Skip ECC BL User Manual

General Description and Name

This scheme Implements the skip block method within partition. Create Link address table in the 1st page.
Calculate the ECC for the Bootloader.

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 ECC BL"

Spare area = "Enabled"

PartitionTable File = The path of the partition table file on your PC.

Fill00 to Initial BB : Please refer to "Description of common NAND special features.pdf".
For a Blank Device (means didn't move BBMark)
Set as " Enable" for this BBM.[Default 'Disable']
For a no Blank Device (means moved BBMark)
Set as " Disable" for this BBM.[Default 'Disable']

BB: mark position : Please refer to "Description of common NAND special features.pdf".
For a Blank Device (means didn't move BBMark)
Normally set as "FFFFFFFF" for this BBM.[Default 'FFFFFFFF']
For a no Blank Device (means moved BBMark)
Normally "20"(8bit)for large page size for this BBM.[Default 'FFFFFFFF']

Check BadBlock Marker in Data File : Please refer to "Description of common NAND special features.pdf". ***Normally set as "Disabled" for this BBM***.[Default 'Enabled']

Bad block detection: Please refer to "Description of common NAND special features.pdf". ***Normally set as "BBM then BB marker" for this BBM***.[Default 'semi vendor BB marker]

Required good block area: Start block = “2” Please refer to “Description of common NAND special features.pdf” [Default ‘0’]

Required good block area: Number of blocks = “5” Please refer to “Description of common NAND special features.pdf” [Default ‘0’]

Special Notes

- This BBM image file should contain the OOB(Spare area).
- Except the Bootloader area, Data file should contain the correct ECC.
- Current Only support large page NAND device 8 bit. Large page size means 2048Bytes.
- Cannot put blank device and no blank device together to program.

- 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
     iv. **Attribute**: ignore

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

v.Example PartitionTable.mbn file:

NAND Flash Block			
Start Adr	**End Adr**	**Actual Data Length**	**Attribute**
0x0	0x7FF	0x360	0xFFFFFFFF
0x800	0xFFF	0x30	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
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 Date: 2012-Apr-27
Create this spec.

Appendix

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