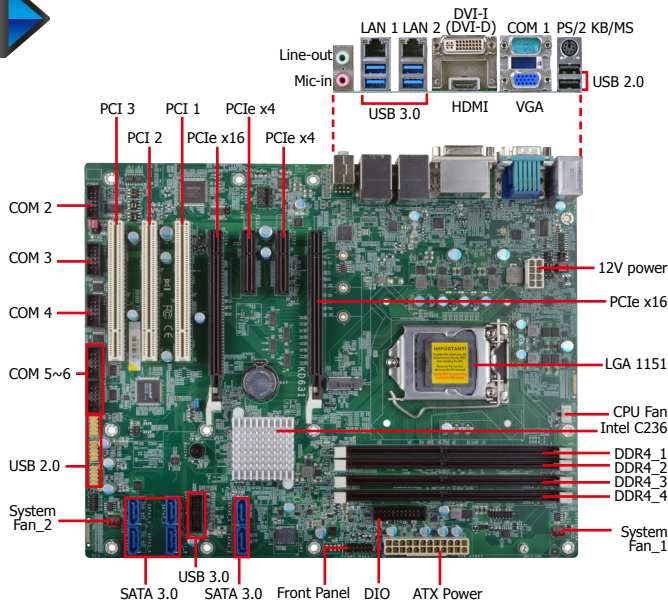




KD631-C236

Workstation

C236

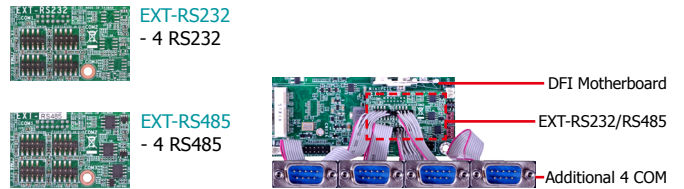


Features

- 4 DDR4 ECC DIMM up to 64GB
- 3 independent displays: VGA + DVI-I (DVI-D signal) + HDMI
- HDMI resolution up to 4096x2160 @ 24Hz
- Multiple expansion: 2 PCIe x16 (1 x16 or 2 x8 signal), 2 PCIe x4, 3 PCI, 1 M.2
- Rich I/O: 2 Intel GbE, 6 COM, 6 USB 3.0, 8 USB 2.0
- LPC EXT-RS232/485 module extends additional 4 COM ports



2 Extension Modules for Additional 4 COM Ports (via the LPC connector)



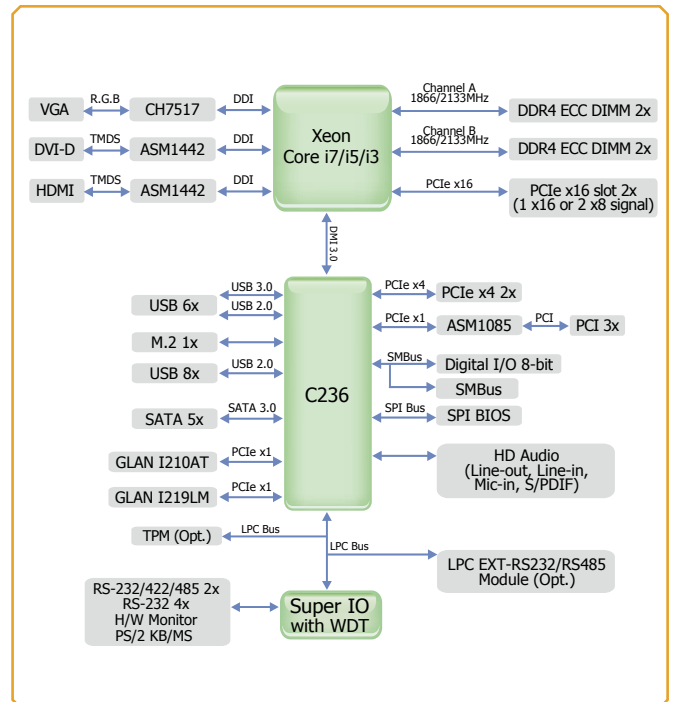
Ordering Information

Model Name	P/N	Memory	GbE	RS-232/422/485	RS-232	USB 3.0	USB 2.0	Power	Thermal	Temp.
KD631-C236CRM	770-KD6311-100G	4 ECC DIMM	2	2	4	6	8	24-pin ATX	Active	0 to 60°C

Mechanical Drawing



Block Diagram



Specifications

SYSTEM	Processor	7th Generation Intel® Core™ Processors, LGA 1151 Socket Intel® Xeon® Processor E3-1275 v6, Quad Core, 8M Cache, 3.8GHz (4.2GHz), 73W Intel® Core™ i7-7700 Processor, Quad Core, 8M Cache, 3.6GHz (4.2GHz), 65W Intel® Core™ i5-7500 Processor, Quad Core, 6M Cache, 3.4GHz (3.8GHz), 65W Intel® Core™ i3-7101E Processor, Dual Core, 3M Cache, 3.9GHz, 65W	
	Chipset	Intel® C236 Chipset	
	Memory	Four 288-pin ECC RDIMM/UDIMM up to 64GB	Dual Channel DDR4 1866/2133MHz
	BIOS	Insyde SPI 128Mbit	
	GRAPHICS	Controller	Intel® HD Gen 9 Graphics
Feature		OpenGL 5.0, DirectX 12, OpenCL 2.1 HW Decode: AVC/H.264, MPEG2, VC1/WMV9, JPEG/MJPEG, HEVC/H265, VP8, VP9 HW Encode: MPEG2, AVC/H264, JPEG, HEVC/H265, VP8, VP9	
Display		1 x VGA 1 x DVI-I (DVI-D signal) 1 x HDMI	VGA: resolution up to 1920x1200 @ 60Hz DVI-I: resolution up to 1920x1200 @ 60Hz HDMI: resolution up to 4096x2160 @ 24Hz
Triple Displays		VGA + DVI-I (DVI-D signal) + HDMI	
EXPANSION	Interface	2 x PCIe x16 (1 x16 or 2 x8 signal) (Gen 3) 2 x PCIe x4 (Gen 3) 3 x PCI 1 x M.2 (PCIe x2, Support Optane memory technology)	
AUDIO	Audio Codec	Realtek ALC885S-VD2-GR	
ETHERNET	Controller	1 x Intel® I210AT PCIe (10/100/1000Mbps) 1 x Intel® I219LM PCIe with iAMT11.0 (10/100/1000Mbps) (only Core i7/i5 supports iAMT)	
REAR I/O	Ethernet	2 x GbE (RJ-45)	
	USB	4 x USB 3.0 2 x USB 2.0	
	Serial	1 x RS-232/422/485 (RS-232 w/ power) (DB-9)	
	PS/2	1 x PS/2 (mini-DIN-6)	
	Display	1 x VGA 1 x DVI-I (DVI-D signal) 1 x HDMI	
	Audio	1 x Line-out, 1 x Mic-in	
INTERNAL I/O	Serial	1 x RS-232/422/485 (RS-232 w/ power) (2.54mm pitch) 4 x RS-232 (2.54mm pitch)	
	USB	2 x USB 3.0 (2.00mm pitch) 6 x USB 2.0 (2.54mm pitch) or 4 x USB 2.0 (2.54mm pitch) + 1 x Vertical USB 2.0 (type A) (available upon request)	
	Audio	1 x Line-in, 1 x Line-out, 1 x Mic-in 1 x S/PDIF	
	SATA	5 x SATA 3.0 (up to 6Gb/s)	RAID 0/1/5/10
	DIO	1 x 8-bit DIO	
	LPC	1 x LPC (supports LPC EXT-RS232/RS485 module)	
	SMBus	1 x SMBus	
	WATCHDOG TIMER	Output & Interval	System Reset, Programmable via Software from 1 to 255 Seconds
SECURITY	TPM	TPM1.2	
		TPM2.0 (Available Upon Request)	
POWER	Type	ATX	
	Connector	8-pin ATX 12V power	24-pin ATX power
	Consumption	TBD	
	RTC Battery	CR2032 Coin Cell	
OS SUPPORT	Windows 10 IoT Enterprise 64-bit		
ENVIRONMENT	Temperature	Operating: 0 to 60°C	Storage: -40 to 85°C
	Humidity	Operating: 5 to 90% RH	Storage: 5 to 90% RH
	MTBF	TBD	
MECHANICAL	Dimensions	ATX Form Factor 305mm (12") x 244mm (9.6")	
	Height	PCB: 1.6mm	Top Side: TBD Bottom Side: TBD

Packing List

• 1 KD631-C236 motherboard	
• 1 COM port cables (Length: 400mm, 2 x COM ports)	TBD
• 1 Serial ATA data cable (Length: 500mm)	TBD
• 1 I/O shield	TBD
• 1 DVD	

Optional Items

• USB 2.0 port cable (Length: 350/398mm)	TBD
• USB 3.0 port cable (Length: 380mm)	TBD
• COM port cable (Length: 400mm, 2 x COM ports)	TBD
• Serial ATA data cable (Length: 500mm)	TBD
• Thermal solution (For 35W, Height: 37.3mm)	TBD
• Thermal solution (For 65W, Height: 72.8mm)	TBD
• Thermal solution (For 95W, Height: 69.3mm)	TBD
• LPC EXT-RS232 module (4 x RS232 ports)	TBD
• LPC EXT-RS485 module (4 x RS485 ports)	TBD