



DDR2 SDRAM

Up to 800Mbps data rate

► ISSI DDR2 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 or 6
- Auto-Refresh and Self-Refresh Modes
- OCD (Off-Chip Driver Impedance Adjustment)
- ODT (On Die Termination) supported
- Packages: 126-ball BGA for x32, 84-ball BGA for x16, 60-ball BGA for x8
- Long-Term Support

► Applications:

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

Key Timing Parameters

Speed Grade	-5B	-37C	-3D	-25E	-25D	Units
	DDR2-400B	DDR2-533C	DDR2-667D	DDR2-800E	DDR2-800D	
CL-tRCD-tRP	3-3-3	4-4-4	5-5-5	6-6-6	5-5-5	tCK
tCK (CL = 3)	5	5	5	5	5	ns
tCK (CL = 4)	5	3.75	3.75	3.75	3.75	ns
tCK (CL = 5)	5	3.75	3	3	2.5	ns
tCK (CL = 6)	5	3.75	3	2.5	2.5	ns
Frequency (max)	200	266	333	400	400	MHz

ISSI DDR2 Ordering Options

Part No.	Den.	Org.	Speeds	Pkg.	Ordering Options	Status
IS43DR32801A	256M	8Mx32	DDR2-400B, DDR2-533C	BGA(126)	-5BBL, -5BBLI, -37CBL, -37CBLI	Prod
IS43DR16160A		16Mx16	DDR2-400B, DDR2-533C, DDR2-667D, DDR2-800E	BGA(84)	-5BBLI, -37CBL, -37CBLI, -3DBL, -3DBLI, -25EBL	Prod
IS43DR83200A		32Mx8	DDR2-533C	BGA(60)	-37CBLI	Prod
IS43DR16320B	512M	32Mx16	DDR2-533C, DDR2-667D, DDR2-800E, DDR2-800D	BGA(84)	-37CBL, -37CBLI, -3DBL, -3DBLI, -25EBL, -25EBLI, -25DBL, -25DBLI	Prod
IS43DR86400B		64Mx8	DDR2-533C, DDR2-667D, DDR2-800E, DDR2-800D	BGA(60)	-37CBLI, -3DBL, -3DBLI, -25EBLI, -25DBLI	Prod
IS43DR16640A	1G	64Mx16	DDR2-667D, DDR2-800E, DDR2-800D	BGA(84)	-3DBL, -3DBLI, -25EBL, -25EBLI, -25DBL, -25DBLI	Prod
IS43DR16640B		64Mx16	DDR2-667D, DDR2-800E, DDR2-800D	BGA(84)	-3DBL, -3DBLI, -25EBL, -25EBLI, -25DBL, -25DBLI	S=NOW
IS43DR81280A		128Mx8	DDR2-667D, DDR2-800E, DDR2-800D	BGA(60)	-3DBL, -3DBLI, -25EBLI, -25DBLI	Prod
IS43DR81280B		128Mx8	DDR2-667D, DDR2-800E, DDR2-800D	BGA(60)	-3DBL, -3DBLI, -25EBLI, -25DBLI	S=NOW
IS43DR16128		2G	128Mx16	DDR2-667D	BGA(84)	-3DBL, -3DBLI

Notes:

1. Automotive grade DDR2 part numbers begin with "IS46DR".
2. Contact ISSI for other ordering options.
3. S = Samples, Prod = Production