2 Computer
2	Power Supply: input 100-240VAC 50/60Hz, 36W output 12VDC 3A, Operating Temperature: 0°C to +40°C, DC plug lock, attachable NA [North America], UK, EU and CN [China] adapters
3	M.2 Cooling plate with spacers and screws
4	RTC battery with cord
5	Owner's manual

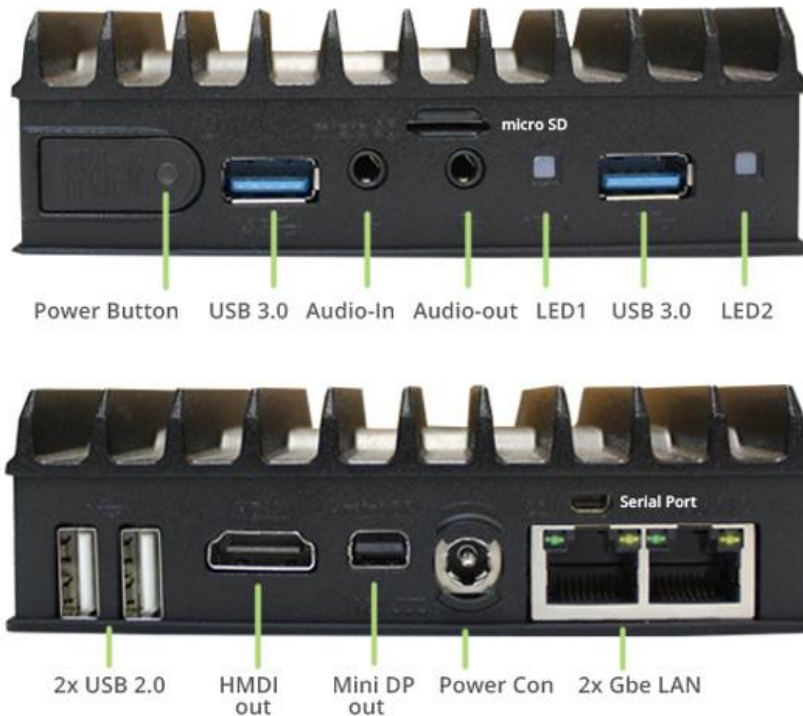
Accessories

Many accessories can be purchased with Fitlet2: mini-serial to DB-9 Male adapter cable, 3.5mm to SMA cable, remote power button cable, HDMI to DVI cable, fit Uptime, VESA bracket and DIN rail bracket. They are sold separately. Ask our team to add them in your quotes.

Block Diagram



Port Diagram



FACET Customisation

On top of the standard connectivity, the Function And Connectivity T-card (or FACET card) provides additional customisation choices such as additional POE, dual Gbit Ethernet, 4 extra USB 2.0 ports, simultaneous cellular modem and WI-FI/BT.

Consult the range datasheet for all options.

Contact and Support

For information and quotations, please contact info@tinygreenpc.com

For all technical support (questions, FAQ, troubleshooting, RMA...), please consult <http://www.tinygreenpc.com/support>