

Harman Multiple Partition V3 Qoros User Manual

General Description and Name

This BBM is for the system that has several partitions. Please note the *padding blocks* (which don't need to be programmed) in each partition or not belong to any partitions should be stuffed with all 0xFF in data file. Only the partition table specified blocks of each partition will be programmed (which means all other blocks will not be programmed).

This BBM also needs to be calculated ECC. The ECC code is identical to STA2165x2 Flash Controller; use BCH ECC to correct up 8bits error per 512bytes.

Relevant User Options

The following special features on the special features tab apply to this scheme. The default values might work in some cases but please make sure to set the right value according to your system.

Please note only the below special feature items are related to this scheme and ignore any others. If any of below items doesn't exist, please check whether the right version has been installed or contact Data I/O for support by submitting Device Support Request through this address:

<http://www.dataio.com/support/dsr.asp>

Bad Block Handling Type = "Harman Multiple Partition V3"

PartitionTable File : Point to a .mbn file which describes the partition information. It can be set in any address and any name. Default: "C:\PartitionTable.mbn".

Spare area : "Extended Type" or "Enabled"
Normally select "Extended Type" to let DAIO calculate ECC. Only if input image file includes ECC, then select "Enabled".

ECC Extended Type : "BCH(8-13-sta2156)"
Select the correct ECC method. Note the setting only available Spare area = "Extended Type".

Special Notes:

Format of PartitionTable.mbn:

For example:

For partition 0 to partition 3, each partition only programs 1 block.

Partition 4 starts from block 4, ends at block 259 and programs 48 blocks.

Partition 5 starts from block 260, ends at block 515 and programs 48 blocks.

Partition 6 starts from block 516, ends at block 771 and programs 48 blocks.

Partition 7 starts from block 772, ends at the last block, and programs 48 blocks.

If just skip bad block and program the data to the next good block, Set PartitionTable.mbn as follow:

NAND Flash Block			
Start Adr	End Adr	Actual Data Length	Attribute
00000000	00000000	01000000	FFFFFFFF
01000000	01000000	01000000	FFFFFFFF
02000000	02000000	01000000	FFFFFFFF
03000000	03000000	01000000	FFFFFFFF
04000000	03010000	30000000	FFFFFFFF
04010000	03020000	30000000	FFFFFFFF
04020000	03030000	30000000	FFFFFFFF
04030000	FF070000	30000000	FFFFFFFF
FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF
FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF
FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF
FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF
FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF
FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF
FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF

For example:

Partition 4 starts from block 4, ends at block 259 and programs 48 blocks.

The 47th (based on 0) programmed block in this partition should not be all blank.

If it is all blank, actual data length can be set to 47, not 48.

Revision History

V1.0 APR 3th, 2013

Create this spec.

V1.1 MAY 24th, 2013

Fixed BBM name.

Appendix

You can get the file "Description of common NAND special features.pdf" from

<http://ftp.dataio.com/FCNotes/BBM/>