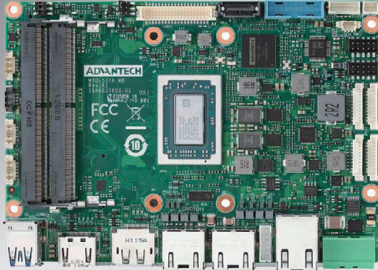


# MIO-5376

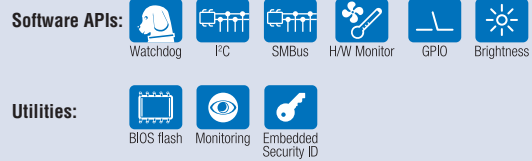
## AMD R2000 Series 3.5" SBC

Preliminary



### Features

- AMD R2000 Processor with Quad Cores, TDP 15W/ 28W
- Dual Channel DDR4-2667 up to 32GB
- 3 simultaneous displays: LVDS/HDMI/DP
- 3 GbE (2 support optional PoE, 802.3af), CAN Bus, DC-in 12-24V
- Expansion: M.2 E-Key/B-Key/M-Key (supports NVMe)
- Supports iManager & Software APIs, WISE-DeviceOn



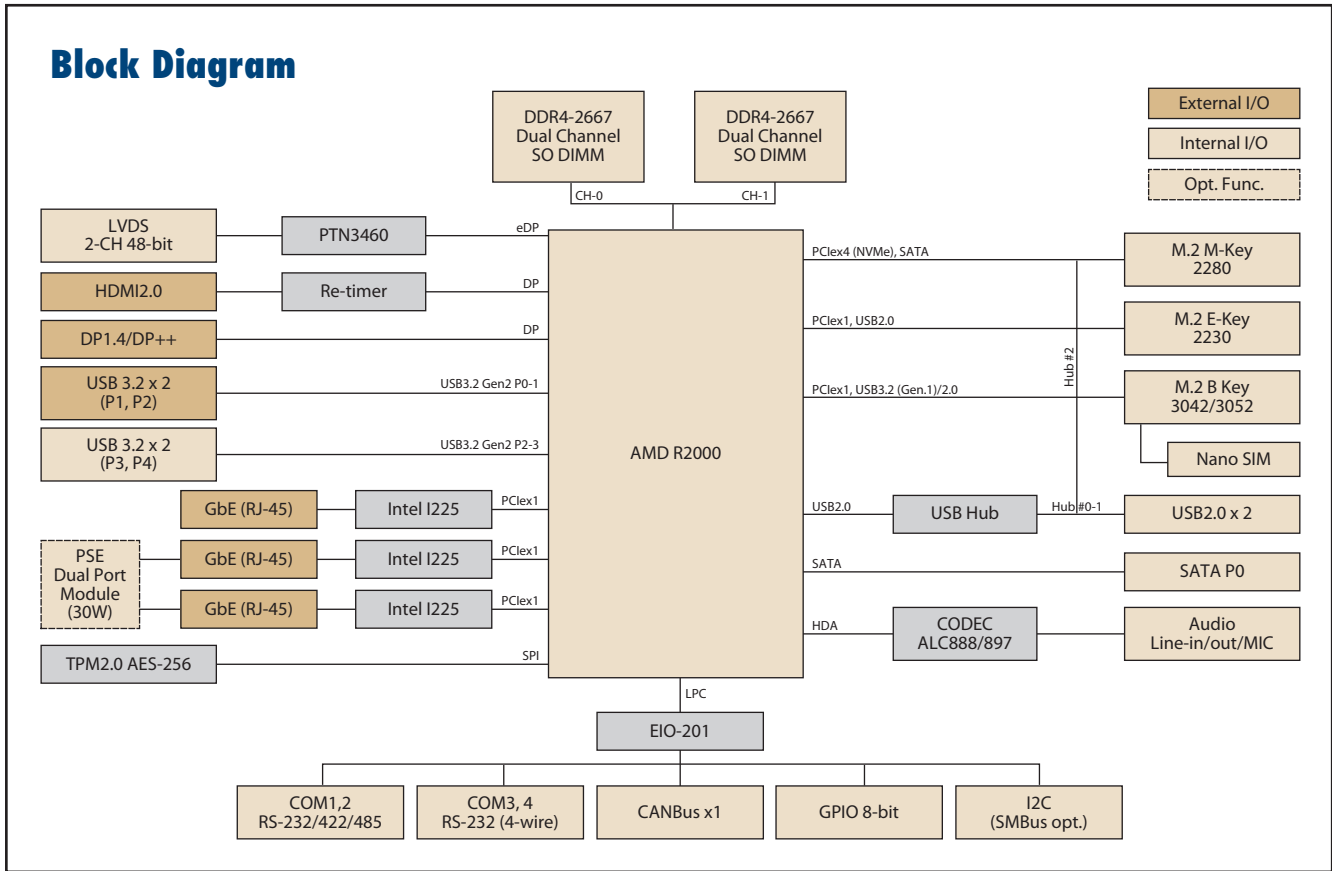
ubuntu Windows 10 iManager WISE-DeviceOn CE FC

### Specifications

Platform	Processor	R2314
	Max. Frequency	3.50 GHz
	Base Frequency	1.20 GHz
	Core/Tread	4/4
	CPU cTDP/ TDP	15W/ 28W
	Chipset	AMD R2000 series Chipset (SoC Integrated)
	BIOS	AMI EFI 256Mbit
Memory	Technology	DDR4-2667
	Max. Capacity	Up to 32GB
	Channel/Socket	Dual Channels / 2 Sockets
	ECC Support	No
Graphics	Controller	Integrated AMD Radeon Graphics R2314: 6 Computing Units (CUs)
Display I/F	LCD	1 x LVDS: Dual Channel 18/24-bit, up to 1920 x 1080
	HDMI	1 x HDMI 2.0b, up to 4Kx2Kx24bpp@60Hz
	DP	1 x DP1.4a, up to 4096x2304x36bpp@60Hz or 5120x3200x24bpp@60Hz
	Multiple Display	3 simultaneous displays with each display interface combinations
External I/O	Ethernet	3 x GbE, Intel i225 2 support optional PSE compliant to 802.3af (15.4W per port) with external PSE power module
	HDMI/DP	1/1
	USB3.2	2 x USB3.2 Gen. 2x1 10Gbps
	LED	Power status, SATA R/W
	Power Connector	2-pin phoenix connector
Internal I/O	SATA	1 x SATA GenIII 6.0 Gbps
	USB3.2	2
	USB2.0	2
	Serial Bus	I2C, SMBus (option)
	COM Port	2 x RS-232/422/485, 2 x RS-4232 (4-wire)
	GPIO	8-bit general purpose input output I/O
	Audio	Realtek ALC888, Line-in/Line-out/MIC
	Inverter	12V/5V/3.3V selectable
	CAN Bus	1 x CANBus 2.0
	Fan	4-wire smart fan
	Front Panel Control	Power-on, Reset, Buzzer, SATA LED, CaseOpen
Board Feature	Watchdog Timer	65536 level, 0-65535 sec
	TPM	TPM2.0
	iManager 3.0	SW API for Hardware Monitor, Smart Fan Control, Brightness Control, I2C, GPIO, WDT
Expansion	M.2 E-Key	1 x E-Key 2230 (PCIe x1, USB2.0)
	M.2 B-Key	1 x B-Key 3042/ 3052 (PCIe x1, USB3.2/ 2.0) w/ Nano-SIM
	M.2 M-Key	1 x M-Key 2280 (PCIe x4 Gen.4 for PCIe SSD, SATA)
Power	Supply Voltage	Vin: DC 12V-24V ±10%; RTC Battery: Lithium 3V/210mAH
	Connector	2-pin phoenix connector
	Power Management	AT, ATX
	Max. Consumption	TBU
Environment	Idle Consumption	TBU
	Temperature	Operating: Standard: 0 ~ 60 °C (32 ~ 140 °F), Extend: -40 ~ 85 °C (-40 ~ 185 °F) Storage: -40 ~ 85 °C (-40 ~ 185 °F)
	Humidity	Operating: 40 °C @ 95% relative humidity, non-condensing Storage: 60 °C @ 95%relative humidity, non-condensing
	Vibration Resistance	3.5 Grms
Certification	EMC	CE, FCC Class B
Mechanical	Dimensions	146 x 102 mm (5.7" x 4")

### M/I/O Extension SBCs, Modules and Chassis

## Block Diagram



## Ordering Information

Part Number	CPU	TDP	Max. Frequency	Core	Gbe	USB	RS232/422/485	RS232	TPM2.0	Thermal solution	Operating Temp
MIO-5376	R2314	15W	3.5 GHZ	4	3	USB3.0 x 4 USB2.0 x 2	2	2	Y	Passive	0 - 60 °C

## Packing List

Part No.	Description	Quantity
	MIO-5376 SBC	1
	Startup Manual	1
1700006291	SATA 7P/SATA 7P 30cm C=R 180/90	1
1700031583-01	SATA power 15P/1*2P-2.0 35cm	1
1700032181-01	Cable 20P-2.0/USB-A 9P(F)x2 35CM	1
1700030406-01	USB2.0 2*5P-2.0/USB-A 4P(F)*2 20cm MIO	1
1700030404-01	COM1, COM2 D-SUB 9P(M)/1*10P-1.25 20cm MIO	2
1700031582-01	COM3,COM4 D-SUB 9P(M)/1*5P-1.25 20cm	2
1700019584-01	Audio 2*5P-2.0/Audio JACK*3 20cm	1

## Optional Accessories

Part No.	Description
TBD	Heat spreader
TBD	Dual PSE Ports Power Module (15.4W x 2) for MIO-5376

## Embedded OS/API

OS	Part No.	Description
WIN10	TBD	64-bit (UEFI mode only)
Ubuntu 20.04	TBD	Ubuntu Desktop 20.04 LTS 64-bit Image & License Sticker for MIO-5376
Software API	Download by website	SUSI v4.0

## Rear I/O View

