High-Speed DDR SDRAM

► ISSI DDR Standard Features

- Single supply voltage of 2.5V or 2.6V
- Standard double-data rate clock timing
- SSTL_2 compatible inputs
- 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, 2.5 or 3
- Auto-Refresh and Self-Refresh Modes
- Auto-Precharge Supported
- JEDEC compliant:
  60-ball BGA or 66-pin TSOP-II for x16
  144-ball BGA for x32

► Applications

- Access and Aggregation Nodes
- Enterprise Switches
- Packet Optical Transport
- Core and Edge Routers
- Automotive Multimedia and Telematics
- Industrial Test and Measurement
- Medical Imaging & Analysis

Key Timing Parameters

Speed (Max Freq.)	-4	-5	-6	Units
CL = 4	250	200	166	MHz
CL = 3	200	200	166	MHz
CL = 2.5	—	166	166	MHz
CL = 2	—	133	133	MHz

Note:
These are general specs. 250MHz (DDR-500) is available for select products. For any given part number, please refer to the corresponding datasheet for the timing specifications.

ISSI DDR Ordering Options

Density	Config.	Part Number	Package TSOP2-66	BGA-60	BGA-144	Temperature Grade Com.	Ind.	Auto.
64Mbit	4M x 16	IS43R16400B	■			■	■	
128Mbit	8M x 16	IS43R16800CC, (IS43R16800E)	■			■	■	
	4M x 32	IS43R32400D, (IS43R32400E)			■	■	■	■
256Mbit	32M x 8	IS43R83200B, (IS43R83200D)	■			■	■	
	16M x 16	IS43R16160B, (IS43R16160D)	■	■		■	■	■
	8M x 32	IS43R32800B, (IS43R32800D)			■	■	■	■
512Mbit	64M x 8	IS43R86400D	■	■		■	■	
	32M x 16	IS43R16320D	■	■		■	■	■
	16M x 32	IS43R32160D			■	■	■	■

Notes:

1. Automotive grade DDR part numbers begin with "IS46R".

2. Part numbers in parenthesis are sampling. All others in mass production.