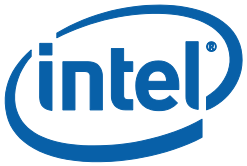

Vendor Specific Component Capabilities (VSCC) Comm.bin Content for 2016 platforms

Application Note

Oct 2015

Revision 4.7

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Table 2-1. List of Serial Flash Devices Added to the VSCCOMMN.bin File 8

Revision History

Document Number	Revision Number	Description	Revision Date
N/A	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 Added overview and note	1/24/2011
	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

Document Number	Revision Number	Description	Revision Date
	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 vsccommn.bin for SST25VF016B, SST25VF032B, SST25VF040B, SST25F080B.	4/30/2012
	2.7	Updated Chingis device ID with 7F44h, 7F45h, 7F46h in vsccommn.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

Document Number	Revision Number	Description	Revision Date
	3.9	Added S25FL164K0XMFIQ10 and S25FL132K0XMFIQ10	11/27/2013
	4.0	Updated device ids for S25FL164K, S25FL132K; Added GD25R64B and MX25L25635F Deleted EOLed spansion parts-S25FL016K, S25FL032K, S25FL064K, S25FL128K (not a real part as per vendor) Added Micron parts: MT25QL128ABA1ESEMS	04/07/2014
	4.1	Added Spansion Part: S25FL116K	07/15/2014
	4.2	Added Gigadevice parts: GD25B64C, GD25R64C, GD25R128C	08/18/2014
	4.3	Added Macronix part: MX25L12850F	08/20/2014
	4.4	Added Micron devices N25Q032A13ESEC0F,N25Q128A13ESEC0F,N25Q256A81ESF40F,N25Q512A81GSF40F,N25Q064A13ESE4MF,N25Q064A13ESED0F,N25Q032A11ESE40F,N25Q064A11ESE40F,N25Q128A11ESE40F,N25Q256A83ESF40F,N25Q512A83GSF40F,MT25QL256ABA8ESF-0SIT,MT25QL256ABA8ESF-MSIT,MT25QL512ABA8ESF-0SIT,MT25QU512ABA8ESF-0SIT Added Macronix device MX25L6495FM2I-08G Added EON devices EN25QH64A, EN25QH128A Added Gigadevice devices GD25LB64CSIG, GD25LB128CSIG Added ISSI devices IS25LP128,IC25LP128,IS25LP064,IC25LP064,IS25WP128,IC25WP128,1S25WP064,IC25WP064	1/8/2015
	4.5	Added EON devices EN25Q40A, EN25Q80B, EN25QH16A, EN25QH32A	1/21/2015
	4.6	Added Macronix parts MX25L3273F, MX25L6473F, MX25L25735F Added Winbond parts W25X05CL, W25X10CL, W25Q10EW, W25X20CL, W25Q20CL, W25Q20EW, W25X40CL, W25Q40CL, W25Q40EW, W25Q80DV, W25Q80EW, W25Q16DV, W25Q16CL, W25Q16FW	6/29/2015
	4.7	Removed all the parts that do not support 2016 platforms.	10/9/2015

1 Introduction

1.1 Overview

Vsccommn.bin file contains the 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 Chipsets SPI Programming Guide	445780 CDI/IBL
Intel® 7 Series Chipset and Intel® C216 Chipset SPI Programming Guide	475653 CDI/IBL
Lynx Point Chipset Intel® 8 Series Chipset Family SPI Programming Guide	485495 CDI/IBL
Broadwell Platform Controller Hub-Low Power (PCH-LP) – Serial Peripheral Interface (SPI) Programming Guide	523462 CDI/IBL
Skylake Platform Controller Hub-Low Power (PCH-LP) – Serial Peripheral Interface (SPI) Programming Guide	550696 CDI/IBL

1.4 Platform Voltage Requirements

Kabylake: Supports 1.8V and 3.3V

Apollo Lake: Supports 1.8V

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.

Table 2-1. List of Serial Flash Devices Added to the VSCCOMMN.bin File

Vendor	Part Name	Vendor ID	Device ID	VSCC Value (64 Byte Write Granularity)	VSCC Value (1 Byte Write Granularity)	Notes
Winbond	W25Q10EW	0xEFh	6011h	0x2025	0x2021	3,4
Winbond	W25Q20EW	0xEFh	6012h	0x2025	0x2021	3,4
Winbond	W25Q40EW	0xEFh	6013h	0x2025	0x2021	3,4
Winbond	W25Q80EW	0xEFh	6014h	0x2025	0x2021	3,4
Winbond	W25Q16DV	0xEFh	4015h	0x2025	0x2021	3
Winbond	W25Q16FW	0xEFh	6015h	0x2025	0x2021	3,4
Winbond	W25Q32FV	0xEFh	6016h	0x2025	0x2021	3
Winbond	W25Q32FW	0xEFh	6016h	0x2025	0x2021	3,4
Winbond	W25Q64FV	0xEFh	4017h	0x2025	0x2021	3
Winbond	W25Q64JV	0xEFh	4017h	0x2025	0x2021	3
Winbond	W25R64FV	0xEFh	4017h	0x2025	0x2021	3
Winbond	W25Q64FW	0xEFh	6017h	0x2025	0x2021	3,4
Winbond	W25Q128FV	0xEFh	4018h	0x2025	0x2021	3
Winbond	W25R128FV	0xEFh	4018h	0x2025	0x2021	3
Winbond	W25Q128FW	0xEFh	6018h	0x2025	0x2021	3,4
Winbond	W25Q256FV	0xEFh	4019h	0x2025	0x2021	3
Winbond	W25M512JV	0xEFh	4019h	0x2025	0x2021	3
Macronix	MX25L6475EM2I -10G	0xC2	2017h	0x2045	0x2041	3
Macronix	MX25L3275EM2I -10G	0xC2	2016h	0x2045	0x2041	3
Macronix	MX25L1675EM2I -10G	0xC2	2415h	0x2045	0x2041	3
Macronix	MX25L12875F	0xC2	2018h	0x2045	0x2041	3
Macronix	MX25L12835F	0xC2	2018h	0x2045	0x2041	
Macronix	MX25L6473E	0xC2	2017h	0x2045	0x2041	3

Vendor	Part Name	Vendor ID	Device ID	VSCC Value (64 Byte Write Granularity)	VSCC Value (1 Byte Write Granularity)	Notes
Macronix	MX25L3273E	0xC2	2016h	0x2045	0x2041	3
Macronix	MX25L1673E	0xC2	2415h	0x2045	0x2041	3
Macronix	MX25L8075E	0xC2	2014h	0x2045	0x2041	3
Macronix	MX25L12873F	0xC2	2018h	0x2045	0x2041	3
Macronix	MX25L8073E	0xC2	2014h	0x2045	0x2041	3
Macronix	MX25L6450F	0xC2	2017h	0x2045	0x2041	3
Macronix	MX25L12850F	0xC2	2018h	0x2045	0x2041	3
Macronix	MX25L3273F	0xC2	2016h	0x2045	0x2041	3
Macronix	MX25L6473F	0xC2	2017h	0x2045	0x2041	3
Macronix	MX25L25735F	0xC2	2019h	0x2045	0x2041	
Macronix	MX25L6445E	0xC2	2017h	0x2045	0x2041	3
Macronix	MX25L6455E	0xC2	2617h	0x2045	0x2041	2
Macronix	MX25L12855E	0xC2	2618h	0x2045	0x2041	2
Macronix	MX25L6436E	0xC2	2017h	0x2045	0x2041	2
Macronix	MX25L12836E	0xC2	2018h	0x2045	0x2041	2
Macronix	MX25L8036E	0xC2	2014h	0x2045	0x2041	2
Macronix	MX25L1636E	0xC2	2015h	0x2045	0x2041	2
Macronix	MX25L12865E	0xC2	2018h	0x2045	0x2041	2
Macronix	MX25L6495F	0xC2	9517h	0x2045	0x2041	
Macronix	MX25L12835F	0xC2	2018h	0x2045	0x2041	
Macronix	MX25L25635E	0xC2	2019h	0x2045	0x2041	
Micron/Numonyx	N25Q128	0x20	BA18h	0x2005	0x2001	3
Micron/Numonyx	N25Q032	0x20	BA16h	0x2005	0x2001	3
Micron/Numonyx	N25Q064	0x20	BA17h	0x2005	0x2001	3
Micron/Numonyx	N25Q016	0x20	BA15h	0x2005	0x2001	3
EON	EN25QH16A	0x1C	7015h	0x2005	0x2001	2,3
EON	EN25QH32A	0x1C	7016h	0x2005	0x2001	2,3
EON	EN25QH256	0x1C	7019h	0x2005	0x2001	3
EON	EN25QH128A	0x1C	7018h	0x2005	0x2001	2,3
EON	EN25QH64A	0x1C	7017h	0x2005	0x2001	2,3
EON	EN25QH80	0x1C	7014h	0x2005	0x2001	3
Gigadevice	GD25B16B	0xC8	4015h	0x2025	0x2021	3
Gigadevice	GD25B32B	0xC8	4016h	0x2025	0x2021	3

Vendor	Part Name	Vendor ID	Device ID	VSCC Value (64 Byte Write Granularity)	VSCC Value (1 Byte Write Granularity)	Notes
Gigadevice	GD25B64B	0xC8	4017h	0x2025	0x2021	3
Gigadevice	GD25B128C	0xC8	4018h	0x2025	0x2021	3
Gigadevice	GD25LQ64C	0xC8	6017h	0x2025	0x2021	3
Gigadevice	GD25R64B	0xC8	4017h	0x2025	0x2021	3
Gigadevice	GD25R64C	0xC8	4017h	0x2025	0x2021	3
Gigadevice	GD25B64C	0xC8	4017h	0x2025	0x2021	3
Gigadevice	GD25R128C	0xC8	4018h	0x2025	0x2021	3
Gigadevice	GD25LB64C	0xC8	6017h	0x2025	0x2021	3
Gigadevice	GD25LB128C	0xC8	6018h	0x2025	0x2021	3

NOTES:

1. End of life
2. Products replaced by new ones
3. Device boots up in Quad mode by default
4. SPI voltage is 1.8V

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