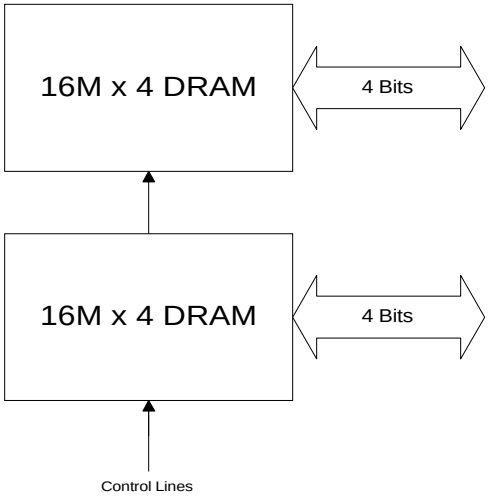
Irvine Sensors Corporation
Microelectronics Products Division

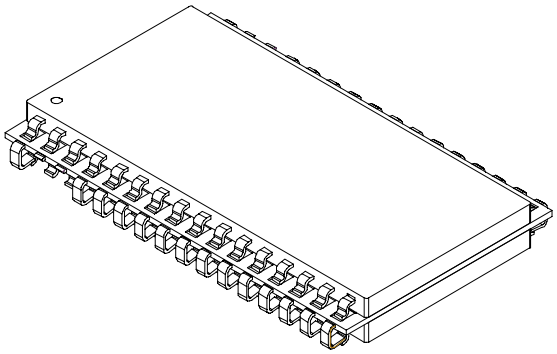
128 Mbit EDO DRAM Memory Stack

Features:

- Low Profile: same PCB area as a single device
- Provides a cost-effective emulation of a 128 Mbit DRAM by using 2 low cost 64 Mbit DRAMs.



- Pin compatible with future 128 Mbit sinlge chip devices.
- Low cost, economical for volume commercial applications
- 16M x 8 Organization
- Extended Data Out Mode Capability
- CAS Before RAS refresh capability
- RAS only hidden refresh capability
- +5.0V+/- 10% power supply
- Available speeds: 45, 50, 60 ns
- Available with 4K or 8K refresh
- Utilizes Samsung KM44C16(1)004B TSOPs



Dimensions: 0.827”L x 0.529”W x 0.10”H

General Description

The Irvine Sensor’s Microelectronics Products Division's 128 Mbit DRAM memory stack provides a cost-effective interim alternative to the monolithic 128 Mbit DRAM. Utilizing low cost readily available 64 Mbit devices and designed to be pin for pin compatible with future 128 Mbit monolithic devices. This device provides system designers with a low cost, currently available, device for cost sensitive high density memory applications. PCB's can be designed for 128Mbit devices today and be instantly upgraded to monolithic devices when they become cost effective.

For more information contact MPD Sales:
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This is a family of 16,777,216 x 8 bit Extended Data Out Mode CMOS DRAMs. Extended Data Out Mode offers high speed random access of memory cells within the same row. Refresh cycle(4K Ref. or 8K Ref.), access time (-45, -5, or -6) are optional features of this family. All of this family have CAS-before-RAS refresh, RAS-only refresh and Hidden refresh capabilities. These EDO Mode DRAM family is fabricated using Samsung's advanced CMOS process to realize high band-width, low power consumption and high reliability.

Samsung's detailed data sheet is available at the following Internet website:
`http://www.usa.samsungsemi.com/`

Significant Parameters

Parameter	Min	Typ	Max	Unit
Supply Voltage	4.5	5.0	5.5	Volts
Operating Current (8K, -45)	-	-	200	mA
Stand-by Current	-	-	2	mA
RAS Access Time (-45)	45	-	-	ns
Temperature range	0	-	+70	°C

Pin Numbering

Pin #	Name	Name	Pin#
1	Vdd	Vss	32
2	DQ0	DQ7	31
3	DQ1	DQ6	30
4	DQ2	DQ5	29
5	DQ3	DQ4	28
6	N/C	N/C	27
7	N/C	/CAS	26
8	/W	/OE	25
9	/RAS	A12(N/C)	24
10	A0	A11	23
11	A1	A10	22
12	A2	A9	21
13	A3	A8	20
14	A4	A7	19
15	A5	A6	18
16	Vdd	Vss	17

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