Qualcomm MSM6250 EFS User Manual

General Description and Name

Qualcommm MSM 6250 EFS. This scheme Implements the skip block method for bad block handling, allows the use of the Qualcomm method for dealing with the ECC data and places that data in 12 bytes of the 16 byte spare area. It also incorporates a partition for the boot code and the file system.

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 =   "Qualcomm MSM6250 EFS"

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

EFS: Image Start Block
This is the beginning block of the File System. All blocks in the image after this are considered to be in the File System and will be placed after the start block.

EFS: Device Start Block
This is the block number to place the File System on the device.

EFS: Boot/Code Partition Size
This variable defines the size of the Boot/Code (first) partition size in blocks.

Required good block area: Start block = "0" This will require the entered block to be a valid block

Required good block area: Number of blocks = "0" This will be the total number of blocks required to be valid after the start block.

Special Notes

The spare area in this scheme can be programmed with the customer's image file, it can be ignored, or it can be programmed with Qualcomm's version of ECC. However, the bad block marks are always located in the spare area. (Byte 517 for x8 devices)

The binary that should be placed into the device is all that is needed. However, special care should be taken into account if the spare area option is set to "enabled". In that case, byte 517 of each page (the sixth byte of the spare area in each page) needs to be left at 0xFF. This is because byte 517 is used to identify bad blocks in the device. If you program one of these bytes to something other than 0xFF, there will be no way for anyone to distinguish a factory marked bad block from a block that has had byte 517 programmed by the programmer.

If the spare area is not to be programmed, then the image should not contain any data for the spare area.

Revision History

V1.0   June 11, 2009
    Create this spec.

Appendix

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