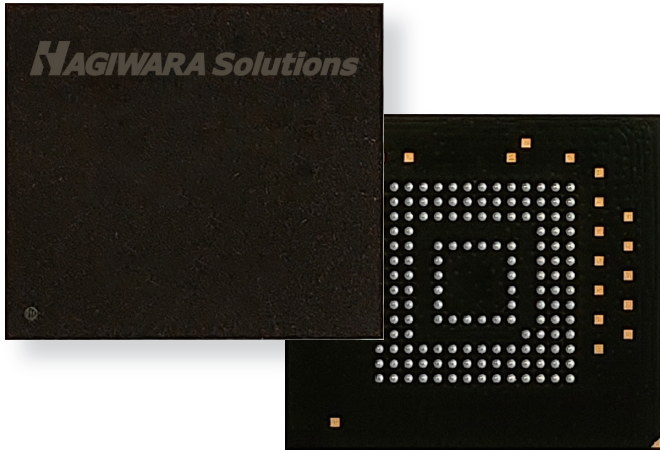


eMMC (Embedded MultiMediaCard)



Main features

- 153 Ball BGA package
- JEDEC eMMC Standard Ver.5.1
- Operating at -25°C to 85°C
- Read disturbance management
- Static wear leveling
- Management of sudden power failure
- RoHS compliant

Embedded device suitable for small systems

Flash memory, controller, and firmware are contained in one BGA package, which are small size and saves electric power. They are the most suitable for mobile devices and embedded products.

Optimal write efficiency with page mapping method

Page mapping method provides efficient data writing, reduced frequency of rewriting for flash memory, and extended product life.

FFU (Field Firmware Update) support

When the host finds the new version firmware, it will download the firmware successfully, then make the eMMC install it. User can update the firmware in the field.

Ball Assignments

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	
A	NC	NC	DAT0	DAT1	DAT2	NC	NC	NC	NC	NC	NC	NC	NC	NC	A
B	NC	DAT3	DAT4	DAT5	DAT6	DAT7	NC	NC	NC	NC	NC	NC	NC	NC	B
C	NC	VDD1	NC	VSSQ	NC	VCCQ	NC	NC	NC	NC	NC	NC	NC	NC	C
D	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	D
E	NC	NC	NC	NC	NC	VCC	VSS	VBF1	VBF2	VBF3	NC	NC	NC	NC	E
F	NC	NC	NC	NC	NC	VCC	NC	NC	NC	VBF4	NC	NC	NC	NC	F
G	NC	NC	NC	NC	NC	VSS	NC	NC	NC	VBF5	NC	NC	NC	NC	G
H	NC	NC	NC	NC	NC	NC	NC	NC	NC	VSS	NC	NC	NC	NC	H
J	NC	NC	NC	NC	NC	NC	NC	NC	NC	VCC	NC	NC	NC	NC	J
K	NC	NC	NC	NC	NC	RST_N	NC	NC	VSS	VCC	VBF6	NC	NC	NC	K
L	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	L
M	NC	NC	NC	NC	VCCQ	CMD	CLK	NC	NC	NC	NC	NC	NC	NC	M
N	NC	VSSQ	NC	VCCQ	VSSQ	NC	NC	NC	NC	NC	NC	NC	NC	NC	N
P	NC	NC	VCCQ	VSSQ	VCCQ	VSSQ	NC	NC	NC	VBF7	NC	NC	NC	NC	P

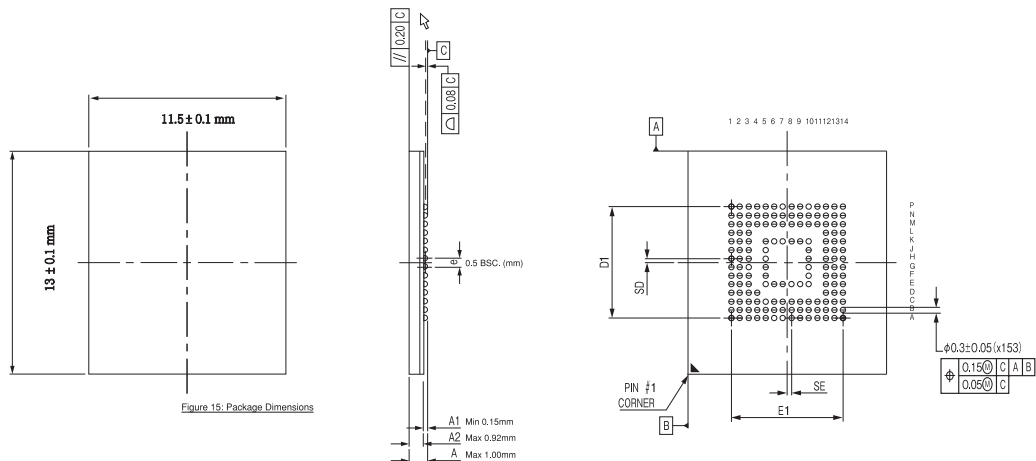
Figure 2. 153-Ball Assignments (Top View)



Specifications

Series		K Series eMMC	
NAND Flash		TLC	SLC mode
Number of Rewrites		3,000	30,000
Supported eMMC Standard		Ver.4.4 , 4.41 , 4.5 , 5.0 , 5.1	
Capacity		16GB~256GB	4GB~64GB
Operating Temperature		-25℃ to 85℃	
Data Transfer Speed	Sequential Read (MB/s)	300	
	Sequential Write (MB/s)	22	100
Power Consumption	VCC(mA)	100	53
	VCCQ(mA)	230	240
Operating Voltage	VCC(V)	3.3	
	VCCQ(V)	1.8	
Bus Speed Mode	Legacy MMC card	●	●
	High Speed SDR	●	●
	High Speed DDR	●	●
	HS200	●	●
	HS400	●	●
Functions	Field Firmware Update	●	●
	Power off Notification for Sleep	●	●
	Production State Awareness	●	-
	Enhanced User Data Area	●	-
	Life Prediction	●	●

Package Dimensions



HAGIWARA Solutions

For more information, please contact us by e-mail. Send email to: hsolsupport@hagisol.co.jp

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