
MP SG BCH4BCM72 User Manual

General Description and Name

This scheme Implements same as “MP SG BCHBCM72” (BCH8), except ECC method use BCH4 BCM72, for Broadcom platform. According to SG spec version 22.

- Multiple partition
- Main Area divided into 512 per sub-page + sub-spare for ECC calculate.

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 = “MP SG BCH4BCM72”

Spare area = “ECC”

PartitionTable File = Point to your partition table file

Below is optional, if exist please set as below:

ECC Extended Type = “Disable”

bad block detection = “semi vendor BB marker”

Special Notes

- This BBM PC file should not contain the OOB(spare areas). Only contain the main areas.
- DO NOT program refresh device (Never program by this BBM) and re-program chips together.
- 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

| 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 |
| 0xFFFFFFFF | 0xFFFFFFFF | 0xFFFFFFFF | 0xFFFFFFFF |

file:

Revision History

V1.0 Date: 2018-12-19
Create this spec.

Appendix

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