
BBM GXO User Manual User Manual

General Description and Name

This BBM is for the system that has several partitions which might have different bad block handling style even store BB table (3 BBTs from Block 4).

And for the BBM unmanaged Area, BB handling type is : skip BB within partition.
For the BBM managed area, OScore Area bad block meet will use SBT area to replace.
Special data file is needed for 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 = "BBM GXO"

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

PartitionTable File : Point to a .mbn file which describes the partition information.

Handle Empty Page : Please refer to "Description of common NAND special features.pdf". **please normally set as "Enable" for this BBM.**

Special Notes

Format of PartitionTable.mbn:

- a. Binary file fixed length 256 bytes.
- b. Organization:16 rows x 4 columns. Each table item is 32-bits, little endian byte ordering.
- c. Each row of the table describes configuration for one partition. Up to 16 partitions can be used.
- d. Partition configuration:
 - i. **Start Adr**: address of start of partition in flash blocks. The programmer will set the file read pointer and the programmer write pointer to Start Adr. If Start Adr=0xFFFFFFFF, skip to the next partition.
 - ii. **End Adr**: last valid block in the current partition. The last data block programmed must be equal to or less than End Adr, otherwise the programmer will reject the flash device.

- iii. **Actual Data Length:** number of blocks of data to read from the input file and write to the flash in the current partition
 - For partition SBT, actual data length is normally set to ZERO.
- iv. **Attribute:** specify the attributes for current partition.

ID Table

Area	ID
BBT	“BM”
IPL	“IP”
OsCore	“OS”
FCT	“OR”

- Make sure ID is correct. This value will update to spare area.
- For the ALL other Area of partition, keep attribute 0xFFFFFFFF
- SBT area always follows FCT area.
- Please add partition before BBT area. set partition length to zero
- Last partition (BBM reserved AKA ‘RBA’) ‘Actual Data Length’ should set to 0 .

Please note to keep: Actual Data Length + max bad blocks allowed <= End Adr - Start Adr + 1

- v. Example PartitionTable.mbn file:



41475.mbn

NAND Flash Block			Attribute
Start Adr	End Adr	Actual Data Length	
0x0	0x3	0x0	0xFFFFFFFF
0x4	0x1A	0x3	0x4D42
0x1E	0x31	0x2	0x5049
0x32	0xD1	0x1E	0x534F
0xD2	0xF9	0x16	0x524F
0x104	0x153	0x0	0xFFFFFFFF
0xFFFFFFFF	0xFFFFFFFF	0xFFFFFFFF	0xFFFFFFFF
0xFFFFFFFF	0xFFFFFFFF	0xFFFFFFFF	0xFFFFFFFF
0xFFFFFFFF	0xFFFFFFFF	0xFFFFFFFF	0xFFFFFFFF
0xFFFFFFFF	0xFFFFFFFF	0xFFFFFFFF	0xFFFFFFFF
0xFFFFFFFF	0xFFFFFFFF	0xFFFFFFFF	0xFFFFFFFF
0xFFFFFFFF	0xFFFFFFFF	0xFFFFFFFF	0xFFFFFFFF
0xFFFFFFFF	0xFFFFFFFF	0xFFFFFFFF	0xFFFFFFFF
0xFFFFFFFF	0xFFFFFFFF	0xFFFFFFFF	0xFFFFFFFF

Revision History

- V1.0 September 1st, 2014
Create this spec.
- V1.1 September 4th, 2014
Add more note for partition.

Appendix

- You can get the file “Description of common NAND special features.pdf” from <http://ftp.dataio.com/FCNotes/BBM/>
- BBT bad block only contain from 0-339 total 340 block

Data I/O