M6MGB/T32BS8WG

33,554,432-BIT (2,097,152-WORD BY 16-BIT) CMOS FLASH MEMORY & 8,388,608-BIT (524,288-WORD BY 16-BIT) CMOS SRAM

Stacked-CSP (Chip Scale Package)

Description

The M6MGB/T32BS8WG is a Stacked Chip Scale Package (S-CSP) that contents 32M-bit Flash memory and 8M-bit SRAM in a 66-pin Stacked CSP.

32M-bit Flash memory is a 2,097,152 words, single power supply and high performance non-volatile memory fabricated by CMOS technology for the peripheral circuit and DINOR (Divided bit-line NOR) architecture for the memory cell. All memory blocks are locked and can not be programmed or erased, when F-WP# is Low. Using Software Lock Release function, program or erase operation can be executed.

8M-bit SRAM is a 524,288 words asynchronous SRAM fabricated by CMOS technology.

The M6MGB/T32BS8WG is suitable for a high performance cellular phone and a mobile PC that are required to be small mounting area, weight and small power dissipation.

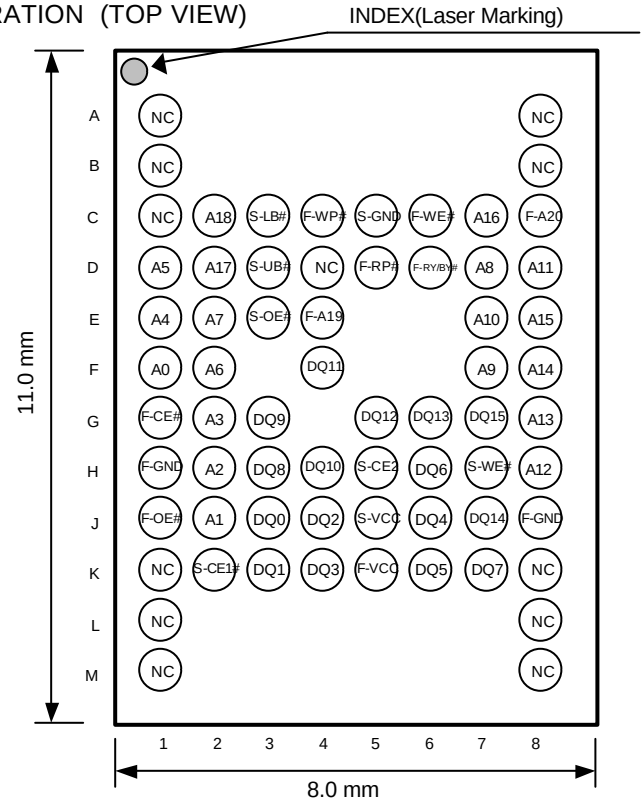
Features

Access Time	Flash	85ns (Max.)
	SRAM	85ns (Max.)
Supply Voltage		F-VCC =VCC=2.7 ~ 3.0V
Ambient Temperature		Ta=-40 ~ 85 °C
Package		66 pin S-CSP Ball pitch 0.80mm

Application

Mobile communication products

PIN CONFIGURATION (TOP VIEW)

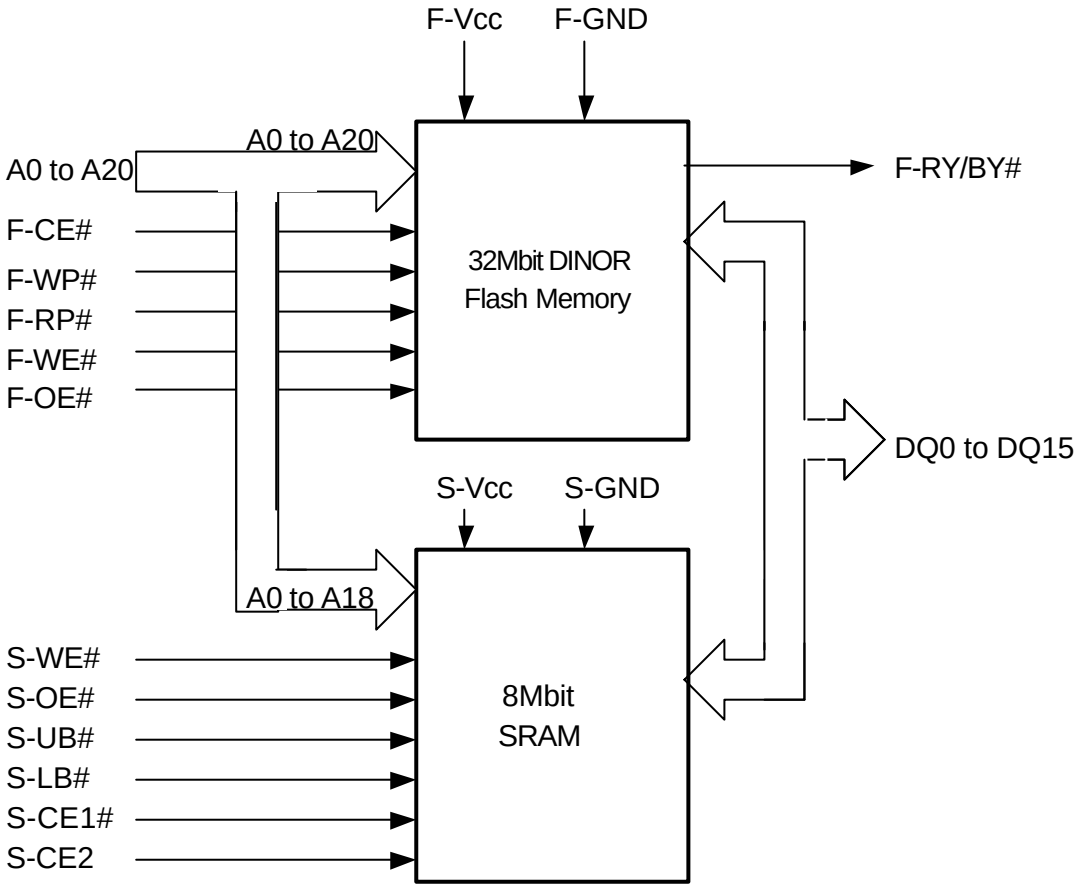


NC:Non Connection

F-VCC	: VCC for Flash Memory
S-VCC	: VCC for SRAM
F-GND	: GND for Flash Memory
S-GND	: GND for SRAM
A0-A18	: Common address for Flash/SRAM
F-A19-F-A20	: Address for Flash
DQ0-DQ15	: Data I/O
F-CE#	: Flash chip enable
S-CE1#	: SRAM chip enable1
S-CE2	: SRAM chip enable2

F-OE#	:Output enable for Flash
S-OE#	:Output enable for SRAM
F-WE#	:Write enable for Flash
S-WE#	:Write enable for SRAM
F-WP#	:Write protect for Flash
F-RP#	:Reset power down for Flash
F-RY/BY#	:Flash Ready/Busy
S-LB#	:Lower byte control for SRAM
S-UB#	:Upper byte control for SRAM

MCP Block Diagram



Note: In the data sheet there are "VCC"s which mean "F-VCC". In the SRAM part there are "UB#" and "LB#" which mean "S-UB#" and "S-LB#", respectively.

Capacitance

Symbol	Parameter		Conditions	Limits			Unit
				Min.	Typ.	Max.	
CIN	Input capacitance	A20-A0, F-OE#, S-OE#,F-WE#, S-WE#,F-CE#, F-WP#, F-RP#, S-CE1#, S-CE2, S-LB#, S-UB#	Ta=25°C, f=1MHz, Vin=Vout=0V			18	pF
COUT	Output Capacitance	DQ15-DQ0,F-RY/BY#				22	pF

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