

# LSLSM01 Logic Solver

Intel Pentium Processor 1.5 GHz

## ■ Summary



*Processor	: Intel Pentium Processor (1.5 GHz)
*Main memory	: DDR4 SDRAM with ECC Capacity 3 GB
*User interface	
Indicator	: 4: PWR, STS, MOD, ACC
Switch	: 3 (1 point unused)
	CONT: unused
	RST: For hardware reset (Pushbutton type)
	ABO: For program abort (Pushbutton type)
SD card slot	: 1 (For software program)
USB connector	: 1 (For maintenance communication (mini-B))

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## ■ Specifications

ITEM		SPECIFICATION	
Main parts	Processor	Intel Pentium Processor (1.5 GHz)	
	Main memory	DDR4 SDRAM with ECC Capacity 3 GB	
	Flash memory	SPI Flash (16 MB + 32 MB)	
	FPGA	Xilinx Artix-7	
User interface	SD card slot	1 (For software program)	
	USB connector	1 (For maintenance communication (mini-B))	
Backplane interface	LVDS	LVDS communication (24 pair/100 Mbps)	
	I2C	1 ch (400 kHz)	
Indicator		4: PWR, STS, MOD, ACC	
Switch		3 (1 point unused): CONT (unused), RST, ABO	
Self-diagnostic functions		Watchdog timer error Clock error check Power supply error detection ECC (Error detection and correction)	
Cooling mechanism		Heatsink	
Hot swap		Possible	
Power supply	Voltage	DC 24 V $\pm$ 20% The voltage supplied from the backplane	
	Power receiving system	Two systems (Match with a diode)	
Environmental conditions	Ambient temperature	(Operating) -5 to 60°C	(Storage) -45 to 85°C
	Ambient humidity	(Operating / Storage) 0 to 95% RH (No condensation)	
Current consumption		1.261 A (@ 24 V) * 1	
Weight			200 g (Including heat sink)
			405 g (Includes CPU module and heat sink)
Dimensions		112 mm (D) x 177.8 mm (H) x 51.8 mm (W) (Except projection)	
Standard/Directive		IEC61131-2:2007, RoHS	

\* About compliant module type

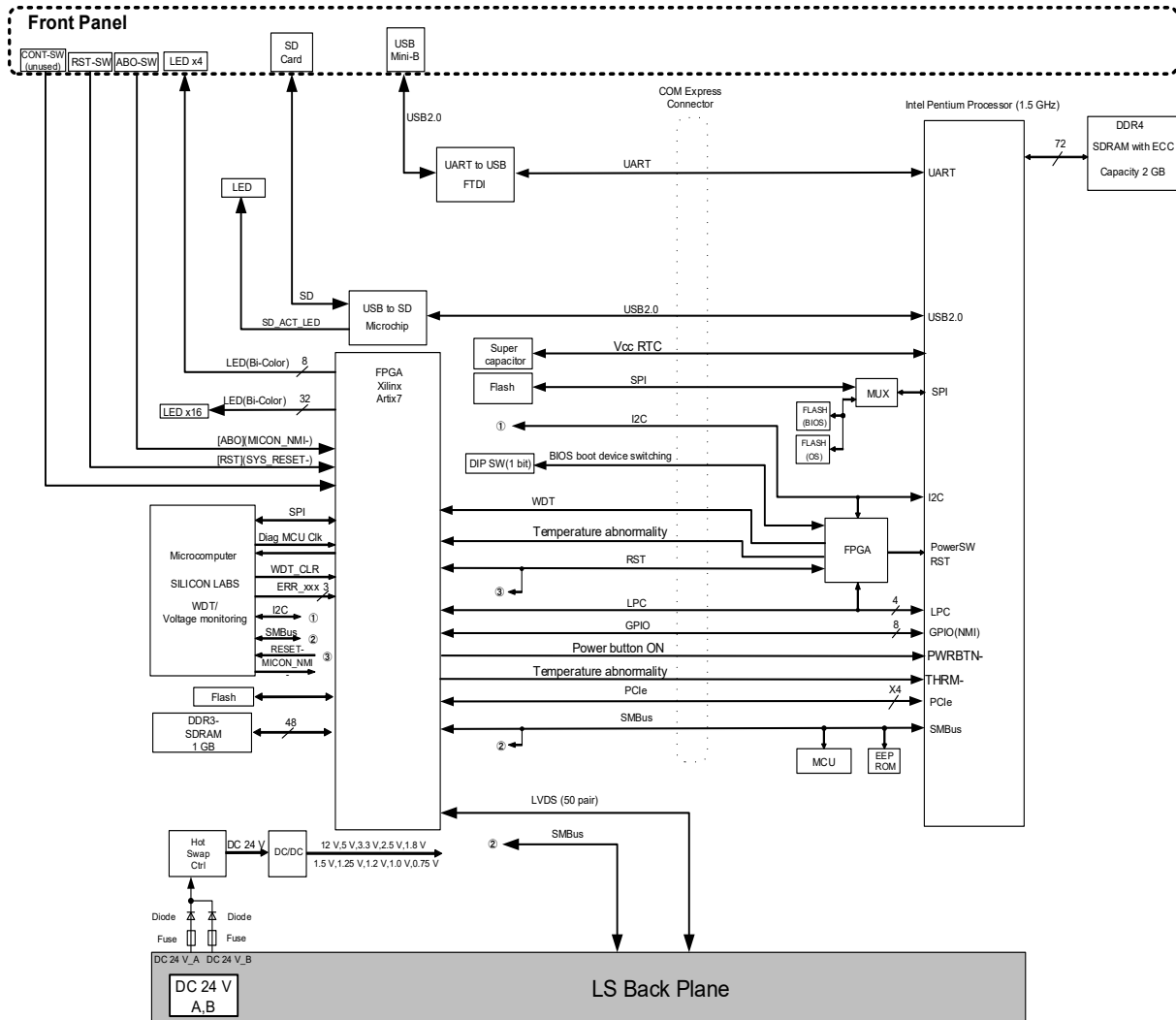
For compliant modules of this product, please refer to "Compliant backplane list (CGS-S9901-E-XX)".



\*1 This is the current consumption when the CPU module is mounted and it is operated at 100% CPU load ratio with Intel Thermal Tool at room temperature.

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## Block diagram



LVDS	: Low Voltage Differential Signaling	SMBus	: System Management Bus
PCIe	: Peripheral Component Interconnect Express	GPIO	: General Purpose Input/Output
LPC	: Low Pin Count	RST	: Reset
WDT	: Watchdog Timer	I2C	: Inter-Integrated Circuit
SPI	: Serial Peripheral Interface	USB	: Universal Serial Bus
UART	: Universal Asynchronous Receiver Transmitter	MUX	: Multiplexer
MCU	: Micro Controller Unit	EEP ROM	: Electrically Erasable Programmable Read-Only Memory
DDR4 SDRAM with ECC	: Double-Data-Rate4 Synchronous Dynamic Random Access Memory with Error Check and Correct	SD	: Secure Digital
LED	: Light Emitting Diode	COM Express	: Computer on Module Express
DIP SW	: Dual In-line Package Switch	BIOS	: Basic Input/Output System
Vcc RTC	: Voltage common collector Real-time Clock	MICON NMI	: Microcomputer Non Maskable Interrupt
Diag MCU Clk	: Diagnostics Micro Controller Unit Clock	DC/DC	: Direct Current/ Direct Current Converter
	: Fuse		: Diode

When using, please read the instruction manual attached to the product carefully and use it properly.

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