

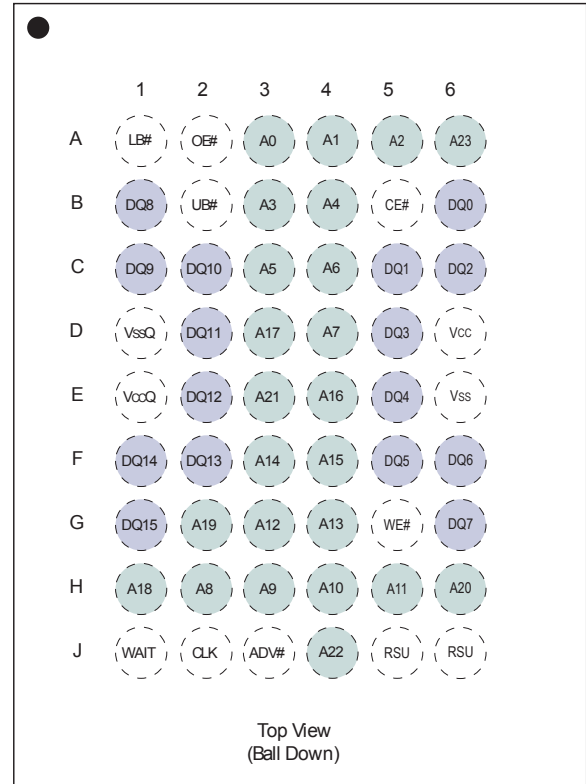


APS256/128/64/3216A/B/C/D-N-Z 256/128/64/32Mb Async/Page/Burst CellularRAM

Features

- Fully compliant to CellularRAM 1.5 Specification
- Single device supports asynchronous, page, and burst operations
- VCC, VCCQ voltages:
1.7V–1.95V VCC
1.7V–1.95V VCCQ
- Random access time: 70ns
- Burst mode READ and WRITE access:
4, 8, 16, or 32 words, or continuous burst
Burst wrap or sequential
Max clock rate: 133 MHz ($t_{CLK} = 7.5ns$)
Burst initial latency: 37.5ns (5 clocks) at 133 MHz
 t_{ACLK} : 5.5ns at 133 MHz
- Page mode READ access:
Sixteen-word page size
Interpage READ access: 70ns
Intrapage READ access: 20ns
- Low power consumption:
Asynchronous READ: <25mA
Intrapage READ: <18mA
Initial access, burst READ:
(39ns [4 clocks] at 109 MHz) <35mA
Continuous burst READ: <30mA
Deep power-down: <3µA (typ)
- Low-power features
On-chip temperature compensated refresh (TCR)
Partial array refresh (PAR)
Deep power-down (DPD) mode

Figure 1: Ball Assignment 54-Ball VFBGA



Options

- Configuration:

256Mb	16 meg x 16
128Mb	8 meg x 16
64Mb	4 meg x 16
32Mb	2 meg x 16
- Vcc core voltage supply: 1.8V
- VccQ I/O voltage supply: 1.8V
- Package: 54-ball VFBGA
- Timing: 70ns access
- Frequency: 83, 109, 133MHz
- CRE options: -Z: CRE-disabled
blank: CRE enabled

Options (continued)

- Standby power at 85°C:

	32Mb	64Mb	128Mb	256Mb
				(2-dies)
Standard (max)	150µA	140µA	250µA	500µA
Reduced (max)	120µA	120µA	200µA	400µA
Low-power (max)		100µA	160µA	320µA
- Operating temperature range:

Wireless	-30°C to +85°C
Extended: Contact Aptic	