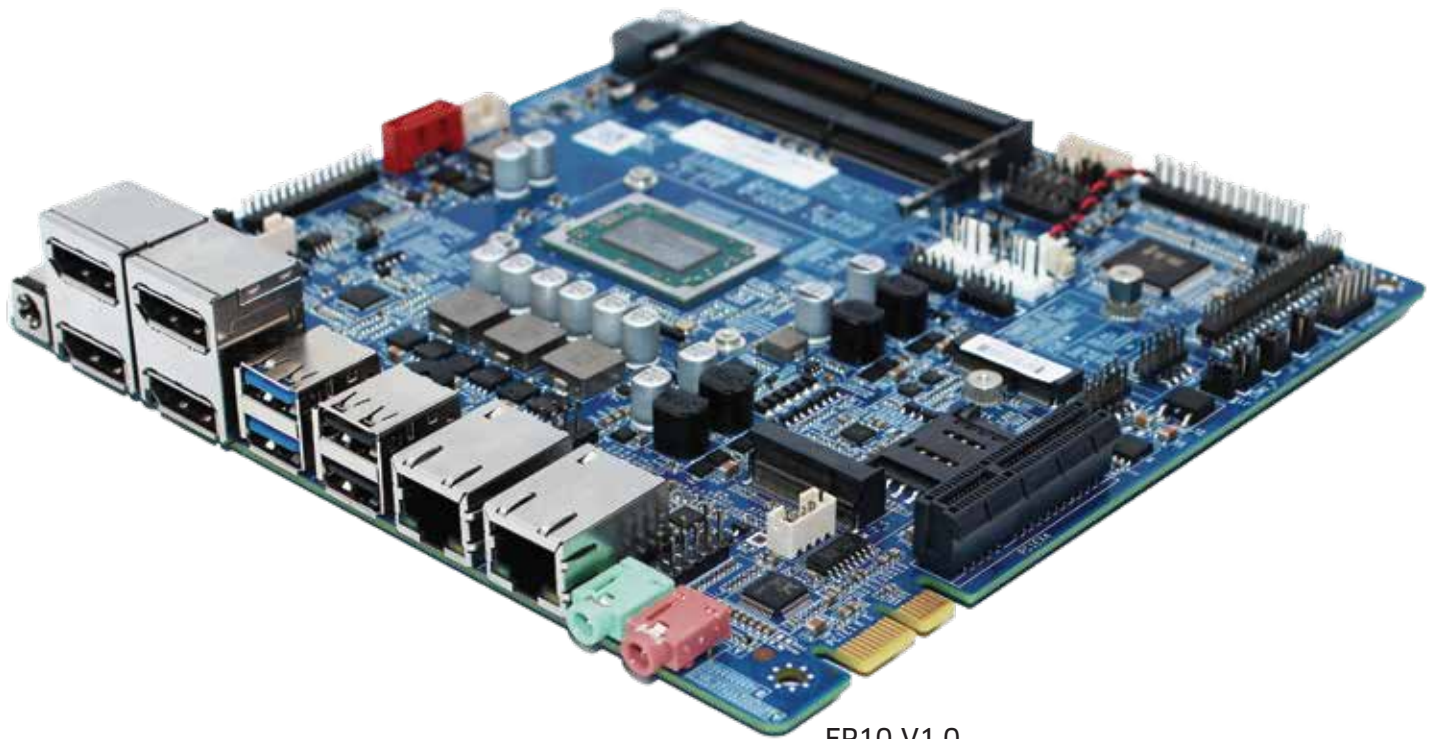


mITX-FP10

AMD® Ryzen™ Quad Core Processor-Based Motherboard with 4 DisplayPort



FP10 V1.0

Features

- CPU: Ryzen™ 5 2500U and Ryzen™ Embedded V1605B
- Memory: Dual channel SO-DIMM DDR4 (max 32 GB)
- Display: Up to 4 DP displays (LVDS/eDP optional)
- Ethernet: Support dual 1GbE ethernet cards
- Storage: SATA3.0, M.2, PCIe X4, PCIe X1
- Power: 12V/19V DC input
- Security: TPM 2.0 supported (optional)



Introduction

The new Maxtang mini-ITX embedded motherboard FP10 is based on the AMD Ryzen™ 2500U (quad-core) and V1605B (quad-core) and provides a complete PC platform with high performance. Coming from the embedded V1000 processor family and mobile processor family, these CPUs combine the incredible performance of the pioneering “Zen” architecture and “Vega” GPU in a single chip with thermal design power (TDP) as low as 12W/15W. Four independent 4K+ DP displays are supported in addition to dual-channel DDR4 SO-DIMM memory, dual 1-Gigabit Ethernet controllers, and M.2 expansion for Wi-Fi and SSD modules. The TPM module for added security is also optional. It also has rich interfaces as 6 x USB2.0, 2 x USB3.0, 1 x Mic-in, 1 x Line-out and 2 x LAN, catering to most requirements in the market.

The FP10 is an ideal solution for applications requiring a high speed communications front-end like a mini-server or high-resolution display products like electronic gaming machines, medical imaging, interactive digital signage, thin clients, or PDS terminals.



H/W Monitor



Watchdog



GPIO



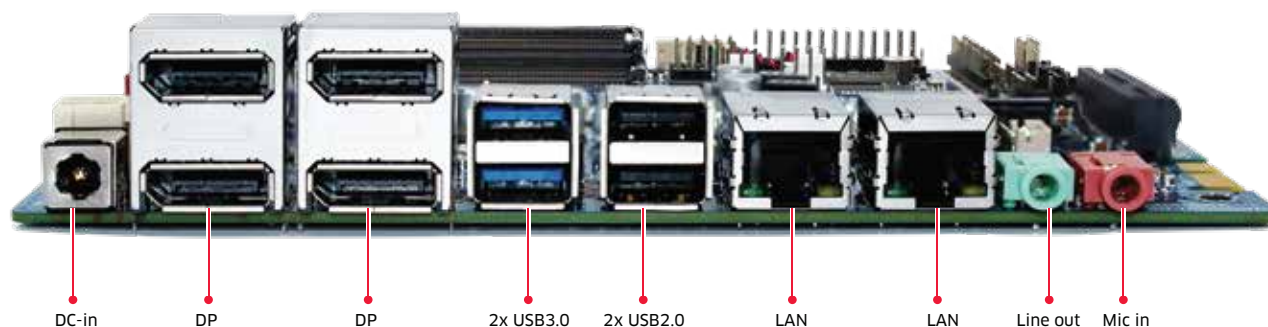
Brightness

CPU Options

Ryzen 2500U (2.0GHz, max turbo frequency 3.6GHz, quad core, TDP 15W)

Ryzen V1605B (2.0GHz, max turbo frequency 3.6GHz, quad core, TDP 12-25W)

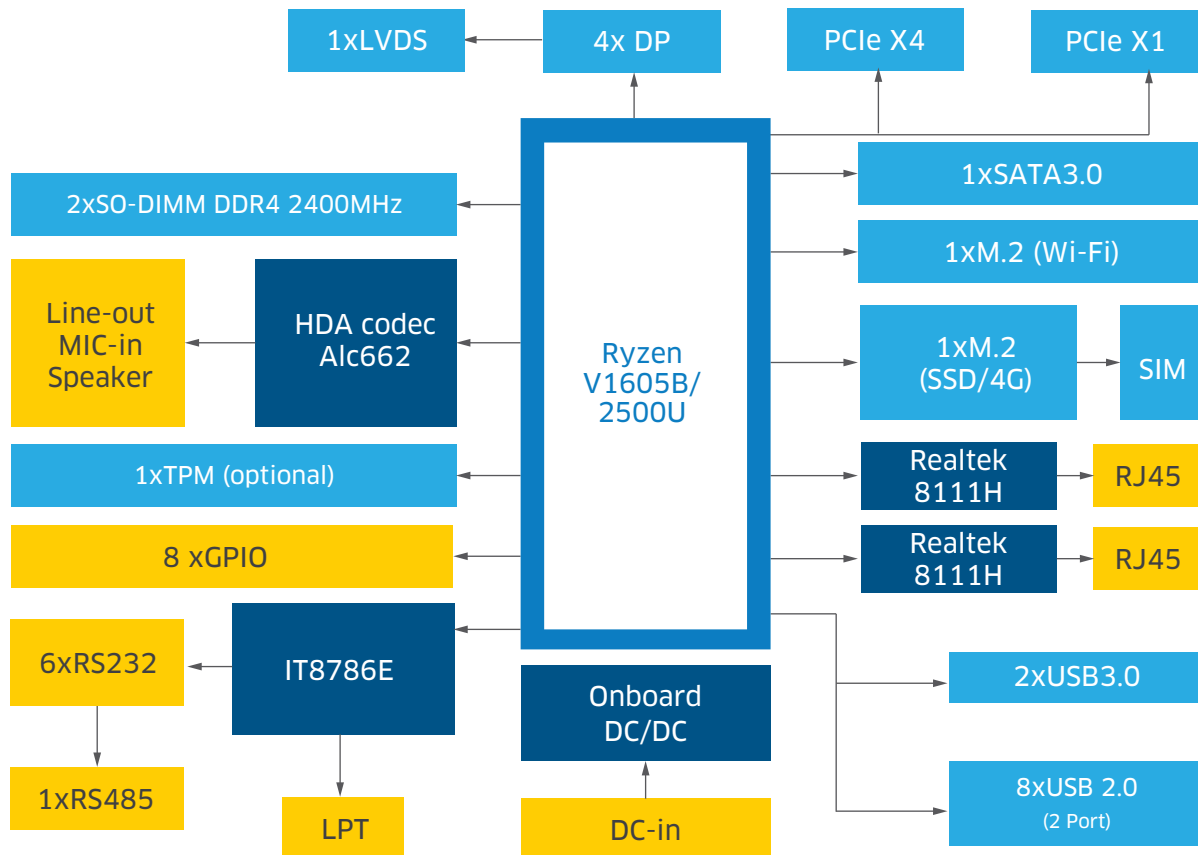
I/O Interfaces



Technical Specifications

Processor	CPU	V1605B (quad-core)	2500U (quad-core)
	Max boost clock	3.6 GHz	3.6 GHz
	Base clock	2.0 GHz	2.0 GHz
	Cache	2MB L2	2MB L2
	BIOS	AMI 64MB SPI	
Memory	Type	2 x SO-DIMM DDR4	
	Max capacity	32GB	
Display	GPU	AMD Radeon Vega 8 Graphics	
	LVDS/eDP	1, colay DP1.0 port (optional)	
	Display Port	4 x DP1.3, resolution up to 3840x2160 for single display	
	Multiple display	DP+DP+DP+DP/LVDS/eDP	
Ethernet	Speed	1 GbE	
	Controller	RTL8111H	
	Interface	RJ-45	
Audio	Audio codec	Realtek HD ALC662 (Line-out, Mic-in)	
	Interface	Line-out, mic-in, audio header, amplifier header	
Hardware	CPU system temperature, onboard voltage, watchdog		
Wireless connectivity	M.2	1xM.2 for Wi-Fi	
Storage	M.2	1xM.2 for 4G/2280 SSD	
	SATA	1xSATA	
Expansion	PCIe X1	1	
	PCIe X4	1	
Rear I/O	DP	4 (Default)	
	USB	2 x USB2.0 + 2 x USB3.0	
	LAN	2	
	Audio	1 x line-out + 1 x mic-in	
	DC-in	1	
Internal I/O	COM	6×RS232 (COM2 can be RS485, optional)	
	USB2.0	6×USB2.0 header	
	I/O	8×GPIO	
	LVDS/eDP	1×LVDS/eDP header	
	LPT	1×JLPT	
	PS/2	1×PS2_H	
	TPM2.0	Onboard, optional	
Dimension	Type	Mini ITX	
	Size	170 mm x 170 mm	
Power	Standard port	12V/19V DC-in/4 PIN Power	
Temperature	Operating Temp.	-20°C–60°C	
	Storage Temp.	-40°C–80°C	
Operating System	Windows 10 64bit, Linux 64bit		

Functional Block Diagram



Applications

- Vertical markets: medical imaging, smart school, high-end gaming
- Stock trading: multi-tasking, multi-display
- Industrial controlling: factory controlling and testing, security system
- Digital signage: slip-flat display, shopping mall billboard, scoreboard

Copyright © 2018 Maxtang Technology Co. Ltd. All rights reserved. All data is for information purposes only and not guaranteed for legal purposes. Information has been carefully checked and is believed to be accurate however, no responsibility is assumed for inaccuracies. Maxtang and the Maxtang logo and all other trademarks or registered trademarks are the property of their respective owners and are recognized.