



BUY NOW

Art. EA-APP-001

ANDROID OPEN ACCESSORY APPLICATION (AOAA) KIT

[High Resolution Photos]

Embedded Artists' **AOAA Kit** is a standalone platform for evaluation and prototyping electronic accessories for Google's Android operating system. It lets you get up-and-running with AOA experiments immediately. The AOAA board is also suitable for experimenting with CAN, Ethernet and RF networks.

The board has been developed by Embedded Artists in close cooperation with NXP. It contains **two microcontrollers** from NXP, the **LPC1769** (Cortex-M3 core) and **LPC11C24** (Cortex-M0 core). The two microcontrollers are **connected via an on-board CAN network**.

Easy usage

Download code to the board by using:

- ISP over UART program download. Use the free tool **Flash Magic** to download a compiled application to the LPC1769 side of the AOAA board. Please note that this tool cannot be used to download code to the LPC11C24 side of the board.
- Use the free **LPCXpresso IDE** together with, for example, an LPC-Link. It is possible to **create** an LPC-Link given an LPCXpresso Board or you can use the **LPC-Link enhanced LPC1227 board** where no modification is needed and a 10-pos IDC ribbon cable is included.
- Use a debugger and JTAG adapter of your choice which supports the Cortex-M3 and Cortex-M0 ARM cores and more specifically the NXP LPC1769 and LPC11C24 microcontrollers. You might need an adapter such as the **10-pin to 20-pin JTAG Adapter Kit** between your JTAG solution and the target board.

Introduction video



NXP's AOAA Presentation



SPECIFICATION

AOAA Board (LPC1769 side)

<i>Processor</i>	NXP's Cortex-M3 LPC1769 microcontroller in 100-LQFP package
<i>Program Flash</i>	512 kB
<i>Data Memory</i>	64 kB
<i>USB</i>	<ul style="list-style-type: none"> • USB Host interface for Android connection • USB Device interface (future proof for when Android devices can be USB Hosts also)
<i>Communication interfaces</i>	<ul style="list-style-type: none"> • 100/10M Ethernet interface based on SMSC LAN8720 Ethernet PHY • CAN interface (DSUB9 and RJ45 connector pads exist, not mounted per default) • Pads for interfacing NXP/Jennic RF module (JN5148-XXX-M00) • Socket for Digi™ XBee RF module and interface compatible modules • Serial Expansion Connector, 14-pos connector with UART/I2C/SPI/GPIO pins
<i>Clock Crystal</i>	12.000 MHz crystal for CPU
<i>Dimensions</i>	135x100 mm (total size of board)

- Power*
 - Powered via Android device's normal USB power plug
 - +5V DC external supply can also be connected via standard 2.1mm power jack
 - Internal +3.3V powering on board
- IO and Peripherals*
 - Two RGB LEDs
 - Two push buttons
 - Analog input with trimming potentiometer
 - Eight protected inputs/outputs (of which four can be analog inputs)
 - Four open collector outputs (for driving for example relays)
 - All free LPC1769 pins available on expansion connector
 - UART-to-USB bridge that also supports automatic ISP (for program download via UART/USB)
 - SWD/JTAG connector, 2x5 pos, 50 mil/1.27 mm pitch, standard SWD/JTAG connector

CAN Node (LPC11C24 side)

- Processor* NXP's Cortex-M0 LPC11C24 microcontroller in 48-LQFP package
- Program Flash* 32 kB
- Data Memory* 8 kB
- CAN interface*
 - Directly connected to LPC1769 CAN interface on same board
 - Pads for DSUB9 and RJ45 CAN interface connectors exists (connectors not mounted)
- Clock Crystal* 12.000 MHz crystal for CPU
- Dimensions* 69 x 23 mm (part of the big 135 x 100 mm board)
- Power*
 - Powered via CAN interface (+5V)
 - On-board +3.3V powering
- Connector*
 - All relevant LPC11C24 pins available on expansion connectors (dual 20 pos edge connector, 100 mil/2.54 mm pitch rows, 700 mil apart)
 - SWD/JTAG connector, 2x5 pos, 50 mil/1.27 mm pitch, standard SWD/JTAG connector
- Other*
 - RGB-LED
 - LED on PIO0_7 (compatible with LPCXpresso LPC11C24 board design)
 - Push-button on wakeup pin (PIO1_4), allowing low-power experiments
 - LM75 temperature sensor on I2C
 - ISL29003 light sensor on I2C

[DOCUMENTATION AND RESOURCES](#)

[RELATED PRODUCTS](#)

[FAQ](#)

USEFUL INFORMATION

We are located in Malmö, Sweden.
 Embedded Artists AB
 Davidshallsgatan 16
 211 45 Malmö

Get in touch
 Tel +46 (0)40-6110093
 Fax +46 (0)40-6110093
 Email info@embeddedartists.com

Useful Links
[Contact Us](#)
[Terms & Conditions](#)
[Privacy Policy](#)

PARTNERS



[» More](#)