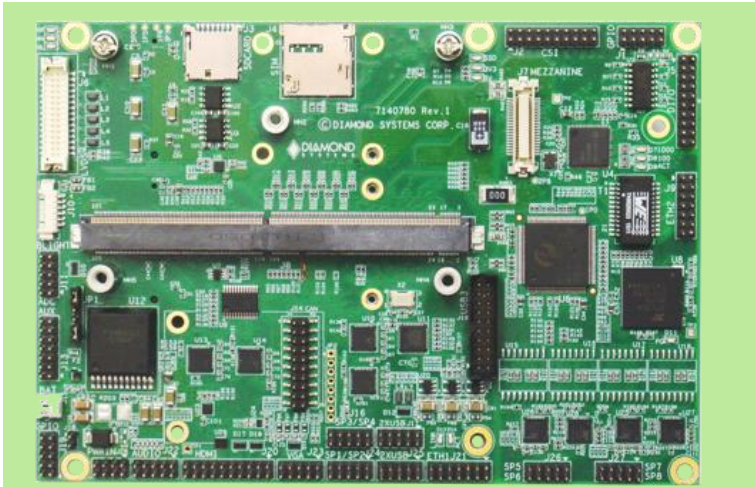


# EAGLE ARM Baseboard



## 3.5 Inch Form Factor Baseboard for Toradex Apalis ARM Computer-on-Modules



- ◆ Choice of Toradex ARM Computer-on-modules:
  - NVIDIA Tegra T30 1.4GHz quad core Cortex A9
  - i.MX6 NXP/Freescale 1GHz or 800MHz Cortex A9
  - NVIDIA Tegra TK1 up to 2.2GHz Cortex A15
- ◆ Standard baseboard I/O features:
  - 4 USB 2.0 ports
  - 8 RS-232/422/485 serial ports
  - 2 Gigabit Ethernet ports
  - VGA, HDMI and dual channel LVDS display options
  - HD audio interface with MIC in and Line out
  - 4 12-bit A/D; 4 PWM; I2C; SPI; 16 GPIO lines
  - 4 opto-isolated digital in, 4 opto-isolated digital out
  - Camera serial interface (CSI)
  - PCIe MiniCard and mSATA sockets
  - "Type specific" I/O connector for mounting custom daughterboard
- ◆ Wide input 9VDC to 36VDC power supply
- ◆ 3.5 inch form factor: 4.0" x 5.75" (102mm x 146mm)
- ◆ -40°C to +85°C (-40°F to +185°F) operating temperature

### Create a Complete ARM-Based System

Eagle provides a long life, scalable platform for ARM-based application development. Toradex's Apalis module family currently contains three members and all have long life commitments from their suppliers, ensuring long life availability of the complete product. Customers have great flexibility in selecting the price/performance characteristics of the installed COM along with multiple configurations including the number of cores, memory and flash size, and operating temperature.

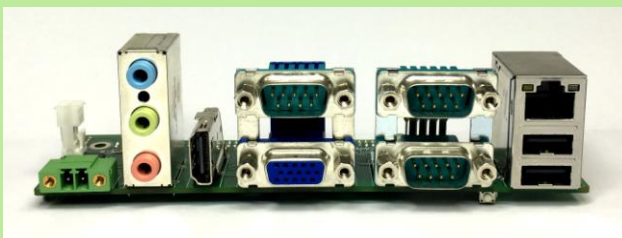
### Customizability

Most I/O features can be configured to meet any customer's specific requirements as well as cost and power consumption targets. This includes removal of unneeded features and I/O connectors plus additional ruggedization services.

### Panel I/O Board

A panel I/O board is available with industry-standard I/O connectors to simplify system development. The board plugs onto the pin headers along the front edge of the Eagle baseboard, reducing cabling and making system assembly easier.

A cable kit is also available, providing access to all I/O features on the board, including the I/O accessed with the panel I/O board.



### Selection of Toradex ARM COMs

Apalis iMX6	Apalis T30	Apalis TK1
Freescale i.MX6	NVIDIA Tegra 3	NVIDIA Tegra K1
ARM Cortex A9	ARM Cortex A9	ARM Cortex A15
Quad core	Quad Core	Quad core
Dual core		
1GHz / 800MHz	1.4GHz	Up to 2.2GHz
512MB to 2GB DDR3 RAM	1GB or 2GB DDR3 RAM	2GB DDR3 RAM
4GB eMMC flash	4GB/8GB eMMC flash	16GB eMMC flash
End of life 2028	End of life 2025	End of life 2025

See [www.toradex.com](http://www.toradex.com) for more information.

### Linux Board Support Package

The Eaglet Linux BSP is based on the Open Embedded Build Framework. The BSP is delivered on a 32GB micro-SD module and contains all drivers necessary for controlling all peripherals on Eaglet. Just plug the SD into Eaglet and the board is ready to run.

### Optional Dual CAN

An optional daughterboard can be mounted on Eagle to provide access to the 2 CAN 2.0 ports available on the Apalis module. The ports feature opto-isolation and jumper-configurable split bias termination.



# EAGLE: Baseboard For Toradex Apalis ARM COMs



Specifications	
<b>Supported COMs</b>	Apalis iMX6 800MHz or 1GHz ARM Cortex A9 Apalis T30 1.4GHz ARM Cortex A9 Apalis TK1 2.2GHz ARM Cortex A15
<b>Networking</b>	2 Gigabit Ethernet ports
<b>Serial ports</b>	8 RS-232/422/485 ports with software configuration
<b>USB ports</b>	4 USB 2.0 ports
<b>iMX6 Video Display</b>	VGA 1280x1024; LVDS 1920x1200 dual ch; HDMI 1.4a up to 1080p/60Hz
<b>T30 Video Display</b>	VGA 1920x1200; LVDS 2048x1536 dual ch; HDMI 1.4a up to 1080p/60Hz
<b>TK1 Video Display</b>	VGA N/A; LVDS 1920x1200; HDMI 1.4b up to 3840x2160p
<b>Mass storage</b>	1 micro SD & 1 mSATA socket
<b>Camera input</b>	MIPI CMOS sensor interface
<b>Audio</b>	HD audio line in, line out
<b>Data acquisition and control</b>	4 12-bit A/D, 4 PWM 16 GPIO, 3.3V logic levels 4 opto-isolated in / 4 opto out, 3-28VDC
<b>Connectivity I/O expansion</b>	1 I2C, 1 SPI, 2 CANbus 2.0 on pin headers PCIe MiniCard socket (with SIM socket) Type specific connector for custom I/O
<b>Input power</b>	9VDC to 36VDC
<b>Power Consumption</b>	10.2W@12V input or 10.8W@36V input
<b>Operating temp</b>	-40°C to +85°C for i.MX6, T3 and TK1 CPUs
<b>Shock &amp; Vibration</b>	MIL-STD-202G compatible
<b>Dimensions</b>	4.0" x 5.75" (102mm x 146mm)
<b>RoHS</b>	Compliant

Ordering Information	
<b>EGL-DX-BB</b>	Eagle Baseboard for Toradex Apalis COMs No ARM module or software BSP
<b>DK-EGL-MX6Q2G-LNX</b>	Eagle Development Kit with i.MX6 SBC, Linux OS on micro SD, and cable kit
<b>DK-EGL-T30-Q1G-LNX</b>	Eagle Development Kit with T30 SBC, Linux OS on Micro-SD, and cable kit
<b>DK-EGL-TK1Q1G-LNX</b>	Eagle Development Kit with TK1 SBC, Linux OS on Micro-SD, and cable kit
<b>SDK-EGL-MX6-LNX</b>	Linux BSP for Eagle / MX6 on Micro-SD
<b>SDK-EGL-T3-LNX</b>	Linux BSP for Eagle / T3 on Micro-SD
<b>SDK-EGL-TK1-LNX</b>	Linux BSP for Eagle / TK1 on Micro-SD
<b>PNL-EGL-01</b>	Eagle/Eaglet Panel I/O Board
<b>CK-EGL-01</b>	Eagle Cable Kit, no HDMI cable
<b>CK-EGL-02</b>	Eagle Cable Kit, with HDMI cable

## Complete System Solutions Available

Eaglet is also available as a complete SBC with Apalis module and heat sink pre-installed. The SBC is also available in an enclosure for a deployment-ready solution with table-top, bulkhead, and DIN rail mount options.



Midi Enclosure

