



# 1Gb DDR2 Up to 533MHz clock speed



## PRODUCT FEATURES:

- Single supply voltage of 1.8V ± 0.1V
- SSTL\_18 compatible inputs
- Bidirectional differential or single-ended data strobe option
- Data masking per byte on Write commands
- Programmable burst length of 4 or 8
- Programmable CAS Latency of 3, 4, 5, 6 or 7
- Auto-Refresh and Self-Refresh Modes
- OCD (Off-Chip Driver Impedance Adjustment)
- ODT (On Die Termination) supported
- JEDEC compliant: 84-ball BGA for x16, 60-ball BGA for x8

## TOP APPLICATIONS:

- **Telecom**  
Access Nodes (PON OLT, DSLAM, CMTS, Wireless)  
Aggregation Nodes  
VoIP  
Switches and Routers  
Packet Optical Transport
- **Automotive**  
Infotainment  
Telematics
- **Other**  
Set-top boxes / DVRs  
Network storage  
And many more

## Key Timing Parameters

Speed Grade	-3D	-25E	-25D	-19F	Units
	DDR2-667D	DDR2-800E	DDR2-800D	DDR2-1066F	
CL-tRCD-tRP	5-5-5	6-6-6	5-5-5	7-7-7	tCK
tCK (CL = 3)	5	5	5	5	ns
tCK (CL = 4)	3.75	3.75	3.75	3.75	ns
tCK (CL = 5)	3	3	2.5	3	ns
tCK (CL = 6)	3	2.5	2.5	2.5	ns
tCK (CL = 7)	3	2.5	2.5	1.875	ns
Frequency (max)	333	400	400	533	MHz

## ISSI DDR2 Ordering Options (Datasheets)

Part No.	Den.	Org.	Speeds	Pkg.	Ordering Options	Status
IS43DR32800A	256M	8M x32	DDR2-400B, DDR2-533C	BGA(126)	-5BBL, -5BBLI, -37CBL, -37CBLI	Prod
IS43DR32801A		8M x32	DDR2-400B, DDR2-533C	BGA(126)	-5BBL, -5BBLI, -37CBL, -37CBLI	Prod
IS46DR32801A		8M x32	DDR2-400B	BGA(126)	-5BBLA1	S=Q1/10
IS43DR16160A		16M x16	DDR2-400B, DDR2-533C, DDR2-667D, DDR2-800E	BGA(84)	-5BBLI, -37CBL, -37CBLI, -3DBL, -3DBLI, -25EBL	S=NOW
IS46DR16160A		16M x16	DDR2-400B, DDR2-533C	BGA(84)	-5BBLA1, -37CBLA1	S=NOW
IS43DR83200A		32M x8	DDR2-533C	BGA(60)	-37CBLI	S=Q2/10
IS43DR16320B	512M	32M x16	DDR2-533C, DDR2-667D, DDR2-800E, DDR2-800D	BGA(84)	-37CBL, -37CBLI, -3DBL, -3DBLI, -25EBL, -25EBLI, -25DBL	S=NOW
IS46DR16320B		32M x16	DDR2-533C, DDR2-667D	BGA(84)	-37CBLA1, -3DBLA1	S=NOW
IS43DR86400B		64M x8	DDR2-533C, DDR2-667D, DDR2-800E, DDR2-800D	BGA(60)	-37CBLI, -3DBLI, -25EBLI, -25DBLI	S=Q1/10
IS43DR16640A	1G	64M x16	DDR2-667D, DDR2-800E, DDR2-800D, DDR2-1066F	BGA(84)	-3DBL, -3DBLI, -25EBL, -25EBLI, -25DBL, -25DBLI, -19FBL	S=Q1/10
IS46DR16640A		64M x16	DDR2-667D	BGA(84)	-3DBLA1	S=NOW
IS43DR81280A		128M x8	DDR2-667D, DDR2-800E, DDR2-800D	BGA(60)	-3DBLI, -25EBLI, -25DBLI	S=Q1/10

### Notes:

1. Automotive DDR2 parts begin with "IS46DR".
2. Leaded BGA is planned to sample in Q1/10.
3. IS43DR32800A is Standard Page option, IS43/46DR32801A is Reduced Page option.