swissbit®

Product Notification Form

PN #: PCN16-0063.doc	Rev: 1.0	Issue Date: September 19, 2016

Type of Change: S-45μ Series microSD Memory Cards conversion to new NAND Flash DIE shrink
☐ minor / ☒ major   S-40μ Series microSD Memory Cards conversion to the S-45μ Series with the
                        new NAND Flash DIE shrink

Detailed Description of Change:
This notification is to inform you about a NAND Flash shrink change. Toshiba will discontinue the supply of A19nm MLC. The Flash DIE of the S-45μ Series will be replaced with the latest 15nm MLC NAND technology which offers longer lifecycle support. The S-40μ Series will be replaced by the S-45 Series with the new 15nm MLC NAND Flash DIE.

Product Series Comparison:

	S-40μ	S-45μ	New generation: S-45μ	Comment
Interface	SD 3.0	SD 3.0 UHS-I	SD 3.0 UHS-I	
NAND Flash	Toshiba A19nm MLC	Toshiba A19nm MLC	Toshiba 15nm MLC	
MCU	S8A / S8B	S8B	S8B	
FW	Ver 1 / Ver 2	Ver A – durabit	Ver B – durabit	See firmware change log
PCB	NM11	NM11	NM20	Adaption for new DIE sizes
Package	Molding	Molding	Molding	
Speed class	Class 6	Class 10	Class 10	

Firmware change log (Ver B):
- durabit FW architecture (page based FTL)
- Improved compatibility:
  - for critical SD signal quality
  - with USB readers that use life time monitoring and diagnostic features
  - for protocol handling
  - host chipsets
- Improved power fail stability by writing

Quality impact:
☐ minor / ☐ major / ☒ no

Reliability impact:
☐ minor / ☐ major / ☒ no

Reason for Change: End-Of-Life of Toshiba A19nm NAND Flash

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Products affected:

Product Description	Series	EOL Part Number	Series	New Part Number
4GB microSD Memory Card		SFSD4096N2BM1TO-t-GE-2A1-STD		SFSD4096N3BM1TO-t-GE-2B1-STD
8GB microSD Memory Card	S-45µ	SFSD8192N2BM1TO-t-LF-2A1-STD	S-45µ	SFSD8192N3BM1TO-t-LF-2B1-STD
16GB microSD Memory Card		SFSD016GN2BM1TO-t-HG-2A1-STD		SFSD016GN3BM1TO-t-HG-2B1-STD

Product Description	Series	EOL Part Number	Series	New Part Number
4GB microSD Memory Card		SFSD4096N2BM1TO-t-GE-1x1-STD		SFSD4096N3BM1TO-t-GE-2B1-STD
8GB microSD Memory Card	S-40µ	SFSD8192N2BM1TO-t-LF-1x1-STD	S-45µ	SFSD8192N3BM1TO-t-LF-2B1-STD
16GB microSD Memory Card		SFSD016GN2BM1TO-t-HG-1x1-STD		SFSD016GN3BM1TO-t-HG-2B1-STD

t = temperature grade C or I, x = options and custom configuration

Implementation date: Conversion phase starting in Q4 2016, for 4GB in Q1 2017

Forecasted Milestones:

Density	Milestone	Date
	Qualification samples availability	available
8GB – 16GB	Last Time Buy – LTB	Dezember 19, 2016
	Last Time Shipment – LTS	Dezember 31, 2017
	Qualification samples availability	CW 50, 2016
4GB	4GB – Last Time Buy – LTB	March 17, 2017
	4GB – Last Time Shipment – LTS	Dezember 31, 2017

Recommended Action: Qualification of new products

Reference Documents / Attachments: –

Should you have any issues with the content of this change, please contact the representative listed below within 20 days. No response will be deemed as customer's acceptance of the change and the change will be implemented.

Contacts	Name	Email
Application Engineer – EMEA	Pablo Dorronsoro	pablo.dorronsoro@swissbit.com
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Application Engineer – JP	Junji Kaneko	junji.kaneko@swissbit.com

IMPORTANT NOTE:

Swissbit – as a provider of industrial products – announces and informs about every change in the product hardware and firmware. We always test backwards compatibility and assure best quality, reliability and transparency for our customers. We apologize for any inconvenience caused.

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Affected Parts:

S-45μ	
SAP	**Swissbit Part Number**
605321	SFSD4096N2BM1TO-I-GE-2A1-STD
605322	SFSD4096N2BM1TO-E-GE-2A1-STD
605323	SFSD8192N2BM1TO-I-LF-2A1-STD
605324	SFSD8192N2BM1TO-E-LF-2A1-STD
605325	SFSD016GN2BM1TO-I-HG-2A1-STD
605326	SFSD016GN2BM1TO-E-HG-2A1-STD

S-40μ	
SAP	**Swissbit Part Number**
605026	SFSD4096N2BM1TO-E-GE-111-STD
604995	SFSD4096N2BM1TO-I-GE-111-STD
605306	SFSD4096N2BM1TO-E-GE-121-STD
605305	SFSD4096N2BM1TO-I-GE-121-STD
605025	SFSD8192N2BM1TO-E-LF-111-STD
604996	SFSD8192N2BM1TO-I-LF-111-STD
605308	SFSD8192N2BM1TO-E-LF-121-STD
605307	SFSD8192N2BM1TO-I-LF-121-STD
605027	SFSD016GN2BM1TO-E-HG-111-STD
604997	SFSD016GN2BM1TO-I-HG-111-STD
605310	SFSD016GN2BM1TO-E-HG-121-STD
605309	SFSD016GN2BM1TO-I-HG-121-STD

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