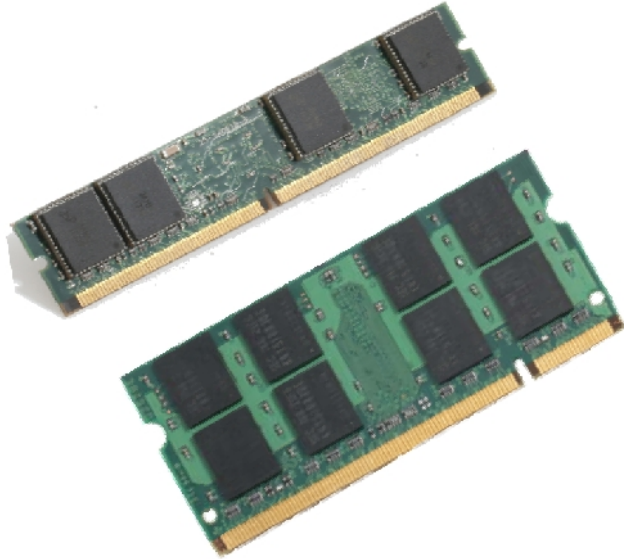


DDR3 Unbuffered VLP & Standard SO-UDIMMs



DESCRIPTION:

Virtium offers DDR3 unbuffered SO-UDIMM in VLP (Very Low Profile: 0.72" high) and standard small outline dual in-line memory modules in a selected range of densities, speeds and features.

The VLP form-factors are well suited for space constrained systems with height restrictions and low airflow requirements.

Virtium's SO-UDIMMs are designed to satisfy the demanding memory applications for Embedded, Telecom, Networking, Storage, Military, Aerospace and Ruggedized Computer marketplace.

FEATURES:

- 204-pin, unbuffered VLP and standard small outline dual in-line memory module (SO-UDIMMs)
- Proposed JEDEC pin-out
- PC3-12800, PC3-10600, PC3-8500, PC3-6400
- VDD = VDDQ = 1.5V +/- 0.075V
- VDDSPD = 3V to 3.6V
- JEDEC standard 1.5V +/- 0.075V I/O (SSTL_15 compatible)
- Operating temperature: 0°C to 85°C
- Industrial temperature range also available
- 8 Banks
- 8-bit pre-fetch architecture
- Bi-directional Differential Data-Strobe
- Programmable Burst Length (8)
- On-die termination (ODT)
- Average Refresh Period 7.8us
- Serial presence detect with EEPROM
- Fly-by topology
- Lead-free, RoHS compliant

BENEFITS:

- Very Low Profile (VLP)
- Low Power
- High densities
- High operational frequency

APPLICATIONS:

- Single Board Computers
- Embedded Computing Platforms
- Telecommunication Servers
- Networking & Storage Appliances
- Military & Aerospace Systems

VLP (Very Low Profile) SO-UDIMM

DENSITY	HEIGHT	THICKNESS	MAX SPEED	COMP. DENSITY	COMP. PACKAGE	COMP. CONFIG.	MODULE RANKS	CL	PART NUMBER
2GB	0.72"	0.315"	PC3-12800	1Gbit	BGA stack	x8	2	11	VL41B5669E-K0
2GB	0.72"	0.315"	PC3-10600	1Gbit	BGA stack	x8	2	9	VL41B5669E-K9
2GB	0.72"	0.315"	PC3-8500	1Gbit	BGA stack	x8	2	7	VL41B5669E-F8
1GB	0.72"	0.134"	PC3-12800	1Gbit	Monolithic	x8	1	11	VL41B2863E-K0
1GB	0.72"	0.134"	PC3-10600	1Gbit	Monolithic	x8	1	9	VL41B2863E-K9
1GB	0.72"	0.134"	PC3-8500	1Gbit	Monolithic	x8	1	7	VL41B2863E-F8

Standard SO-UDIMM

DENSITY	HEIGHT	THICKNESS	MAX SPEED	COMP. DENSITY	COMP. PACKAGE	COMP. CONFIG.	MODULE RANKS	CL	PART NUMBER
4GB	1.181"	0.134"	PC3-12800	2Gbit	Monolithic	x8	2	11	VL41B5263A-K0
4GB	1.181"	0.134"	PC3-10600	2Gbit	Monolithic	x8	2	9	VL41B5263A-K9
4GB	1.181"	0.134"	PC3-8500	2Gbit	Monolithic	x8	2	7	VL41B5263A-F8
2GB	1.181"	0.134"	PC3-12800	1Gbit	Monolithic	x8	2	11	VL41B5663A-K0
2GB	1.181"	0.134"	PC3-10600	1Gbit	Monolithic	x8	2	9	VL41B5663A-K9
2GB	1.181"	0.134"	PC3-8500	1Gbit	Monolithic	x8	2	7	VL41B5663A-F8
1GB	1.181"	0.134"	PC3-12800	1Gbit	Monolithic	x8	1	11	VL41B2863A-K0
1GB	1.181"	0.134"	PC3-12800	1Gbit	Monolithic	x8	1	9	VL41B2863A-H0
1GB	1.181"	0.134"	PC3-10600	1Gbit	Monolithic	x8	1	9	VL41B2863A-K9
1GB	1.181"	0.134"	PC3-8500	1Gbit	Monolithic	x8	1	7	VL41B2863A-F8

Mechanical Outlines

Unit	Width	Height	Thickness
Inches	2.661	0.720	0.134 - 0.315
Millimeters	67.60	18.29	3.40 - 8.00

Unit	Width	Height	Thickness
Inches	2.661	1.181	0.134 - 0.315
Millimeters	67.60	30.00	3.40 - 8.00

Additional Virtium Memory Products

Virtium DDR3, UDIMM (Unbuffered) with ECC & Non-ECC



- 240-pin, dual in-line memory module
- Available in standard 1.181" and VLP 0.72" heights
- Unbuffered or UDIMM in 4GB, 2GB and 1GB densities
- Fast data transfer rates: PC3-12800, PC3-10600, PC3-8500 or PC3-6400
- JEDEC Standard form factor
- Targeted for high-speed operations
- RoHS compliance



Virtium Technology provides memory and solid state storage solutions for single board computers and high-reliability systems.

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