

CompuLab CL-SOM-iMX7 is the first i.MX7 System-on-Module on the market

Yokneam, Israel – 17-November-2015 – CompuLab is introducing CL-SOM-iMX7 – a miniature, cost effective System-on-Module built around the recently announced Freescale i.MX7 System-on-Chip family. Rich and versatile feature-set makes CL-SOM-iMX7 a powerful platform for a wide range of industrial applications such as control and automation, point-of-sale devices, medical equipment and IoT gateways.

CL-SOM-iMX7 has been designed to bring out the full I/O capabilities of the highly versatile i.MX7 SoC. Peripheral interfaces include PCIe, dual Gigabit Ethernet, 2 native USB ports, 7 UARTs, 2 CAN ports and 124 GPIOs. Display connectivity is supported with a parallel RGB port and MIPI-DSI. In addition, CL-SOM-iMX7 extends the native i.MX7 I/O even further with on-board 2.4GHz / 5GHz WiFi, Bluetooth 4.1, 3-port USB hub and LVDS display interface.

Addressing the industry's need to combine high-level O/S handling graphical UI and high-bandwidth I/O with real-time responsiveness, i.MX7 includes a Cortex-M4 MCU supporting real-time operation. Leveraging the i.MX7 multicore architecture, CL-SOM-iMX7 is an excellent solution for applications which traditionally required system designers to incorporate an additional MCU dedicated for real-time tasks.

Featuring highly efficient 28nm Cortex-A7 cores and power-optimized PF3000 PMIC, CL-SOM-iMX7 delivers excellent power efficiency. Low power consumption and miniature size of only 42 x 68 x 5 mm make CL-SOM-iMX7 an ideal choice for portable and battery powered equipment.

Industrial temperature range of -40° to 85° C allows CL-SOM-iMX7 to support operation in harsh environments and outdoor installations.

Software Support

CL-SOM-iMX7 is provided with a full BSP and ready-to-run images for the Linux operating system. The CL-SOM-iMX7 BSP includes Linux kernel 3.14, Yocto Project file-system and U-Boot boot-loader. In addition, CompuLab will support CL-SOM-iMX7 with mainline Linux and upstream Yocto Project.

Evaluation and Design Support

CompuLab supports CL-SOM-iMX7 with SB-SOM-iMX7 carrier board and EVAL-SOM-iMX7 evaluation kit enabling streamlined and rapid product development.

The SB-SOM-iMX7 carrier-board has been designed for CL-SOM-iMX7 evaluation as well as for deployment as an iMX7 single board computer. SB-SOM-iMX7 schematics and layout can be used by CL-SOM-iMX7 customers as a reference design for a wide range of industrial use cases.

The EVAL-SOM-iMX7 eval-kit offered at \$275, includes CL-SOM-iMX7 and SB-SOM-iMX7 hardware set, LCD panel, cables and a technical support contract.

Specifications

CPU	Freescall i.MX 7Dual ARM Cortex-A7 SoC, 1GHz Freescall i.MX 7Solo ARM Cortex-A7 SoC, 800MHz
Co-processor	ARM Cortex-M4, 200Mhz
RAM	Up to 2GB DDR3L-1066
Storage	Up to 32GB on-board eMMC Up-to 1GB on-board SLC NAND
Display	Parallel 24-bit display interface, up to 1920 x 1080 LVDS, up to 1400 x 1050 MIPI-DSI, up to 1400 x 1050
Touchscreen	4-wire resistive touch-screen support
Camera	Parallel camera interface, up to 24-bit MIPI-CSI, 2 data lanes
Audio	Audio codec with stereo line-out, line-in, mic
Network	2x Gigabit Ethernet Dual-band 2x2 WiFi 802.11a/b/g/n Bluetooth 4.1 BLE
PCI Express	PCIe x1 Gen. 2.1
Local Bus	External local bus interface, up to 32-bit
USB	1x USB2.0 OTG + 4x USB2.0 host ports
UART	Up to 7x UART ports
SDIO	Up to 2x MMC/SD/SDIO interface
General I/O	Up to 3x I2C, 3x SPI, 2x CAN, 6x Timer, 124x GPIO
ADC	Up to 8x general-purpose ADC inputs
Power	3.2V to 4.5V / Li-Ion battery
Connector	204-pin SO-DIMM edge connector
Dimensions	42 x 68 x 5 mm
Temp. range	-40 to 85°C

Availability and Pricing

CL-SOM-iMX7 will be available by end of February 2016 through CompuLab's worldwide distribution channel and through direct sales (www.compulab.co.il).

CL-SOM-iMX7 will be offered at a variety of configurations starting from \$39 for volume orders.

EVAL-SOM-iMX7 evaluation kit will be offered at \$275.

Detailed ordering and pricing information is available at [CL-SOM-iMX7 product page](#).

About CompuLab

CompuLab is a leading designer and manufacturer of embedded computing products since 1992.

CompuLab products are embedded in digital signage, telecommunication systems, automotive devices, gaming systems, medical devices, aerospace and marine systems, and countless other applications.

CompuLab headquarters are located in Yokneam, Israel with offices in St. Petersburg, FL.

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NOTE TO EDITORS: For additional info and high-res product images please refer to the [CL-SOM-iMX7 press kit](#) or visit www.compulab.co.il.