

B2 ARM7 TDMI

Networking Engine uCLinux & eCos Ready

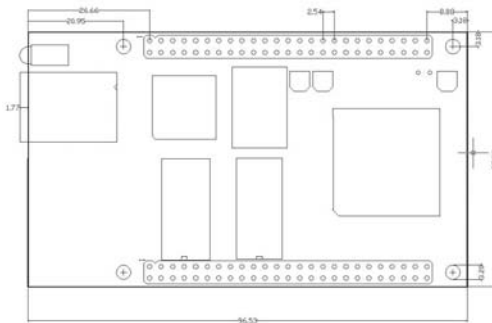


- ❑ CPU **ARM7** 75MHz
- ❑ Ready for **eCOS** and **uCLinux**
- ❑ **JVM** JAVA2 compliant
- ❑ Integrated OpenBDS derived **TCP/IP**
- ❑ **JFFS2** filing system
- ❑ Applications: Proxy SNMP Agent, Web Server , JVM over RTOS and uCLinux etc.
- ❑ Development Kits available in GNU environment
- ❑ Two basic models: with and w/o LAN magnetics
- ❑ Compact dimensions (smallest in 56 x 80 mm²)
- ❑ Reduced power consumption (0.7 W)
- ❑ ITE & ISM approvals

"B2" is a vertically integrated "*network engine*" equipped with proper hardware and software resources.

"B2" has been particularly designed in order to offer a *cost effective* answer with respect to networking issues.

"B2" allows to shorten dramatically time, cost and troubleshooting pains that are usually needed to *network* any electronic device, just plugging "B2" in. Implemented interfaces satisfy "natively" most demanding needs. Nevertheless bus interface allows to integrate in the host board all additional peripherals users would implement.



Modules are supplied either with a customized application or with embedded bootloader that allows users to develop and load their own applications.

In fact both **eCos** and **uCLinux** have been ported over B2 hardware.

The former aims to face particularly demanding real time issues being a reference among GNU Real Time Operating Systems.

The latter is the well known reference platform and is very useful when dealing with high level application environments.

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Both software are included in separate Development Kits and distributed under GPL licence. Development Kits include also a full *toolchain* building and tuning procedure that greatly speeds up developer's job.

Application examples implemented and included in the Development Kit include *SNMP agents*, *Embedded Web Servers*, *Fieldbus Gateway* and *Protocol Proxy* .

A very powerful run-time environment has been also ported over B2, i.e. a **JAVA Virtual Machine (JVM)**. This environment is well known because of the agility of the code to solve the most common issues in developing network applications. Two JVMs are available, the former under eCos, the latter as an application of uLinux. Both are distributed under GPL licence.

Main Characteristics and Features

CPU	ARM7TDMI (60 Mips/24 Drystone V2.1)
Cache	8 kBytes
SDRAM	16 MBytes
Flash	2-4 MBytes
Power Supply	single +3.3Vdc \pm 5%, , internally regulated
Current & Power	220 mA max (720 mW)
Weight	55 g
Physical	(B2/NC 80 mm x 56 mm); (B2/K 98 mm x 56 mm)
Connectors	2 connectors 20 x 2 x 2.54 (B2/K only) RJ45, 2 x RJ12
UART/RS232	2
IrDA 1.0	2 (as an alternative to UARTs)
I ² S	1 (as an alternative to UART)
I ² C bus master	100 kbps (standard) – 400 kbps (fast)
PWM Timer/ Counters	max 4
Analog Inputs	8 (max 100 kSample/s) @ 10 bit
Digital I/O	max 70
LCD controller	256 colors
Standard Applications	SNMP (V1,2 & 3) Agent Web Server RS232 tunneling
Agency approvals	CE mark (ITE & ISM)



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