



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



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



				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



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



				<p>12. MP tool support "Erase info" function before pretest</p> <p>13. Mp tool support Non-Differential Address Bad Block Number display</p>
2009/11/19	SM3255AA 2009-11-13 SM3255AA 2009-10-27	SM3255AAISP_Sandisk_TLC 0x41959A SM3255AAISP 0x41897F	V2.02.02 v8 10/30 build	<p>1. SM3255AAISP_SanDisk_TLC enable cache program to improve write performance for SanDisk 43nm TLC 2GB and 4GB supporting</p> <p>2. SM3255AAISP_SanDisk_TLC support SanDisk 43nm TLC 4GBx2 with single, 2Plane mode to fixed CE care cause performance drop issue with single, 2Plane, Interleave mode.</p> <p>3. SM3255AAISP support Intel/Micron L63B flash</p>
2009/12/31	SM3255AA 2009-12-25	SM3255AAISP 0x005095B2	V2.03.06 v1 12/21 build	<p>1. SM3255AAISP enable 2Plane Read, Cache Read and Cache program for SanDisk 43nm TLC 2GB/4GB (x8, x16) and Toshiba 43nm TLC 4T2E and 5T2E supporting.</p> <p>2. SM3255AAISP modify to let ISP block, info block and Hidden block in strong page.</p> <p>3. MP tool support 3254AE/SM3255AA strong page download.</p>
2010/01/20	SM3255AA 2010-01-19 SM3255AA 2010-01-19 SM3255AA 2010-01-19	SM3255AAISP 0x0050785D SM3255AAISP_Samsung32_TLC 0x00510D78 SM3255AAISP_Samsung42_TLC.BIN 0x0051817B	V2.03.10 v1 01/15 build	<p>1. SM3255AAISP fix unstable sequential write performance issue when HDBENCH testing.</p> <p>2. SM3255AAISP fix unstable sequential write performance issue when ATTO testing.</p> <p>3. SM3255AAISP_Samsung32_TLC use new read retry command table for Samsung 32nm TLC ABGx1 x2 supporting (after 12/E wafer)</p> <p>4. SM3255AAISP support SanDisk 43nm TLC SDTNMNAHEM-002G, SDTNMNAHSM-002G, SDTNMNAHEM-004G and</p>



				<p>SDTNMNAHSM-004G.</p> <ol style="list-style-type: none"> <li>SM3255AAISP support Toshiba 43nm TLC TC58NVG4T2ETA00 and TC58NVG5T2ETA00</li> <li>SM3255AAISP support Hynix 32nm MLC H27UBG8T2ATR and H27UCG8U5ATR</li> <li>SM3255AAISP support Samsung 32nm MLC K9GAG08U0E</li> <li>SM3255AAISP support Toshiba 32nm MLC TC58NVG5D2FTA10</li> <li>SM3255AAISP support Micron L63B MT29F32G08CBABA, MT29F64G08CFABA and MT29F128G08CJABA.</li> <li>SM3255AAISP support Intel L63B JS29F32G08AAMDB, JS29F64G08CAMDB and JS29F16B08JAMDB.</li> <li>SM3255AAISP support Micron L63A MT29F32G08CBAAA, MT29F64G08CFAAA and MT29F128G08CJAAA.</li> <li>SM3255AAISP support Intel L63A JS29F32G08AAMD2, JS29F64G08CAMD2 and JS29F16B08JAMD2.</li> <li>SM3255AAISP support Auto Run function.</li> </ol>
2010/03/12	SM3255AA 2010-03-04 SM3255AA 2010-03-04 SM3255AB 2010-03-12	SM3255AAISP.BIN 0x005159DF SM3255AAISP_Samsung32_TLC.BIN 0x00511F83 SM3255ABISP.BIN 0x004E9AAE	V2.03.18 v1 10/03/12 build	<ol style="list-style-type: none"> <li>SM3255AAISP support Toshiba 32nm MLC TC58NVG4D2FTA00.</li> <li>SM3255AAISP support Micron L74A MT29F64G08CBAAA.</li> <li>SM3255AAISP support Intel L74A JS29F64G08AAME1.</li> <li>SM3255ABISP fixed burn-in fail issue with "00" pattern for Samsung 32nm TLC and SanDisk 43nm TLC supporting.</li> <li>SM3255ABISP support Samsung 32nm TLC</li> </ol>



				<ul style="list-style-type: none"><li>6. SM3255ABISP support Toshiba 43nm TLC</li><li>7. SM3255ABISP support SanDisk 43nm TLC</li><li>8. MP tool fix illegally resumes capacity after Initial card.</li><li>9. MP tool fix 128MU get wrong bad block number.</li><li>10. MP tool fix the Erase Info force to different card mode during change mode.</li></ul>
2010/03/24	SM3255AB 2010-03-22	SM3255ABISP.BIN 0x00535492	V2.03.20 v2 10/03/24 build	<ul style="list-style-type: none"><li>1. SM3255AAISP support Toshiba 32nm MLC TC58NVG4D2FTA00, TC58NVG5D2FTA10 and TH58NVG6D2FTA20.</li><li>2. SM3255ABISP support Samsung 32nm TLC K9ABG08U0A, K9BCG08U1A and K9CDG08U5A.</li><li>3. SM3255ABISP support Samsung 32nm MLC K9GAG08U0E</li><li>4. SM3255ABISP support Toshiba 43nm TLC TH58NVG5T2E and TC58NVG4T2E.</li><li>5. SM3255ABISP support Hynix 32nm MLC H27UBG8T2ATR</li><li>6. SM3255ABISP support SanDisk 32nm MLC SDTNNMAHEM-004G.</li><li>7. SM3255ABISP support SanDisk 43nm TLC 2GB, 4GB and 16GB.</li><li>8. MP tool supported Interleave Read/Cache Read checking if Enable/Disable Interleave mode.</li><li>9. MP tool Check 6 IDs for Toshiba/SanDisk 32nm and 43nm to avoid use wrong setting.</li></ul>