



DRAM

DDR2 SDRAM

Up to 800Mbps data rate

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 DDR2-400B	-37C DDR2-533C	-3D DDR2-667D	-25E DDR2-800E	-25D DDR2-800D	Units
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

Den.	Part No.	Org.	Speeds	Pkg.	Ordering Options	Status
256M	IS43DR32801B	8Mx32	DDR2-533C, DDR2-667D	BGA(126)	-37CBL, -37CBLI, -3DBL, -3DBLI	Prod
	IS43DR16160B	16Mx16	DDR2-533C, DDR2-667D, DDR2-800D	BGA(84)	-37CBL, -37CBLI, -3DBL, -3DBLI, -25DBL, -25DBLI	Prod
512M	IS43DR32160C	16Mx32	DDR2-533C, DDR2-667D	BGA(126)	-37CBL, -37CBLI, -3DBL, -3DBLI	Prod
	IS43DR16320D	32Mx16	DDR2-667D, DDR2-800D	BGA(84)	-3DBL, -3DBLI, -25DBL, -25DBLI	Prod
	IS43DR16320E	32Mx16	DDR2-667D, DDR2-800D	BGA(84)	-3DBL, -3DBLI, -25DBL, -25DBLI	Prod
	IS43DR86400D	64Mx8	DDR2-667D, DDR2-800D	BGA(60)	-3DBL, -3DBLI, -25DBL, -25DBLI	Prod
	IS43DR86400E	64Mx8	DDR2-667D, DDR2-800D	BGA(60)	-3DBL, -3DBLI, -25DBL, -25DBLI	Prod
1G	IS43DR16640B	64Mx16	DDR2-667D, DDR2-800D	BGA(84)	-3DBL, -3DBLI, -25DBL, -25DBLI	Prod
	IS43DR16640C	64Mx16	DDR2-667D, DDR2-800D	BGA(84)	-3DBL, -3DBLI, -25DBL, -25DBLI	Prod
	IS43DR81280B	128Mx8	DDR2-667D, DDR2-800D	BGA(60)	-3DBL, -3DBLI, -25DBL, -25DBLI	Prod
	IS43DR81280C	128Mx8	DDR2-667D, DDR2-800D	BGA(60)	-3DBL, -3DBLI, -25DBL, -25DBLI	Prod
2G	IS43DR16128B	128Mx16	DDR2-667D, DDR2-800E	BGA(84)	-3DBL, -3DBLI, -25EBL, -25EBLI	Prod
	IS43DR16128C	128Mx16	DDR2-667D, DDR2-800D	BGA(84)	-3DBL, -3DBLI, -25DBL, -25DBLI	Prod
	IS43DR82560B	256Mx8	DDR2-667D, DDR2-800E	BGA(60)	-3DBL, -3DBLI, -25EBL, -25EBLI	Prod
	IS43DR82560C	256Mx8	DDR2-667D, DDR2-800D	BGA(60)	-3DBL, -3DBLI, -25DBL, -25DBLI	Prod

Notes:

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