

FIELD	SIZE	VALUE	Descriptions	total size	header size
magic_number	4bytes	0xAA55EC44	magic number to indicates this header existed, little endian	512bytes	1M(0x100000) bytes
Reserved		0xFF	reserved area		
Extended CSD(after program)	512bytes		Refer the fields to eMMC4.4 specification. Please fill the value as what you expected.		
Mask of Extended CSD	512bytes		Mask the fields which don't need modification, '1' masks the bit.		
Reserved		0xFF	reserved area		
Boot Area Partition 1	User Specified	<i>data</i>	SIZE = [Boot Partition #0 Data Size(block)] * 512bytes		
Boot Area Partition 2	User Specified	<i>data</i>	SIZE = [Boot Partition #1 Data Size(block)] * 512bytes		
General Purpose Area Partition 1	User Specified	<i>data</i>	SIZE = [General Purpose Partition #0 Data Size(block)] * 512bytes		
General Purpose Area Partition 2	User Specified	<i>data</i>	SIZE = [General Purpose Partition #1 Data Size(block)] * 512bytes		
General Purpose Area Partition 3	User Specified	<i>data</i>	SIZE = [General Purpose Partition #2 Data Size(block)] * 512bytes		
General Purpose Area Partition 4	User Specified	<i>data</i>	SIZE = [General Purpose Partition #3 Data Size(block)] * 512bytes		
User Data Area		<i>data</i>	to the end of data file		

## Notes

1st, For every byte in Extended CSD:  
if the mask byte is 0xFF, then this byte will keep as it is;  
Otherwise the programmed value will be  $((CURRENT\_VALUE \& MASK) / (EXPECTED\_VALUE \& (~MASK)))$   
CURRENT\_VALUE is the value in the chip, EXPECTED\_VALUE is what specified in this header.

2nd, [Boot Partition #N Data Size(block)] and [General Purpose Partition #N Data Size(block)] are the value specified in special features. Please note Tlwin sector can not cross over partition border.

3rd, "High Capacity Erase Group Size" should be used after configuring partitions.

4th, This document is for Data I/O customers only.