

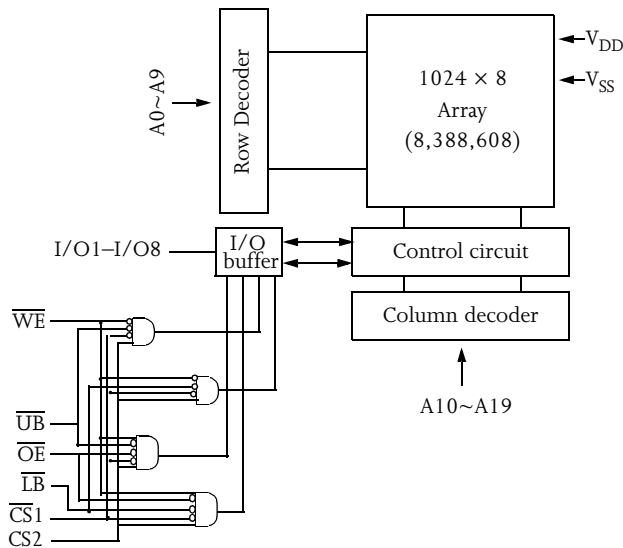


1.65V to 2.2V 1M × 8 Intelliwatt™ Super Low-Power CMOS SRAM

Features

- AS6YB1M8
- Intelliwatt™ active power circuitry
- Industrial temperature range (-40° - +85° C)
- Organization: 1,048,576 words x 8 bits
- 1.65V to 2.2V power supply range
- Fast access time of 55ns
- Low power consumption: ACTIVE
 - 33 mW max at 2.2 V and 55 ns
- Low power consumption: STANDBY
 - 33 μW max at 2.2V
- 1.0V data retention
- Equal access and cycle times
- Easy memory expansion with $\overline{CS1}$, $CS2$, \overline{OE} inputs
- Smallest footprint package
 - 48-ball FBGA; 7.0 x 9.0 mm
- ESD protection ≥ 2000 volts
- Latch-up current ≥ 200 mA

Logic block diagram



Pin arrangement (top view)

48-CSP Ball-Grid-Array Package

	1	2	3	4	5	6
A	DNU	\overline{OE}	A0	A1	A2	CS2
B	DNU	DNU	A3	A4	$\overline{CS1}$	DNU
C	I/O1	DNU	A5	A6	DNU	I/O5
D	VSS	I/O2	A17	A7	I/O6	VCC
E	VCC	I/O3	VCC	A16	I/O7	VSS
F	I/O4	DNU	A14	A15	DNU	I/O8
G	DNU	DNU	A12	A13	\overline{WE}	DNU
H	A18	A8	A9	A10	A11	A19

Note: DNU = Do Not Use

Selection guide

Product	V _{CC} Range			Speed (ns)	Power Dissipation	
	Min (V)	Typ (V)	Max (V)		Operating (I _{CC1})	Standby (I _{SB1})
					Max (mA)	Max (μA)
AS6YB1M8	1.65	1.8 - 2.0	2.2	55/70	2	15