

Mobile DRAM



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K4M56163PI

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General Description

Mobile DRAM is a version of the standard DRAM memory but is redesigned specifically for deployment in handheld battery-powered devices such as mobile phones PDAs PMPs and tablet computers with the primary objective of reducing power consumption and extending the device is battery life. Mobile DRAM operates at substantially low voltages significantly reducing power consumption yet maintaining the performance levels for the device that it is deployed in. Mobile DRAM also offers additional benefits of higher memory densities and operating speeds resulting in faster data transfers for the device.

Portable computing and communication devices such as tablet computers and smartphones are the primary are as of deployment for mobile DRAM. Standards for this memory have officially undergone several revisions and have resulted in significant improvements in density operating speed power consumption and bandwidth. The technology is capable of meeting the increasing bandwidth demands of tablet computers and other similar mobile computing devices. Handheld power-conscious devices such as ebook readers always on Internet access devices such as tablet computers and advanced mobile devices such as smartphones and PDAs stand to benefit the most from developments in mobile DRAM. Worldwide SAMSUNG is the largest provider of advanced memory technologies including mobile DRAM. Samsung mobile DRAM provides an array of advanced features such as ultra-low power consumption levels high operating speeds the smallest package sizes and form factors and exceptional reliability and is thus the default choice for deployment on the most advanced computing and communication platforms.

Specifications

Density	256Mb
Organization	16Mx16
Speed	75,90,1L
Package	54FBGA
Vdd/Vddq(V)	1.8/1.8
Temperature	E,G,C,F
Production Status	Mass Production

RoHS Information

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D	Declaration letter
Ⓜ	Does not contain hazardous materials defined in China RoHS
Ⓜ	Contains hazardous materials defined in China RoHS

<div>Planet First</div>	K4M56163PI-BG75 is Lead-free and RoHS compliant.
<div>Planet First</div>	K4M56163PI-W300 is Lead-free and RoHS compliant.

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Product information is accurate at the time of publication. However, subsequent product improvements may render some details inaccurate.

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Mobile DRAM's Frequently violated parameters Appli

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• Application Note

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• Application Note

MRS/ CRE setting issues of U1RAM and U1RAM2

(Aug, 01, 2009)

• Application Note

U1RAM and U1RAM2's Frequently violated parameters

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• Application Note

TNAL060817_128Mb M&A comparison

(Aug, 01, 2007)

• Application Note

TN0611_Row boundary Crossing

(Apr, 01, 2007)

• Application Note

TNAL070117_SDRAM Mode Comparison

(Jan, 01, 2007)

• Application Note

Software MRS for U1RAM

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• Application Note

TNAL060728_Power Up (status & current)

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TNAL060622_Write method & Mode change

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