184-pin PC3200 DDR- SDRAM Module

DIMM 512MB DDR-I in TSOP Technique

Features:

- 184-pin 64-bit Dual-In-Line Memory Module. Double Date Rate synchronous DRAM Modules for desktop applications.
- DDR- SDRAM component base: 32M8 Infineon or Micron
- V_{DD} 2,6 ±0.2V, V_{DDQ} 2,6 ±0.2V
- Programmable CAS Latency, Burst Length and Wrap Sequence
- Auto Refresh (CBR) and Self Refresh
- 8k Refresh every 64ms
- 2.6 I/O (SSTL_2 compatible)
- Serial Presence Detect with EEPROM
- Gold-contact pad
- This module family is fully pin and functional compatible to the JEDEC PC3200 spec. and JEDEC- Standard MO 206 (refer to www.jedec.org)

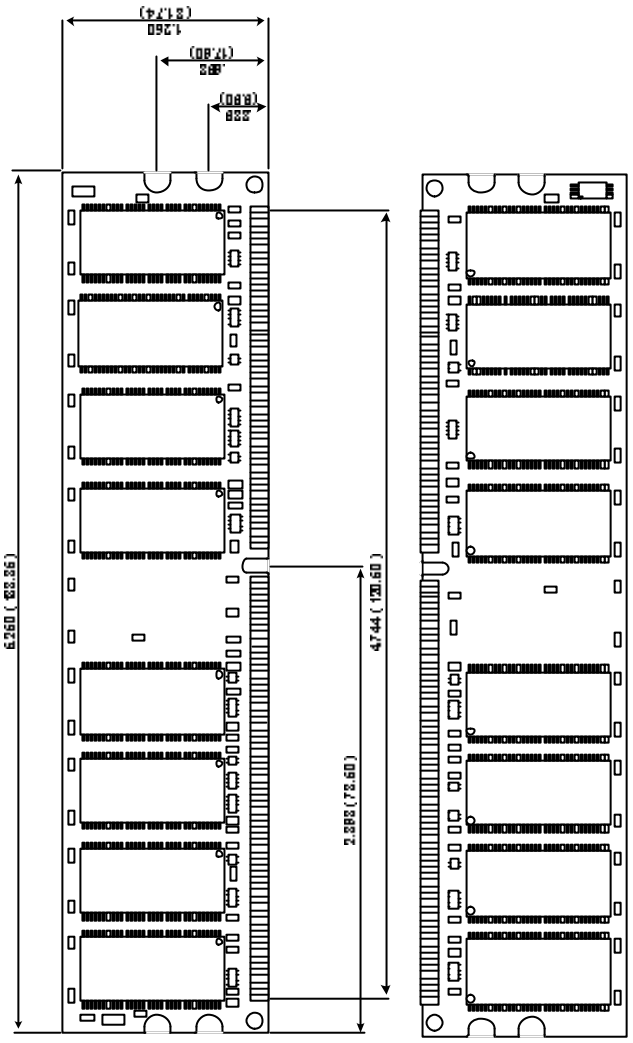


Figure 1: Mechanical Dimensions

Table 1: Order Information / Addressing

Organization	Banks	JEDEC Code	Addressing	Chip code	Swissbit Code
64M x 64 / 16x32x8	2	512MB PC3200S-333	13 / 2 / 10	MT46V32M8TG-5T	SDU06464H1B32MT-50
64M x 64 / 16x32x8	2	512MB PC3200S-333	13 / 2 / 10	HYB25D256800BT-5	SDU06464H1B22IN-50

Table 2: Operating Current (T_A = 0 to 70°C; V_{DD} = 2.5V ±0.2V, $V_{DD}Q$= 2.5V±0.2V)

Parameter	Symbol	MT-50	IN-50	Unit
Operating Current	max. IDD0	1112	1080	mA
Precharge Standby Current (Power Down Mode)	max. IDD2P	64	112	mA

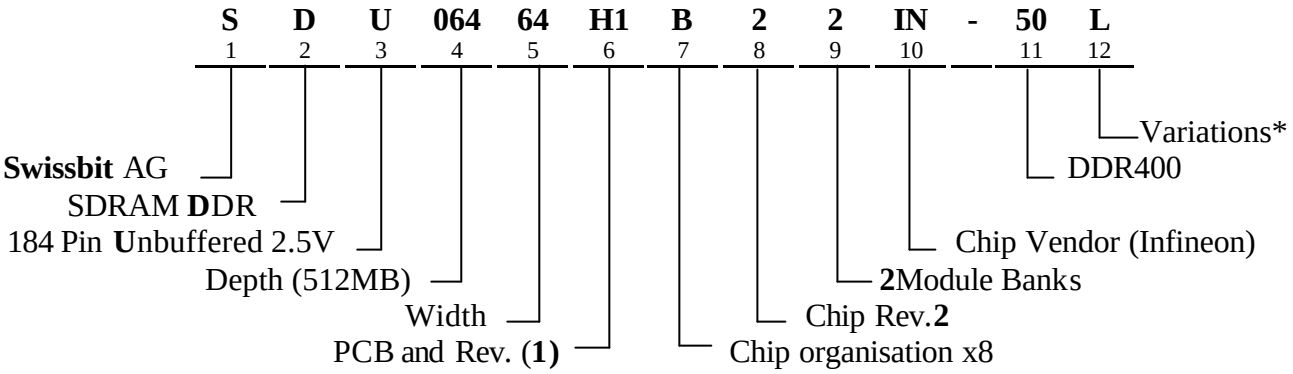
Table 3: AC Characteristics (T_A = 0 to 70°C; V_{SS} = 0V; V_{DD} = 2.5V ±0.2V, $V_{DD}Q$= 2.5V±0.2 V)

Parameter		Symbol	MT-50		IN-50		Unit
			min.	max.	min.	max.	
Clock Cycle Time	CL = 2.5	t_{CK}	6.0	13	6.0	13	ns
	CL = 3.0		5.0	7.5	5.0	7.5	ns
Access Time from Clock		t_{AC}	-0.70	+0.70	-0.70	+0.70	ns
Row to Column Delay Time		t_{RCD}	15	-	15	-	ns
Row Precharge Time		t_{RP}	15	-	15	-	ns

Table 4: Environmental Requirements

Operating Temperature	0°C to + 70°C ambient
Operating Humidity	10% to 90% relative humidity, noncondensing
Operating Pressure	10106 PSI (up to 10000 ft.)
Storage Temperature	-40°C to 70°C
Storage Humidity	5% to 95% without condensing
Storage Pressure	1682 PSI (up to 5000 ft.) at 50°C

Part Number Code



** optional / additional information*

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