VSCCommn.bin Content

Application Note

June 2013

Revision 3.8

Intel Confidential

Contents

Revision History

Revision Number	Description	Revision Date
<0.7>	Initial release.	10/16/2009
<0.8>	Added VSCC value.	10/20/2009
<0.9>	Added VSCC values of EN25F32 and EN25Q64.	11/20/2009
<1.0>	Added AMIC A25L016. Replaced with VSCC 200D for SST25VF064C. Changed EN25Q64 device ID to 3017h. Removed W25X128 (product release cancelled). Added alternative VSCC values.	2/25/2010
<1.1>	Added MX25L6436E, MX25L12836E, MX25L3206E, and EN25Q128. Added alternative VSCC values.	4/29/2010
<1.2>	Added EN25Q32A. Added alternative VSCC values.	5/5/2010
<1.3>	Added MX25L8006E, MX25L8036E, MX25L1606E MX25L1636E, and MX25L6406E Added GD25Q80, GD25Q16, GD25Q32, GD25Q32A, and GD25Q64 Added N25Q032 and N25Q064	6/17/2010
<1.4>	Added EN25Q16	6/28/2010
<1.5>	Added AMIC A25L032	9/20/2010
<1.6>	Added EN25Q80A , EN25Q40, and AMIC A25LQ032 Added S25FL016K, S25FL032K, and S25FL064K	11/9/2010
<1.7>	Added N25Q16, AT25DQ641	12/16/2010
<1.8>	Added MX25L4006E, FM25Q16, FM25Q32, and FM25Q64	1/24/2011
	Added overview and note	
<1.9>	Added PM25LQ080C, W25Q16CV, W25Q64CV, MX25L3236D, MX25L12835E, MX25L25635E, MX25L25735E, PM25LQ016C, and PM25L032C. Added note #3.	4/12/2011
<2.0>	Added AT25DQ161, EN25QH16 Changed from EN25Q32A(B) to EN25Q32B Removed GD25Q32A (product plan cancelled) Changed from PM25LQ018C to PM25LQ016C	6/14/2011

<2.1>	EN25QH80, EN25F64, A25LQ16, and FM25Q128. Changed from A25LQ032 to A25LQ32A Changed from SST to SST/Microchip Removed W25X40V (EOL) Added Intel® 7 Series/C216 Chipset Family SPI Programming Guide	8/22/2011
<2.2>	Added F25L32PA(2S), F25L64PA, F25L16PA, F25L04PA F25L08PA, A25L040, and A25L080. Changed from MX25L3205D to MX25L3205A(D)	10/07/2011
<2.3>	Updated Chingis devices IDs, Added F25L16PA(2S) and F25L32PA	10/25/2011
<2.4>	Added W25Q64FV and GD25Q128	12/2/2011
<2.5>	Added alternative device ID for W25Q64FV Added W25Q128FV Added note #4 and #5	2/14/2012
<2.6>	Updated vscc value with 0x2009 and 0x2005 in vscccommn.bin for SST25VF016B, SST25VF032B, SST25VF040B, SST25F080B.	4/30/2012
<2.7>	Updated Chingis device ID with 7F44h, 7F45h, 7F46h in vscccommn.bin for PM25LQ080C, PM25LQ016C, and PM25LQ032C	6/7/2012
<2.8>	Added quad I/O devices of W25Q256FVFIQ, W25Q128FVFIQ, W25Q128FVSIQ, W25Q64FVSSIQ, W25Q32FVSSIQ, W25Q16CVSSIQ Added quad I/O devices of MX25L6475EM2I-10G and MX25L3275EM2I-10G Updated vscc values per the new definition of bits 7:5 for Lynx Point PCH	6/11/2012
<2.9>	Updated vscc values in vscccommn.bin per the new definition of bits 7:5 for Lynx Point PCH Added PM25LD512C2	8/7/2012
<3.0>	Added 25LQ32B Added quad I/O devices of MX25L1675EM2I-10G and W25Q16DVSSIQ	9/19/2012
<3.1>	Added A25QE16, A25QE32, GD25B16B, GD25B32B, GD25B64B, and MX25L12875F Changed Device ID of W25Q16CVSSIQ and W25Q16DVSSIQ Added note #7	10/31/2012
<3.2>	Added MX25L12835F and A25LQ64	11/30/2012

<3.2.1>	Added MX25L6473E, MX25L3273E, MX25L1673E Added MX25L8075E	12/17/2012
<3.3>	Added MX25L12873F	1/3/2013
<3.4>	Added S25FL128K Added MX25L8073E	2/6/2013
<3.5>	Updated VSCC values of EN25QH series	3/11/2013
<3.6>	Added GD25B128C Updated VSCC values of EN25QH series	3/27/2013
<3.7>	Added GD25LQ64C Changed VSCC value of A25LQ64 Added MX25L12865E	5/31/2013
<3.8>	Added N25Q064A13ESE4MF, W25R64FVSSIQ, W25R128FVSIQ, MX25L6450F Added note 8	6/14/2013

1 Introduction

1.1 Overview

Vsccommn.bin file contains serial flash device's vendor ID, device ID, and vendor-specific component capabilities information. The Vsccommn.bin file is used by Flash Image Tool (FITC) and MEManuf tool to select a serial flash device listed, to create flash image, and also to check if the Intel® Management Engine (Intel® ME) and BIOS VSCC customer created matches the VSCC entry in the vsccommn.bin.

1.2 Terminology

Term	Description
SPI	Serial Peripheral Interface
VSCC	Vendor-Specific Component Capabilities
RPMC	Replay Protected Monotonic Counter

1.3 Reference Documents

Document	Document No./Location
Intel® 6 Series Express Chipset SPI Programming Guide	CDI / IBL #: 445780
Intel® 7 Series/C216 Chipset Family SPI Programming Guide	CDI / IBL #: 475653
Intel® 8 Series Express Chipset SPI Programming Guide	CDI / IBL #: 489495
Intel® Broadwell Platform Controller Hub SPI Programming Guide	CDI / IBL #: 523462

2   Serial Flash Parts List

These settings are not part recommendations, nor are they an indication these parts are supported on Intel platforms. All parts on this list have NOT been validated, and it is the responsibility of the customer to validate the flash parts used on their platform.

Flash parts may change opcodes and architectures so please refer to the respective flash datasheet and errata/application note and flash vendor to confirm.

List of Serial Flash devices added to the vsccommn.bin file

Vendor	Part Name	Vendor ID	Device ID	VSCC value (64byte write granularity)	VSCC value (1byte write granularity)	Notes
Winbond	W25X80V	0xEFh	3014h	0x2005	0x2001	3
Winbond	W25X16BV	0xEFh	3015h	0x2005	0x2001	7
Winbond	W25X32BV	0xEFh	3016h	0x2005	0x2001	3
Winbond	W25X64BV	0xEFh	3017h	0x2005	0x2001	3
Winbond	W25Q40BV	0xEFh	4013h	0x2025	0x2021	
Winbond	W25Q80BV	0xEFh	4014h	0x2025	0x2021	
Winbond	W25Q16BV	0xEFh	4015h	0x2025	0x2021	7
Winbond	W25Q32BV	0xEFh	4016h	0x2025	0x2021	7
Winbond	W25Q64BV	0xEFh	4017h	0x2025	0x2021	7
Winbond	W25Q128BV	0xEFh	4018h	0x2025	0x2021	
Winbond	W25Q16CV	0xEFh	4015h	0x2025	0x2021	
Winbond	W25Q64CV	0xEFh	4017h	0x2025	0x2021	
Winbond	W25Q64FV	0xEFh	4017h	0x2025	0x2021	
Winbond	W25Q64FV	0xEFh	6017h	0x2025	0x2021	4
Winbond	W25Q128FV	0xEFh	4018h	0x2025	0x2021	
Winbond	W25Q128FV	0xEFh	6018h	0x2025	0x2021	4
Winbond	W25Q256FVFIQ	0xEFh	4019h	0x2025	0x2021	6
Winbond	W25Q128FVFIQ	0xEFh	4018h	0x2025	0x2021	6
Winbond	W25Q128FVFIQ	0xEFh	6018h	0x2025	0x2021	4,6
Winbond	W25Q128FVSIQ	0xEFh	4018h	0x2025	0x2021	6
Winbond	W25Q128FVSIQ	0xEFh	6018h	0x2025	0x2021	4,6
Winbond	W25Q64FVSSIQ	0xEFh	4017h	0x2025	0x2021	6
Winbond	W25Q64FVSSIQ	0xEFh	6017h	0x2025	0x2021	4,6

Vendor	Part Name	Vendor ID	Device ID	VSCC value (64byte write granularity)	VSCC value (1byte write granularity)	Notes
Winbond	W25Q32FVSSIQ	0xEFh	4016h	0x2025	0x2021	6
Winbond	W25Q32FVSSIQ	0xEFh	6016h	0x2025	0x2021	4,6
Winbond	W25Q16CVSSIQ	0xEFh	4015h	0x2025	0x2021	6
Winbond	W25Q16DVSSIQ	0xEFh	4015h	0x2025	0x2021	6
Winbond	W25R64FVSSIQ	0xEFh	4017h	0x2025	0x2021	6, 8
Winbond	W25R128FVSIQ	0xEFh	4018h	0x2025	0x2021	6, 8
Macronix	MX25L8005	0xC2	2014h	0x2045	0x2041	3
Macronix	MX25L1605A	0xC2	2015h	0x2045	0x2041	3
Macronix	MX25L1605D	0xC2	2015h	0x2045	0x2041	3
Macronix	MX25L1635D	0xC2	2415h	0x2045	0x2041	3
Macronix	MX25L3205A(D)	0xC2	2016h	0x2045	0x2041	3
Macronix	MX25L3225D	0xC2	5E16h	0x2045	0x2041	7
Macronix	MX25L3235D	0xC2	5E16h	0x2045	0x2041	7
Macronix	MX25L6405D	0xC2	2017h	0x2045	0x2041	3
Macronix	MX25L6445E	0xC2	2017h	0x2045	0x2041	7
Macronix	MX25L6455E	0xC2	2617h	0x2045	0x2041	
Macronix	MX25L12805D	0xC2	2018h	0x2045	0x2041	3
Macronix	MX25L12845E	0xC2	2018h	0x2045	0x2041	7
Macronix	MX25L12855E	0xC2	2618h	0x2045	0x2041	
Macronix	MX25L3206E	0xC2	2016h	0x2045	0x2041	
Macronix	MX25L6436E	0xC2	2017h	0x2045	0x2041	7
Macronix	MX25L12836E	0xC2	2018h	0x2045	0x2041	
Macronix	MX25L8006E	0xC2	2014h	0x2045	0x2041	
Macronix	MX25L8036E	0xC2	2014h	0x2045	0x2041	
Macronix	MX25L1606E	0xC2	2015h	0x2045	0x2041	
Macronix	MX25L1636E	0xC2	2015h	0x2045	0x2041	
Macronix	MX25L6406E	0xC2	2017h	0x2045	0x2041	7
Macronix	MX25L4006E	0xC2	2013h	0x2045	0x2041	7
Macronix	MX25L3236D	0xC2	5E16h	0x2045	0x2041	7
Macronix	MX25L12835E	0xC2	2018h	0x2045	0x2041	7
Macronix	MX25L25635E	0xC2	2019h	0x2045	0x2041	7
Macronix	MX25L25735E	0xC2	2019h	0x2045	0x2041	7
Macronix	MX25L6475EM2I-10G	0xC2	2017h	0x2045	0x2041	6

Vendor	Part Name	Vendor ID	Device ID	VSCC value (64byte write granularity)	VSCC value (1byte write granularity)	Notes
Macronix	MX25L3275EM2I-10G	0xC2	2016h	0x2045	0x2041	6
Macronix	MX25L1675EM2I-10G	0xC2	2415h	0x2045	0x2041	6
Macronix	MX25L12875F	0xC2	2018h	0x2045	0x2041	6
Macronix	MX25L12835F	0xC2	2018h	0x2045	0x2041	
Macronix	MX25L6473E	0xC2	2017h	0x2045	0x2041	6
Macronix	MX25L3273E	0xC2	2016h	0x2045	0x2041	6
Macronix	MX25L1673E	0xC2	2415h	0x2045	0x2041	6
Macronix	MX25L8075E	0xC2	2014h	0x2045	0x2041	6
Macronix	MX25L12873F	0xC2	2018h	0x2045	0x2041	6
Macronix	MX25L8073E	0xC2	2014h	0x2045	0x2041	6
Macronix	MX25L12865E	0xC2	2018h	0x2045	0x2041	
Macronix	MX25L6450F	0xC2	2017h	0x2045	0x2041	6, 8
Numonyx/Micron	M25PE80	0x20	8014h	0x2005	0x2001	1
Numonyx/Micron	M25PE16	0x20	8015h	0x2005	0x2001	1
Numonyx/Micron	M25PX32	0x20	7116h	0x2005	0x2001	1
Numonyx/Micron	M25PX64	0x20	7117h	0x2005	0x2001	1
Numonyx/Micron	M25PE10	0x20	8011h	0x2005	0x2001	1
Numonyx/Micron	M25PE20	0x20	8012h	0x2005	0x2001	1
Numonyx/Micron	M25PE40	0x20	8013h	0x2005	0x2001	1
Numonyx/Micron	M25PX80	0x20	7114h	0x2005	0x2001	1
Numonyx/Micron	M25PX16	0x20	7115h	0x2005	0x2001	1
Numonyx/Micron	N25Q128	0x20	BA18h	0x2005	0x2001	6
Numonyx/Micron	N25Q032	0x20	BA16h	0x2005	0x2001	6
Numonyx/Micron	N25Q064	0x20	BA17h	0x2005	0x2001	6
Numonyx/Micron	N25Q016	0x20	BA15h	0x2005	0x2001	6
Numonyx/Micron	N25Q064A13ESE4MF	0x20	BA17h	0x2005	0x2001	6, 8
Atmel/Adesto	AT26DF081	0x1F	4500h	0x2015	0x2011	2, 5
Atmel/Adesto	AT26DF081A	0x1F	4501h	0x2015	0x2011	2, 5
Atmel/Adesto	AT25DF081	0x1F	4502h	0x2015	0x2011	2
Atmel/Adesto	AT26DF161	0x1F	4600h	0x2015	0x2011	2, 5
Atmel/Adesto	AT26DF161A	0x1F	4601h	0x2015	0x2011	2, 5
Atmel/Adesto	AT25DF161	0x1F	4602h	0x2015	0x2011	2
Atmel/Adesto	AT26DF321	0x1F	4700h	0x2015	0x2011	2, 5

Vendor	Part Name	Vendor ID	Device ID	VSCC value (64byte write granularity)	VSCC value (1byte write granularity)	Notes
Atmel/Adesto	AT25DF321	0x1F	4700h	0x2015	0x2011	2, 5
Atmel/Adesto	AT25DF321A	0x1F	4701h	0x2015	0x2011	2
Atmel/Adesto	AT25DF641	0x1F	4800h	0x2015	0x2011	2
Atmel/Adesto	AT25DF641A	0x1F	4800h	0x2015	0x2011	2
Atmel/Adesto	AT25DQ641	0x1F	8800h	0x2075	0x2071	2
Atmel/Adesto	AT25DQ161	0x1F	8600h	0x2075	0x2071	2
SST/Microchip	SST 25VF016B	0xBF	2541h	0x2009	0x2005	
SST/Microchip	SST 25VF032B	0xBF	254Ah	0x2009	0x2005	
SST/Microchip	SST 25VF040B	0xBF	258Dh	0x2009	0x2005	
SST/Microchip	SST 25VF080B	0xBF	258Eh	0x2009	0x2005	
SST/Microchip	SST 25VF064C	0xBF	254Bh	0x200D	0x2009	
Chingis	PM25LV080B	0x9D	7F13h	0xD705	0xD701	
Chingis	PM25LV016B	0x9D	7F14h	0xD705	0xD701	
Chingis	PM25LQ080C	0x9D	7F44h	0xD745	0xD741	
Chingis	PM25LQ016C	0x9D	7F45h	0xD745	0xD741	
Chingis	PM25LQ032C	0x9D	7F46h	0xD745	0xD741	
Chingis	PM25LD512C2	0x9D	7F20h	0xD705	0xD701	
EON	EN25F80	0x1C	3114h	0x2005	0x2001	
EON	EN25F16	0x1C	3115h	0x2005	0x2001	
EON	EN25F32	0x1C	3116h	0x2005	0x2001	
EON	EN25Q32B	0x1C	3016h	0x2005	0x2001	
EON	EN25Q64	0x1C	3017h	0x2005	0x2001	
EON	EN25Q128	0x1C	3018h	0x2005	0x2001	
EON	EN25Q16(A)	0x1C	3015h	0x2005	0x2001	
EON	EN25Q80A	0x1C	3014h	0x2005	0x2001	
EON	EN25Q40	0x1C	3013h	0x2005	0x2001	
EON	EN25QH16	0x1C	7015h	0x2005	0x2001	6
EON	EN25QH32	0x1C	7016h	0x2005	0x2001	6
EON	EN25QH256	0x1C	7019h	0x2005	0x2001	6
EON	EN25QH128	0x1C	7018h	0x2005	0x2001	6
EON	EN25QH64	0x1C	7017h	0x2005	0x2001	6
EON	EN25QH80	0x1C	7014h	0x2005	0x2001	6
EON	EN25F64	0x1C	3117h	0x2005	0x2001	

Vendor	Part Name	Vendor ID	Device ID	VSCC value (64byte write granularity)	VSCC value (1byte write granularity)	Notes
AMIC	A25L016	0x37	3015h	0x2005	0x2001	
AMIC	A25L032	0x37	3016h	0x2005	0x2001	
AMIC	A25LQ32A	0x37	4016h	0x2025	0x2021	
AMIC	A25LQ16	0x37	4015h	0x2025	0x2021	
AMIC	A25L040	0x37	3013h	0x2005	0x2001	
AMIC	A25L080	0x37	3014h	0x2005	0x2001	
AMIC	A25LQ32B	0x37	4016h	0x2025	0x2021	
AMIC	A25QE16	0x37	4015h	0x2025	0x2021	6
AMIC	A25QE32	0x37	4016h	0x2025	0x2021	6
AMIC	A25LQ64	0x37	4017h	0x2045	0x2041	6
Gigadevice	GD25Q80	0xC8	4014h	0x2025	0x2021	
Gigadevice	GD25Q16	0xC8	4015h	0x2025	0x2021	
Gigadevice	GD25Q32	0xC8	4016h	0x2025	0x2021	
Gigadevice	GD25Q64	0xC8	4017h	0x2025	0x2021	
Gigadevice	GD25Q128	0xC8	4018h	0x2025	0x2021	
Gigadevice	GD25B16B	0xC8	4015h	0x2025	0x2021	6
Gigadevice	GD25B32B	0xC8	4016h	0x2025	0x2021	6
Gigadevice	GD25B64B	0xC8	4017h	0x2025	0x2021	6
Gigadevice	GD25B128C	0xC8	4018h	0x2025	0x2021	6
Gigadevice	GD25LQ64C	0xC8	6017h	0x2025	0x2021	6
Spansion	S25FL016K	0xEF	4015h	0x2025	0x2021	
Spansion	S25FL032K	0xEF	4016h	0x2025	0x2021	
Spansion	S25FL064K	0xEF	4017h	0x2025	0x2021	
Spansion	S25FL128K	0xEF	4018h	0x2025	0x2021	
Fidelix	FM25Q16	0xF8	3215h	0x2025	0x2021	
Fidelix	FM25Q32	0xF8	3216h	0x2025	0x2021	
Fidelix	FM25Q64	0xF8	3217h	0x2025	0x2021	
Fidelix	FM25Q128	0xF8	3218H	0x2025	0X2021	
ESMT	F25L32PA(2S)	0x8C	2116h	0x2005	0X2001	
ESMT	F25L64PA	0x8C	2117h	0x2005	0X2001	
ESMT	F25L16PA	0x8C	2015h	0x2005	0X2001	
ESMT	F25L04PA	0x8C	3013h	0x2005	0X2001	
ESMT	F25L08PA	0x8C	3014h	0x2005	0X2001	

Vendor	Part Name	Vendor ID	Device ID	VSCC value (64byte write granularity)	VSCC value (1byte write granularity)	Notes
ESMT	F25L16PA(2S)	0x8C	2115h	0x2005	0X2001	
ESMT	F25L32PA	0x8C	2016h	0x2005	0X2001	

NOTES:

1. Numonyx/Micron's M25PE/PX series are not recommended by Numonyx/Micron. Numonyx/Micron recommends a new N25Q series. Please contact Numonyx/Micron for details.
2. For Atmel flash devices, VSCC values of 0x201D for 64byte write granularity and 0x2019 for 1 byte write granularity were used as alternatives in the past. Atmel recommends 0x2015 VSCC value.
3. End of life.
4. Device ID for Winbond's QPI mode (quad peripheral interface); not SPI mode
5. Products that have been replaced by new products
6. Quad I/O device by default with SFDP feature
7. Not recommended for new designs
8. RPMC serial flash device