BBM Mixed MM2012 User Manual

General Description and Name

BBM Mixed MM2012 has several partitions and each partition has its own bad block scheme.

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 =   "**BBM Mixed MM2012**"

Spare area :   Please refer to "Description of common NAND special features.pdf". ***Normally set as " Disable " for this BBM***.[Default 'Disabled']

PartitionTable File =   **C:\PartitionTable.mbn** (default)

bootHeaderVersion: The header depends of the Jacinto version used (404QFP , 404HS BGA , 402QFP). Boot header is **404QFP by default**. Customer could change the header version through this special feature.

StartBootAddr: "**0x4090753C**" (default), customer could change the entry point of bootloader in RAM through this special feature.

Special Notes

- Customer data file don't include spare area. This algorithm would fill 0xFF to the spare area.
- Customer should prepare the partition table file **PartitionTable.mbn** and one binary source file.
- Each resource file should be page aligned.
- All the headers are created based on the document < 10279242SPE000AA_MM2012R_SSW_DEV_TN_0439_NandFlashProg> b03 Version.

How to create **PartitionTable.mbn** file**:**

Please check Table1, Table2 and Table3 to understand the structure of PartitionTable.mbn file.

PartitionTable.mbn example:

```
          0  1  2  3  4  5  6  7  8  9  a  b  c  d  e  f
00000000h: 01 00 00 00 00 00 00 00 F4 98 00 00 00 00 00 20 ; ........觔.....       boot
00000010h: 02 00 00 00 00 00 00 00 F4 98 00 00 00 00 00 21 ; ........觔.....!      boot
00000020h: 03 00 00 00 00 00 00 00 F4 98 00 00 00 00 00 22 ; ........觔....."
00000030h: 04 00 00 00 00 00 00 00 00 00 00 00 00 00 00 30 ; ...............0     RAW Persistence
00000040h: 09 00 00 00 00 00 00 00 58 AC 00 00 04 00 00 40 ; ........X?....@
00000050h: 53 74 52 44 69 73 63 2E 70 63 6D 00 00 00 00 70 ; StRDisc.pcm....p
00000060h: 09 00 00 00 16 00 00 00 54 AC 00 00 04 00 00 41 ; ........T?....A
00000070h: 53 74 52 43 6F 6E 74 2E 70 63 6D 00 00 00 00 71 ; StRCont.pcm....q      RSC
00000080h: 09 00 00 00 2C 00 00 00 54 AC 00 00 04 00 00 42 ; ....,...T?....B
00000090h: 53 74 46 44 69 73 63 2E 70 63 6D 00 00 00 00 72 ; StFDisc.pcm....r
000000a0h: 0A 00 00 00 02 00 00 00 54 AC 00 00 04 00 00 43 ; ........T?....C
000000b0h: 53 74 46 43 6F 6E 74 2E 70 63 6D 00 00 00 00 73 ; StFCont.pcm....s
000000c0h: 0A 00 00 00 18 00 00 00 EE CE 00 00 04 00 00 44 ; ........钗.....D
000000d0h: 53 74 45 72 72 6F 72 2E 70 63 6D 00 00 00 00 74 ; StError.pcm....t
000000e0h: 22 00 00 00 00 00 00 00 E8 05 26 00 00 00 00 A0 ; ".......?&....?
000000f0h: 36 00 00 00 00 00 00 00 CB E9 33 00 00 00 00 B0 ; 6.......碎3....?    ARM+DSP instance1
00000100h: 72 00 00 00 00 00 00 00 E8 05 06 00 00 00 00 A1 ; r.......?.....?
00000110h: 86 00 00 00 00 00 00 00 CB E9 33 00 00 00 00 B1 ; ?......碎3....?     ARM+DSP instance2
00000120h: FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF ;
00000130h: FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF ;
00000140h: FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF ;
00000150h: FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF ;
00000160h: FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF ;
00000170h: FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF ;
00000180h: FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF ;
00000190h: FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF ;
```

Table1

Partition	Attribute
boot	0x20 – 0x2F
Persistence	0x30
RSC	0x40 – 0x6F
RSC name	0x70 – 0x9F
ARM	0xA0 – 0xAF
DSP	0xB0 – 0xBF

Table2

	Start block	Start page	Valid data Size(byte)	Attribute
Boot Instance1	0x1	0	0x98F4	0x20 00 00 00
Boot Instance1	0x2	0	0x98F4	0x21 00 00 00
Boot Instance3	0x3	0	0x98F4	0x22 00 00 00
Persistence data	0x4	0	0x0	0x30 00 00 00
RSC file1	0x9	0	0xAC58	0x40 00 00 04
File1 name	StRdisc.pcm			0x70 00 00 00
RSC file2	0x9	0x16	0xAC54	0x41 00 00 04
File2 name	StRCont.pcm			0x71 00 00 00
RSC file3	0x9	0x2C	0xAC54	0x42 00 00 04
File3 name	StFDisc.pcm			0x72 00 00 00
RSC file4	0xA	0x2	0xAC54	0x43 00 00 04
File4 name	StFCont.pcm			0x73 00 00 00
RSC file5	0xA	0x18	0xCEEE	0x44 00 00 04
File5 name	StError.pcm			0x74 00 00 00
…	…	…	…	…
…	…	…	…	…
…	…	…	…	…
ARM Instance1	0x22	0	0x00 26 05 E8	0xA0 00 00 00
DSP Instance1	0x36	0	0x00 33 E9 CB	0xB0 00 00 00
ARM Instance2	0x72	0	0x00 26 05 E8	0xA1 00 00 00
DSP Instance2	0x86	0	0x00 33 E9 CB	0xB1 00 00 00

Table3

RSC file1	0x9	0	0xAC58	0x40 00 00 04

Note: 00 00 04 : stand for the Revision

Revision History

V1.0   2013/12/16
        Create this spec.

Appendix

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