Generic MPF NFC IMX25 BBT User Manual

General Description and Name

This scheme is a Generic Multiple Partition format for IMX25. It uses skip method for bad blocks handling within each partition. Bad blocks within any partition do not affect the location of the other partitions.
The binary image is reorganized from large pages (4096/2048 bytes) to small pages (512 + 16 bytes), over-writing the manufacturer Bad Block marker area.

The last partition should include BBT area.

Warning –
After the devices are programmed with this BBM, they cannot be reused with any other BBM since all the original manufacturer's bad block markers are over-written by this BBM!

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 = "Generic MPF NFC IMX25 BBT"

Spare area = "Enabled" or "ECC IMX25"
If your image file contain the ecc code set as "Enabled". Otherwise set as "ECC IMX25"

Partition Table File = link partitiontable.mbn
Please note the last partition should include the block to store bad block table.

Bad block mark mask = 0x00FF

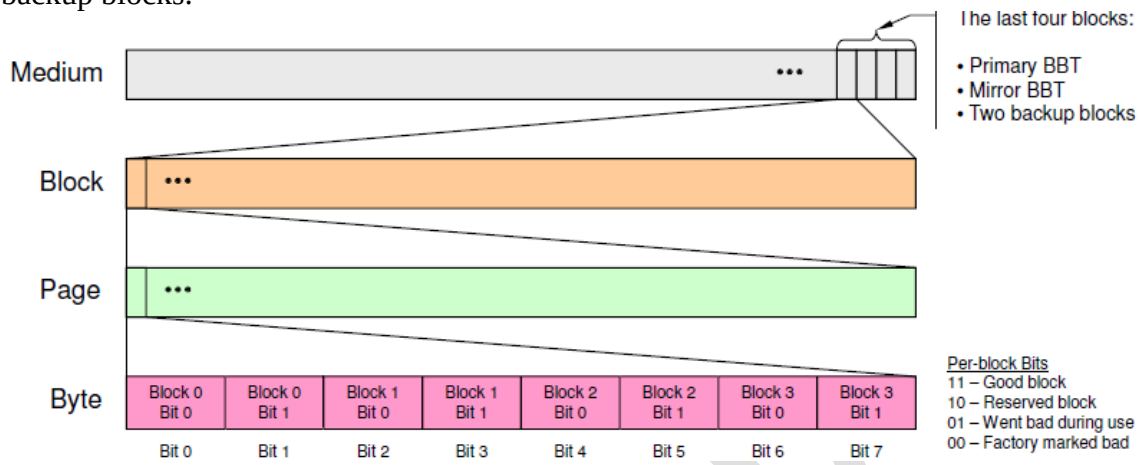
Bad Block Marker Offset = 54

Convert large to small page format? = Dependent on image file. (Default "No")
This feature defines your input image format. If input image do not contain spare area, then set the feature as "Yes". So that convert the image to "512bytes+16bytes+512bytes+16bytes+…" matching the BBM spec.

All other features are not used for this scheme.

Special Notes

Update bad block table in last two good blocks and then make ECC.
For BBT update, last two good blocks are Primary BBT & Mirror BBT. And other two backup blocks.



It marks as “Bbt0” in spare are of Primary BBT, and marks as “1tbB” in spare area of Mirror BBT.

Revision History

V1.0 Jan 18th, 2012
Create this spec.

V2.0 Jul 30th, 2012
Support no spare area image input.

Appendix

You can get the file “Description of common NAND special features.pdf” from http://ftp.dataio.com/FCNotes/BBM/