» AM4100/AM4101 NetBootLoader «

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+-------------------------------------------------------------------+
|  NetBootLoader: KONTRON BootStrapLoader with Network support      |
+-------------------------------------------------------------------+
|  Type 'abort' or login over telnet or over SOL to cancel a running |
|  Boot Wait Time (LED blinks)                                      |
|  Type 'help' or '?' to get online help                            |
+-------------------------------------------------------------------+
|  This Product uses the Real Time Operating System ECOS from RedHat |
|  http://www.redhat.com                                            |
+-------------------------------------------------------------------+

NetBtLd> info

CPU     : PowerPC, MPC8641D
Board   : AM4101
Mode    : SMP
PCIe    : not available
sRIO    : available
Ram     : 80000000
Flash   :
  Name          : AMD 29LV320
  Bank          : 0
  Bytelane      : 0
  BankPortsize  : 16
  ChipPortsize  : 16
  Offset        : 0x0
  Size          : 0x400000

NetBootLoader used FLASH: 0x0 - 0xa0000

Sector usage map is calculated, this might take some time.

Sector usage map (Sector Size = 0x10000):

  0x0000: nnnnnnnn nn......
  0x0010: ........ ........
  0x0020: ........ ........
  0x0030: ........ ........

NetBtLd>
```

» Command line interface accessible via RS232, telnet server or Serial over LAN
» Supports boot from NAND Flash, NOR Flash, ftp server and tftp server
» Two redundant NOR Flashes for fallback scenario, communication with IPMI
» SMP and ASMP multi-processing support
» FAT filesystem support on NAND Flash
» System configuration and monitoring

The NetBootLoader is a proprietary software utility which is designed to initialize and configure the AM4100 / AM4101 AMC CPU modules for operation before turning control over to either an application or to an operator. This software also provides the capability to monitor and control the operation of the NetBootLoader itself, to display system status information, to program executable code and data to the Flash memories, and to load and start application software. With scripting on NAND Flash and EEPROM, a flexible boot process can be defined. MD5sum check and CRC check provide error detection for high reliability. All CPU modules are delivered with the NetBootLoader software already programmed into their NOR Flash memory chips. In addition to symmetric multiprocessing (SMP) the NetBootLoader supports asymmetric multiprocessing (ASMP). In ASMP mode all devices can be assigned to one of the cores. The two different images can be started with different parameters.

Technical Information

Interfaces For Interactive Communication	RS232 telnet server Serial Over LAN
Boot Devices	NOR Flash (multi-image support) NAND Flash ftp/tftp server
Network Features	dhcp client tftp and ftp client Four Ethernet channels configurable
Boot Features	Supports compressed Linux images Create and adapt flattened device tree
IPMI	Interaction with IPMI to confirm validity of NetBootLoader Show IPMI firmware version and FRU data Graceful shutdown
System Monitoring	Display general board information Display both NetBootLoader versions Display Flattened Device tree Display memory contents Display online help pages
Security Checks	Md5sum check for images on NAND Flash or tftp/ftp server CRC check for images in NOR Flash 2 redundant NOR Flashes Check of board ID and CRC for programming new NetBootLoader version
Multi-processing	Symmetric (SMP) Asymmetric (ASMP)
NAND Flash	Format disk support Fat filesystem support Write and execute simple scripts

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Datasheet – AM4100 / AM4101 NetBootLoader #01292015WMH
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