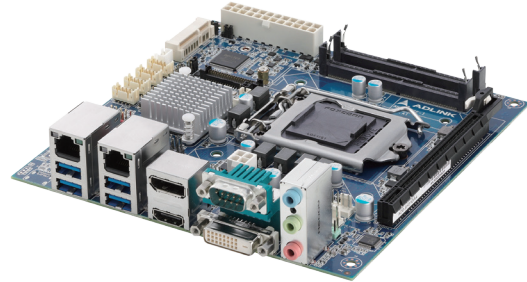


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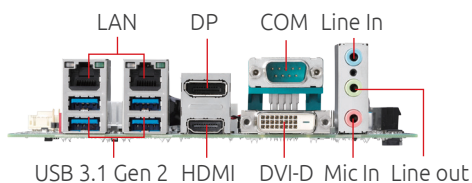
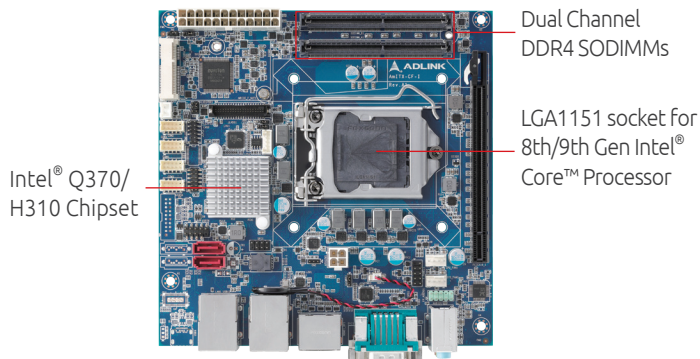
Mini-ITX Embedded Board with 8th/9th Gen Intel® Core™ i7/i5/i3 Processors

Features

- 8th/9th Gen Intel® Core™ i7/i5/i3 and Intel® Pentium®/Celeron®
- Dual-channel DDR4 2400/2666 MHz non-ECC SODIMM memory up to 32 GB (dependent on CPU)
- DisplayPort, HDMI and DVI-D display outputs on rear I/O



Product Illustration



Ordering Information

- **AmITX-CF-I**
8th/9th Intel® Core™ i7/i5/i3 and Intel® Pentium®/Celeron®
Mini-ITX Embedded Board

Note: CPU, memory module and cooler kit are not included

Packing Lists

- AmITX-CF-I Mini-ITX embedded board
- AmITX-CF-I I/O shield

Optional Accessories

- **USB 3.0 Cable**
2-port USB 3.0 port cable with bracket
- **USB 2.0 Cable**
2-port USB 2.0 port cable with bracket
- **COM Cable**
COM port cable
- **CPU Cooler**
LGA1156 thermal module for Core™ i7/i5/i3 CPU

Specifications

Processor System	
CPU	Intel® Core™ i7-9700E, 2.6GHz, 12M Cache, 65W TDP, LGA1151, DDR4 2666MHz support (8C/8T)
	Intel® Core™ i7-9700TE, 1.8GHz, 12M Cache, 35W TDP, LGA1151, DDR4 2666MHz support (8C/8T)
	Intel® Core™ i5-9500E, 3.0GHz, 9M Cache, 65W TDP, LGA1151, DDR4 2666MHz support (6C/6T)
	Intel® Core™ i5-9500TE, 2.2GHz, 9M Cache, 35W TDP, LGA1151, DDR4 2666MHz support (6C/6T)
	Intel® Core™ i3-9100E, 3.1GHz, 6M Cache, 65W TDP, LGA1151, DDR4 2400MHz support (4C/4T)
	Intel® Core™ i3-9100TE, 2.2GHz, 6M Cache, 35W TDP, LGA1151, DDR4 2400MHz support (4C/4T)
	Intel® Core™ i7-8700, 3.2GHz, 12M Cache, 65W TDP, LGA1151, DDR4 2666MHz support (6C/12T)
	Intel® Core™ i7-8700T, 2.4GHz 12M Cache, 35W TDP, LGA1151, DDR4 2666MHz support (6C/12T)
	Intel® Core™ i5-8500, 3.0GHz, 9M Cache, 65W TDP, LGA1151, DDR4 2666MHz support (6C/6T)
	Intel® Core™ i5-8500T, 2.1GHz, 9M Cache, 35W TDP, LGA1151, DDR4 2666MHz support (6C/6T)
	Intel® Core™ i3-8100, 3.6GHz, 6M Cache, 65W TDP, LGA1151, DDR4 2400MHz support (4C/4T)
	Intel® Core™ i3-8100T, 3.1GHz, 6M Cache, 35W TDP, LGA1151, DDR4 2400MHz support (4C/4T)
	Intel® Pentium® G5400, 3.7GHz, 4M Cache, 58W TDP, LGA1151, DDR4 2400MHz support (2C/4T)
	Intel® Pentium® G5400T, 3.1GHz, 4M Cache, 35W TDP, LGA1151, DDR4 2400MHz support (2C/4T)
	Intel® Celeron® G4900, 3.1GHz, 2M Cache, 54W TDP, LGA1151, DDR4 2400MHz support (2C/2T)
	Intel® Celeron® G4900T, 2.9GHz, 2M Cache, 35W TDP, LGA1151, DDR4 2400MHz support (2C/2T)
	Chipset
Memory	Two 260-pin DDR4 non-ECC SODIMM slots DDR4 2400/2666 MHz, up to 32 GB (dependent on CPU)
BIOS	AMI® UEFI BIOS, 256 Mb SPI flash memory (H310: 128Mb)
Watchdog Timer	Software programmable , can generate system reset
Hardware Monitor	CPU voltage
	+3.3 V voltage
	+5 V voltage
	+12 V voltage
	CPU temperature System temperature CPU fan speed System fan speed
Operating Systems*	Microsoft® Windows® 10 64bit
	Fedora 30 64-bit
	Ubuntu 18.10 LTS 64-bit
I/O Interfaces	
Serial ATA	4x SATA 6.0 Gb/s connectors (H310: 2x SATA, no RAID support) Software RAID support 0/1/5/10
	4x USB 3.1 Gen2 connectors (rear) (H310: USB 3.1 Gen1) 2x USB 3.1 Gen1 via pin header (H310: not available) 2x USB 2.0 via pin header
USB	2x USB 3.1 Gen1 via pin header (H310: not available) 2x USB 2.0 via pin header
Serial Ports	1x RS-232/422/485 with auto flow control connector (rear)
	4x RS-232 pin headers
Expansion slots	1x PCIe x16 Gen3
	1x M.2 (2280), supports SATA
	1x Mini PCIe (full/half size), supports PCIe x1 Gen2, USB 2.0
DIO	1x 8-bit GPIO pin header

*Other Linux distributions supported by request.

Specifications

Audio	
Audio Codec	Realtek® ALC892
Interface	1x Line-out, 1x Line-in, 1x Mic-in connector (rear)
Graphics	
Graphics Engine	Integrated Intel® HD Graphics series (based on CPU)
DVI	1x DVI-D connector (rear), resolution up to 1920 x 1200 @ 60 Hz
DisplayPort 1.2	1x DP connector (rear), resolution up to 4096 x 2304 @ 60 Hz
HDMI 1.4	1x HDMI connector (rear) resolution up to 4096 x 2160 @ 30 Hz
LVDS	1x LVDS pin header, supports single/dual channel 24-bit LVDS up to 1920x1080 @ 60 Hz
Ethernet	
Controller	LAN1/2: Realtek RTL8111G via RJ45 connector (rear)
Wake On LAN	LAN1 and LAN2 support
Mechanical and Environmental	
Form Factor	Mini-ITX
Dimension	170 mm x 170 mm (W x L)
Operating Temperature	0 °C to 60 °C
Storage Temperature	-40 °C to 85 °C
Relative Humidity	60° C @ 95% RH, non-condensing
Certification	CE & FCC Class B

AmITX-CF-I

Functional Diagram

