

SYNCHRONOUS DRAM MODULE

16M Bytes (2M x 64 bits) PC100 SDRAM Unbuffered SODIMM

based on 2 pcs 2M x 32 SDRAM with LVTTTL, 4 banks & 4K Refresh

GENERAL DESCRIPTION

The UG42S6442HSG-PL/PH is a 2Mbits x 64 Sync DRAM module. The UG42S6442HSG-PL/PH is assembled using 2 pcs of 2M x 32 with 4 Banks Sync DRAMs in 86 pin TSOP packages mounted on 144 pin unbuffered printed circuit board.

FEATURES

- Single 3.3V ± 10% power supply
- Utilizes 100 MHz SDRAM components
- Burst Mode Operation
- Data scramble (Sequential & Interleave)
- All inputs are sampled at the positive going edge of the system clock
- Two Clocks System
- Auto & self refresh capability (4096 Cycles/64ms)
- LVTTTL compatible inputs and output
- Serial PD with EEPROM
- PCB:Height (1000mil),single sided component

ABSOLUTE MAXIMUM RATINGS

- Voltage Relative to GND -0.3 to + 4.6V
- Operating Temperature 0 to + 70°C
- Storage Temperature -55°C to + 125°C
- Short circuit Output Current 50mA
- Power Dissipation 2W

ORDERING INFORMATION

PART NO.	INTERNAL BANK	REF.	SDRAM PACKAGE	PLATING
UG42S6442HSG-PH	4 Banks	4K	TSOP	Gold
UG42S6442HSG-PL				

REVISION HISTORY

Oct 03 , 2001

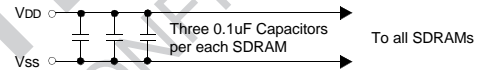
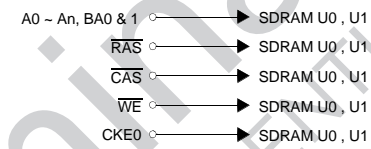
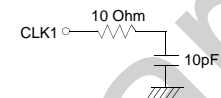
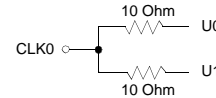
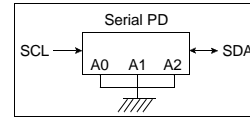
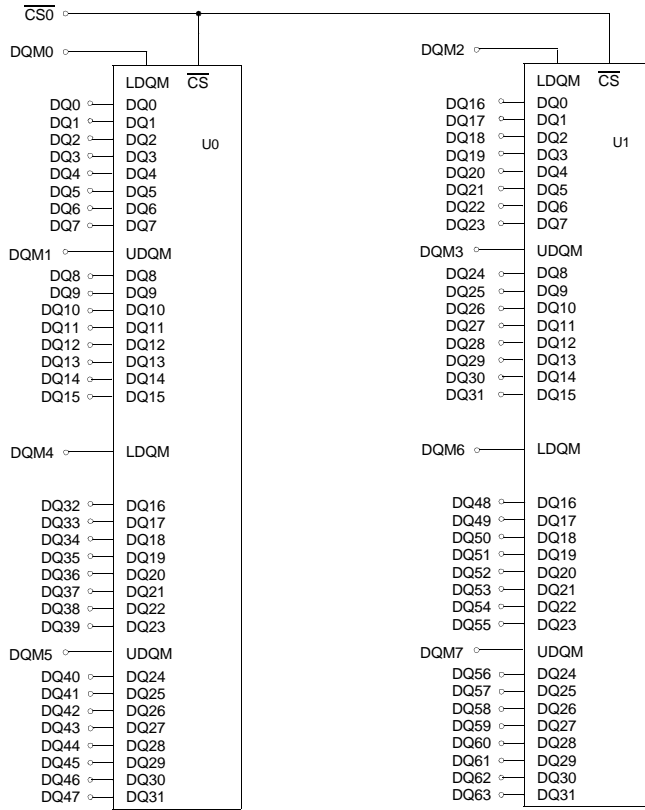
Rev - A Product brief released.

PIN ASSIGNMENT (Front View) 144-Pin SODIMM

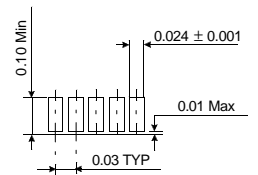
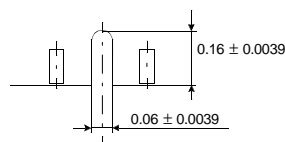
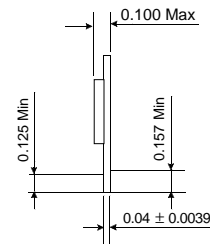
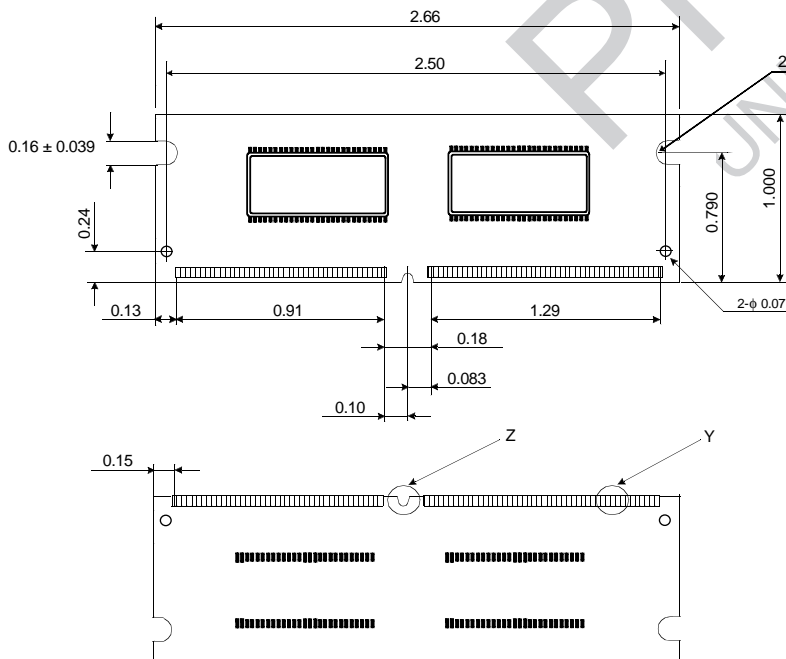
PIN	SYMBOL	PIN	SYMBOL	PIN	SYMBOL	PIN	SYMBOL
1	Vss	2	Vss	73	NC	74	NC
3	DQ0	4	DQ32	75	Vss	76	Vss
5	DQ1	6	DQ33	77	NC	78	NC
7	DQ2	8	DQ34	79	NC	80	NC
9	DQ3	10	DQ35	81	Vcc	82	Vcc
11	Vcc	12	Vcc	83	DQ16	84	DQ48
13	DQ4	14	DQ36	85	DQ17	86	DQ49
15	DQ5	16	DQ37	87	DQ18	88	DQ50
17	DQ6	18	DQ38	89	DQ19	90	DQ51
19	DQ7	20	DQ39	91	Vss	92	Vss
21	Vss	22	Vss	93	DQ20	94	DQ52
23	DQM0	24	DQM4	95	DQ21	96	DQ53
25	DQM1	26	DQM5	97	DQ22	98	DQ54
27	Vcc	28	Vcc	99	DQ23	100	DQ55
29	A0	30	A3	101	Vcc	102	Vcc
31	A1	32	A4	103	A6	104	A7
33	A2	34	A5	105	A8	106	BA0
35	Vss	36	Vss	107	Vss	108	Vss
37	DQ8	38	DQ40	109	A9	110	BA1
39	DQ9	40	DQ41	111	A10	112	NC
41	DQ10	42	DQ42	113	Vcc	114	Vcc
43	DQ11	44	DQ43	115	DQM2	116	DQM6
45	Vcc	46	Vcc	117	DQM3	118	DQM7
47	DQ12	48	DQ44	119	Vss	120	Vss
49	DQ13	50	DQ45	121	DQ24	122	DQ56
51	DQ14	52	DQ46	123	DQ25	124	DQ57
53	DQ15	54	DQ47	125	DQ26	126	DQ58
55	Vss	56	Vss	127	DQ27	128	DQ59
57	NC	58	NC	129	Vcc	130	Vcc
59	NC	60	NC	131	DQ28	132	DQ60
61	CLK0	62	CKE0	133	DQ29	134	DQ61
63	Vcc	64	Vcc	135	DQ30	136	DQ62
65	/RAS	66	/CAS	137	DQ31	138	DQ63
67	/WE	68	NC	139	Vss	140	Vss
69	/CS0	70	NC	141	SDA	142	SCL
71	NC	72	NC	143	Vcc	144	Vcc

NOTE: Pin symbols in parentheses are not used on these modules but may be used for other modules in this product family. They are for reference only.

Functional Block Diagram



Physical Dimension



Detail Z

Detail Y

Tolerances : ± 0.005 unless otherwise specified

Units : Inches