



Silicon Motion, Inc.

SM32X Test Program and ISP Release Note

**SM3253&3254 Test Program and ISP Release Note:**

| Release Date | ISP Version | ISP Check Sum | Test AP Version | Description |
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| 2009/06/04 | SM3254AB 2009-06-04 | SM325ABISP 0x30EF6E | V2.01.03 V1 05/27 build | <ol style="list-style-type: none">1. Support Toshiba 43nm 4D2E, 5D2E and 6D2E with Single, 2plane, Interleave and Twin, 1plane, Interleave mode.2. Support Micron/Intel L63A with Single, 2Plane, Interleave and Twin, 2Plane, Interleave mode.3. MP tool first formal release. |
| 2009/06/29 | SM3254AC 2009-06-29 | SM325ACISP 0x32CE04 | V2.01.03 V2 06/23 build | <ol style="list-style-type: none">1. SM3254ACISP support Global Wear leveling2. SM3254ACISP fixed Toshiba 43nm 4D2E have download ISP fail when continuously initial card. |
| 2009/07/14 | SM3254AC 2009-07-14 | SM3254ACISP 0x33CA0D | V2.01.03 V2 07/20 build | <ol style="list-style-type: none">1. SM3254ACISP support Samsung 35nm K9GBG08U0M, K9LCG08U1M and K9HDG08U5M with Single, 2Plane, Interleave and Twin, 1Plane, Interleave mode.2. SM3254ACISP support FDD function3. SM3254ACISP support Micron L63A MT29F32G08CBAAA, MT29F64G08CFAAA and MT29F128G08CJAAA with Single, 2Plane, Interleave and Twin, 2Plane, Interleave mode4. SM3254ACISP support Micron L62A MT29F16G08CBABA and Micron L63B MT29F32G08CBABA with Single, 2Plane, Interleave and Twin, 2Plane, Interleave mode.5. SM3254ACISP support Intel L63A JS29F32G08AAMD1/D2, |



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| | | | | <p>JS29F64G08CAMD1/D2 and JS2916BJAMD1/D2 with Single, 2Plane, Interleave and Twin, 2Plane, Interleave mode.</p> <p>6. SM3254ACISP modify to improve performance for Toshiba 43nm and Intel/micron L63A.</p> |
| 2009/07/27 | SM3254AC 2009-07-14 | SM3254ACISP 0x33CA0D | V2.01.05 08/04 build | <p>1. SM3254ACISP support Intel L63B JS29F32G08AAMDB, JS29F64G08CAMDB and JS29F16B08JAMDB with Single, 2Plane, Interleave and Twin, 2Plane, Interleave mode.</p> <p>2. SM3254ACISP support Samsung 42nm EF-NAND KLE8G4ZUMM with Single, 2Plane, Interleave and Twin, 2Plane, interleave mode.</p> <p>3. SM3254ACISP support Hynix 41nm 32Gb H27UBG8T2MYR, H27UCG8UDMYR and H27UDG8VEMYR with Single, 2Plane, interleave and Twin, 2Plane, Interleave mode.</p> <p>4. SM3254ACISP support Hynix 48nm Emulated NAND H2EUCG8N1MYR with Single, 2Plane, interleave and Twin, 2Plane, Interleave mode.</p> <p>5. MP tool modified to fix bad block counting and capacity issue.</p> |
| 2009/08/25 | SM3254AC 2009-08-25 | SM3254ACISP 0x3BEC15 | V2.01.08 08/21 build | <p>1. SM3254ACISP support Toshiba 43nm G4D2, G5D2 and G6D2 in Twin, 2Plane, Interleave mode.</p> <p>2. SM3254ACISP support Samsung 35nm GBG, LCG, HDG in Twin, 2Plane, Interleave mode.</p> <p>3. SM3254ACISP enable cache program for Intel L63B SDP, DDP and</p> |



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| | | | | QDP supporting. 4. SM3254ACISP fixed Intel L63B QDP with Twin+1Plane capacity drop issue when choose "Erase good block only" in MP tool. |
| 2009/09/03 | SM3254AC 2009-09-03 | SM3254ACISP 0x3DB867 | V2.01.09v2 09/02 build | 1. SM3254ACISP enable 2plane read to improve Hynix 48nm Emulated NAND H2EUCG8N1MYR read performance. 2. SM3254ACISP support Hynix 41nm 16Gbit H27UAG8T2ATR. 3. SM3254ACISP fixed Toshiba 43nm 4D2E, 5D2E and 6D2E capacity issue. |
| 2009/09/18 | SM3255AA 2009-09-03 | SM3255AAISP 0x36B6FE | V2.01.08 09/16 build | 1. SM3255AAISP support Samsung 51nm TLC K9AAG08U0M 2. SM3255AAISP support Samsung 42nm TLC K9ABG08U0M 3. SM3255AAISP support Toshiba 43nm TLC TC58NVG4T2ETA00 and TC58NVG5T2ETA00 |
| 2009/09/22 | SM3254AC 2009-09-17 | SM3254ACISP 0x3DCF6F | V2.01.10 v3 09/28 build | 1. SM3254ACISP support Intel L63B new flash ID "89 68 24 46 " 2. SM3254ACISP support Hynix 41nm 16Gbit DDP H27UBG8U5ATR and QDP H27UCG8V5ATR. 3. SM3254ACISP support Micron 34nm TLC MT29F32G08EBAAA. 4. MP tool modify to ignore the 5th bytes of flash ID check. 5. DBF increase 1byte for 2Plane read enable or not in 0x163. 6. SM3254ACISP enable 2Plane read to improve read performance with Toshiba 43nm MLC. |
| 2009/10/30 | SM3254AC | SM3254ACISP | V2.02.02 v8 | 1. SM3254ACISP fixed Intel L63A and L63B QDPx4 capacity drop |



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| | 2009-09-25 | 0x410564 | 10/30 build | issue |
| | SM3254AE | SM3254AEISP | | 2. SM3254AEISP support Intel L62A,L63A and L63B SDP with differential address remapping in Single, 2Plane, Interleave and Twin, 2Plane, Interleave mode. |
| | 2009-10-14 | 0x344D00 | | 3. SM3254AEISP support Intel L63B DDP with differential address remapping in Single, 2Plane, Interleave and Twin, 2Plane, Interleave mode. |
| | SM3255AA | SM3255AAISP | | 4. SM3254AEISP support Intel L63B QDP with differential address remapping in Single, 2Plane, Interleave and Twin, 2Plane, Interleave mode. |
| | 2009-10-27 | 0x41897F | | 5. SM3255AAISP_Samsung51_TLC support Samsung 51nm TLC flash. |
| | SM3255AA | SM3255AAISP_Samsung42_TLC | | 6. SM3255AAISP_Samsung42_TLC support Samsung 42nm TLC flash. |
| | 2009-10-27 | 0x3BAACB | | 7. SM3255AAISP_Toshiba_TLC support Toshiba 43nm TLC flash. |
| | SM3255AA | SM3255AAISP_Samsung51_TLC | | 8. SM3255AAISP_SanDisk_TLC support SanDisk 43nm TLC flash. |
| | 2009-10-27 | 0x38CAE0 | | 9. SM3255AAISP add "Interleave read" function to improve read performance for Samsung 35nm MLC. |
| | SM3255AA | SM3255AAISP_Sandisk_TLC | | 10. SM3255AAISP_Samsung51_TLC, SM3255AAISP_Samsung42_TLC, SM3255AAISP_Toshiba_TLC, SM3255AAISP_SanDisk_TLC and SM3255AAISP modify to support Auto Run function. |
| | 2009-10-27 | 0x384232 | | 11. MP tool support Multi Lun function. |
| | SM3255AA | SM3255AAISP_Toshiba_TLC | | |
| | 2009-10-27 | 0x3BAAC9 | | |



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| | | | | <p>12. MP tool support "Erase info" function before pretest</p> <p>13. Mp tool support Non-Differential Address Bad Block Number display</p> |
| 2010/01/05 | <p>SM3254AE</p> <p>2010-01-05</p> | <p>SM3254AEISP</p> <p>0x00520F69</p> | <p>V2.03.07 v5</p> <p>12/25 build</p> | <p>1. SM3254AEISP support Samsung 35nm MLC GBG,LCG,HDG and PFG</p> <p>2. SM3254AEISP support Micron L63B MT29F32G08CBABA, MT29F64G08CFABA and MT29F128G08CJABA.</p> <p>3. SM3254AEISP support Intel L63B JS29F32G08AAMDB, JS29F64G08CAMDB and JS29F16B08JAMDB.</p> <p>4. SM3254AEISP support Hynix 32nm MLC H27UBG8T2ATR and H27UCG8U5ATR.</p> <p>5. SM3254AEISP add Quick build to reduce initial time.</p> |
| 2010/03/17 | <p>SM3254AE</p> <p>2010-03-12</p> <p>SM3254AE</p> <p>2010-02-24</p> | <p>SM3254AEISP</p> <p>0x00548175</p> <p>SM3254AEISP_Samsung35_PFG.BIN</p> <p>0x0054EA71</p> | <p>V2.03.19 v2</p> <p>10/03/17/ build</p> | <p>1. SM3254AEISP fix unstable sequential write performance issue when HDBENCH testing.</p> <p>2. SM3254AEISP fix USB1.1 packet length issue cause unrecognized in ESP5 and Windows98.</p> <p>3. SM3254AEISP fix random write < 2MB/s issue to pass Windows 7 logo testing.</p> <p>4. SM3254AEISP fix unstable sequential write performance issue when ATTO testing.</p> <p>5. SM3254AEISP support Micron L74A MT29F64G08CBAAA without differential address.</p> <p>6. SM3254AEISP support Intel L74A JS29F64G08AAME1 without</p> |



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| | | | | <p>differential address.</p> <ol style="list-style-type: none"> SM3254AEISP_Samsung35_PFG.BIN support Samsung 35nm MLC PFG. SM3254AEISP support Toshiba 32nm MLC TC58NVG4D2FTA00 and TC58NVG5D2FTA10 MP tool fix PFGx4 bad block over setting issue when initial card. MP tool fix illegally resumes capacity after Initial card. MP tool fix 128MU get wrong bad block number. MP tool fix the Erase Info force to different card mode during change mode. |
| 2010/04/12 | SM3254AE 2010-04-07 SM3254AE 2010-03-29 | SM3254AEISP.BIN 0x00551631 SM3254AEISP_Samsung35_PFG.BIN 0x0054B670 | V2.03.21 v2 10/04/01 | <ol style="list-style-type: none"> SM3254AEISP only support Intel L63B and L74A with differential address function. Other flash support without differential address function. SM3254AEISP_Samsung35_PFG fixed PFGx4 USB disconnection issue when full size copy. |
| 2010/05/25 | SM3254AE 2010-05-24 | SM3254AEISP.BIN 0x00548416 | V2.03.27 v9 10/05/25 | <ol style="list-style-type: none"> SM3254AEISP support Micron L73A MT29F32G08CBACA and MT29F64G08CFACA. SM3254AEISP support Toshiba 43nm MLC TH58NVG7D2ELA48. SM3254AEISP support Intel L74A new flash ID " 89 88 04 4B" flash. |



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| | | | | <ul style="list-style-type: none">4. SM3254AEISP support Samsung 32nm MLC K9HCG08U1E x1 flash.5. SM3254AEISP add background clean to fixed different performance between HDBENCH and Crystal Disk Mark.6. SM3254AEISP enhance power cycling protect.7. SM3254AEISP modify to fixed Intel L74A burn in issue with Twin mode.8. SM3254AEISP fixed Micron L73A random write <2MB/s when WINSAT Testing.9. MP tool fixed Public & CDROM preload fail issue.10. MP tool fixed Public & CDROM preload + Mode A fail issue. |
| 2010/06/03 | SM3254AE 2010-06-01 | SM3254AEISP.BIN 0x005714B4 | V2.03.28 v3 10/06/03 | <ul style="list-style-type: none">1. SM3254AEISP fixed abnormal random write performance when Windows 7 WINSAT testing for Intel L74A supporting.2. SM3254AEISP enhance power cycling protect.3. DBF add Micron L74A QDP new flash ID "2C A8 05 CB"4. SM3254AE disable cache program for Intel/Micron L73A flash supporting.5. MP tool fixed preload files issue with multiple devices. |
| 2010/07/15 | SM3254AE 2010-07-15 | SM3254AEISP.BIN 0x0056E8EC | V2.03.29 v7 10/07/09 | <ul style="list-style-type: none">1. SM3254AEISP fixed "00" pattern into WINSAT mode cause burn-in fail.2. SM3254AEISP fixed S3/S4 suspend/resume issue.3. SM3254AEISP enable 1Plane cache read to improve read |



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| | | | | <p>performance for Samsung 32nm MLC supporting.</p> <ol style="list-style-type: none">SM3254AEISP adjust driving current from 8mA to 12mA to fixed Samsung 32nm MLC K9GAG08U0E with twin mode burn-in fail issue.SM3254AEISP enable dummy write (read only) after spare block not enough.SM3254AEISP fixed randomly occurs download ISP fail when initial card.MP tool add FAT preload auto-transfer to non FAT preload.MP tool fixed randomly occurs USB disconnection issue when initial card. |
| 2010/07/22 | SM3254AE 2010-07-22 | SM3254AEISP.BIN 0x005708CB | V2.03.30 v6 10/07/21 | <ol style="list-style-type: none">SM3254AEISP fine tune random write performance with Twin, Interleave mode when WINSAT testing with Windows 7 OS.MP tool add QC function to check used space.MP tool enhanced the initial parameters fail process to improve production yield. |
| 2010/08/18 | SM3254AE 2010-08-18 | SM3254AEISP.BIN 0x005708CB | V2.03.31 v1 10/08/18 | <ol style="list-style-type: none">SM3254AEISP support Micron M73A MT29F32G08ABAAA and MT29F64G08AFAAA.SM3254AEISP support Hynix 32nm 16Gbit H27UAG8T2B.SM3254AEISP add wait R/B and adjust control driving to fixed Samsung 35nm MLC HDGx4 and PFGx2 x4 burn-in fail issue |



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| | | | | <ul style="list-style-type: none">4. MP tool fixed update ISO issue (CDROM + Public mode change to Public only mode without do-pretest) .5. MP tool add QC function which check capacity and used space.6. MP tool fixed issue of preload FAT167. MP tool fixed issue of preload FAT mode transfer to non-FAT mode. |
| 2010/09/03 | SM3254AE 2010-09-03 | SM3254AEISP.BIN 0x0056E05E | V2.03.31 v10 10/09/03 | <ul style="list-style-type: none">1. SM3254AEISP fixed unrecognized issue in Windows 98 USB1.1 mode.2. SM3254AEISP fixed Micron L74A SDP x8 S.W performance drop issue.3. SM3254AEISP fixed Samsung 32nm MLC K9HCG08U1E bad block over setting issue.4. MP tool add the boot file autoload function. |
| 2010/10/07 | SM3254AE 2010-09-03 | SM3254AEISP.BIN 0x0056E05E | V2.03.32 v8 10/10/07 | <ul style="list-style-type: none">1. SM3254AEISP support Micron L72A MT29F16G08CBACA.2. SM3254AEISP support Intel L72A 29F16G083AME1.3. SM3254AEISP support Samsung 42nm SLC K9F8G08U0A.4. SM3254AEISP support Hynix 32nm MLC 16Gbit H27UAG8T2BTR5. MP tool Fixed MAC OS dismount device issue6. MP tool add QC function check disk label with all eleven characters. |