

SOM-2532

Intel Atom® x6000, Pentium® and Celeron® x6000 Series Processor SMARC Module

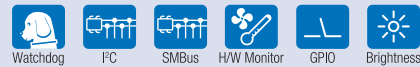
NEW



Features

- Intel Atom® x6000, Pentium® and Celeron® x6000 Series processor
- SMARC2.1 pinout, small size
- Dual-CH LPDDR4 3200MT/s up to 16GB, support IB ECC
- Triple displays up to 4K2K (DP++, HDMI, LVDS/eDP or MIPI-DSI)
- Multiple I/O expansion: PCIe gen3, USB3.2 Gen2, USB2.0, SATA
- On board UFS up to 256GB
- Supports iManager, Embedded Software APIs and Wise-DeviceOn

Software APIs:

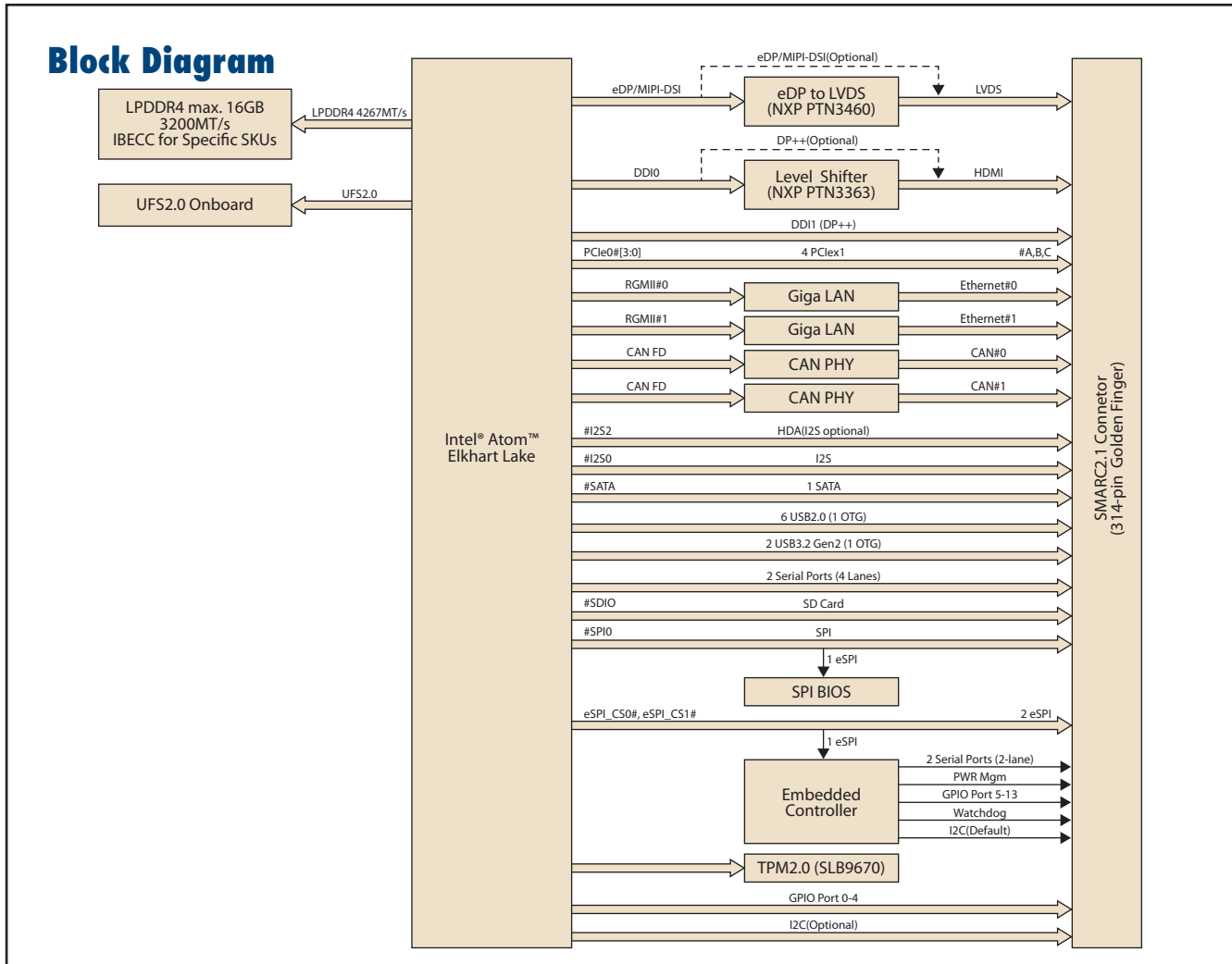


Windows Embedded **iManager WISE-DeviceOn** CE FC

Specifications

Form Factor	Form Factor	SMARC2.1				
	PCB Size	82 mm x 50 mm				
Processor System	CPU	Atom® X6425E	Atom® X6425RE	Atom® x6200FE	Celeron® J6413	Pentium® N6415
	Base Frequency	1.8 GHz	1.9 GHz	1.0 GHz	1.8 GHz	1.2 GHz
	Max Single Core Turbo Frequency	3.0 GHz	N/A	N/A	3.0 GHz	3.0 GHz
	Cores	4	4	2	4	4
	LLC	TBD	TBD	TBD	TBD	TBD
	CPU TDP	12W	12W	4.5W	10W	6.5W
	IB ECC	Yes	Yes	Yes	N/A	N/A
	BIOS	AMI UEFI 256Mbit				
Memory	Technology	LPDDR4				
	Speed	3200	3200	3200	3200	3200
	ECC Support	IB ECC supported by Specific CPU SKUs				
	Max. Capacity	Max. 16GB				
Graphics	Channel / Socket	Dual channel / Memory down				
	Controller	Intel® UHD Graphics				
	Max. Frequency	TBD				
	Graphic Memory	TBD				
Display	3D/HW Acceleration	OpenGL* 4.5, DirectX* 12, OpenCL*1.2, Vulkan 1.1				
	LCD (LVDS/eDP/MIPI-DSI)	1 Port LVDS: 1920 x 1200 @ 60Hz/eDP: 4096 x 2160 @ 60Hz (Optional)				
	DP++	1 Port (up to 4096 x 2160 @ 60 Hz)				
	HDMI	1 Port HDMI 1.4b: Up to 3840 x 2160 @ 30 Hz, DP 1.2: Up to 4096 x 2160 @ 60 Hz (Optional)				
Expansion	Multiple Display	Triple Simultaneous Independent Display				
	PCI Express x1 (Gen3)	4 PCIe x1				
	Audio Interface	Intel HD Audio/ up to 2 I2S				
Serial Bus	LPC/eSPI	eSPI				
	SMBus	N/A				
Ethernet	I2C Bus	Yes				
	Gigabit	2 Ports I210 (10/100/1000BASE-T), support TSN				
I/O	SATA3.0	1 Port (6 Gbps)				
	USB3.2 (Gen2)	2 Ports (10 Gbps)				
	USB2.0	6 Ports (480 Mbps)				
	SPI Bus	Yes. For BIOS EEPROM				
	Onboard Storage	UFS (Default 32GB, up to 256GB)				
	GPIO	14-bit				
	Watchdog	65536 level, 0 ~ 65535 sec				
	COM Port	4 Ports (2 Ports 4-wire / 2 Ports 2-wire)				
	TPM	Yes				
	CAN-FD	2 Ports (Only by Linux)				
	Smart Fan	N/A				
Power	Type	ATX/ATX: Vin				
	Supply Voltage	Vin: 4.75-5.25V, RTC Battery: 2.0V ~ 3.3V				
	Power Consumption (Max.)	TBD				
	Power Consumption (Idle)	TBD				
Environment	Operating Temperature	Standard: 0 ~ 60 °C (32 ~ 140 °F) Extend: -40 ~ 85 °C (-40 ~ 185 °F)				
	Storage Temperature	-40 ~ 85 °C (-40 ~ 185 °F)				
	Humidity	Operating: 40 °C @ 95% relative humidity, non-condensing Storage: 60 °C @ 95% relative humidity, non-condensing				
	Vibration Resistance	3.5 Grms				
Mechanical	Dimensions	82 mm x 50 mm				

Block Diagram



Ordering Information

Part No.	CPU	Core	Base Freq.	Max. Boost Freq.	CPU TDP	LLC	DDR4 SODIMM	Power	Thermal solution	Operating Temp.

*Any other SKUs or combination is project based support. Please contact sales for details.

Optional Accessories

Part No.	Description
TBD	Semi-Heatsink

Packing List

Part No.	Description	Quantity
-	SOM-2532 COM module	1
TBD	Heatspreader	1

Development Board

Part No.	Description
SOM-DB2500	SMARC Development Board, SMARC2.0 & 2.1 compliance

Embedded OS

OS	Part No.	Description
Win10	TBD	TBD