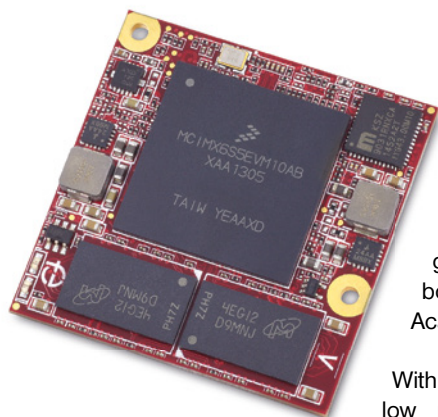


# iMX6 TinyRex Module

The impressively compact and scalable iMX6 TinyRex Module is targeting skilled development teams building demanding solutions. With unique HDMI video input interface, 300 pins, preinstalled operating system and clocked up to 1.2GHz, it enables designing of high-end mobile devices or unmanned air vehicles.



The **highly integrated** iMX6 TinyRex Computer On Module (COM) / System On Module (SOM) is the second member of growing family of the Rex boards designed by FEDEVEL Academy.

With **300 pins available** on three low profile 100pin connectors, it is capable of revealing the full performance potential of the i.MX6 NXP (Freescale) ARM® Cortex® A9 multicore application processor.

iMX6 TinyRex is **the only system on the market supporting HDMI video input interface**, making it ideal choice for unmanned air vehicles that are to process for instance a GoPro camera HDMI output signals.

With **Yocto Project** open source Linux OS including driver support for all peripherals integrated on the module, **schematic of the iMX6 TinyRex Module** and complete **Altium Designer project documentation of the iMX6 TinyRex Base Board Lite** available on a USB clip with each complete development kit, it is just a perfect match for designers or system integrators looking for:

- **acceleration of time-to-market** of a new embedded device
- reduction of the new device development costs and risks
- usage of a reliable solution proved by extensive field testing done by other users
- COM/SOM for portable, **passive-cooled** and **battery-powered device**

Furthermore, to ensure the iMX6 TinyRex Module suitability for your high-end multimedia device, its design was compressed into just 1.6mm thick, HDI micro-via Level III, 12-layer PCB with dimensions only 38 x 38 mm.

The COM is available in 5 standard **configurations that can be further customized** to better match your requirements for performance and operating temperature range, helping you to build a competitive product.

## Hardware Specification

<b>CPU:</b>	<b>NXP i.MX6 ARM® Cortex® A9</b> Solo/Dual/Quad/QuadPlus up to 1.2 GHz
<b>DDR3-1066 SDRAM:</b>	up to 4GB, 533MHz
<b>Ethernet:</b>	10/100/1000 Mbps
<b>I2C EEPROM:</b>	up to 512Kbit
<b>LED:</b>	User, Power
<b>I/O voltage:</b>	3.3V
<b>Input power:</b>	2.7 to 5.5V (DC)
<b>Temperature range:</b>	Commercial 0°C to +70°C Extended -20°C to +70°C Industrial -40°C to +85°C
<b>Dimensions:</b>	38 x 38 x 4.8 mm
<b>100pin connector:</b>	3x

## Key Features

HDMI output (up to QXGA 2048x1536)  
LVDS (up to WXGA 1366x768)  
20-bit parallel LCD display (up to WXGA 1366x768)  
or 1x Video Input (CSI)  
DSI MIPI differential display output  
(up to XGA 1024x768)  
20-bit parallel video input CSI (up to 8192x4096)  
MIPI differential camera input  
PCIe, SATA  
NAND Flash or 1x MMC (8bit)  
SD (2x 4bit or optional 4 & 8bit)  
High-Speed USB 2.0, High-Speed USB OTG  
UART, I2C, SPI, CAN, Digital audio, GPIO and PWM  
1000Mbit RGMII interface  
System signals: Reset In/Out, Boot mode, Power ok  
JTAG on test points

## Supported Software

Yocto 2.3 (preinstalled)  
Android 7.1 Nougat (preinstalled upon request)



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