Apalis iMX6

The Apalis iMX6 is the second product in the new Apalis module family by Toradex. Complementing the existing Colibri module family, Apalis comes with a wide range of new and exciting features, ensuring customers can develop the most advanced, robust products with minimum overhead and risk. Apalis supports a huge variety of industry standard interfaces, while at the same time providing advanced multimedia and high speed connectivity making it suitable for an almost unlimited number of applications.

Datasheet | Block Diagram | Technical Details | Pinout Designer Tool | Quickstart | Toradex Community | Subscribe News | Why Toradex | Contact Us | Apalis Product Family

NXP Platinum Partner

Highlights | Operating Systems | Ecosystem | Features | Carrier Boards | Accessories | Roadmap | Buy Now

Highlights

- A9 @1.0 GHz — Powered by NXP i.MX 6
- High-speed interfaces
- Ready for multimedia

HAVE A QUESTION?
Toradex Community
Contact Form
Call us in Seattle
+1 (800) 871-6550

Toradex offers free support and maintenance for Windows Embedded Compact and Embedded Linux on the Apalis iMX6 SoMs. This allows system designers to focus the application instead of focusing on the OS and low-level device drivers. Other OS such as QNX and Android are supported by our partners.

To get your product to market fast, with low risk and low engineering costs, you need more than just a System on Module with a stable operating system or BSP. We understand this, which is why we at Toradex are collaborating with a wide range of partners to make your life easier. Here are a few highlights. To find more, browse our Developer Page and take a look at our Partner Network.

Toradex Easy Installer

Toradex Easy Installer allows you to install an OS in one click. It comes preinstalled from the factory, so all you need to do is turn on your on Apalis iMX6 and choose an OS!

Learn More

Easy-to-use Rich Graphical User Interfaces

The Apalis iMX6 provides high-performance graphics. Toradex partners closely with leading GUI technology providers to simplify the development process and make sure that hardware resources are utilized effectively.

Qt Framework

Qt is available on Toradex Easy Installer and as Debian containers for Torizon, making it easy to get started with Qt on any embedded device.

Get started with Qt

Crank Storyboard

Crank Storyboard is a GUI design and development tool that lets you rapidly develop high-performance embedded apps. Torizon provides a seamless out-of-the-box experience with Crank Storyboard.

Get started with Crank Storyboard

DiSTI GL Studio

The Apalis iMX6 is ideal for critical applications where safety and reliability are key. These are also the key focus areas for DiSTI's GL Studio.

Get started with DiSTI GL Studio

TotalCross

TotalCross is an open-source SDK for GUI creation that lets you develop beautiful apps in Java or Kotlin.

Get started with Totalcross

Industrial Automation

CODESYS PLC IEC 61131-3

The Apalis iMX6 is a robust SoM, and its high performance is ideal for demanding industrial automation scenarios. CODESYS allows you to develop easily customized PLCs powered by a proven, long-lived software solution.

Get started with CODESYS on Torizon

Matrikon OPC UA

OPC UA is a standard technology widely used in industrial automation. The stack from Matrikon is a reliable, secure and platform-independent implementation that suits the Apalis iMX6 perfectly.

Watch our webinar with BE.services

FRONT | BACK

	Apalis iMX6 Quad 2GB IT	Apalis iMX6 Quad 1GB	Apalis iMX6 Dual 1GB IT
	PN: 0028	PN: 0027	PN: 0035
	Buy Now	Buy Now	Buy Now
CPU Details			
Memory			
Connectivity			
Multimedia			
Operating System			
Physical			
Intended Use, Pricing, Availability			

Notes

Due to limited availability and longer lead times, please consider the Y-Version of the module if you do not need the resistive touch and ADC-functionality of the module. For additional information visit our developer page.

Carrier Boards

The carrier board provides the necessary signal and power levels to the CoM. It also houses the application-specific connectivity and multimedia interfaces, such as USB, Ethernet, UART and HDMI.

Learn more about SBCs and Carrier Boards

	Ixora Carrier Board	Apalis Evaluation Board	Apalis Partner Carrier Boards
	Learn More / Datasheet	Learn More / Datasheet	Learn More
Connectivity			
Input / Output			
Multimedia			
Others			
Physical			
Intended Use, Pricing, Availability			

Min. Product Commitment — 2036

As per NXP Roadmap

Software Support Status

For latest news release refer Linux BSP | Torizon OS BSP

Kernel Version: 6.1 | Yocto Version: 4.0 (Kirkstone)

Feature	Status	Feature	Status
2D / 3D Graphics Acceleration (GPU)	✓	LVDS Display Bridge (LDB)	✓
ADC (Analog Input)	✓	MIPI Camera Serial Interface (MIPI CSI)	✓
Audio	✓	PCIe	✓
CAN	✓	PWM	✓
Display Parallel RGB Interface (DPI)	✓	RTC	✓
Ethernet	✓	SATA	✓
GPIO	✓	SDIO / SD Card	✓
HDMI/DVI	✓	SPI	✓
HW Accelerated Video Encoding/Decoding (VPU)	✓	UART	✓
I2C	✓	USB	✓
		Watchdog	✓

✓ Ready to use, documented and validated | ✓ Working, but documentation or validation missing | Upcoming feature, not tested Contact Us

Details on the Developer Website

Buy Now

7 Modules, 3 Carrier Boards, 9 Accessories

Apalis iMX6 Quad 2GB IT (V1.1D) — PN: 00281103 — Volume Production

NXP® i.MX 6Quad, 4x Arm Cortex™-A9, 800 MHz, 2GB DDR3 (64 Bit), 4GB eMMC, Gigabit with IEEE 1588 Ethernet, -40° to 85° C Temp. Range, Availability until 2036

Unit Price	Unit Price
1-99	$206.25
100-249	$198.00
250-499	$185.65
500-999	$177.40
>999	RFQ

Due to limited availability and longer lead times, please consider the Y-Version of the module if you do not need the resistive touch and ADC-functionality of the module. For additional information visit our developer page

Intended Use: For End Products

Apalis iMX6 Quad 2GB IT (V1.1Y) — PN: 00281124 — Volume Production

NXP® i.MX 6Quad, 4x Arm Cortex™-A9, 800 MHz, 2GB DDR3 (64 Bit), 4GB eMMC, Gigabit with IEEE 1588 Ethernet, -40° to 85° C Temp. Range, Availability until 2036

Unit Price	Unit Price
1-99	$206.25
100-249	$198.00
250-499	$185.65
500-999	$177.40
>999	RFQ

Y-Version of the module does not have the resistive touch and ADC-functionality, but has higher availability and shorter lead time. For additional information visit our developer page

Apalis iMX6 Quad 1GB (V1.1D) — PN: 00271103 — Volume Production

NXP® i.MX 6Quad, 4x Arm Cortex™-A9, 1.0 GHz, 1GB DDR3 (64 Bit), 4GB eMMC, Gigabit with IEEE 1588 Ethernet, 0° to 70° C Temp. Range, Availability until 2036

Unit Price	Unit Price
1-99	$165.00
100-249	$158.40
250-499	$148.50
500-999	$141.90
>999	RFQ

Due to limited availability and longer lead times, please consider the Y-Version of the module if you do not need the resistive touch and ADC-functionality of the module. For additional information visit our developer page

Intended Use: For End Products

Apalis iMX6 Quad 1GB (V1.1Y) — PN: 00271124 — Volume Production

NXP® i.MX 6Quad, 4x Arm Cortex™-A9, 1.0 GHz, 1GB DDR3 (64 Bit), 4GB eMMC, Gigabit with IEEE 1588 Ethernet, 0° to 70° C Temp. Range, Availability until 2036

Unit Price	Unit Price
1-99	$165.00
100-249	$158.40
250-499	$148.50
500-999	$141.90
>999	RFQ

Y-Version of the module does not have the resistive touch and ADC-functionality, but has higher availability and shorter lead time. For additional information visit our developer page

Apalis iMX6 Dual 1GB IT (V1.1C) — PN: 00351102 — Volume Production

NXP® i.MX 6Dual, 2x Arm Cortex™-A9, 800 MHz, 1GB DDR3 (64 Bit), 4GB eMMC, Gigabit with IEEE 1588 Ethernet, -40° to 85° C Temp. Range, Availability until 2036

Unit Price	Unit Price
1-99	$174.40
100-249	$167.40
250-499	$156.95
500-999	$150.00
>999	RFQ

Due to limited availability and longer lead times, please consider the Y-Version of the module if you do not need the resistive touch and ADC-functionality of the module. For additional information visit our developer page

Intended Use: For End Products

Apalis iMX6 Dual 1GB IT (V1.1Y) — PN: 00351124 — Volume Production

NXP® i.MX 6Dual, 2x Arm Cortex™-A9, 800 MHz, 1GB DDR3 (64 Bit), 4GB eMMC, Gigabit with IEEE 1588 Ethernet, -40° to 85° C Temp. Range, Availability until 2036

Unit Price	Unit Price
1-99	$174.40
100-249	$167.40
250-499	$156.95
500-999	$150.00
>999	RFQ

Y-Version of the module does not have the resistive touch and ADC-functionality, but has higher availability and shorter lead time. For additional information visit our developer page

Apalis iMX6 Dual 512MB (V1.1C) — PN: 00291102 — Volume Production

NXP® i.MX 6Dual, 2x Arm Cortex™-A9, 1.0 GHz, 512MB DDR3 (64 Bit), 4GB eMMC, Gigabit with IEEE 1588 Ethernet, 0° to 70° C Temp. Range, Availability until 2036

Unit Price	Unit Price
1-99	$137.50
100-249	$132.00
250-499	$123.75
500-999	$118.25
>999	RFQ

Intended Use: For End Products

Ixora Carrier Board V1.2A (V1.2A) — PN: 01331200 — PCN — Volume Production

Small form-factor Apalis Arm Computer Module family Carrier Board

Connectivity: USB 3.0: 2x Host, USB 2.0: 1x Host/ 1x OTG, Gigabit Ethernet, 2x I2C, 1x SPI, 4x PWM, 4x ADC, 2x CAN, 2x LEDs, up to 40 GPIOs

Multimedia: Audio out: 1x (Stereo), Audio in: 1x (Stereo), 1x/ 1x S/PDIF In/ Out, 1x 10 Bit Camera Parallel Interface, 4/5-wire Resistive Touch

Physical: 7-27V DC Supply Voltage, 5V 6A, 3.3V 8A On-Board Power Supplies, Size: 125 x 90 mm

Unit Price	Unit Price
1-99	$131.25
100-249	$126.00
250-499	$118.15
500-999	$112.90
>999	RFQ

Intended Use: For End Products

Ixora Carrier Board V1.3A (V1.3A) — PN: 01331300 — Sample Production

Small form-factor Apalis Arm Computer Module family Carrier Board

Connectivity: USB 3.0: 2x Host, USB 2.0: 1x Host/ 1x OTG, Gigabit Ethernet, 2x I2C, 1x SPI, 4x PWM, 4x ADC, 2x CAN, 2x LEDs, up to 40 GPIOs

Multimedia: Audio out: 1x (Stereo), Audio in: 1x (Stereo), 1x/ 1x S/PDIF In/ Out, 1x 10 Bit Camera Parallel Interface, 4/5-wire Resistive Touch

Physical: 7-27V DC Supply Voltage, 5V 6A, 3.3V 8A On-Board Power Supplies, Size: 125 x 90 mm

Unit Price	Unit Price
1-99	$131.25
100-249	$126.00
250-499	$118.15
500-999	$112.90
>999	RFQ

Currently low stock level. More coming soon. Please contact us for details.

Intended Use: For End Products

Apalis Evaluation Board V1.1Z (V1.1Z) — PN: 01151125 — Sample Production

Connectivity: USB 3.0: 1x Host, 1x OTG, USB 2.0: 4x Host, Gigabit Ethernet, 3x I2C, 2x SPI, 4x PWM, 4x ADC, 2x CAN, 8x Switches, 8x LEDs, up to 135 GPIOs

Multimedia: Audio out: 1x (Stereo), Audio in: 1x (Stereo), 1x (Out also on TOSLINK) S/PDIF In/ Out, 1x 8/10/12 Bit Camera Parallel Interface, 4/5-wire Resistive Touch

Physical: 7-27V DC Supply Voltage, 5V 5A, 3.3V 5A On-Board Power Supplies, Size: 250 x 250 mm

Unit Price	Unit Price
>0	$325.00

Currently low stock level. More coming soon. Please contact us for details.

Intended Use: For Evaluation/Development

Apalis Heatsink Type 1 (V1.0B) — PN: 23051001 — Volume Production

Compatible with Apalis iMX6Q IT and Apalis iMX6D IT. 4 screws (M3x10mm) included with each heatsink for easy mounting to Apalis Carrier Boards. Additional threaded holes available for attaching fan to the carrier board. -40°C to +200°C Temp.

Unit Price	Unit Price
1-99	$16.20
100-249	$15.60
250-499	$14.60
500-999	$14.00

Intended Use: For End Products

Apalis Heatsink Type 3 (V1.0B) — PN: 23071001 — Volume Production

Heatsink for Apalis TK1, iMX6Q and iMX6D modules

Compatible with Apalis iMX6Q, Apalis iMX6D and Apalis TK1. 4 screws (M3x10mm) included with each heatsink for easy mounting to Apalis Carrier Boards. Additional threaded holes available for attaching fan to the carrier board. -40°C to +200°C Temp.

Unit Price	Unit Price
1-99	$16.20
100-249	$15.60
250-499	$14.60
500-999	$14.00

Intended Use: For End Products

Apalis Heatsink Fan (V1.1A) — PN: 23091100 — Sample Production

Heatsink Fan is compatible with all Apalis Heatsink types and plug-and-play with Apalis Evaluation Board and Ixora Carrier board.

The fan is intended for development and evaluation purposes only.

Compatible with Apalis Evaluation Board and Ixora Carrier Board.

Unit Price	Unit Price
>0	$19.90

Intended Use: For Evaluation/Development

Apalis iMX6 Mezzanine (V2.0A) — PN: 01172000 — Sample Production

Mezzanine board for Apalis iMX6 module

1x Tactile switch to enter Apalis iMX6 module recovery mode. 1x Tactile switch to reset Apalis iMX6 module, Range. Size: 100 x 60 mm.

Unit Price	Unit Price
>0	$52.50

Intended Use: For Evaluation/Development

Resistive Touch Display 7" Parallel (V1.0B) — PN: 12131001 — Sample Production

Resistive Touch Displays it for Apalis & Colibri modules

Touch: 4-Wire Resistive Touch. 40 pin FFC cable (250mm) to connect it with a Carrier Board. No special drivers required. -20° to +70° C Temp, Range. Size: 164.9 x 100.0 x 13.0 mm.

Unit Price	Unit Price
>0	$98.50

Intended Use: For Evaluation/Development

Capacitive Touch Display 7" Parallel (V1.0B) — PN: 12111001 — Sample Production

Capacitive Touch Displays for Apalis & Colibri modules

40 pin and 10 pin FFC cable (250mm) to connect it with a Carrier Board. Atmel touch driver. -20° to +70° C Temp, Range. Size: 173 x 112 x 13 mm.

Unit Price	Unit Price
>0	$119.50

Intended Use: For Evaluation/Development

LM816 USB WiFi (V1.0A) — PN: 21041000 — Sample Production

LM816 USB WiFi for Apalis and Colibri Family

Plug and Play (Windows Compact Embedded 6/7 compatible). BPSK, QPSK, 16 QAM, 64 QAM, DBPSK, DQPSK, and CCK modulation schemes. WEP, TKIP, and AES, WPA, WPA2 hardware encryption Schemes. Can be setup as a ad-hoc network via peer to peer communications. -10°C to +60°C Temp, Range. Size: 17 x 15 x 8 mm.

Unit Price	Unit Price
1-99	$27.50
100-249	$22.90
250-499	$21.35
>499	RFQ

Intended Use: For Evaluation/Development

Analogue Camera Adapter (V2.0B) — PN: 01192001 — PCN — Sample Production

Analogue Camera Adapter for Apalis & Colibri modules

Parallel data output format: 8-Bit Parallel ITU-R BT.656 with external HSync and VSync. No external power supply required. Compatible with Colibri Evaluation Board and Apalis Evaluation Board. -10°C to +60°C Temp, Range. Size: 60 x 50 x 9.4 mm.

Carrier Board Accessory Kit (V1.1C) — PN: 01131102 — Sample Production

Accessory kit for Toradex carrier boards

Power Adapter: 12VDC 30W with international plugs. Compatible with: Apalis Evaluation Board, Ixora Carrier Board, Colibri Evaluation Board, Iris Carrier Board, Verdin Development Board, Dahlia Carrier Board.

Unit Price	Unit Price
>0	$49.90

Intended Use: For Evaluation/Development

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