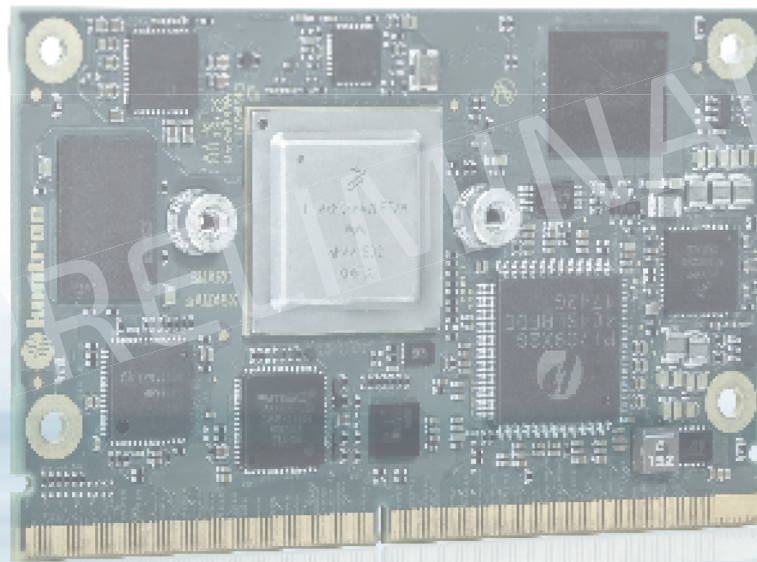


# SMARC-sAL28

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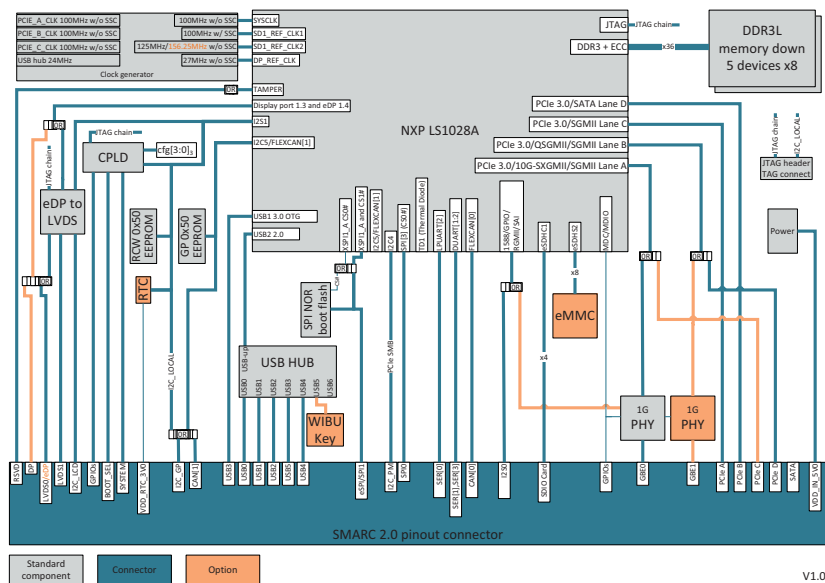


## SMARC Module with NXP LS1028 Layerscape Processor

- ▶ Dual-Core Cortex A-72 on a SMARC short size form factor
- ▶ Up to 4 GByte DDR3L non-ECC and ECC memory down. ECC as default.
- ▶ One PCIe line can be used as QSGMII port to drive 4 1 GByte TSN capable Ethernet ports
- ▶ 3D GPU
- ▶ 2x Gigabit Ethernet, TSN capable

## TECHNICAL INFORMATION

COMPLIANCE	SMARC 2.0
DIMENSIONS (H X W X D)	82 x 50 mm
CPU	NXP Dual Cortex A72 LS1028 processor
MAIN MEMORY	up to 4 GByte DDR3L (ECC)
ETHERNET	up to 2x 10/100/1000 MBit Ethernet
STORAGE	1x SDIO
FLASH ONBOARD	2-64 GByte eMMC 5.1
PCI EXPRESS® SUPPORT	Up to 2x PCIe x1 or 2x PCIe x2 or 1x PCIe x4
PANEL SIGNAL	1x LVDS dual channel, alternatively eDP as BOM option
DISPLAY	HDMI*, DP* (BOM option)
USB	up to 6x USB 2.0, 1x USB 3.0
SERIAL	4x serial interfaces (2x RX / TX only)
OTHERS	I2S*, 2x I2C, 2x SPI, 12x GPIO, 1x CAN
SPECIAL FEATURES	Alternate function on PCIe C/D: SXGMII or UXGMII to connect Ethernet bridge phy directly on the carrier (allows up to 5x TSN capable 1GB LAN ports) Security Chip (Support of Kontron Aprotect) on request
BOOT LOADER	Uboot
OPERATING SYSTEM	Yocto Linux
POWER SUPPLY	3 V – 5.25 V operates directly from single level Lithium Ion cells or fixed 3.3 V – 5 V power supplies
TEMPERATURE	Operating: -40 °C to + 85 °C Non-Operating: -40 °C to +85 °C
HUMIDITY	93 % relative Humidity at 40 °C, non-condensing (according to IEC 60068-2-78)



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