

# phyFLEX<sup>®</sup>-i.MX 6 System on Module - PRODUCT BRIEF

## EASIER

Building a new embedded device from the ground up is an enormous challenge and risk. Embedded development can be made much easier by leveraging existing solutions.

## FASTER

Deploy a production-ready SOM and BSP and eliminate 6-12 months from your development timeline.

## CHEAPER

Save substantial non-recurring engineering costs by eliminating specification, parts selection, schematic, layout, validation, and Operating System porting efforts. Use an off-shelf SOM and BSP instead.



The phyFLEX-i.MX 6 SOM supports the Freescale™ i.MX 6Dual/6Quad applications processor which is ideal for use in multimedia-centric smart mobile devices, infotainment, and portable medical devices. The architecture's flexibility also allows for use in a wide variety of general embedded applications.

By combining the power-efficient processing capabilities of the ARM® Cortex™-A9 architecture with leading edge 3D and 2D graphics, as well as high-definition video, the i.MX 6 Series provides a new level of multimedia performance to enable an unbounded next generation user experience.

**phyFLEX Innovation** – Fusion between flexibility, scalability, and compatibility:

// **Connector 1** is the phyFLEX standardized connector, providing 100% compatibility up and down the phyFLEX family

// **Connector 2** provides standardization to pin position, but is not always 100% compatible of features across the phyFLEX family

// **Connector 3** is the “wild card” connector with processor specific features at no standardized position

The i.MX 6Dual or i.MX 6Quad processor also provides all of the interfaces necessary for connecting peripherals such as WLAN, Bluetooth™, GPS, camera sensors, and multiple displays.

The combination of industrial temperature rating, 3.3V I/O, and highly reliable interconnects of the phyFLEX-i.MX 6 SOM make it possible for developers to create products that can endure rugged and extreme thermal industrial environments.

# PHYTEC

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- SD/MMC
- SATA
- HDMI
- LVDS CAM
- I<sup>2</sup>C
- CAN



- Power
- SD/MMC
- PCIe
- Ethernet
- USB-Host
- USB-OTG
- UART (x2)
- I<sup>2</sup>C
- SPI (x2)
- LVDS Display
- GPIO
- JTAG
- Audio

- LVDS Display
- Parallel CSI
- MIPI CSI
- MLB
- GPMC Bus
- PWM
- Keypad

phyFLEX SOM PINOUT

## SOM FEATURES / Part No. PFL-A-XL:

### Processor

- Freescale™ i.MX 6Dual/6Quad
- 1.2 GHz ARM® Cortex™-A9 MPCore™
- Cortex™-A9 NEON™ Media Processing Engine
- Hardware Accelerators: VPU, IPUv3H, GPU2Dv2, OpenVG 1.2, ASRC

### Memory

- up to 4 GB DDR3 / 16 GB NAND / 16 MB SPI Flash
- 32 KB I<sup>2</sup>C EEPROM

### Mechanical

- 60 x 70 mm
- Three 0.5 mm pitch connectors

### Supply

- 5V

### Temperature

- -40° to +85°C

### Operating Systems - Kit Availability

- Linux – Q3/2012
- Android – TBD
- Windows Embedded Compact 7 – Q3/2012

## DEVELOPMENT KIT

The phyFLEX-i.MX 6 SOM is available in a development kit that includes the SOM, a carrier board, optional LCD, optional WiFi, and all accessories required for immediate start-up.

## SERVICES

Product developers with aggressive timelines or limited resources can employ PHYTEC's full range of design services, which include hardware board design, customized software board support packages, and complete turnkey design.

# PHYTEC

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