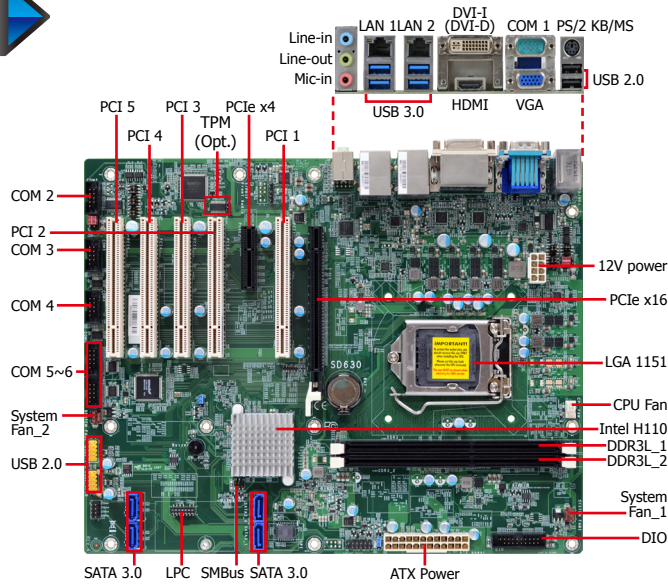


H110

Desktop

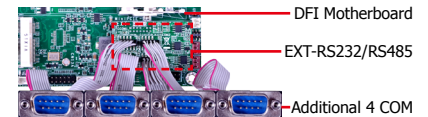


Features

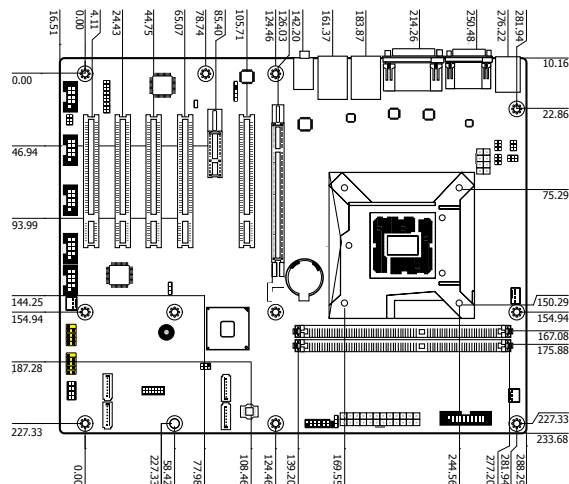
- 2 DDR3L DIMM up to 16GB
- 3 display ports support two independent displays: VGA + DVI-I (DVI-D signal) + HDMI
- HDMI resolution up to 4096x2160 @ 24Hz
- Multiple expansion: 1 PCIe x16, 1 PCIe x4, 5 PCI, 1 LPC
- Rich I/O: 2 Intel GbE, 6 COM, 4 USB 3.0, 6 USB 2.0
- LPC EXT-RS232/485 module supports 4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



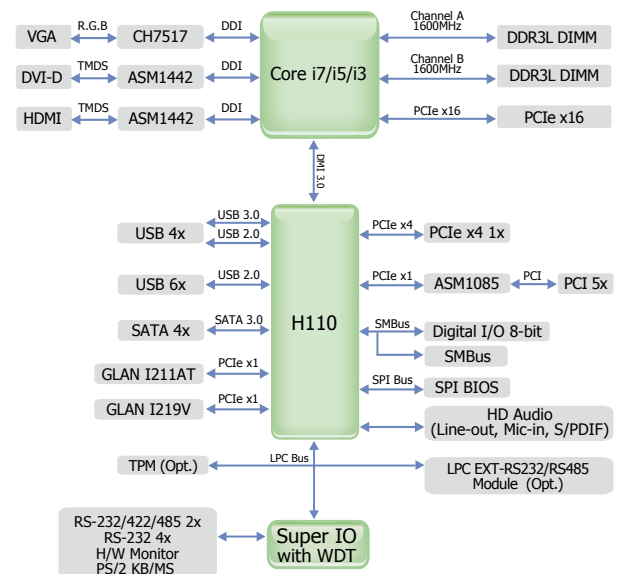
2 Extension Modules for Additional 4 COM Ports (via the LPC connector)



Mechanical Drawing



Block Diagram



Specifications

SYSTEM	Processor	6th Generation Intel® Core™ Processors, LGA 1151 Socket Intel® Core™ i7-6700 Processor, Quad Core, 8M Cache, 3.4GHz (4.0GHz), 65W Intel® Core™ i7-6700TE Processor, Quad Core, 8M Cache, 2.4GHz (3.4GHz), 35W Intel® Core™ i5-6500 Processor, Quad Core, 6M Cache, 3.2GHz (3.6GHz), 65W Intel® Core™ i5-6500TE Processor, Quad Core, 6M Cache, 2.3GHz (3.3GHz), 35W Intel® Core™ i3-6100 Processor, Dual Core, 4M Cache, 65W Intel® Core™ i3-6100TE Processor, Dual Core, 4M Cache, 2.7GHz, 35W Intel® Pentium® Processor G4400, Dual Core, 3M Cache, 3.3GHz, 65W Intel® Pentium® Processor G4400TE, Dual Core, 3M Cache, 2.9GHz, 35W Intel® Celeron® Processor G3900, Dual Core, 2M Cache, 2.8GHz, 65W Intel® Celeron® Processor G3900TE, Dual Core, 2M Cache, 2.6GHz, 35W	
	Chipset	Intel® H110 Chipset	
	Memory	Two 240-pin DIMM up to 16GB	Dual Channel DDR3L 1600MHz
	BIOS	Insyde SPI 128Mbit	
	Controller	Intel® HD Gen 9 Graphics	
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
	Interface	1 x PCIe x16 (Gen 3) 1 x PCIe x4 (Gen 2) 5 x PCI	
EXPANSION	Audio Codec	Realtek ALC888S-VD2-GR	
AUDIO	Controller	1 x Intel® I211AT PCIe (10/100/1000Mbps) 1 x Intel® I219V PCIe (10/100/1000Mbps)	
ETHERNET	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	
	Serial	1 x RS-232/422/485 (RS-232 w/ power) (2.54mm pitch) 4 x RS-232 (2.54mm pitch)	
INTERNAL I/O	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	
	Output & Interval	System Reset, Programmable via Software from 1 to 255 Seconds	
WATCHDOG TIMER	TPM	Available Upon Request	
SECURITY	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	
POWER	OS SUPPORT	Windows 7 (/WES7) 32/64-bit Windows 8.1 (64-bit) Windows 10 IoT Enterprise 64-bit	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	