

### Introduction

The JSC DDR3 product family operates normal voltage at 1.5V, and low voltage at 1.35V. Both are organized as 8 I/Os x 8banks in 78-ball BGA and 16 I/Os x 8banks in 96-ball BGA .

Today, DDR3 is widely implemented in various kinds of consumer product: Set-top box, Digital TV, AI speaker and routers. These new 8Gb DDR3 and DDR3L devices also have applications in automotive, industrial and medical systems.

### DDR3 Product Features

- Differential bidirectional data strobe
- Data masking per byte on Write commands
- Programmable Burst length of 4 or 8
- Programmable CAS (READ) latency (CL)
- Programmable posted CAS additive latency (AL)
- Programmable CAS (WRITE) latency (CWL)
- Auto-Refresh and Self-Refresh Modes
- OCD (Driver Adjustment)
- ODT (On Die Termination) supported
- Write Leveling
- Packages: 96-ball BGA for x16, 78-ball BGA for x8
- Long-term support

### Key Timing Parameter

Speed Grade	- (Blank) <sup>1</sup>	- A <sup>1,2</sup>	Units
	DDR3-1866	DDR3-2133	
Data Rate	1866	2133	(MT/s)
tRCD-tRP-CL	13-13-13	14-14-14	
tCK	1.071	0.938	Ns
tRCD	13.91	13.09	Ns
tRP	13.91	13.09	Ns
CL	13.91	13.09	Ns

Note : 1. Backward compatible to 1600, CL=11  
2. Backward compatible to 1866, CL=13

### Application

The JSC DDR3 product family can widely use many kinds of consumer product such as home appliance, CCTV, passive optical network and so on. We can also provide high reliability and cost competitiveness and various package & test solution for global customer.



Set-top-Box



AI-Speaker



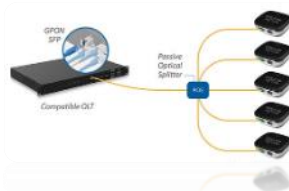
CCTV



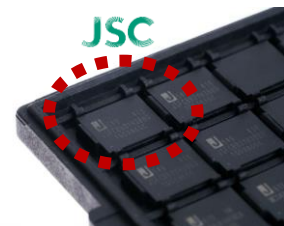
Industrial

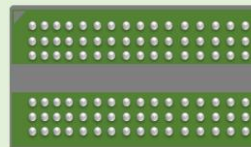


Digital TV



Passive optical network





### ■ DDR3 Product Line-up

Density	Data width	Voltage	Speed	Package Type	Temperature	Part Number
2Gb	x16	1.35/1.5V	DDR3-1866	96FBGA (7.5x13mm)	Commercial	JSR362G168NHR-(L)
2Gb	x16	1.35/1.5V	DDR3-1866	96FBGA (7.5x13mm)	Industrial	JSR362G168NHR-(L)I
2Gb	x16	1.35/1.5V	DDR3-2133	96FBGA (7.5x13mm)	Commercial	JSR362G168NHR-(L)A
2Gb	x16	1.35/1.5V	DDR3-2133	96FBGA (7.5x13mm)	Industrial	JSR362G168NHR-(L)AI
2Gb	x8	1.35/1.5V	DDR3-1866	78FBGA (7.5x11mm)	Commercial	JSR362G088NHW-(L)
2Gb	x8	1.35/1.5V	DDR3-1866	78FBGA (7.5x11mm)	Industrial	JSR362G088NHW-(L)I
2Gb	x8	1.35/1.5V	DDR3-2133	78FBGA (7.5x11mm)	Commercial	JSR362G088NHW-(L)A
2Gb	x8	1.35/1.5V	DDR3-2133	78FBGA (7.5x11mm)	Industrial	JSR362G088NHW-(L)AI
4Gb	x16	1.35/1.5V	DDR3-1866	96FBGA (7.5x13mm)	Commercial	JSR364G168NHR-(L)
4Gb	x16	1.35/1.5V	DDR3-1866	96FBGA (7.5x13mm)	Industrial	JSR364G168NHR-(L)I
4Gb	x16	1.35/1.5V	DDR3-2133	96FBGA (7.5x13mm)	Commercial	JSR364G168NHR-(L)A
4Gb	x16	1.35/1.5V	DDR3-2133	96FBGA (7.5x13mm)	Industrial	JSR364G168NHR-(L)AI
4Gb	x8	1.35/1.5V	DDR3-1866	78FBGA (7.5x11mm)	Commercial	JSR364G088NHW-(L)
4Gb	x8	1.35/1.5V	DDR3-1866	78FBGA (7.5x11mm)	Industrial	JSR364G088NHW-(L)I
4Gb	x8	1.35/1.5V	DDR3-2133	78FBGA (7.5x11mm)	Commercial	JSR364G088NHW-(L)A
4Gb	x8	1.35/1.5V	DDR3-2133	78FBGA (7.5x11mm)	Industrial	JSR364G088NHW-(L)AI

If you have any question or inquiry, please contact to JSC sales team

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