

## CDC 32xxG, CBC 32xxA, CEA 32xxA

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## CDC 32xxG, CBC 32xxA, CEA 32xxA Application Board P128

The low-cost stand-alone application board APB P128 can be used for first evaluation and for programming of all Flash-memorybased derivatives of the CDC 32xxG, CBC 32xxA, and CEA 32xxA microcontroller families (LEAP) housed in a PQFP128 package (body size 14×20 mm).

Three different basic versions of the APB are available:

- with Clamshell socket
- with soldered Flash microcontroller
- with screw socket

For the purpose of Flash-programming, the application board (APB) is delivered with a Clamshell socket in an aluminum casing. All the necessary connectors are still available and all LEDs and keys are visible, respectively accessible.

### Features

- JTAG interface
- One RS232 interface SUB-D9 connector
- Four extension connectors with all IC pins
- One 128-pin VG connector with almost all IC pins
- Single power supply (8...12 V DC)
- Microcontroller power supply from APB or external source
- Reset key and one general purpose key
- Eight LEDs connected to I/O ports



APB P128 with Clamshell socket extender



APB P128 with soldered microcontroller



APB P128 in aluminum case with Clamshell socket

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## **Tool Configuration**

A possible configuration, respectively APB environment, includes:

- APB
- Device for communication via JTAG (e.g. Wiggler)
- Host PC with development environment
- Host PC with Flash-programming software



### Fig. 1: Example of system setup

#### System Architecture

The APB requires a single power supply (8...12 V DC) only and provides further interfaces like RS232, 128-pin VG connector, and four extension connectors with all IC pins. LEDs are used to display status information.

The VG connector enables the APB to be additionally equipped with application-specific circuitry. Micronas even provides appropriate extension boards for I/O, stepper motors, etc.

The APB is accessed via JTAG from a host PC.



### Fig. 2: Block diagram of the APB P128

Level Shifter

**RS232** 

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Connector

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