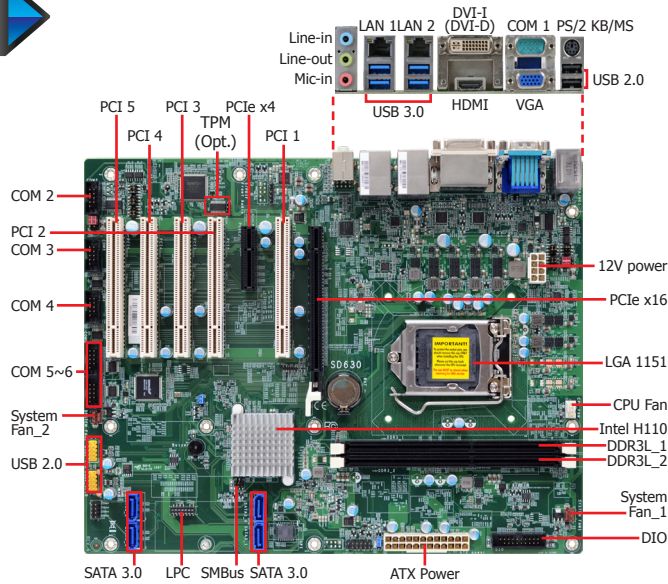


SD630-H110

Desktop

H110



Features

- 2 DDR3L DIMM up to 16GB
- 3 display ports support two independent displays: VGA + DVI-I (DVI-D signal) + HDMI
- HDMI resolution up to 4096x2160 @ 24Hz
- Multiple expansion: 1 PCIe x16, 1 PCIe x4, 5 PCI, 1 LPC
- Rich I/O: 2 Intel GbE, 6 COM, 4 USB 3.0, 6 USB 2.0
- LPC EXT-RS232/485 module supports 4 COM ports



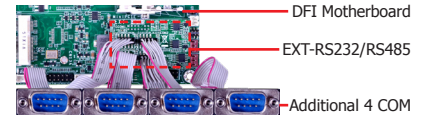
2 Extension Modules for Additional 4 COM Ports (via the LPC connector)



EXT-RS232
- 4 RS232



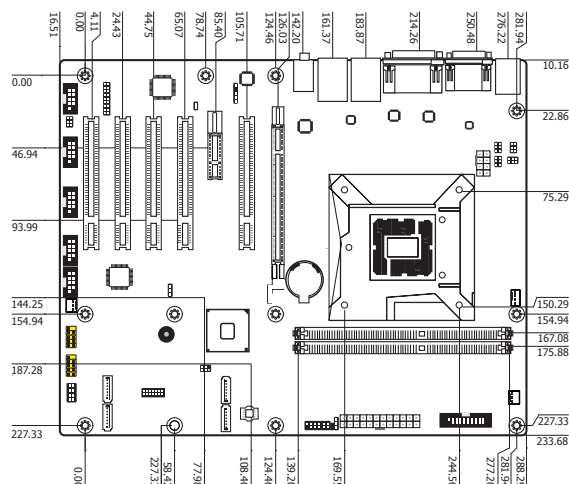
EXT-RS485
- 4 RS485



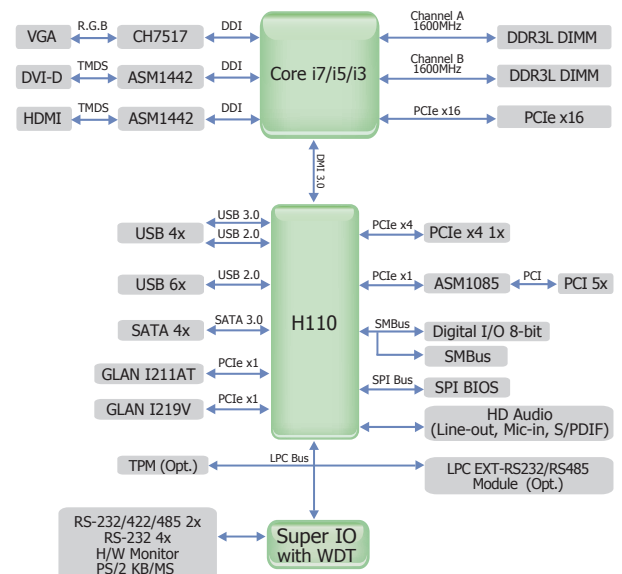
Ordering Information

Model Name	P/N	Memory	GbE	RS-232/422/485	RS-232	USB 3.0	USB 2.0	Power	Thermal	Temp.
SD630-H110	770-SD6301-000G	2 DIMM	2	2	4	4	6	24-pin ATX	Active	0 to 60°C

Mechanical Drawing



Block Diagram



Specifications

SYSTEM	Processor	6th/7th Generation Intel® Core™ /Pentium®/Celeron® LGA 1151 Socket Processors with TDP up to 65W	
	Chipset	Intel® H110 Chipset	
	Memory	Two 240-pin DIMM up to 16GB	Dual Channel DDR3L 1600MHz
	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
	Dual Displays	VGA + DVI-I (DVI-D signal) VGA + HDMI	DVI-I (DVI-D signal) + HDMI
EXPANSION	Interface	1 x PCIe x16 (Gen 3) 1 x PCIe x4 (Gen 2) 5 x PCI	
AUDIO	Audio Codec	Realtek ALC888S-VD2-GR	
ETHERNET	Controller	1 x Intel® I211AT PCIe (10/100/1000Mbps) 1 x Intel® I219V PCIe (10/100/1000Mbps)	
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-in (available upon request) 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	4 x USB 2.0 (2.54mm pitch) or 2 x USB 2.0 (2.54mm pitch) + 1 x Vertical USB 2.0 (type A) (available upon request)	
	Audio	1 x Audio (Line-out/Mic-in) (available upon request)	1 x S/PDIF
	SATA	4 x SATA 3.0 (up to 6Gb/s)	
	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	Infineon TPM2.0/1.2 (optional)	
POWER	Type	ATX	
	Connector	8-pin ATX 12V power	24-pin ATX power
	Consumption	Typical: i7 65W: 12V @ 2.39A (28.64Watt)	Max.: i7 65W: 12V @ 5.71A (68.48Watt)
	RTC Battery	CR2032 Coin Cell	
OS SUPPORT		Windows 7 (/WES7) 32/64-bit Windows 8.1 (64-bit) Windows 10 IoT Enterprise 64-bit Note: 7th Gen Intel Core processors only support Win 10.	Debian 8 (with VESA graphic driver) CentOS 7 (with VESA graphic driver) Ubuntu 15.10 (Intel graphic driver available)
ENVIRONMENT	Temperature	Operating: 0 to 60°C	Storage: -40 to 85°C
	Humidity	Operating: 5 to 90% RH	Storage: 5 to 90% RH
	MTBF	398,776 hrs @ 25°C; 231,301 hrs @ 45°C; 147,462 hrs @ 60°C Calculation Model: Telcordia Issue 2, Method Case 3 Environment: GB, GC – Ground Benign, Controlled	
MECHANICAL	Dimensions	ATX Form Factor	305mm (12") x 244mm (9.6")
	Height	PCB: 1.6mm	Top Side: 31.47 mm Bottom Side: 4.40 mm
CERTIFICATIONS		CE, FCC Class B, RoHS	

Packing List

• 1 SD630-H110 motherboard	
• 1 COM port cable (Length: 400mm, 2 x COM ports)	A81-015012-001G
• 1 Serial ATA data cable (Length: 500mm)	332-553001-005G
• 1 I/O shield	A49-SD6300-001G
• 1 DVD	

Optional Items

• USB port cable (Length: 398mm)	332-253010-026G
• COM port cable (Length: 400mm, 2 x COM ports)	A81-015012-001G
• Serial ATA data cable (Length: 500mm)	332-553001-005G
• Thermal solution (For 35W, Height: 37.3mm)	A71-103004-000G
• Thermal solution (For 65W, Height: 72.8mm)	552-200049-000G
• LPC EXT-RS232 module (4 x RS232 ports)	770-EXTRS1-000G
• LPC EXT-RS485 module (4 x RS485 ports)	770-EXTRS1-100G