

Release note for boot loader 03_01

Introduction

This is the release note for the DKTOMEGA CPE 79203/204/403 boot loader. Special precaution must be taken into account when performing the upgrade, please refer to the instruction guide available on www.dktomega.com -> support -> firmware

Please notice that this new boot loader is only valid for firmware 01_06_06 or later. If an earlier firmware revision (earlier than 01_06_06) will be used in the customer's production environment, no boot loader upgrade should be performed.

It is highly recommended that firmware revision 02_11 is used, due to the introduction of auto sense functionality on 79403 Gigabit CPE as well as save of last configuration file to CPE flash memory..

Please contact jb@dktomega.com for questions or concerns.

Changes in boot loader

 2011-08-17/KS
 Release dkt_boot_v03_01

CPU subsystem:

- Changed clocking frequency slightly to optimize CATV performance, according to CENELEC channel plan. CPU clock frequency moved from 198.656MHz to 194.560MHz, (master clock from 99.328Mhz to 97.280Mhz).

 2009-11-18/KS
 Release dkt_boot_v02_05

DHCP client:

- Added new feature, so we can boot even if no DHCP server is available.

TFTP client:

- Added new feature, so we can boot even if no TFTP server is available.

 2009-10-12/KS
 Release dkt_boot_v02_04

LAN ports:

- Fixed port setup for 100Mbps nodes. Bug was caused by the code for 100/1000Mbit autosense for gigabit nodes.

 2009-09-23/KS
 Release dkt_boot_v02_03

WAN interface:

- Added support for 100/1000Mbit autosense in U-boot
 - Security feature: If network was restarted more than 50 times then the CPU is rebooted and the switch is reset.

DHCP client:

- Removed hostname and domain from Parameter Request List in DISCOVER packet.
 - If no DHCP replies received within 20 retries, then the network is restarted.

TFTP download:

- The TFTP client reliability is improved. It's changed to timeout sooner in case of transmission fails. A new transfer will be started within 30 to 60 seconds after the timeout is discovered.

2009-03-11/KS

Release dkt_boot_02_02

- Fixed problem with upgrading from oldest bootloader in dkt_boot_02_01. The problem was fixed in the upgrade script.
- Fixed problem with saveenv always triggered autostart, so the bootprocess started immediately after saveenv.
- DHCP option 43 now contains the bootloader version string 76053032303200 in Wireshark dump shown as "v.0202."

2009-03-04/KS

Release dkt_boot_02_01

U-boot:

- Disabled initial setup of PWM for AGC reference voltage for CATV. The first version of the CATV module will have a pre-configured AGC reference in hardware.
- Setup all the unused PIO pins to have weak pull-up per default.
- DHCP option 43 now contains the bootloader version string 760432303100 in Wireshark dump shown as "v.201."

2009-02-02/KS

Release dkt_boot_02_00 (Branch of the main trunk 732)

Bootloader:

- Bootloader setup master clock based on hardware ID. Old AO and 100Mb nodes are setup for 50MHz master clock. New nodes with optimized RAM timing, is setup for 100MHz master clock. The high master clock values improves ethernet performance where packet loss is reduced.
- Enabled watchdog in bootloader

U-boot:

- Added support for 6165 gigabit switch in u-boot.
- U-boot automatically reboot if no U-boot command has been entered within 30 seconds.
- Added support for new 100Mbps box (Mega3).
- Added U-boot command "pwm" to setup AGC reference voltage for CATV.
- DHCP request in U-boot has got an option 43 field with bootloader/U-boot software version information (the text string "14" for revision 1.4).
- Protect off now accept both 0xc083ffff and 0xc041ffff as end address.
- Disconnected the WAN port from the LAN ports

2008-11-07/KS

Release dkt_boot_fen_01_03_from_02

Based on dkt_boot_fen_01_03

Changes compared to dkt_boot_fen_01_03:

In main Makefile: changed FLASH_ENDADDR to be 0xc083ffff

2008-10-27/KS

Release dkt_boot_fen_01_02

Based on 01_06_05_bootloader (with fix for network spamming).

Added dhcprelease u-boot command, to accommodate for IP Address release after boot process, before Linux takes over. This will enable a reuse of the IP Address when Linux starts.

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2008-10-22/KS
Release 01_06_05_bootloader

A timer error in the bootloader network software is fixed. Any received packet due to normal traffic on the network made the bootloader assume timeout and send a new DHCP discover request. The result was heavy DHCP traffic.
Three files are included in the upgrade; bootloader, u-boot and the related u-boot script.

For further details, please contact:

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