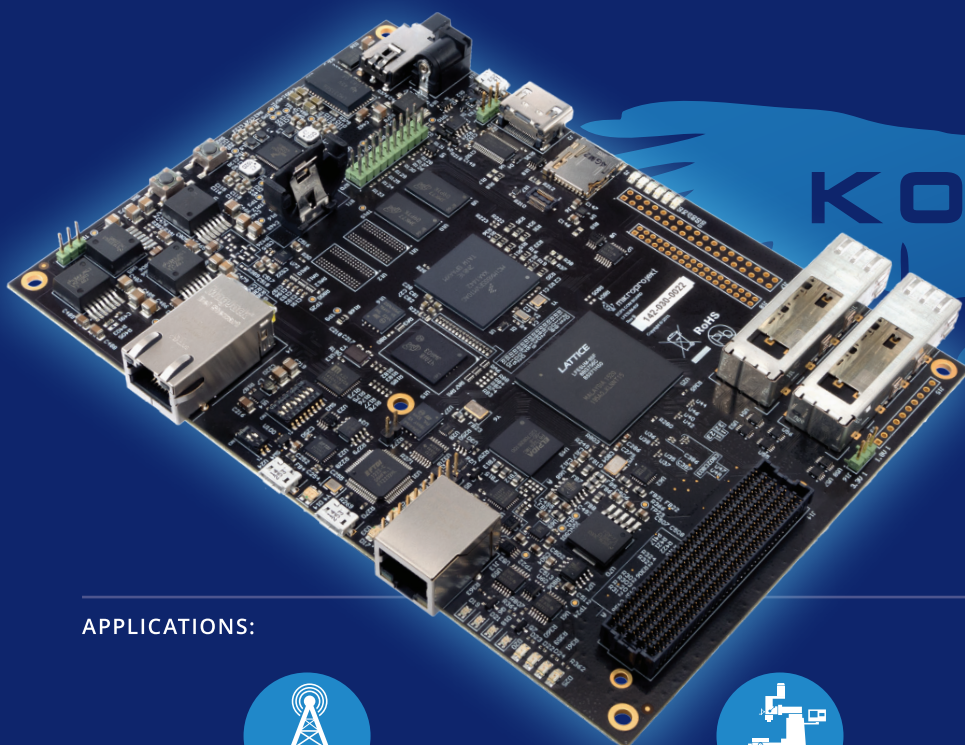


Kondor AX

Advanced System Development Platform for the Network Edge



KONDOR

SPREAD YOUR WINGS

APPLICATIONS:



HetNet & Small Cells



Industrial IoT



Cameras & Displays

The **KONDOR AX – Advanced System Development Board** is a new ECP5™ development platform for low power applications at the network edge including HetNet, Small Cells, Industrial IoT gateways and IP Cameras.

The heart of this board is a combination of the Lattice ECP5™, a low power, small form factor FPGA bringing flexible interface connectivity and high-performance DSP for image filtering and data analytics, and the Freescale i.MX 6 Solo, a versatile discrete CPU with Linux OS support for system control.

The supported Linux BSP includes a Linux kernel with device drivers, Applications/Services, Libraries, GNU Tools (compilers, linkers, ...) as well as Deployment mechanisms. The board works out of the box as a standalone single-board computer.

All of the features together enable users to shorten the time to market and deploy specific, innovative and cost-effective network edge designs with low power consumption.

KEY ADVANTAGES

- ✓ Low Power Consumption
- ✓ Rich set of interfaces
- ✓ Linux OS with applications and libraries

VERSATILE CONTROL PLATFORM

Freescale i.MX6

INDUSTRY-STANDARD INTERFACES

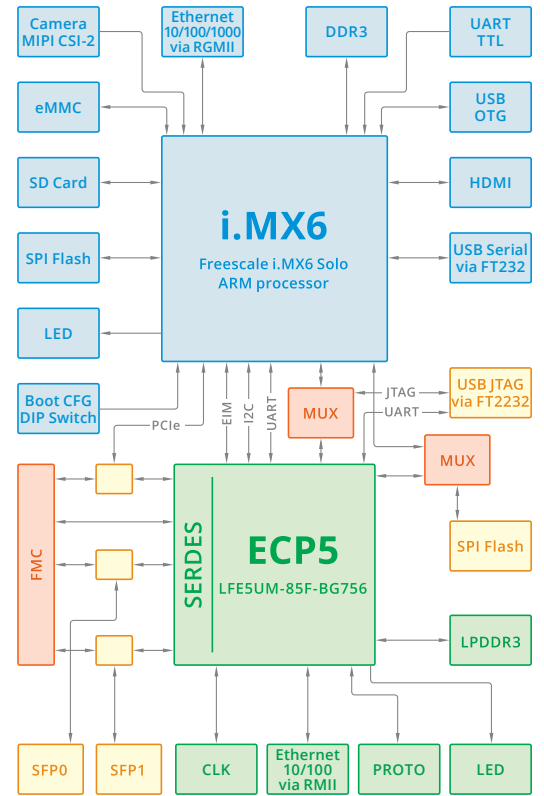
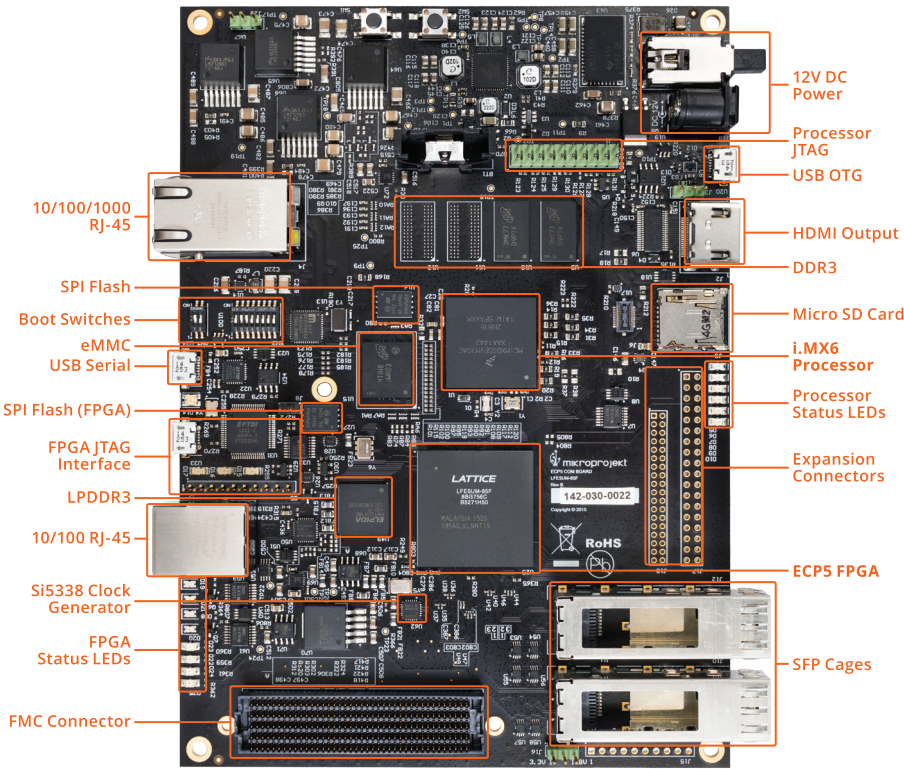
Ethernet, SFP, FMC expansion
LVDS, GPIO, USB

OPEN SOURCE SOFTWARE

Linux OS and SDK

PROGRAMMABLE LOGIC

Lattice ECP5



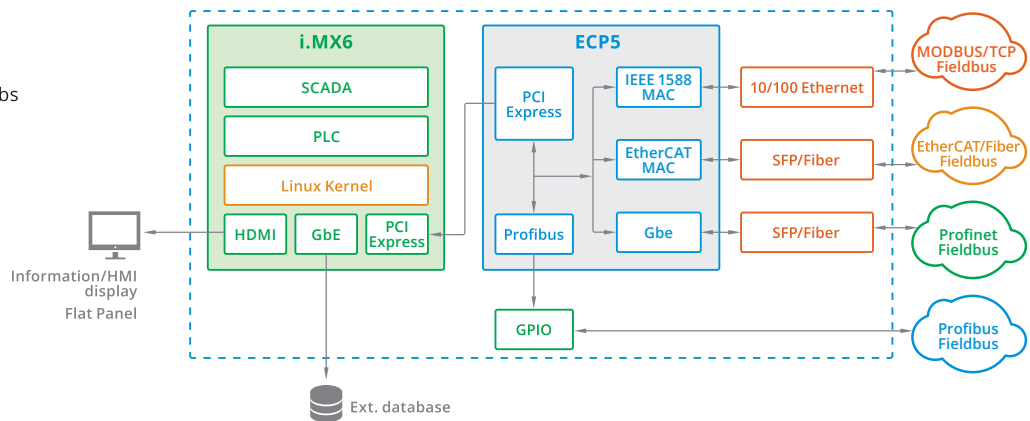
Category	ECP5*	i.MX6**
Description	Lattice ECP5 LFE5UM-85F-BG756 FPGA - ECP5 LFE5UM-85F-BG756 84,000 LUTs 207 Block RAMs 156 18x18 Multipliers 365 IO pins 4 SERDES channels (In/out) 400 MHz LPDDR3 Memory Support 4 PLLs, 4 DLLs	Freescale i.MX6 Solo ARM - ARM® Cortex™-A9 1 GHz 512 KB L2 cache - MIPI-HSI - PCIe 2.0 (1 lane) - Freescale PF100 power management unit - GPU 3D - Vivante GC880 - Video Decode 1080p30 + D1 - Video Encode 1080p30 - H.264 BP/ Dual 720p encode
	Programming options - On-board USB JTAG interface 10-pin JTAG header - Using i.MX6 processor	
Memory	- LPDDR3-1600 - EDF8132A1MC-GD-F 800 MHz Clock Rate 1x 32-bit channel 512 MB Memory	512 MB 32-bit DDR3 64Mbit SPI Flash 8GB eMMC - Micro SD Card

Category	ECP5*	i.MX6**
Connectivity options	2 SFP cages - FMC Connector - GPIO header - GPIO (differential) header 10/100 Ethernet (RMII) - UART (using USB JTAG interface)	- HDMI output - Gigabit ethernet - OTG USB - USB serial interface - Camera interface
	Other peripherals 4x Single color LEDs 4x Dual color LEDs	6x Status LEDs
Boot Options	- From 64 Mbit on-board SPI Flash memory - SPI Slave mode	- SPI flash - eMMC - Micro SD card - USB OTG
	Clocking - Onboard 100MHz Differential Oscillator - Si5338 Clock Generator	24 MHz & 32.76 KHz
On-board communication Interfaces	- PCIe x1 interface - EIM interface - I2C, SPI, UART	
	Power Supply 12V Input	
Manufacturing	RoHS Compliant	

* ECP5 LFE5UM-85F-BG756 FPGA Device ** Freescale i.MX6 Solo ARM processor

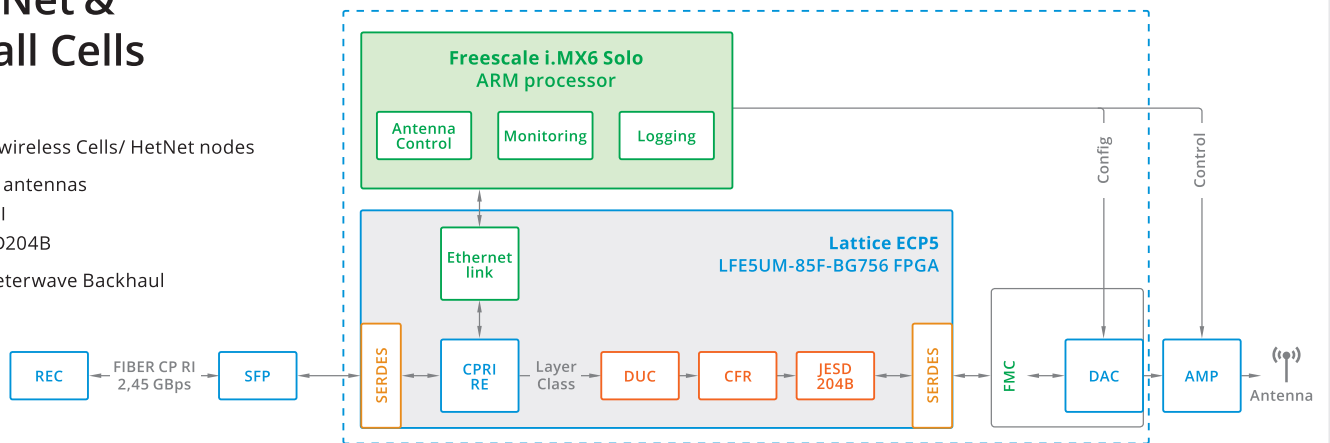
Industrial IoT

- Smart industrial nodes and hubs
- Fieldbus controllers
 - MODBUS
 - Profibus
 - Ethernet
 - IEEE 1588
- SCADA Systems
- HMI/PLC



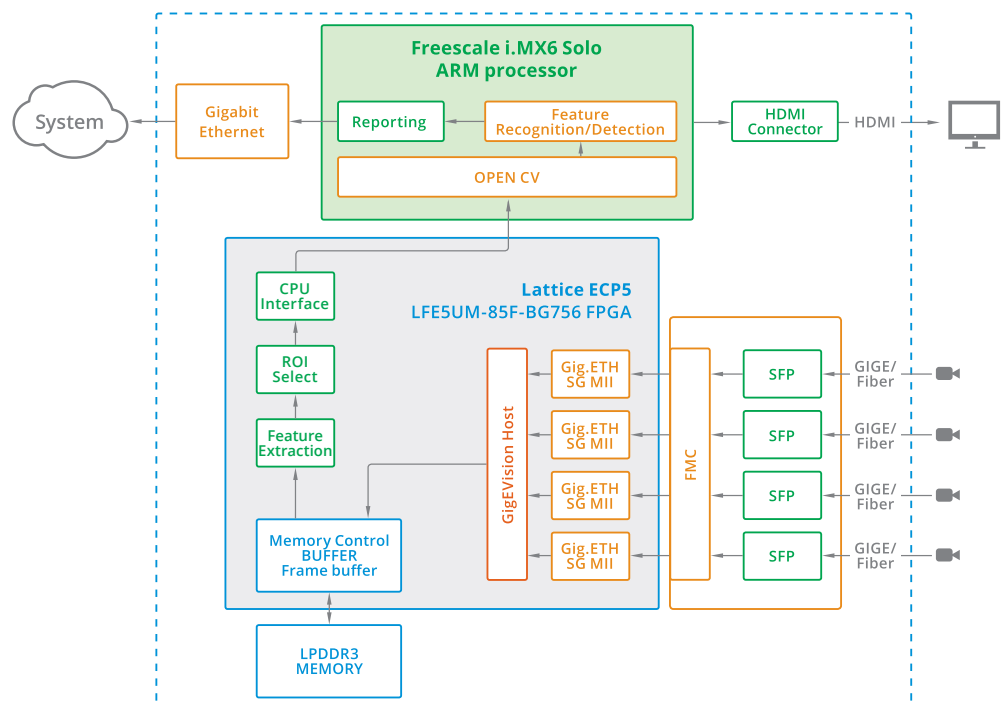
HetNet & Small Cells

- Small wireless Cells/ HetNet nodes
- Smart antennas
 - CPRI
 - JESD204B
- Milimeterwave Backhaul

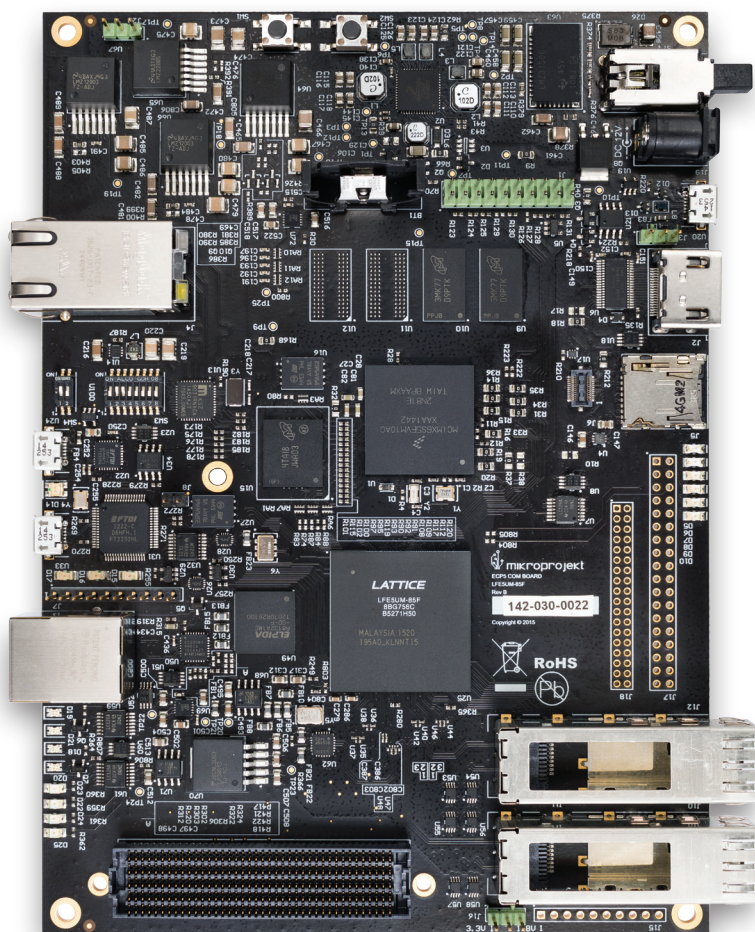


Cameras & Displays

- Smart camera hubs
 - GigEVision
 - CoaxPress
- Image analysis
 - Feature Extraction
 - Object recognition
- Industrial machinery
- Traffic control
- Autonomous vehicles



Advanced System Development Platform for the Network Edge.



The **KONDOR AX – Advanced System Development Board** is designed around a high value **Lattice ECP5 FPGA**, complemented with a highly versatile discrete **Freescale's i.MX6 processor**.

A low power **ECP5** FPGA features:

- 84.000 LUTs
- 365 IO pins
- 4 SERDES channels (In/out)
- 400 MHz LPDDR3 Memory Support

These features facilitate flexible connectivity with standards such as CPRI, JESD204B and PCI Express, along with high performance DSP for filtering and image processing.

The versatile **i.MX6** control CPU integrates:

- ARM® Cortex™-A9 1 GHz
- 512 KB L2 cache
- MIPI-CSI-2
- PCIe 2.0 (1 lane)

Joined with the **ECP5 FPGA**, the **i.MX6** manages a rich set of external connections and industry-standard interfaces such as HDMI, Gigabit Ethernet, USB OTG, Camera, FMC, LVDS and GPIO.

The resulting solution brings together the power of the FPGA-driven processing and interfacing with a large existing base of applications and libraries on Linux OS available for the **i.MX6** ARM processor.

ORDERING INFORMATION

Please contact us at the email address contact@mikroprojekt.hr about item availability and ordering details. Thank you!

