
Skip DBBT MPF BCH8 iMX6 B User Manual

This is a Multiple Partition format scheme. Any bad blocks within the first two partitions (FCB & DBBT) are dropped (up to " iMX FW Starting Block #"). The rest of partitions use " Skip bad block" method within each partition.

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 = " Skip DBBT MPF BCH8 iMX6 B "

Spare Area = " Disabled "

PartitionTable File = " C: \PartitionTable.mbn "

Error bits allowed in one page: How many error bits allowed within one paged while preprogramming, this depends on the ECC method. [Normally required, default is 0].

iMX FCB Copies = " 2 " , default value is " 4 " .

iMX DBBT Create? = " Enabled "

When this option is enabled, Discovered Bad Block Tables (DBBT) is added.

iMX DBBT Copies (if enabled) = " 2 " , default value is " 4 " .

Two copies of DBBT table (including CRC and ECC) will be generated and programmed into the NAND device.

iMX FW Starting Block # = " 4 " , hex value, means start block #4.

This FW starting block # has to be greater or equal to FCB & DBBT values.

Default value is " 8" .

iMX DBBT last partition included in DBBT = " 4 " , default value is " 4" .

DBBT only contains boot area.

Image Preparation:

Customer data file contains FCB, DBBT, and other parts. The image file do not contains ECC. DBBT will be update during programming.

- Block0, page0 contains FCB page, copy 0x840 bytes from master device.
The other copies of FCB Block, leaves empty, fill in all 0xFF
- DBBT blocks leaves empty, fill in all 0xFF
- Please insert 1024 00s at the beginning of SPL partition.

Partition	start addr	end address
FCB	0	3FFFF
DBBT	40000	7FFFF
SPL	80000	13FFFF
SPL BackUp	140000	1FFFFFF
Uboot	200000	3FFFFFF
Uboot-env1	400000	47FFFF
Uboot-env2	480000	4FFFFFF
Kernell	500000	EFFFF
DTB1	F00000	F7FFFF
Rootfs1	F80000	737FFFF
Kernel2	7380000	7D7FFFF
DTB2	7D80000	7DFFFFFF
Rootfs2	7E00000	E1FFFFFF
UserFS	E200000	1FFFFFFF

Partition Table Format:

- A binary file with fixed length of 256 bytes.

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- Organization: 16 rows x 4 columns. Each table item is 32-bits, little endian byte ordering.
 - Each row of the table describes configuration for one partition. Up to 16 partitions can be used.
 - Partition configuration:
 - i. **Start Addr:** address of start of partition in flash blocks. The programmer will set the file read pointer and the programmer write pointer to Start Addr. If Start Addr is 0xFFFFFFFF, skip to the next partition.
 - ii. **End Addr:** last valid block in the current partition. The last data block programmed must be equal to or less than End Addr, 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.
 - iv. **Attribute:** the last two bytes of the page fill in 0x00 or 0xFF. If value 00000000, then fill in 0x00.

Revision History

V1.0 10/23/2018

Initial release

Appendix

You can get the file “ Description of common NAND Special Features.pdf” from <http://ftp.dataio.com/FCNotes/BBM/>