



# NOVSOM™LS1-B2B

## Product Brief (Rev 01)



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## **NOVSOM™LS1-B2B System-On-Module featuring Freescale® LS1 SoC with integrated Dual-Core ARM® Cortex™-A7 Processor**

**'If the SoC can do it, NOVSOM™ will do it'**

NovTech NOVSOM™LS1-B2B brings to customers all the benefits of the SoC while accelerating the design of an application board and eliminating the need to develop the DDR interface, boot devices, clocks and power management solutions. The use of NOVSOM™ will provide users with a proven small form factor SoM allowing them to focus their design efforts on the required peripherals in their application.

### **Features:**

- Freescale LS1021 SoC.
- All LS1 peripheral and high speed signals are routed via the SoM connectors to the base board.
- Accommodates all LS1 documented boot options
- Allows designers to assign any desired voltages (1.8V, 2.5V and 3.3V) to any signal groups (LVDD, L1VDD, DVDD, D1VDD, EVDD and BVDD).
- On NOVSOM™ up to 4Gbyte DDR3 with ECC support (ISSI)
- On NOVSOM™ up to 8Gbyte SLC NAND FLASH for boot or general Solid State storage
- On NOVSOM™ up to 64Mbyte QSPI FLASH for boot or general Solid State storage
- On NOVSOM™ up to 64Gbyte eMMC for boot or general Solid State storage
- On NOVSOM™ μSD slot for boot or general Solid State storage
- On NOVSOM™ all SoC clocks (including the high speed interfaces) and additional clocks routed to the SoM connectors for use by base board peripherals (3 100Mhz LP-HCSL differential with spread-spectrum support, 2 12MHz/24Mhz I2C selectable, 2 2.048Mhz, 1 125MHz and 6 25MHz clocks).
- LS1 system clock can be set to 66.66/80/83.333/100Mhz with spread-spectrum support.
- The NOVSOM™ includes a PMIC which sources all SoC, DDR and IO group voltages.
- Additional PMIC rails are routed via SoM connectors to the base board. These include a 1.5A switcher (0.8V to 3.34V) and four LDOs (3 are 200mA and one is 100mA, 0.9V to 3.34V).

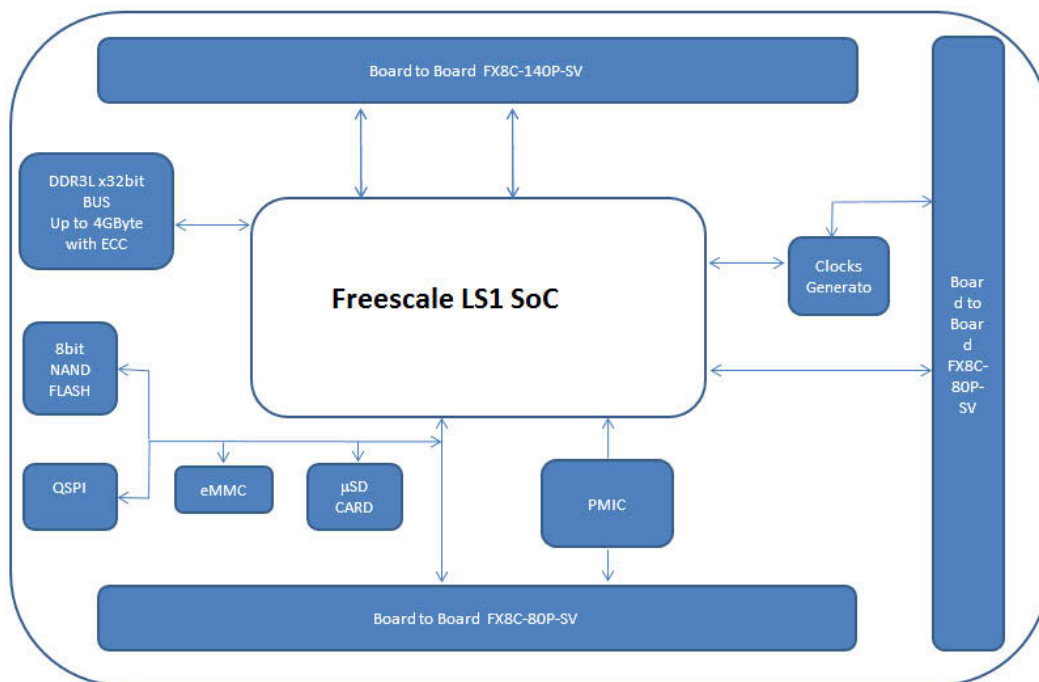
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[2]



- Three Board to Board connectors, ( optionally 5mm to 16mm in height) that allow the use of space on the base board under the NOVSOM<sup>™</sup>.
- Mounting holes on the module allows secure attachment to base board

### NOVSOM<sup>™</sup>CV Block Diagram



Ordering information: **NOVSOM<sup>™</sup>LS1-S-31-C**

Please review the NOVSOM<sup>™</sup>LS1-B2B ordering guide for customization of the NOVSOM<sup>™</sup>