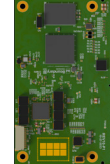


System-on-Modules - SMARC Standard



Laird Connectivity and Boundary Devices' embedded system-on-module (SOM) development platforms deliver highly scalable embedded processing solutions with 802.11a/b/g/n/ac and Bluetooth wireless. Built on the latest processors and wireless, and utilizing our long term software support, our SOM solutions give developers a secure, smart, connected IoT platform for deployment in the most demanding applications.



	Tungsten700 SMARC (Coming Soon)	Nitrogen93 SMARC (Coming Soon)	Nitrogen8M Plus SMARC	Nitrogen8M Mini SMARC
Processor	MediaTek Genio 700	i.MX 93	i.MX 8M Plus	i.MX 8M Mini
MPU	2x Cortex-A78 @ 2.2 GHz 6x Cortex-A55 @ 2.0 GHz	2x Cortex®-A55 @ up to 1.7 GHz	4x Cortex®-A53 @ up to 1.8 GHz	4x Cortex®-A53 cores @ up to 1.8 GHz
MCU	N/A	1x Cortex®-M33 core @ 250 MHz	1x Cortex®-M7 core @ 800 MHz	1x Cortex®-M4 core @ 400 MHz
Wireless Onboard	Sona MT320: Wi-Fi 6, Bluetooth 5.3	Sona NX611: Wi-Fi 6, Bluetooth 5.3	LWB5+: Wi-Fi 5, BT 5.2	GC7000NanoUltra for 3D and GC520L for 2D
RAM	4GB or 8 GB LPDDR4	2GB LPDDR4	2GB or 4GB LPDDR4 Up to 8GB (MOQ required)	1GB, 2GB, and 4GB
Storage	16GB	16GB	16GB	16GB
Display	HDMI, DP, eDP, 2x MIPI-DSI	MIPI-DSI, LVDS	MIPI-DSI, HDMI, LVDS	MIPI-DSI, HDMI, LVDS
Camera	2xMIPI-CSI	1x MIPI-CSI	2x MIPI-CSI	1x 4-lane MIPI CSI
Co-Processors	CPU, 3D GPU, NPU	2D GPU, NPU	3D/2D GPU, VPU, NPU, Audio	3D/2D GPU, NPU, Audio
Audio	2x I2S	2x I2S	2x I2S	2x I2S, 1x PCM
Additional Interfaces	1x PCI3, 2x USB3/USB2, 3x USB2, 1x SDIO/eMMC, I2C, SPI, UART, GPIO	2x USB 2, 2x GbE, 2x CAN/CAN FD 1x SDIO/eMMC I2C, SPI, UART, GPIO	1x PCIe, 2x USB3/USB2, 2x USB2, 2x GbE, 2x CAN/CAN FD 1x SDIO/eMMC I2C, SPI, UART, GPIO	1x PCIe, 2x USB3/USB2, 2x USB2, 2x GbE, 2x CAN/CAN FD 1x SDIO/eMMC I2C, SPI, UART, GPIO
Size	82 x 50 mm	82 x 50 mm	82 x 50 mm	82mm x 50mm
Operating Temperature	0 to +70 °C -40 to +85 °C (coming soon)	0 to +70 °C OR -40 to +85 °C	0 to +70 °C OR -40 to +85 °C	0°C to +70°C (Commercial) and -40° to +85 °C (Industrial)

System-on-Modules - SMT / Board Connector



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	Summit SOM 8M Plus	Nitrogen8M Plus	Nitrogen8M	Nitrogen8M Mini	60 Series SOM
Processor	i.MX 8M Plus	i.MX 8M Plus	i.MX 8M	i.MX 8M Mini	SAMA5D36
MPU	4x Cortex®-A53 cores @ 1.6 GHz	4x Cortex®-A53 @ up to 1.8 GHz	4x Cortex®-A53 @ up to 2.0 GHz	4x Cortex®-A53 @ up to 1.8 GHz	1x Cortex®-A5 @ 536 MHz
MCU	1x Cortex®-M7 core @ 800 MHz	1x Cortex®-M7 core @ 800 MHz	Cortex®-M4 @ 266 MHz	1x Cortex®-M4 @ 400 MHz	N/A
Wireless Onboard	Wi-Fi 5, BT 5.3 (NXP 88W8997)	Wi-Fi 5, BT 5 (standard)	N/A	N/A	Wi-Fi 5, BT 5.1 (NXP 88W8997)
RAM	512MB, 1GB, 2GB, 4GB	2GB or 4GB LPDDR4	2GB or 4GB LPDDR4	2GB or 4GB LPDDR4	128 MB or 256 MB LPDDR2
Storage	8GB, 16GB, or 32GB	16GB	16GB or 128GB	8GB, 16GB, 32GB, or 128GB	256 MB or 512 MB
Display	MIPI-DSI, HDMI, LVDS	MIPI-DSI, HDMI, LVDS	MIPI-DSI, HDMI	MIPI-DSI	Parallel
Camera	2x MIPI-CSI	2x MIPI-CSI	2x MIPI-CSI	MIPI-CSI	Parallel
Co-Processors	3D/2D GPU, VPU, NPU, Audio	3D/2D GPU, VPU, NPU, Audio	3D/2D GPU, VPU	3D/2D GPU, VPU	2D GPU
Audio	SPDIF in/out, 6x SAI, 8 channel PDM	Input/Output	Input/Output	Input/Output	2x SSC
Form Factor	SMT	Board to Board	Edge connector	Edge connector	SMT
Additional Interfaces	2x USB3/USB2, 2x GbE, 2x CAN/CAN FD, 1x SDIO/eMMC 12C, SPI, UART, GPIO	1x PCIe, 2x USB3/USB2, 2x GbE, 2x CAN/CAN FD 1x SDIO/eMMC 12C, SPI, UART, GPIO	2x PCIe, 2x USB3/USB2, 1x GbE, I2C, SPI, UART, GPIO	1x PCIe, 2x USB2, 1x GbE, 1x SDIO/eMMC, 12C, SPI, UART, GPIO	3x USB2 2x Ethernet, 1x CAN, 1x SD/MMC 12C, SPI, UART
Size	40 x 47 mm	48 x 38 mm	67.6 x 48.4 mm	69.6 x 40 mm	30 x 30 mm
Operating Temperature	-30 to +85 °C	0 to +70 °C OR -40 to +85 °C	0 to +70 °C OR -40 to +85 °C	0 to +70 °C OR -40 to +85 °C	-30 to +85 °C