



DRAM

Mobile DDR SDRAM

Ideal for applications requiring memory bandwidth and low-power

► Features:

- Standard double-data rate clock timing
- Four internal banks with bank controls
- Data masking per byte on Write commands
- Programmable burst length of 2, 4, or 8
- Programmable CAS Latency of 2 or 3
- Auto-Refresh and Self-Refresh Modes
- Auto-Precharge Supported
- JEDEC compliant BGA: 60-ball [x16]
90-ball [x32]

► Clock Frequency:

- Low supply voltage: 1.8V +/- 0.1V
- Clock Stop, Power Down, and Deep Power Down Modes (DPD)
- Extended Mode Register (EMR)
On-chip Temperature Compensated Self-Refresh (TCSR)
Partial Array Self-Refresh (PASR)
Selectable Output Drive Strength (DS)

Density	Configuration	Part Number
32Mb	2M x 16	IS43LR16200D
	1M x 32	IS43LR32100D
64Mb	4M x 16	IS43LR16400C
	2M x 32	IS43LR32200C
128Mb	8M x 16	IS43LR16800G
	4M x 32	IS43LR32400G
256Mb	16M x 16	IS43LR16160G
	8M x 32	IS43LR32800G
512Mb	32M x 16	IS43LR16320C
	16M x 32	IS43LR32160C
1Gb	64M x 16	IS43LR16640C
	32M x 32	IS43LR32320C
2Gb	128M x 16	IS43LR16128B
	64M x 32	IS43LR32640B

Options

Clock cycle time	
6ns [166MHz]	-5
5ns [200MHz]	-6
Package	
Leadfree BGA	BL
Temperature grades	
Commercial [0°C to +70°C]	[blank]
Industrial [-40°C to +85°C]	I
Automotive A1 [-40°C to +85°C]	A1
Automotive A2 [-40°C to +105°C]	A2
Automotive A25 [-40°C to +115°C]	A25

Notes:

1. Automotive grade mDDR part numbers begin with "IS46LR".
2. Please check for availability of PoP BGA package options.