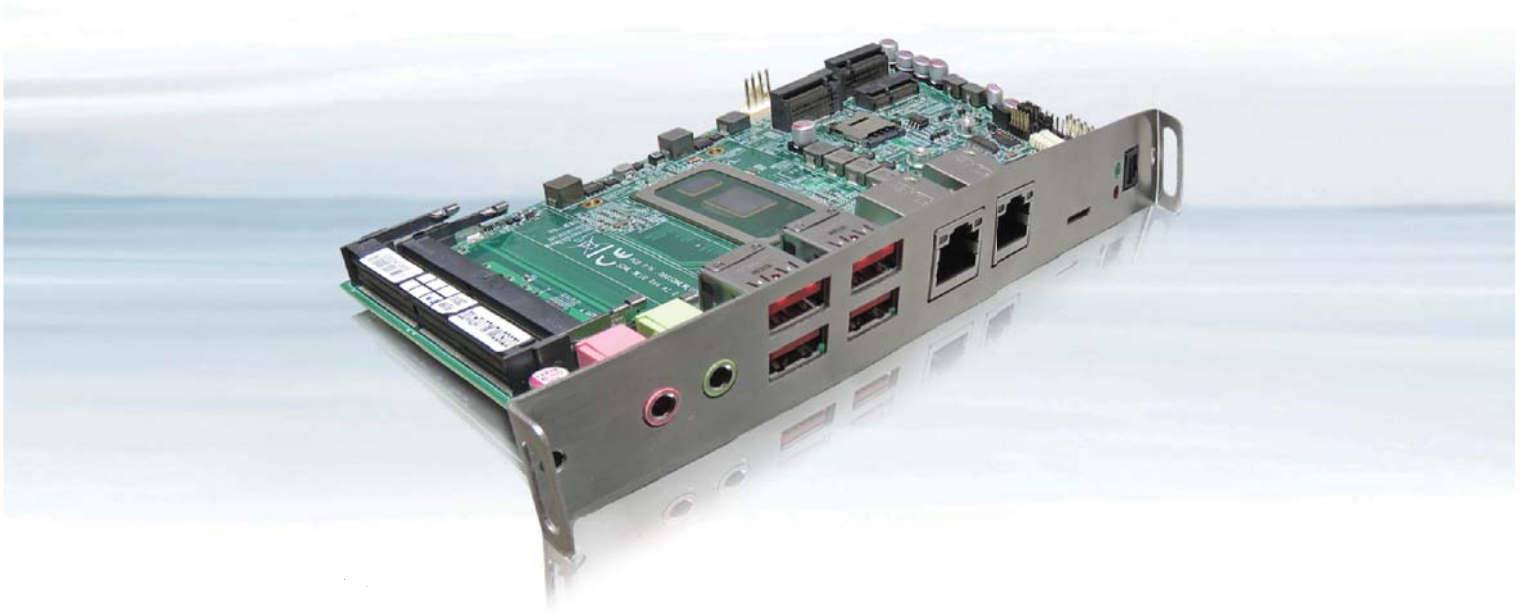


SDML-WLU0 SERIES

MAKE SIMPLE VISUAL IOT APPLICATIONS



INTEL® SMART DISPLAY MODULE LARGE WITH 8TH GEN INTEL® CORE™ / CELERON® U-SERIES PROCESSORS

- ▶ 1x DP / 1x HDMI 2.0 for Intel® SDM-L compliant display
- ▶ 2x GbE LAN for Ethernet
- ▶ 5x USB 3.1, up to 3x USB 2.0 for USB device connection
- ▶ 1x UART, 1x General SPI, 1x I2C for serial communication
- ▶ 1x μSD Cage, 1x M.2 Key B, 1x M.2 Key E, 1x M.2 Key M, 1x PCIe x1 for storage & expansion

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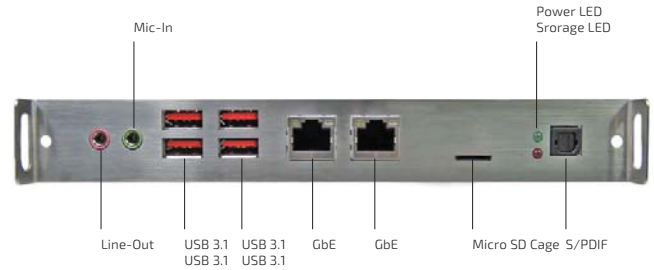
SDML-WLU0 Series is a thin-profile single board computer module based on Intel® SDM-L (Smart Display Module - Large) form factor designed to simplify installation, upgrade and maintenance of large scale digital signage, interactive kiosk, cloud terminal and related commercial visual display applications. Powered by 8th Generation Intel® Core™ U-Series and Celeron® 4000 Series processors as well as DP / HDMI 2.0 output interface, it can deliver excellent and

smooth 4K Ultra HD content streaming on any Intel® SDM-L compliant displays.

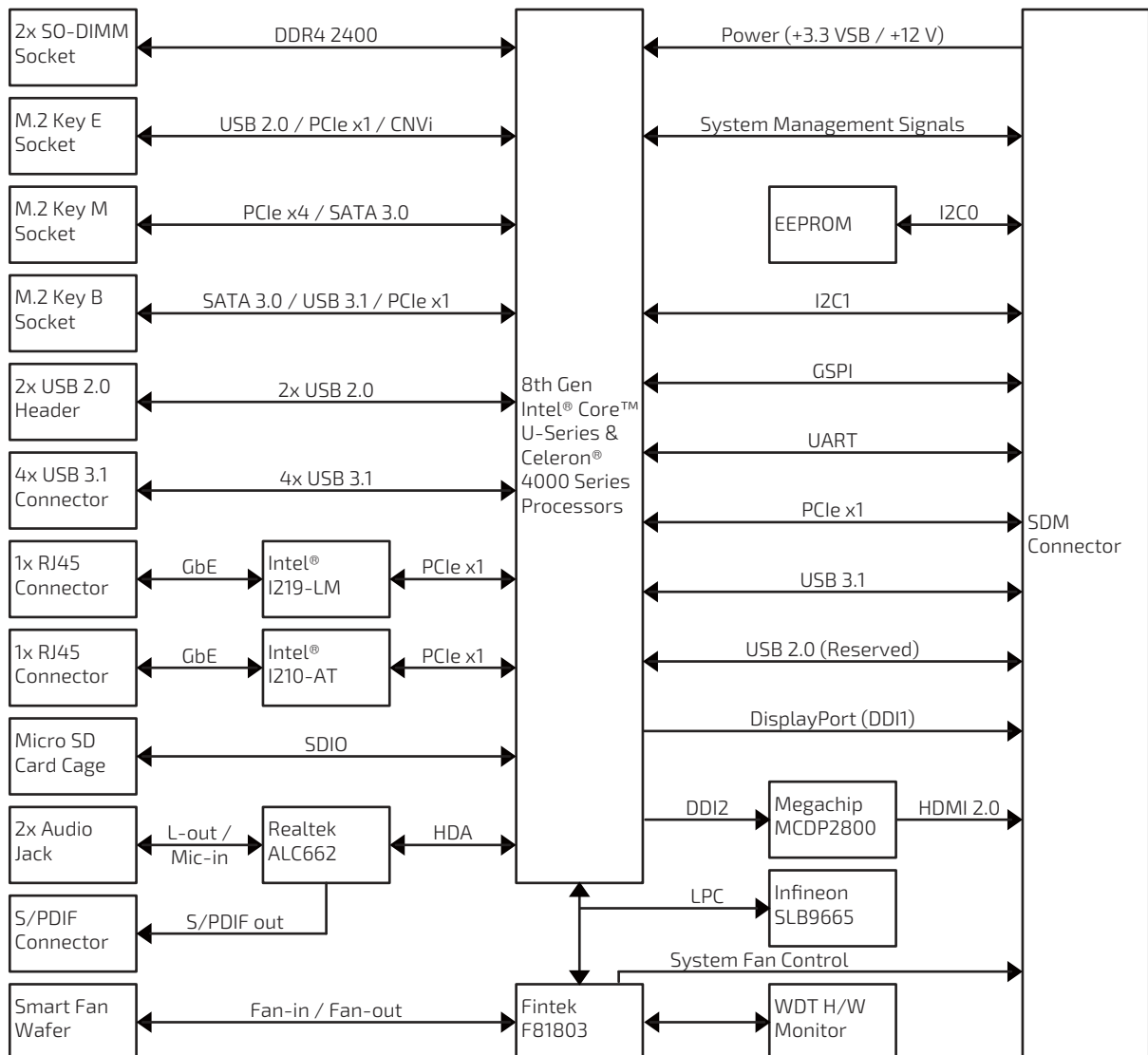
In addition, SDML-WLU0 Series supports NVMe SSD and Intel® CNVi Wi-Fi module, providing a reliable connected platform for IoT wireless connectivity applications.

▶ PRODUCT HIGHLIGHTS

- ▶ 8th Gen Intel® Core™ / Celeron® U-Series CPUs (up to 25 W TDP)
- ▶ 2x DDR4 SO-DIMM memory socket
- ▶ 1xDP / 1x HDMI 2.0 for Intel® SDM-L compliant display
- ▶ 2x GbE LAN for Ethernet
- ▶ 5x USB 3.1, up to 3x USB 2.0 for USB device connection
- ▶ 1x UART, 1x General SPI, 1x I2C for serial communication
- ▶ 1x Micro SD Cage for data logging or software update
- ▶ 1x M.2 Key M for SSD (NVMe support)
- ▶ 1x M.2 Key B for WWAN / SSD
- ▶ 1x M.2 Key E for WLAN / Bluetooth (CNVi support)
- ▶ 1x PCIe x1 for application-specific expansion
- ▶ TPM 2.0 support



▶ BLOCK DIAGRAM



TECHNICAL INFORMATION

SYSTEM	PROCESSOR MEMORY	Intel® Core™ i7-8665UE (Quad Core, 8M Cache, up to 4.40 GHz, FCBGA1528, 12.5 W - 15 W - 25 W TDP) Intel® Core™ i5-8365UE (Quad Core, 6M Cache, up to 4.10 GHz, FCBGA1528, 12.5 W - 15 W - 25 W TDP) Intel® Core™ i5-8265U (Quad Core, 6M Cache, up to 3.90 GHz, FCBGA1528, 10 W - 15 W - 25 W TDP) Intel® Core™ i3-8145UE (Dual Core, 4M Cache, up to 3.90 GHz, FCBGA1528, 12.5 W - 15 W - 25 W TDP) Intel® Celeron® 4305UE (Dual Core, 2M Cache, 2.00 GHz, FCBGA1528, 15 W TDP) 2x DDR4 2400 1.2 V SO-DIMM up to 64 GByte (Core™) 2x DDR4 2133 1.2 V SO-DIMM up to 64 GByte (Celeron®)
VIDEO	GRAPHICS DISPLAY INTERFACE	Intel® UHD Graphics 620 (Core™) Intel® UHD Graphics 610 (Celeron®) 1x DP (4096 x 2304 @ 60 Hz, by SDM connector) 1x HDMI 2.0 (3840 x 2160 @ 60 Hz, by SDM connector)
AUDIO	AUDIO CODEC AUDIO INTERFACE	Realtek ALC662 1x Line-out (on I/O panel) 1x Mic-in (on I/O panel) 1x S/PDIF (on I/O panel)
NETWORK CONNECTION	ETHERNET	2x GbE LAN (RJ45 on I/O Panel, Intel® I219-LM, Intel® I210-AT)
PERIPHERAL CONNECTION	USB SERIAL PORT OTHER I/Os	5x USB 3.1 (4x Type A on I/O Panel, 1x by SDM connector) 2x USB 2.0 (by header) 1x USB 2.0 (on SDM connector, optional) 1x UART (by SDM connector) 1x I2C (by SDM connector) 1x GSPI (by SDM connector)
STORAGE & EXPANSION	SD CARD CAGE M.2 PCIe SIM CARD HOLDER	1x Micro SD Card Cage (on I/O panel) 1x M.2 Key B (Type 3042 / 2280, mixed w/ SATA 3.0 / PCIe x1 / USB 3.1) 1x M.2 Key M (Type 2280, mixed w/ PCIe x4 / SATA 3.0) 1x M.2 Key E (Type 2230, mixed w/ PCIe x1 / USB 2.0, Intel® CNVi support) 1x PCIe x1 (by SDM connector) 1x Micro SIM Card Holder (connected to M.2 Key B)
POWER	CONNECTOR INPUT VOLTAGE	SDM Connector DC 12 V & 3.3 VSB
FIRMWARE	BIOS BIOS STORAGE PANEL SETTING STORAGE WATCHDOG H/W MONITOR REAL TIME CLOCK vPRO TPM	AMI uEFI BIOS 256 Mb SPI Flash EEPROM (by SDM connector) Programmable WDT to generate system reset event Voltages, Temperatures Processor integrated RTC Supported for i7-8665UE & i5-8365UE Supported (Infineon SLB 9665 TPM 2.0)
SYSTEM CONTROL & MONITORING	BUTTON, SWITCH & INDICATOR FP HEADER SYSTEM MANAGEMENT SIGNAL	1x Power LED (on I/O panel) 1x Storage LED (on I/O panel) 1x Header for M.2 Key B activity LED 1x Header for M.2 Key E activity LED Power Button, Power Reset, Power Good, S4 / S5 State, Presence Detect, System Fan Control & HDMI CEC signals (by SDM connector)
COOLING	FAN	1x Smart CPU Fan (by wafer) 1x System Fan (by SDM connector)
SOFTWARE	OS SUPPORT	Windows 10, Linux
MECHANICAL	BOARD DIMENSION (L x W) I/O BRACKET DIMENSION (W x H)	175 mm x 100 mm / 6.89" x 3.94" (Intel® SDM-L) 195 mm x 25 mm / 7.68" x 0.98" (Intel® SDM-L)
ENVIRONMENTAL	OPERATION TEMPERATURE STORAGE TEMPERATURE HUMIDITY	0 °C ~ 60 °C / 32 °F ~ 140 °F -20 °C ~ 80 °C / -4 °F ~ 176 °F 0 % ~ 95 %

► ORDERING INFORMATION

ARTICLE	DESCRIPTION
SDML-WLU0	Intel® Core™ i5-8365UE, w/ vPro
SDML-WLU1	Intel® Core™ i3-8145UE, w/o vPro
SDML-WLU2	Intel® Core™ i7-8665UE, w/ vPro
SDML-WLU3	Intel® Celeron® 4305UE, w/o vPro
SDML-WLU4	Intel® Core™ i5-8265U, w/o vPro