N3290/N9H20 Storage Support List

Application Note for N3290/N9H20 Series

Document Information

Abstract	This document lists N3290/N9H20 storage support devices.
Apply to	N3290/N9H20 Series.

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1 SD/SDHC/SDXC

Note: The default file system for SDXC card is exFAT. The N3290/N9H20 BSP does not support it. Please format SDXC card to FAT file system before using it on N3290/N9H20 BSP.

Brand Name	Type	Density	Test Result
A-DATA	SD	1 GB	Pass
A-DATA	SD	2 GB	Pass
A-DATA	SDHC	8 GB	Pass
A-DATA	MicroSDHC	32 GB	Pass
Apacer	SD	128 MB	Pass
Apacer	SD	1 GB	Pass
Apacer	SD	2 GB	Pass
Apacer	SDHC	4 GB	Pass
Apacer	SDXC	64 GB	Pass (FAT only)
Apotop	SDHC	8 GB	Pass
Gigaston	SDHC	16 GB	Pass
Kingmax	SD	64 MB	Pass
Kingstone	SD	128 MB	Pass
Kingstone	SD	1 GB	Pass
Kingstone	MicroSD	1 GB	Pass
Kingstone	SD	2 GB	Pass
Kingstone	SDHC	4 GB	Pass
Kingstone	SDHC	8 GB	Pass
Kingstone	SDHC	32 GB	Pass
Kingstone	SDXC	128 GB	Pass (FAT only)
Mio	SD	64 MB	Pass
PQI	SD	256 MB	Pass
Pretec	SDHC	32 GB	Pass
RiData	SD	128 MB	Pass
RiData	SD	2 GB	Pass
SanDisk	SD	64 MB	Pass
SanDisk	SD	256 MB	Pass
SanDisk	SD	512 MB	Pass
SanDisk	MicroSD	1 GB	Pass
SanDisk	SD	2 GB	Pass
SanDisk	MicroSD	2 GB	Pass

Brand Name	Type	Density	Test Result
SanDisk	SDHC	4 GB	Pass
SanDisk	MicroSDHC	4 GB	Pass
SanDisk	MicroSDHC	8 GB	Pass
Sony	SDHC	8 GB	Pass
SP	SDHC	16 GB	Pass
Tcell	SDHC	16 GB	Pass
Toshiba	SD	256 MB	Pass
Toshiba	MicroSD	1 GB	Pass
Toshiba	SDHC	8 GB	Pass
Toshiba	SDHC	16 GB	Pass
Toshiba	SDXC	256 GB	Pass (FAT only)
Transcend	SD	256 MB	Pass
Transcend	SD	512 MB	Pass
Transcend	SD	1 GB	Pass
Transcend	SD	2 GB	Pass
Transcend	SDHC	4 GB	Pass
Transcend	MicroSDHC	4 GB	Pass
Transcend	SDHC	8 GB	Pass
Transcend	SDHC	16 GB	Pass

2 NAND Flash

Note: D/A: Datasheet applicable

Note: N/A (xx): Not applicable since (xx)

For example, "N/A (MLC)" in "Test Result for IBR Booting" field means that MLC NAND Flash is not applicable for booting since Read Disturb issue.

Manufacturer	Part Number	Type	Page Size (Bytes)	Density	Test Result for Data Access	Test Result for IBR Booting
Samsung	K9F5608U0D	SLC	512 + 16	32 MB	Pass	Pass
Samsung	K9F1208U0C	SLC	512 + 16	64 MB	Pass	Pass
Samsung	K9F1G08U0B	SLC	2K + 64	128 MB	Pass	Pass
Samsung	K9F1G08U0D	SLC	2K + 64	128 MB	Pass	Pass
Samsung	K9F1G08U0E	SLC	2K + 64	128 MB	D/A	D/A
Samsung	K9F1G08U0F	SLC	2K + 64	128 MB	Pass	Pass
Samsung	K9F2G08U0B	SLC	2K + 64	256 MB	Pass	Pass
Samsung	K9F2G08U0D	SLC	2K + 64	256 MB	D/A	D/A
Samsung	K9F4G08U0A	SLC	2K + 64	512 MB	D/A	D/A
Samsung	K9F4G08U0F	SLC	2K + 64	512 MB	D/A	D/A
Samsung	K9WAG08U1D	SLC	2K + 64	512 MB	Pass	Pass
Samsung	K9K8G08U0F	SLC	2K + 64	1 GB	D/A	D/A
Samsung	K9G8G08U0A	MLC	2K + 64	1 GB	Pass	N/A (MLC)
Samsung	K9G8G08U0M	MLC	2K + 64	1 GB	Pass	N/A (MLC)
Samsung	K9GAG08U0E	MLC	8K + 436	2 GB	N/A (ECC 24)	N/A (ECC 24)
Samsung	K9HBG08U1M	MLC	2K + 64	2 GB	Pass	N/A (MLC)
Samsung	K9HCG08U1E	MLC	8K + 436	2 GB	N/A (ECC 24)	N/A (ECC 24)
Samsung	K9LBG08U0E	MLC	8K + 436	2 GB	N/A (ECC 24)	N/A (ECC 24)
Hynix	H27U518S2CTP	SLC	512	64 MB	Pass	Pass
Hynix	HY27US08121A	SLC	512	64 MB	D/A	D/A
Hynix	HY27US08121M	SLC	512	64 MB	D/A	D/A
Hynix	H27U1G8F2BTR	SLC	2K + 64	128 MB	Pass	Pass
Hynix	HY27UF081G2A	SLC	2K + 64	128 MB	Pass	Pass
Hynix	HY27UF084G2B	SLC	2K + 64	512 MB	Pass	Pass
Hynix	HY27UT084G2A	MLC	2K + 64	512 MB	Pass	N/A (MLC)

Manufacturer	Part Number	Type	Page Size (Bytes)	Density	Test Result for Data Access	Test Result for IBR Booting
Hynix	H27UAG8T2A	MLC	4K + 224	2 GB	Pass	N/A (ECC 12)
Hynix	H27UAG8T2B	MLC	8K + 448	2 GB	N/A (ECC 24)	N/A (ECC 24)
Hynix	HY27UK08BGFM	SLC	2K + 64	4 GB	D/A	D/A
Hynix	H27UBG8T2A	MLC	8K + 448	4 GB	N/A (ECC 24)	N/A (ECC 24)
Hynix	H27UBG8T2BTR	MLC	8K + 640	4 GB	N/A (ECC 40)	N/A (ECC 40)
Hynix	H27UBG8T2CTR	MLC	8K + 640	4 GB	N/A (ECC 40)	N/A (ECC 40)
Hynix	H27UCG8T2ATR	MLC	8K + 640	8 GB	N/A (ECC 40)	N/A (ECC 40)
Hynix	H27UCG8T2BTR	MLC	16K + 1280	8 GB	N/A (ECC 40 & 16KB page)	N/A (ECC 40 & 16KB page)
Micron	MT29F1G08ABxDA	SLC	2K + 64	128 MB	D/A	D/A
Micron	MT29F1G08ABAEA	SLC	2K + 64	128 MB	D/A	D/A
Micron	MT29F1G08ABAFA	SLC	2K + 128	128 MB	N/A (built-in ECC)	N/A (built-in ECC)
Micron	MT29F2G08ABAEA	SLC	2K + 64	256 MB	D/A	D/A
Micron	MT29F4G08ABADA	SLC	2K + 64	512 MB	D/A	D/A
Micron	MT29F4G08ABAEA	SLC	4K + 224	512 MB	Pass	Pass
Micron	MT29F16G08CBABx	MLC	4K + 224	2 GB	D/A	N/A (MLC)
Micron	MT29F16G08CBACA	MLC	4K + 224	2 GB	N/A (ECC 24)	N/A (ECC 24)
Micron	MT29F32G08CBACA	MLC	4K + 224	4 GB	N/A (ECC 24)	N/A (ECC 24)
Micron	MT29F32G08CBADB	MLC	8K + 744	4 GB	N/A (ECC 40)	N/A (ECC 40)
Toshiba	TC58BVG0S3HTA00	SLC	2K + 64	128 MB	Pass	N/A (ECC 8)
Toshiba	TC58DVG02D5TA00	SLC	2K + 64	128 MB	D/A	D/A
Toshiba	TC58NVG0S3ETA00	SLC	2K + 64	128 MB	D/A	D/A
Toshiba	TC58NVG0S3ETA0B	SLC	2K + 64	128 MB	Pass	Pass
Toshiba	TC58NVG0S3HTA00	SLC	2K + 64	128 MB	Pass	N/A (ECC 8)
Toshiba	TC58NVG1S3ETA00	SLC	2K + 64	256 MB	Pass	Pass
Toshiba	TC58NVG1S3HTA00	SLC	2K + 128	256 MB	Pass	N/A (ECC 8)

Manufacturer	Part Number	Type	Page Size (Bytes)	Density	Test Result for Data Access	Test Result for IBR Booting
Toshiba	TC58NVG2S0HTA00	SLC	4K + 256	512 MB	D/A	D/A
Toshiba	TC58DVG3S0ETA00	SLC	4K + 128	1 GB	Pass	Pass
Toshiba	TC58NVG3S0FTA00	SLC	4K + 232	1 GB	Pass	Pass
Toshiba	TC58NVG3D1DTG00	MLC	4K + 218	1 GB	Pass	N/A (MLC)
Toshiba	TC58NVG4D2FTA00	MLC	8K + 448	2 GB	N/A (ECC 24)	N/A (ECC 24)
ATO	AFND1G08U3	SLC	2K + 64	128 MB	D/A	D/A
Eon	EN27LN1G08	SLC	2K + 64	128 MB	Pass	Pass
Eon	EN27LN2G08	SLC	2K + 64	256 MB	Pass	Pass
Eon	EN27LN4G08	SLC	2K + 64	512 MB	Pass	Pass
ESMT	F59L1G81A	SLC	2K + 64	128 MB	Pass	Pass
ESMT	F59L1G81LA	SLC	2K + 64	128 MB	D/A	D/A
ESMT	F59L2G81A	SLC	2K + 64	256 MB	Pass	Pass
ESMT	F59L4G81A	SLC	2K + 64	512 MB	D/A	D/A
Maker Founder	MP4G08KAA	SLC	2K + 64	512 MB	D/A	D/A
Maker Founder	MP4G08JAA	SLC	4K + 256	512 MB	D/A	D/A
Maker Founder	MP8G08KAA	SLC	2K + 64	1 GB	D/A	D/A
Mira/Deutron	PSU12A30BT	SLC	2K + 64	64 MB	D/A	D/A
Mira/Deutron	PSU1GA30HT	SLC	2K + 64	128 MB	D/A	D/A
MXIC	MX30LF1208AA	SLC	2K + 64	64 MB	Pass	Pass
MXIC	MX30LF1G08AA	SLC	2K + 64	128 MB	Pass	Pass
MXIC	MX30LF1G18AC	SLC	2K + 64	128 MB	Pass	Pass
MXIC	MX30LF1GE8AB	SLC	2K + 64	128 MB	N/A (built-in ECC)	N/A (built-in ECC)
MXIC	MX30LF2G18AC	SLC	2K + 64	256 MB	D/A	D/A
MXIC	MX30LF2G28AD	SLC	2K + 128	256 MB	D/A	N/A (ECC 8)
MXIC	MX30LF4G18AC	SLC	2K + 64	512 MB	D/A	D/A
MXIC	MX60LF8G18AC	SLC	2k + 64	1 GB	Pass Note: must floating pin #38	Pass Note: must floating pin #38
Spansion	S34ML01G1	SLC	2K + 64	128 MB	D/A	D/A
Spansion	S34ML01G2	SLC	2K + 64	128 MB	Pass	Pass
Spansion	S34ML02G1	SLC	2K + 64	256 MB	D/A	D/A
Spansion	S34ML02G2	SLC	2K + 128	256 MB	D/A	D/A
Spansion	S34ML04G1	SLC	2K + 64	512 MB	D/A	D/A

Manufacturer	Part Number	Type	Page Size (Bytes)	Density	Test Result for Data Access	Test Result for IBR Booting
Spansion	S34ML04G2	SLC	2K + 128	512 MB	D/A	D/A
Winbond	W29N01GV	SLC	2K + 64	128 MB	Pass	Pass
Winbond	W29N01HV	SLC	2K + 64	128 MB	Pass	Pass
Zentel	A5U1GA31ATS	SLC	2K + 64	128 MB	Pass	Pass
Zentel	A5U1GA31BTS	SLC	2K + 64	128 MB	Pass	Pass
Zentel	A5U2GA31BTS	SLC	2K + 64	256 MB	Pass	Pass
Zentel	A5U4GA31ATS	SLC	2K + 64	512 MB	Pass	Pass
XTX (芯天下)	XT27G01A	SLC	2K + 128	128 MB	Pass	N/A (ECC 8)
XTX (芯天下)	XT27G01B	SLC	2K + 64	128 MB	Pass	Pass
XTX (芯天下)	XT27G02E	SLC	2K + 128	256 MB	D/A	N/A (ECC 8)

3 eMMC

Manufacturer	Part Number	Type	Density	Test Result
Kingston	KE44B-26BN	eMMC v4.41 4-bit mode	4 GB	Pass
SkyMedi	SP18A4G751B-0003	eMMC v5.0 4-bit mode	4 GB	Pass
SkyMedi	SP18A8G752B-0003	eMMC v5.0 4-bit mode	8 GB	Pass

4 SPI NOR

Note: N3290/N9H20 series SPI hardware does not support quad mode.

Note *: The recovery time of Software reset (66H+99H) command takes approximately 30us, which causes IBR read data incorrectly and boot failure.

Manufacturer	Part Number	Type	Quad Read	Quad Write	Density
Winbond	W25X80	1-bit mode	-	-	8 Mbit
Winbond	W25Q16CV	1/4-bit mode	-	-	16 Mbit
Winbond	W25Q16JV	1/4-bit mode	-	-	16 Mbit
Winbond	W25Q32FV	1/4-bit mode	-	-	32 Mbit
Winbond	W25Q32JV	1/4-bit mode	-	-	32 Mbit
Winbond	W25Q64JV	1/4-bit mode	-	-	64 Mbit
Winbond	W25Q128FV	1/4-bit mode	-	-	128 Mbit
Winbond	W25Q128JV	1/4-bit mode	-	-	128 Mbit
Winbond	W25Q128JVSIQ	1/4-bit mode	-	-	128 Mbit
Winbond	W25Q256FV	1/4-bit mode	-	-	256 Mbit
Winbond	W25Q256JV	1/4-bit mode	-	-	256 Mbit
MXIC	MX25L3206E	1-bit mode	-	-	32 Mbit
MXIC	MX25L6406E	1-bit mode	-	-	64 Mbit
MXIC	MX25L12835E	1/4-bit mode	-	-	128 Mbit
MXIC	MX25L25635E	1/4-bit mode	-	-	256 Mbit
MXIC	MX66L51235F	1/4-bit mode	-	-	512 Mbit
CFeon	EN25QH16	1/4-bit mode	-	-	16 Mbit
CFeon	EN25QH32	1/4-bit mode	-	-	32 Mbit
CFeon	EN25QH64	1/4-bit mode	-	-	64 Mbit
CFeon	EN25QH128	1/4-bit mode	-	-	128 Mbit
CFeon	EN25QH256	1/4-bit mode	-	-	256 Mbit
Gigadevice	GD25Q16	1/4-bit mode	-	-	16 Mbit
Gigadevice	GD25Q32C*	1/4-bit mode	-	-	32 Mbit
Gigadevice	GD25Q32E	1/4-bit mode	-	-	32 Mbit
Gigadevice	GD25Q64C	1/4-bit mode	-	-	64 Mbit
Gigadevice	GD25Q64E	1/4-bit mode	-	-	64 Mbit
Gigadevice	GD25Q128B	1/4-bit mode	-	-	128 Mbit
Gigadevice	GD25Q128E*	1/4-bit mode	-	-	128 Mbit
ESMT	F25L64QA	1/4-bit mode	-	-	64 Mbit

Puya	P25Q80U	1/4-bit mode	-	-	8 Mbit
XTX	XT25F32F	1/4-bit mode	-	-	32 Mbit
XTX	XT25F64F	1/4-bit mode	-	-	64 Mbit
XTX	XT25F128F*	1/4-bit mode	-	-	128 Mbit

Revision History

Date	Revision	Description
2021.05.24	1.00	● Initial version.
2021.08.12	1.01	● Added XTX XT25F32F SPI NOR.
2022.11.23	1.02	● Added XTX / Gigadevice SPI NOR.

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