

Prepared (also subject responsible if other) EAB/UZ/DK Per Holmgren		No. 1/1510-CXC 106 0134 Uen		
Approved EAB/UZ/DL (Lars Dahlman)	Checked	Date 2005-09-19	Rev H	Reference GESB_CORE

MANUFACTURING INSTRUCTION: GESB BOARD PROGRAMMING

1 ABSTRACT

This instruction tells how to load the GESB_CORE and set correct parameters in production time.

2 PURPOSE

The intended user of the document is the manufacturer and the responsible for setting up a correct production programming environment. Intended reader of the document is the board manufacturer in general and the factory programming responsible in particular. It is not a complete instruction how to handle production programming in general, the intention is only to specify some important matters, and the late-bind parameters of the product.

This document is released with the software listed in chapter 3.

The software itself is stored in GASK together with this instruction.

3 APPLICATION

GESB_CORE: CXC 106 0134

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SUMMARY

This document gives information about GESB_CORE programming for the RPI based PIUs and the board parameter setting related to the product GESB_CORE

With GESB_CORE also the product PBOOT_RPI_860, CXC 106 0046 is required.

The relationship between the revision of this document and the product revision of CXC 106 0134 is documented in 1095-CXC 106 0134.

If new CXC revision is released, this document might also be updated to reflect any change (for instance in the parameter setting).

Chapter 5 is a high-level instruction how to program RPI boards in respect to GESB_CORE programs and parameters. The detailed instruction is developed and maintained by the manufacturer.

Chapter 6 is a table of the parameters associated with GESB_CORE. For some GESB this constitute the complete set of parameters to apply.

Recommended documentation of each board (ROJ level) includes a dedicated manufacturing instruction to document the specific rules and circumstances that applies for this board. Document class is 2/1510-CXC.

The document survey 1095-ROJ must include a 1095-CXC reference to the GESB_CORE and revision state in order to reflect that this piece of software should be loaded.

In general there are (or will be) other RPI based boards that will not have GESB_CORE as the basic firmware configuration. This instruction only apply as long as the GESB_CORE is specified.

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4.1 REVISION HISTORY

Rev	Date	Prepared by	Comment
G	2005-08-18	EAB/UZ/DK Per Holmgren	Based on document 1/1510-CXC 106 0134 rev. F. Modified which binary to load to the board, and updated the reference list. Also some PBOOT parameter list modifications were made.
H	2005-09-19	EAB/UZ/DK Per Holmgren	Updated for R8A. Rev and prepared removed from reference table. Revision references removed generally.

4.2 REFERENCES

Document	Title
155 01-ANZ 212 12 Uen	Process for development of RP FirmWare for production
2/1510-CXC 106 0046	Manufacturing instruction for PBOOT_RPI_860
1/1551-B/AXE 10699	Identity for Hardware Products in AXE-10

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5 HIGH-LEVEL INSTRUCTION

Note: This is only an outline to convey understanding of how the software is packaged and loaded onto target. The manufacturing process must elaborate this further, and this is beyond the scope of this document.

To apply GESB_CORE on target board:
1. Begin to apply PBOOT_RPI_860 (see 2/1510-CXC106 0046)
2. Reset/restart the board.
3. Load script file of GESB_CORE via V24/Ethernet interface. The file is named 19003-CXC1060134.
5. Save GESB_CORE programs permanently in FLASH - core program is automatically saved by the script
6. Load board parameters: - core parameters are automatically included in the script file - product and manufacturer parameters are applied with production site tools (normally scanned with bar code reader)
7. Save parameters permanently in FLASH - core parameters are automatically saved by the script - product and manufacturer parameters should be saved with the PBOOT command: SAVE PARAMETERS

Target board is now ready for manufacturing tests (not described here)

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6 PARAMETERS SETTING TABLE

Following PBOOT command is used to set the parameters below.

> SET PARAMETER [name] [value] -tBOARD_PARAMETER

Both parameter name and parameter values are case sensitive, please be careful when reading the table.

The equal sign ("=") is only used in the parameter list syntax. With the SET command the syntax does not include the equal sign.

The option flag -tBOARD_PARAMETER is required to make the parameter registered as factory preset (will be listed with an asterisk ("*"))

Following PBOOT command is used to list (check) the parameters:

> SHOW PAR

#	Setting [name] = [value] (example)	Comment
1.	rps_rp_type = 37	Constant, committed by the script in GESB_CORE
2.	force_fs_format = yes NOTE! This parameter does not require the option flag: -tBOARD_PARAMETER This parameter will automatically be removed when the board is restarted after programming.	Constant, committed by the script in GESB_CORE
3.	no_of_flash_areas = 1	Constant, committed by the script in GESB_CORE
4.	flash_info = 0xFF800000,0x600000,0x20000,32	Constant, committed by the script in GESB_CORE
5.	filesys_info = 2048,0x600000,48,0x20000	Constant, committed by the script in GESB_CORE
6.	systemclock = 80000000	Constant, committed by the script in GESB_CORE
7.	long_machine_check_dump = no	Constant, committed by the script in GESB_CORE

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8.	eth_half_duplex = yes	Constant, committed by the script in GESB_CORE
9.	productname = <product designator; according to PRIM> Note: PRIM uses capital letters only!	Retrieved from TRACY via board label and bar code reader! Value is upper case & no whitespace Example: SCB-RP
10.	Product IDentity (ROF_ID) = product number + product revision ROF_ID = <ROJ_xxx_xxxx_Ryy where xxx_xxxx = numeric part of product number and yy = numeric or letter part of revision state> Underscore is used to indicate space Product numbers are defined according to the Ericsson documents 1/1551-B/AXE 10699 and 0012-073 (in GASK)	Retrieved from TRACY via board label and bar code reader! Value is upper case Example: ROJ 208 423/1 R1A
11.	serialnumber = <serial number string; as defined by the manufacturer> Serial numbers are defined according to the Ericsson document 0012-101 (in GASK)	Retrieved from TRACY via board label and bar code reader! Shall be filled up with spaces to a total of 13 characters if less on label. Example: A533012031
12.	productiondate = <production date string; as defined by the manufacturer> Production date string is defined according to the Ericsson document 1/1551-B/AXE 10699 and 10201-109 (in GASK)	Retrieved from TRACY via board label and bar code reader! Value is upper case & no whitespace Example: 20050818
13.	ethernetid0 = <MAC address for Ethernet device 0 of the board is written without byte swap>	Retrieved from TRACY via bar code reader! Example: 0x0001EC44C8AA
14.	ethernetid1 = <HEX address for Ethernet device 1 of the board is written without byte swap>	Retrieved from TRACY via bar code reader! Example: 0x0001EC44C8AB

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Note 1: The parameters "productname" and "ROF_ID" belongs to product parameters category (=product dependent settings)

Note 2: The parameters "serialnumber", "productiondate", "ethernetid" belongs to manufacturing parameters category (=board individual settings)