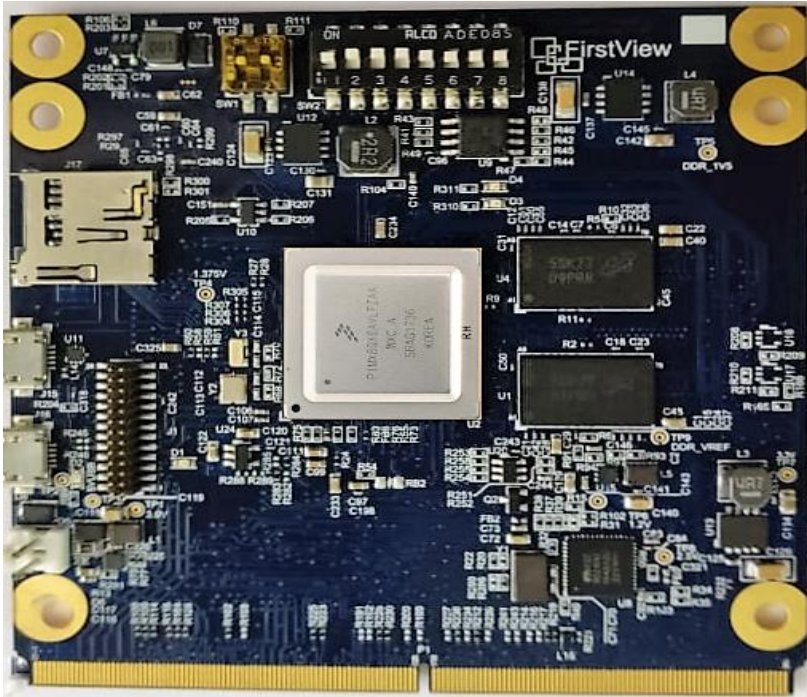


Celerity - i.MX8X–System on Module (SOM)

High Level specifications



- 4 X Cortex-A35, 1 X Cortex-M4F @266MHz
- LPDDR4 1200MHz 8GB / 8GB DDR3L Memory, 933MHz 1GB DDR3 (expandable to 4GB)
- SPI NOR flash with 16 Mbit.
- eMMC 4GB with 5.0 standard (expandable to 8GB).
- 4K H.265 dec, 1080p H.264 enc/dec.
- USBOTG 3.0 with PHY (Can be used as USB 2.0) and USB2.0 Host and device.
- Wi-Fi/BT Module: Dual band IEEE802.11a/b/g/n/ac WLAN plus Bluetooth 4.2 BR/EDR/BLE “smart Ready” SDIO module.
- 1xGigabit Ethernet with RGMII
- Operating System: Linux, Windows
- Temperature:-40° to +125° C
- UART,CAN, PCIe, ADC, SAI, CSI, MIPI-DSI, LVDS, QSPI, ESAI, I2C, PWM



FirstView follows up on the success of i.MX6 Series SOM offering with a rugged, reliable and low cost i.MX8X Version. The FVC-MX8X-SOM is an embedded single board module optimized for performance and power with a life cycle that removes concerns for obsolescence. The board is designed to be paired with a custom carrier board to fit specific applications in a wide range of environments.

Additional Features

- The i.MX 8X processor with optional Error Correcting Code (ECC) is the first i.MX product to support Industrial Safety Integrity Level 3 (SIL 3) certification for applications PLC, I/O, robotic control and drones
- LP-DDR4 memory interface for high performance and low standby power, or DDR3L interfaces for lowest system cost. For fast boot from SPI NOR flash, eMMC 5.0 and NAND
- A powerful and efficient upgrade path for next-generation solutions. The Cortex-A35 is Arm’s most efficient Armv7 core.
- Double the clock rate! SoC designs get the same data bandwidth with 16 data bits clocked at 1600MHz instead of the DDR3 designs get with 800MHz.
- LPDDR4 is the mobile equivalent of DDR4 memory. Compared to DDR4, it offers reduced power consumption but does so at the cost of bandwidth. LPDDR4 has dual 16-bit channels resulting in a 32-bit total bus. The DDR4 has an 8word prefetch or a 64bit channel. Therefore, LPDDR4 RAM halves the bus but makes up for this with a measly operating voltage of 1.1-1.2V



Celerity - i.MX8X–System on Module (SOM)

Block Diagram

