



3.3V SDR SDRAM

A Complete Offering from 16Mbit to 512Mbit

► ISSI SDR Standard Features:

- Single supply voltage of 3.3V ± 0.3V
- Standard SDRAM clock timing
- LVTTTL compatible inputs
- Four internal banks with bank controls⁽²⁾
- Data masking per byte on Read or Write commands
- Programmable burst length of 1, 2, 4, 8, or full page
- Programmable CAS Latency of 2 or 3
- Auto-Refresh and Self-Refresh Modes
- Auto-Precharge Supported
- JEDEC compliant:
 - 54-ball BGA or 54-pin TSOP-II for x16⁽²⁾
 - 90-ball BGA or 86-pin TSOP-II for x32

► Applications:

- Wireless Access Points
- Base Stations
- Routers
- Network Storage
- Energy Management
- Industrial Controls
- Car Infotainment
- Automotive Telematics

► 200MHz High Speed Option

- 1Mx16, 4Mx16, and 8Mx16 organizations
- Single Supply Voltage of 3.3V ± 0.3V
- CAS Latency of 3
- JEDEC compliant TSOP and BGA

Key Timing Parameters

Speed (Max Freq.)	-5	-6	-7	-75E	Units
CL = 3	200	166	143	–	MHz
CL = 2	100	100	100	133	MHz

Note: These are general specs. For any given part number, please refer to the corresponding datasheet for the timing specifications.

ISSI SDR Ordering Options

Density	Config.	Part Number ^(1,3)	Package		Temperature Grade		
			TSOP2	BGA	Com.	Ind.	Auto.
16Mbit	1M x 16	IS42S16100E, IS42S16100F	■	■	■	■	■
64Mbit	4M x 16	IS42S16400F, IS42S16400J	■	■	■	■	■
	2M x 32	IS42S32200E, (IS42S32200L)	■	■	■	■	■
128Mbit	16M x 8	IS42S81600E, (IS42S81600F)	■	■	■	■	■
	8M x 16	IS42S16800E, (IS42S16800F)	■	■	■	■	■
	4M x 32	IS42S32400E, (IS42S32400F)	■	■	■	■	■
256Mbit	32M x 8	IS42S83200D, (IS42S83200G)	■	■	■	■	■
	16M x 16	IS42S16160D, (IS42S16160G)	■	■	■	■	■
	8M x 32	IS42S32800D, (IS42S32800G)	■	■	■	■	■
512Mbit	64M x 8	IS42S86400B, IS42S86400D	■	■	■	■	■
	32M x 16	IS42S16320B, IS42S16320D	■	■	■	■	■
	16M x 32	IS42S32160B, IS42S32160C, IS42S32160D	■	■	■	■	■

Notes:

1. Automotive grade SDR part numbers begin with "IS45S".
2. 16Mbit has two internal banks and JEDEC packaging is different.
3. Part numbers in parenthesis are sampling. All others in mass production.