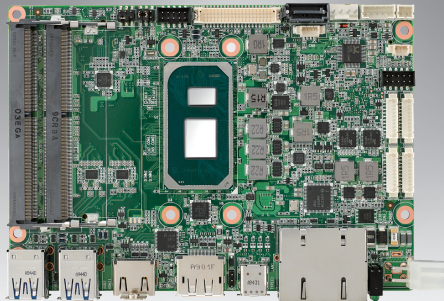


MIO-5375

11th Gen. Intel® Core™ i7/i5/i3/Celeron U-Series 3.5" SBC w/ MIOe

Preliminary



Features

- 11th Gen. Intel® Core™ Processor with Quad/Dual Cores, TDP 15W/ 28W
- Dual Channel DDR4-3200 up to 64GB
- 4 simultaneous displays: LVDS/eDP/HDMI/DP/USB Type-C
- 2 GbE, 4 USB3.2, CAN Bus, DC-in 12-24V
- Expansion: M.2 E-Key/B-Key/M-Key (supports NVMe), MIOe
- Supports iManager & Software APIs, WISE-DeviceOn

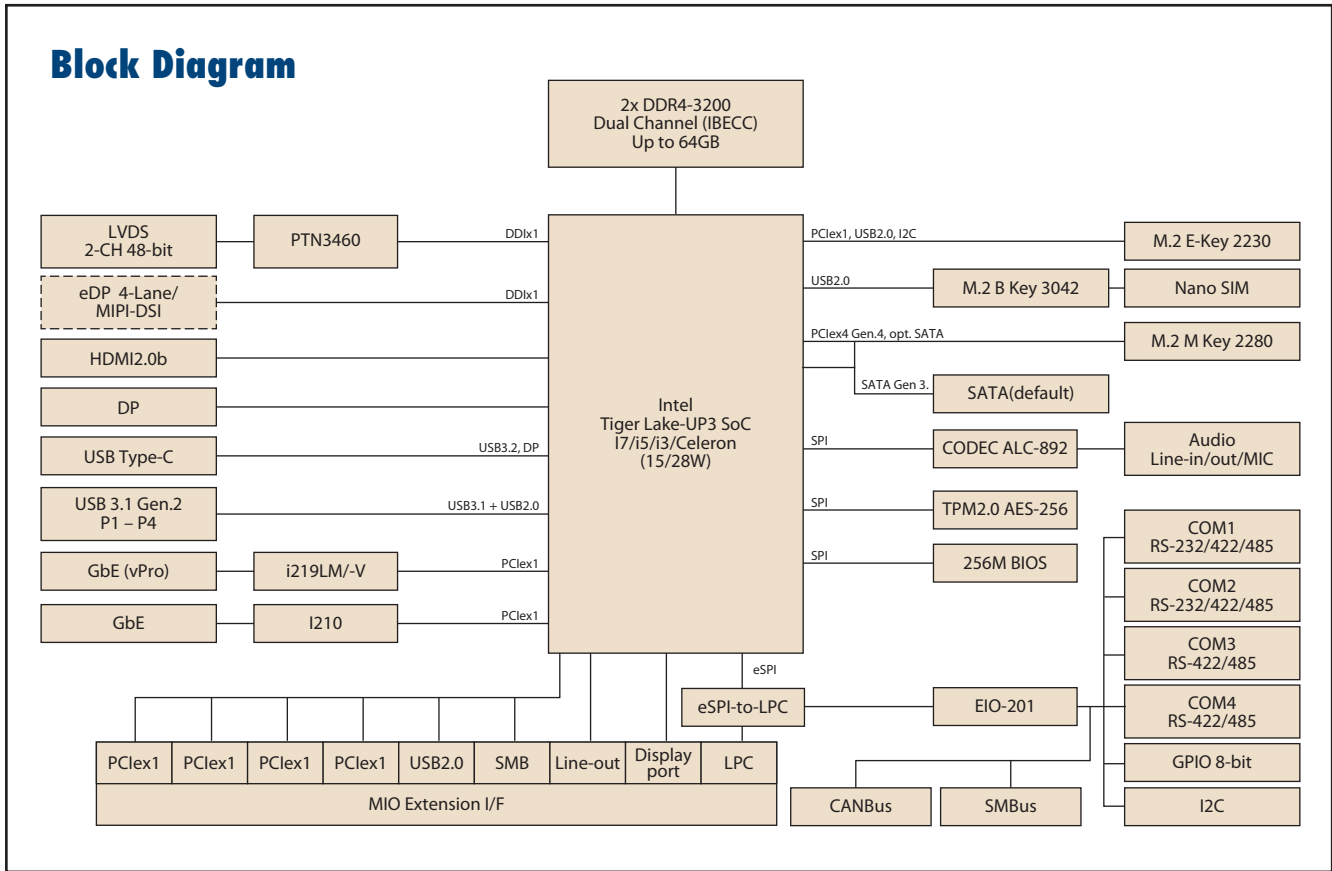
Software APIs:



Specifications

| | Processor | i7-xxxxU | i5-xxxxU | i3-xxxxU | Celeron | | |
|---------------|----------------------|--|--------------------------|----------|---------|--|--|
| Platform | Processor | | | | | | |
| | Max. Frequency | | | | | | |
| | Base Frequency | | | | | | |
| | Core/Tread | | | | | | |
| | LLC | | | | | | |
| | CPU TDP | | | | | | |
| | Chipset | Intel® 300 Series Chipset (SoC Integrated) | | | | | |
| Memory | BIOS | AMI EFI 256Mbit | | | | | |
| | Technology | DDR4-3200 | | | | | |
| | Max. Capacity | Up to 64GB | | | | | |
| | Channel/Socket | Dual Channels/2 Sockets | | | | | |
| Graphics | ECC Support | In-Band ECC Supported by SoC | | | | | |
| | Controller | Integrated Gfx Intel® UHD Graphics 630 | | | | | |
| | Max. Frequency | | | | | | |
| Display I/F | Base Frequency | | | | | | |
| | Graphics Memory | TBU | | | | | |
| | 3D/HW Acceleration | DX12, OGL4.0, OCL1.2, HW Encode: H.265/HEVC, H.264, MPEG2, HW Decode: H.264 | | | | | |
| | LCD | 1 x LVDS: Dual Channel 18/24-bit, up to 1920 x 1200 Optional eDP1.4 HBR3, up to 4096x2304x36bpp@60Hz or 5120x3200x24bpp@24Hz Optional MIPI-DSI v1.3 2.5GHz, up to 3200x2000x24bpp@60Hz | | | | | |
| | HDMI/DP | 1 x HDMI 2.0b, up to 4Kx2Kx24bpp@60Hz 1 x DP1.4a, up to 4096x2304x36bpp@60Hz or 5120x3200x24bpp@60Hz | | | | | |
| External I/O | Multiple Display | 4 simultaneous displays with each display interface combinations | | | | | |
| | Ethernet | 2 x GbE, LAN1: Intel i219LM, LAN2: Intel i210AT/IT (for industrial grade) | | | | | |
| | HDMI/DP | 1/1 | | | | | |
| | USB Type-C | 1 x USB3.2 Gen. 2x2 20Gbps, support DP1.4a via Alt. Mode | | | | | |
| | USB3.2 | 4 x USB3.2 Gen. 2x1 10Gbps | | | | | |
| | LED | Power status, SATA R/W | | | | | |
| | Power DC-Jack | Optional | | | | | |
| Internal I/O | SATA | 1 x SATA GenIII 6.0 Gbps | | | | | |
| | USB2.0 | 2 | | | | | |
| | Serial Bus | I2C, SMBus | | | | | |
| | COM Port | 2 x RS-232/422/485, 2 x RS-422/485 (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 | | | | | |
| | LPC/SPI Bus | LPC | | | | | |
| | 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, I2C) | | | | | |
| | M.2 B-Key | 1 x B-Key 3042 (USB2.0) w/ Nano-SIM | | | | | |
| | M.2 M-Key | 1 x M-Key 2280 (PCIe x4 Gen.4 for PCIe SSD), optional SATA | | | | | |
| Power | MIO Extension | 4 PCIe x1 (Gen.3), 3 x USB2.0, LPC, SMBus, Line-out, Optional DP, Power-on, Reset | | | | | |
| | Supply Voltage | Vin: DC 12V-24V +/- 10%; RTC Battery: Lithium 3V/210mAh | | | | | |
| | Connector | ATX 2x2 pin 90D, optional DC-Jack or ATX 2x2 pin 180D | | | | | |
| | 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 | | | | | |
| Certification | Vibration Resistance | 3.5 Grms | | | | | |
| | EMC | CE, FCC Class B | | | | | |
| Mechanical | Dimensions | 146 x 102 mm (5.7" x 4") | | | | | |

Block Diagram



Ordering Information

| Part Number | CPU | Max. Frequency | Core | Gbe | USB | RS232/422/485 | RS422/485 | MIOe | TPM2.0 | Thermal solution | Operating Temp |
|-------------|----------|----------------|------|-----|------------------------------|---------------|-----------|------|--------|------------------|----------------|
| TBD | i7-xxxxU | TBC | 4 | 2 | USB3.0 x 4 USB Type-C x 1 | 2 | 2 | 1 | Y | Passive | 0 ~ 60 °C |
| TBD | i5-xxxxU | TBC | 4 | 2 | USB3.0 x 4 USB Type-C x 1 | 2 | 2 | 1 | Y | Passive | 0 ~ 60 °C |
| TBD | i3-xxxxU | TBC | 2 | 2 | USB3.0 x 4 USB Type-C x 1 | 2 | 2 | 1 | Y | Passive | 0 ~ 60 °C |

Packing List

| Part No. | Description | Quantity |
|----------------|--|----------|
| | MIO-5375 SBC | 1 |
| | Startup Manual | 1 |
| 1700006291 | SATA cable 30cm | 1 |
| 1700018785 | A CABLE SATA 15P/1*4P-2.5 35cm | 1 |
| 1700019584 | A Cable 2*5P-2.0/Audio JACK*3 20cm | 1 |
| 1701200220 | RS-232 x 2 ports 2.0mm pitch 22cm | 1 |
| 1960091427N001 | MIO-5375 heatsink for 0 ~ 60° C mini Jumper pack | 1 |

Optional Accessories

| Part No. | Description |
|----------|---------------|
| TBD | Heat spreader |

Embedded OS/API

| OS | Part No. | Description |
|--------------|---------------------|-------------------------|
| WIN10 | TBD | 64-bit (UEFI mode only) |
| Software API | Download by website | |

Rear I/O View

