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## **Skip with mixed ECC User Manual**

### **General Description and Name**

This scheme Implements the skip block method within particular partition. With on chip ECC for Bootloader and OS image region.

Calculate 1bit Hamming code for MLO partition. Offset at 2 of spare, length 12 bytes.

### **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 with mixed ECC"

Spare area = "Enable" or "Disable"

Depend on you file. While contain spare, should set to 'Enable'.  
Does not include spare(OOB), then should set to "Disable"

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

XLoader\_Start :

Set the end number of block X-loader start .[Default value is "0" for this BBM]

BootLoader\_Start :

Set the end number of block BootLoader\_start .[Default value is the "10" for this BBM]

### **Special Notes**

- This BBM PC file should contain the spare .
- Pay attention the BB mark position, make sure it is 0xFF.
- 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 <= End Adr - Start Adr + 1 for this BBM*

v.Example PartitionTable.mbn

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

file:

## Revision History

- V1.0 Date: 2012-04-23  
Create this spec.
- V1.1 Date: 2012-09-11  
Update this spec.
- V2.0 Date: 2013-04-03  
Update this spec.

## Appendix

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