



Product Selector Guide - November 2011

DRAM | SRAM | ANALOG | AUTOMOTIVE



INTEGRATED SILICON SOLUTION, INC.



To our valued customers,

At ISSI we design, develop and market high performance integrated circuits for the following key markets: (i) automotive, (ii) communications, (iii) digital consumer, and (iv) industrial/medical/military. These key markets all require high quality and reliability, extended temperature ranges, and long-term support on a broad mix of memory products with different volume requirements.

Product quality and reliability is an integral part of a device and it must be considered long before out-going QRA tests. At ISSI, product quality and reliability starts with new product definition. Products approved for design and production must be capable of handling harsh environments. To ensure this capability, careful attention is placed on process selection and other key technical decisions. A project is approved only if it can meet these requirements and if ISSI can deliver a product that will exceed our customers' expectations.

To support harsh system environments, ISSI offers extended temperature ranges of -40°C to $+85^{\circ}\text{C}$, -40°C to $+105^{\circ}\text{C}$, and -40°C to $+125^{\circ}\text{C}$. To further ruggedize our products, ISSI offers a copper leadframe option. Copper leadframes provide enhanced reliability due to better thermal conductivity and expansion and contraction coefficients that match closely with printed circuit boards.

Often our customers must put their systems through rigorous testing, in harsh environments. This is done to ensure that their systems can meet the quality and reliability requirements of their customers' mission critical applications. Upon end customer approval, long-term support of the system is usually required. A system re-design, due to product obsolescence, is not acceptable. Thus, at ISSI, "long-term support" is not just a slogan, it is a core value.

ISSI works with leading edge suppliers in order to ensure long-term product support for our customers. One of the differentiated solutions we have is our capability to support high mix – low volume requirements. Many of our customers in our target markets need support for that model and ISSI's manufacturing plan is built around servicing that requirement.

Our customers can count on ISSI to provide high quality, reliable products for a wide range of applications, including mission critical systems in harsh environments. And we provide the long-term product support that our customers require.

Sanjiv Asthana
Senior Vice President, Worldwide Sales
Integrated Silicon Solution, Inc.

SYNCHRONOUS SRAM

Pipelined and Flow-Thru Synchronous SRAM

Den	Org	Part No.	Vcc	VccQ	Speed (Mhz)	tKQ (ns)	Pkg (#Pins)	Status ⁽¹⁾⁽²⁾	Comment ^(3,4,5,6)
2M	64Kx32	IS61LF6432A	3.3V	2.5V/3.3V	90	8.5	TQFP(100)	Prod	F
	64Kx36	IS61LF6436A	3.3V	2.5V/3.3V	90	8.5	TQFP(100)	Prod	F
	64Kx32	IS61LP6432A	3.3V	2.5V/3.3V	133	4	TQFP(100)	Prod	P
	64Kx36	IS61LP6436A	3.3V	2.5V/3.3V	166,133	3.5,4	TQFP(100)	Prod	P
4M	128Kx32	IS61LPS12832A					PBGA(119),TQFP(100)		
	128Kx36	IS61LPS12836A	3.3V	3.3V/2.5V	250	2.6	BGA(165)	Prod	P,SC
	256Kx18	IS61LPS25618A							
	128Kx36	IS61VPS12836A	2.5V	2.5V	250,200	2.6,3.1	PBGA(119),TQFP(100)	Prod	P,SC
	256Kx18	IS61VPS25618A					BGA(165)		
	128Kx36	IS61LPD12836A	3.3V	2.5V/3.3V	250	2.6	PBGA(119),TQFP(100)	Prod	P,DC
	256Kx18	IS61LPD25618A					BGA(165)		
	128Kx36	IS61VPD12836A	2.5V	2.5V	250	2.6	PBGA(119),TQFP(100)	Prod	P,DC
	256Kx18	IS61VPD25618A					BGA(165)		
	128Kx32	IS61LF12832A					PBGA(119),TQFP(100)		
	128Kx36	IS61LF12836A	3.3V	2.5V/3.3V	133,117	6.5,7.5	BGA(165)	Prod	F
	256Kx18	IS61LF25618A							
8M	256Kx36	IS61LPS25636A	3.3V	3.3V/2.5V	250,166	2.6	PBGA(119),TQFP(100)	Prod	P,SC
	512Kx18	IS61LPS51218A					BGA(165)		
	256Kx36	IS61VPS25636A	2.5V	2.5V	250,200	2.6,3.1	PBGA(119),TQFP(100)	Prod	P,SC
	512Kx18	IS61VPS51218A					BGA(165)		
	256Kx36	IS61LPD25636A	3.3V	2.5V/3.3V	250	2.6	PBGA(119),TQFP(100)	Prod	P,DC
	512Kx18	IS61LPD51218A					BGA(165)		
	256Kx36	IS61VPD25636A	2.5V	2.5V	250	2.6	PBGA(119),TQFP(100)	Prod	P,DC
	512Kx18	IS61VPD51218A					BGA(165)		
	256Kx36	IS61LF25636A	3.3V	2.5V/3.3V	133	6.5	PBGA(119),TQFP(100)	Prod	F
	512Kx18	IS61LF51218A					BGA(165)		
	256Kx36	IS61VF25636A	2.5V	2.5V	133	6.5	PBGA(119),TQFP(100)	Prod	F
	512Kx18	IS61VF51218A					BGA(165)		
18M	256Kx72	IS61LPS25672A	3.3V	3.3V/2.5V	250	2.6	BGA(209)	Prod	P,SC
	512Kx36	IS61LPS51236A	3.3V	3.3V/2.5V	250	2.6	PBGA(119),TQFP(100)	Prod	P,SC
	1Mx18	IS61LPS102418A					BGA(165)		
	256Kx72	IS61VPS25672A	3.3V	3.3V/2.5V	250	2.6	BGA(209)	Prod	P,SC
	512Kx36	IS61VPS51236A	2.5V	2.5V	250	2.6	PBGA(119),TQFP(100)	Prod	P,SC
	1Mx18	IS61VPS102418A					BGA(165)		
	512Kx36	IS61LPD51236A	3.3V	2.5V/3.3V	250	2.6	TQFP(100)	Prod	P, DC
	1Mx18	IS61LPD102418A					BGA(165)		
	512Kx36	IS61VPD51236A	2.5V	2.5V	250	2.6	TQFP(100)	Prod	P,DC
	1Mx18	IS61VPD102418A					BGA(165)		
	256Kx72	IS61LF25672A							
	512Kx36	IS61LF51236A	3.3V	2.5V/3.3V	133	6.5	PBGA(119),TQFP(100)	Prod	F
	1Mx18	IS61LF102418A					BGA(165), BGA(209)		
	256Kx72	IS61VF25672A							
	512Kx36	IS61VF51236A	2.5V	2.5V	133	6.5	PBGA(119),TQFP(100)	Prod	F
	1Mx18	IS61VF102418A					BGA(165), BGA(209)		
36M	1Mx36	IS61LPS102436A	3.3V	3.3V/2.5V	166	3.5	TQFP(100), BGA(165)	Prod	
	2Mx18	IS61LPS204818A	3.3V	3.3V/2.5V	166	3.5	TQFP(100), BGA(165)	Prod	
	1Mx36	IS61VPS102436A	2.5V	2.5V	166	3.5	TQFP(100), BGA(165)	Prod	
	2Mx18	IS61VPS204818A	3.3V	2.5V	166	3.5	TQFP(100), BGA(165)	Prod	
	1Mx36	IS61LF102436A	3.3V	3.3V/2.5V	133	6.5	TQFP(100), BGA(165)	Prod	S
	2Mx18	IS61LF204818A	3.3V	3.3V/2.5V	133	6.5	TQFP(100), BGA(165)	Prod	S
	1Mx36	IS61VF102436A	2.5V	2.5V	133	6.5	TQFP(100), BGA(165)	Prod	S
	2Mx18	IS61VF204818A	2.5V	2.5V	133	6.5	TQFP(100), BGA(165)	Prod	S

Notes: 1. S = Sample 2. Prod = Production 3. P = Pipeline 4. F = Flow Through 5. SC = Single Cycle Deselect 6. DC = Double Cycle Deselect

SYNCHRONOUS SRAM (CONT'D)

No-Wait Synchronous SRAM (Compatible with Zero Bus Turnaround devices)

Den	Org	Part No.	Vcc	VccQ	Speed (Mhz)	tKQ (ns)	Pkg (#Pins)	Status ⁽¹⁾⁽²⁾	Comment ^(3,4)
2M	64Kx32	IS61NLP6432A	3.3V	2.5V/3.3V	250,200	2.6,3.1	TQFP(100)	Prod	P
	64Kx36	IS61NLP6436A	3.3V	2.5V/3.3V	250,200	2.6,3.1	TQFP(100)	Prod	P
	128Kx18	IS61NLP12818A	3.3V	2.5V/3.3V	250,200	2.6,3.1	TQFP(100)	Prod	P
	64Kx36	IS61NVP6436A	2.5V	2.5V	250,200	2.6,3.1	TQFP(100)	Prod	P
	128Kx18	IS61NVP12818A	2.5V	2.5V	250,200	2.6,3.1	TQFP(100)	Prod	P
4M	128Kx32	IS61NLP12832B					PBGA(119),TQFP(100)		
	128Kx36	IS61NLP12836B	3.3V	2.5V/3.3V	250	2.6	BGA(165)	Prod	P
	256Kx18	IS61NLP25618A							
	128Kx36	IS61NVP12836B	2.5V	2.5V	250	2.6	PBGA(119),TQFP(100)	Prod	P
	256Kx18	IS61NVP25618A					BGA(165)		
	128Kx36	IS61NLF12836A	3.3V	2.5V/3.3V	117,133	7.5,6.5	TQFP(100)	Prod	F
	256Kx18	IS61NLF25618A					PBGA(119),BGA(165)		
	128Kx36	IS61NVF12836A	2.5V	2.5V	117,133	7.5,6.5	TQFP(100)	Prod	F
256Kx18	IS61NVF25618A					PBGA(119),BGA(165)			
8M	256Kx36	IS61NLP25636A	3.3V	2.5V/3.3V	250	2.6	PBGA(119),TQFP(100)	Prod	P
	512Kx18	IS61NLP51218A					BGA(165)		
	256Kx36	IS61NVP25636A	2.5V	2.5V	250	2.6	PBGA(119),TQFP(100)	Prod	P
	512Kx18	IS61NVP51218A					BGA(165)		
	256Kx36	IS61NLF25636A	3.3V	2.5V/3.3V	133	6.5	TQFP(100)	Prod	F
	512Kx18	IS61NLF51218A					PBGA(119),BGA(165)		
	256Kx36	IS61NVF25636A	2.5V	2.5V	133	6.5	TQFP(100)	Prod	F
512Kx18	IS61NVF51218A					PBGA(119),BGA(165)			
18M	256Kx72	IS61NLP25672							
	512Kx36	IS61NLP51236	3.3V	2.5V/3.3V	250	2.6	BGA(209),TQFP(100)	Prod	P
	1Mx18	IS61NLP102418					BGA(165), BGA(119)		
	256Kx72	IS61NVP25672							
	512Kx36	IS61NVP51236	2.5V	2.5V	250	2.6	BGA(209),TQFP(100)	Prod	P
	1Mx18	IS61NVP102418					BGA(165), BGA(119)		
	256Kx72	IS61NLF25672							
	512Kx36	IS61NLF51236	3.3V	2.5V/3.3V	133	6.5	BGA(209),TQFP(100)	Prod	F
1Mx18	IS61NLF102418					BGA(165)			
256Kx72	IS61NVF25672								
512Kx36	IS61NVF51236	2.5V	2.5V	133	6.5	BGA(209),TQFP(100)	Prod	F	
1Mx18	IS61NVF102418					BGA(165)			
36M	2Mx18	IS61NVP204818A	2.5V	2.5V	166	3.5	TQFP(100)	Prod	P
	1Mx36	IS61NVP102436A					BGA(165)		
	2Mx18	IS61NLP204818A	3.3V	3.3V/2.5V	166	3.5	TQFP(100)	Prod	P
	1Mx36	IS61NLP102436A					BGA(165)		
	2Mx18	IS61NLF204818A	3.3V	3.3V/2.5V	133,117	6.5,7.5	TQFP(100)	Prod	
	1Mx36	IS61NLF102436A					BGA(165)		
2Mx18	IS61NVF204818A	2.5V	2.5V	133,117	6.5,7.5	TQFP(100)	Prod		
1Mx36	IS61NVF102436A					BGA(165)			

QUAD Synchronous SRAM

Den	Org	Part No.	Burst	Speed (Mhz)	Pkg (#Pins)	Status ⁽¹⁾⁽²⁾	Comment ⁽⁷⁾
18M	1Mx18	IS61QDB41M18A	4	250, 300, 333	BGA(165)	S=NOW	
	512Kx36	IS61QDB451236A	4	250, 300, 333	BGA(165)	S=NOW	
	1Mx18	IS61QDB21M18A	2	250, 300, 333	BGA(165)	S=NOW	
	512Kx36	IS61QDB251236A	2	250, 300, 333	BGA(165)	S=NOW	
36M	1Mx36	IS61QDB41M36A	4	250, 300, 333	BGA(165)	S=NOW	
	2Mx18	IS61QDB42M18A	4	250, 300, 333	BGA(165)	S=NOW	

Notes: 1. S = Sample 2. Prod = Production 3. P = Pipeline 4. F =Flow Through 5. SC = Single Cycle Deselect 6. DC = Double Cycle Deselect

SYNCHRONOUS SRAM (CONT'D)

QUAD Synchronous SRAM

Den	Org	Part No.	Burst	Speed (Mhz)	Pkg (#Pins)	Status ⁽¹⁾⁽²⁾	Comment
36M	1Mx36	IS61QDB21M36A	2	250, 300, 333	BGA(165)	S=NOW	
	2Mx18	IS61QDB22M18A	2	250, 300, 333	BGA(165)	S=NOW	
72M	2Mx36	IS61QDB42M36A	4	250,300,333	BGA(165)	S=NOW	
	4Mx18	IS61QDB44M18A	4	250,300,333	BGA(165)	S=NOW	
	2Mx36	IS61QDB22M36A	2	250,300,333	BGA(165)	S=NOW	
	4Mx18	IS61QDB24M18A	2	250,300,333	BGA(165)	S=NOW	

QUADP Synchronous SRAM

Den	Org	Part No.	Burst	Speed (Mhz)	Pkg (#Pins)	Status ⁽¹⁾⁽²⁾	Comment ⁽⁷⁾
18M	1Mx18	IS61QDPB41M18A	4	400, 450, 500, 550	BGA(165)	S=NOW	2.5 Lat
	1Mx18	IS61QDP2B41M18A	4	300, 333, 400, 450	BGA(165)	S=NOW	2.0 Lat
	512Kx36	IS61QDPB451236A	4	400, 450, 500, 550	BGA(165)	S=NOW	2.5 Lat
	512Kx36	IS61QDP2B451236A	4	300, 333, 400, 450	BGA(165)	S=NOW	2.0 Lat
36M	1Mx36	IS61QDPB41M36A	4	400, 450, 500, 550	BGA(165)	S=NOW	2.5 Lat
	1Mx36	IS61QDP2B41M36A	4	300, 333, 400, 450	BGA(165)	S=NOW	2.0 Lat
	2Mx18	IS61QDPB42M18A	4	400, 450, 500, 550	BGA(165)	S=NOW	2.5 Lat
	2Mx18	IS61QDP2B42M18A	4	300, 333, 400, 450	BGA(165)	S=NOW	2.0 Lat
72M	4Mx18	IS61QDPB44M18A	4	400,450,500,550	BGA(165)	S=NOW	2.5 Lat
	4Mx18	IS61QDP2B44M18A	4	300,333,400,450	BGA(165)	S=NOW	2.0 Lat
	2Mx36	IS61QDPB42M36A	4	400,450,500,550	BGA(165)	S=NOW	2.5 Lat
	2Mx36	IS61QDP2B42M36A	4	300,333,400,450	BGA(165)	S=NOW	2.0 Lat

DDR-II Synchronous SRAM

Den	Org	Part No.	Burst	Speed (Mhz)	Pkg (#Pins)	Status ⁽¹⁾⁽²⁾	Comment
18M	1Mx18	IS61DDB41M18A	4	250, 300, 333	BGA(165)	S=NOW	
	512Kx36	IS61DDB451236A	4	250, 300, 333	BGA(165)	S=NOW	
	1Mx18	IS61DDB21M18A	2	250, 300, 333	BGA(165)	S=NOW	
	512Kx36	IS61DDB251236A	2	250, 300, 333	BGA(165)	S=NOW	
36M	1Mx36	IS61DDB41M36A	4	250, 300, 333	BGA(165)	S=NOW	
	2Mx18	IS61DDB42M18A	4	250, 300, 333	BGA(165)	S=NOW	
	1Mx36	IS61DDB21M36A	2	250, 300, 333	BGA(165)	S=NOW	
	2Mx18	IS61DDB22M18A	2	250, 300, 333	BGA(165)	S=NOW	
72M	2Mx36	IS61DDB42M36A	4	250,300,333	BGA(165)	S=NOW	
	4Mx18	IS61DDB44M18A	4	250,300,333	BGA(165)	S=NOW	
	2Mx36	IS61DDB22M36A	2	250,300,333	BGA(165)	S=NOW	
	4Mx18	IS61DDB24M18A	2	250,300,333	BGA(165)	S=NOW	

DDR-IIP Synchronous SRAM

Den	Org	Part No.	Burst	Speed (Mhz)	Pkg (#Pins)	Status ⁽¹⁾⁽²⁾	Comment ⁽⁷⁾
18M	1Mx18	IS61DDP2B21M18A	2	300, 333, 400, 450	BGA(165)	S=NOW	2.0 Lat
	1Mx18	IS61DDPB21M18A	2	400, 450, 500, 550	BGA(165)	S=NOW	2.5 Lat
	512Kx36	IS61DDP2B251236A	2	300, 333, 400, 450	BGA(165)	S=NOW	2.0 Lat
	512Kx36	IS61DDPB251236A	2	400, 450, 500, 550	BGA(165)	S=NOW	2.5 Lat
36M	2Mx18	IS61DDP2B22M18A	2	300, 333, 400, 450	BGA(165)	S=NOW	2.0 Lat
	2Mx18	IS61DDPB22M18A	2	400, 450, 500, 550	BGA(165)	S=NOW	2.5 Lat
	1Mx36	IS61DDP2B21M36A	2	300, 333, 400, 450	BGA(165)	S=NOW	2.0 Lat
	1Mx36	IS61DDPB21M36A	2	400, 450, 500, 550	BGA(165)	S=NOW	2.5 Lat
72M	4Mx18	IS61DDPB24M18A	2	400,450,500,550	BGA(165)	S=NOW	2.5 Lat
	4Mx18	IS61DDP2B24M18A	2	300,333,400,450	BGA(165)	S=NOW	2.0 Lat
	2Mx36	IS61DDPB22M36A	2	400,450,500,550	BGA(165)	S=NOW	2.5 Lat
	2Mx36	IS61DDP2B22M36A	2	300,333,400,450	BGA(165)	S=NOW	2.0 Lat

Notes: 1. S = Sample 2. Prod = Production 3. P = Pipeline 4. F = Flow Through 5. SC = Single Cycle Deselect 6. DC = Double Cycle Deselect
7. Lat = 2.0 or 2.5 Cycle Read Latency

ASYNCHRONOUS SRAM

5V High-Speed Asynchronous SRAM

Den	Org	Part No.	Vcc	Speeds (ns)	Pkg (#Pins)	Status ⁽¹⁾⁽²⁾	Comment
64K	8Kx8	IS61C64AL	5V	10	SOJ(28),TSOP1(28)	Prod	
256K	32Kx8	IS61C256AL	5V	10,12	SOJ(28),TSOP1(28)	Prod	
512K	32Kx16	IS61C3216AL	5V	12	SOJ(44),TSOP2(44)	Prod	
1M	64Kx16	IS61C6416AL	5V	12	SOJ(44),TSOP2(44)	Prod	
	128Kx8	IS61C1024AL	5V	12	SOJ(32.3),SOJ(32.4) TSOP1(32),sTSOP1(32)	Prod	
4M	512Kx8	IS61C5128AL	5V	10,12	SOJ(36),TSOP2(44)	Prod	
	512Kx8	IS61C5128AS	5V	25	SOP(32),sTSOP1(32),TSOP2(32)	Prod	
	256Kx16	IS61C25616AL	5V	10	SOJ(44),TSOP2(44)	Prod	
	256Kx16	IS61C25616AS	5V	25	SOJ(44),TSOP2(44)	Prod	

5V Low Power Asynchronous SRAM

Den	Org	Part No.	Vcc	Speeds (ns)	Pkg (#Pins)	Status ⁽¹⁾⁽²⁾	Comment
256K	32Kx8	IS62C256AL	5V	25,45	SOP(28),TSOP1(28)	Prod	
1M	128Kx8	IS62C1024AL	5V	35	SOP(32),TSOP1(32)	Prod	
4M	512Kx8	IS62C5128BL	5V	45	SOP(32),sTSOP1(32),TSOP2(32)	Prod	
	256Kx16	IS62C25616BL	5V	45	TSOP2(44)	Prod	
8M	1Mx8	IS62C10248AL	5V	45,55	TSOP2(44), BGA(48)	Prod	
	512Kx16	IS62C51216AL	5V	45,55	TSOP2(44), BGA(48)	Prod	

High Speed Low Power Asynchronous SRAM

Den	Org	Part No.	Vcc	Speed (ns)	Pkg (#Pins)	Status ⁽¹⁾⁽²⁾	Comment
256K	32Kx8	IS61LV256AL	3.3V	10	SOJ(28),TSOP1(28)	Prod	
512K	32Kx16	IS61WV3216BLL	3.3V	12	TSOP2(44), mBGA(48)	Prod	
1M	64Kx16	IS61WV6416DBLL	1.65V-3.6V	8,10,12,20	TSOP2(44),mBGA(48),SOJ(44)	Prod	
	128Kx8	IS63WV1288DALL/DBLL	1.65V-3.6V	8,10,12,20	TSOP2(32),mBGA(48) sTSOP1(32),SOJ(32.3)	Prod	
2M	128Kx16	IS61WV12816DALL/DBLL	1.65V-3.6V	8,10,12,20	TSOP2(44), BGA(48)	Prod	
	128Kx16	IS61WV12816EDBLL	2.4V-3.6V	8,10	TSOP2(44), BGA(48)	Prod	ECC Based SRAM
	256Kx8	IS61LV2568L	3.3V	8,10	SOJ(36),TSOP2(44)	Prod	
3M	128Kx24	IS61LV12824	3.3V	8,10	PBGA(119),TQFP(100)	Prod	x24 Interface
4M	256Kx16	IS61WV25616ALL/BLL	1.65V-3.6V	8,10,20	TSOP2(44), mBGA(48)	Prod	
	256Kx16	IS61WV25616EDBLL	2.4V-3.6V	8,10	TSOP2(44), mBGA(48)	Prod	ECC Based SRAM
	512Kx8	IS61WV5128ALL/BLL	1.65V-3.6V	8,10,20	SOJ(36),TSOP2(44),mBGA(36)	Prod	
	512Kx8	IS61WV5128EDBLL	2.4V-3.6V	10	TSOP2(44),mBGA(36)	Prod	ECC Based SRAM
8M	512Kx16	IS61WV51216ALL/BLL	1.65V-3.3V	8,10,20	TSOP2(44),mBGA(48)	Prod	
	1Mx8	IS61WV10248ALL/BLL	1.65V-3.6V	8,10,20	TSOP2(44),mBGA(48)	Prod	
	256Kx32	IS61WV25632ALL/BLL	1.65V-3.6V	8,10,20	BGA(90)	Prod	

Notes: 1. S = Sample 2. Prod = Production 3. 2CS = 2 chip enable

Available in Commercial (0°C to +70°C) and Industrial (-40°C to +85°C) temperature options.

ASYNCHRONOUS SRAM (CONT'D)

High Speed Low Power Asynchronous SRAM

Den	Org	Part No.	Vcc	Speed (ns)	Pkg (#Pins)	Status ⁽¹⁾⁽²⁾	Comment
16M	1Mx16	IS61WV102416ALL/BLL	1.65V-3.6V	8,10,20	TSOP1(48),mBGA(48)	Prod	
	1Mx16	IS62WV102416ALL/BLL	1.65V-3.6V	25,35	TSOP1(48),mBGA(48)	Prod	Low Power
	2Mx8	IS61WV20488ALL/BLL	1.65V-3.6V	8,10,20	TSOP2(44),mBGA(48)	Prod	
	2Mx8	IS62WV20488ALL/BLL	1.65V-3.6V	25,35	TSOP2(44),mBGA(48)	Prod	Low Power
	512Kx32	IS61WV51232ALL/BLL	1.65V-3.6V	8,10,20	BGA(90)	Prod	

PowerSaver™ Low Power Asynchronous SRAM

Den	Org	Part No.	Vcc	Speeds (ns)	Pkg (#Pins)	Status ⁽¹⁾⁽²⁾	Comment ⁽³⁾
256K	32Kx8	IS62LV256AL	3.3V	20,45	SOJ(28),SOP(28),TSOP1(28)	Prod	
1M	64Kx16	IS62WV6416DALL/DBLL	1.65V-3.6V	35,45,55	TSOP2(44),mBGA(48)	Prod	
	128Kx8	IS62WV1288DALL/DBLL	1.65V-3.6V	35,45,55	SOP(32),sTSOP1(32), TSOP1(32),mBGA(36)	Prod	
2M	128Kx16	IS62WV12816ALL/BLL	1.65V-3.6V	45,55,70	mBGA(48),TSOP2(44)	Prod	2CS Option Avail.
	128Kx16	IS62WV12816DALL/DBLL	1.8V-3.6V	35,45,55	mBGA(48),TSOP2(44)	Prod	2CS Option Avail.
	256Kx8	IS62WV2568ALL/BLL	1.65V-3.6V	45,55,70	sTSOP1(32),TSOP1(32),mBGA(36)	Prod	
	256Kx8	IS62WV2568DALL/DBLL	1.8V-3.6V	35,45,55	sTSOP1(32),TSOP1(32),mBGA(36)	Prod	
4M	256Kx16	IS62V25616LL	1.65V-1.95V	70,85	µBGA(48),TSOP2(44)	Prod	
	256Kx16	IS62WV25616DALL/DBLL	1.65V-3.6V	45,55	TSOP2(44),mBGA(48)	Prod	
	512Kx8	IS62WV5128DALL/DBLL	1.65V-3.6V	45,55	sTSOP1(32),TSOP1(32), TSOP2(32),mBGA(36),SOP(32)	Prod	
8M	512Kx16	IS62WV51216ALL/BLL	1.65V-3.6V	45,55	mBGA(48),TSOP2(44)	Prod	
	1MX8	IS62WV10248DALL/BLL	1.65V-3.6V	45,55	mBGA(48),TSOP2(44)	Prod	

PSEUDO SRAM

Den	Org	Part No.	Vcc	Speed (ns)	Pkg (#Pins)	Status ⁽¹⁾⁽²⁾⁽⁶⁾	Comment
8M	512Kx16	IS66WV51216DALL	1.7V-1.95V	70	BGA(48),TSOP2(44)	Prod	Standard Asynch
	512Kx16	IS66WV51216DBLL	2.5V-3.6V	55, 70	BGA(48),TSOP2(44)	Prod	Standard Asynch
16M	1Mx16	IS66WV1M16DALL/DBLL	1.7V-3.6V	70	TFBGA(48)	Prod	Standard Asynch
	1Mx16	IS66WVC1M16ALL	1.7V-1.95V	70	VFBGA(54)	Prod	CRAM 1.5
	1Mx16	IS66WVD1M16ALL	1.7V-1.95V	70	VFBGA(54)	Prod	CRAM 2.0
	1Mx16	IS66WVE1M16ALL	1.8V	70	TFBGA(48)	Prod	Asynch/Page
	1Mx16	IS66WVE1M16BLL	2.7V-3.6V	70	TFBGA(48)	Prod	Asynch/Page
	32M	2Mx16	IS66WVC2M16ALL	1.8V	70	VFBGA(54)	Prod
64M	2Mx16	IS66WVD2M16ALL	1.8V	70	VFBGA(54)	Prod	CRAM 2.0
	2Mx16	IS66WVE2M16ALL	1.8V	70	TFBGA(48)	Prod	Asynch/Page
	2Mx16	IS66WVE2M16BLL	3.3V	70	TFBGA(48)	Prod	Asynch/Page
	4Mx16	IS66WVC4M16ALL	1.8V	70	VFBGA(54)	Prod	CRAM 1.5
64M	4Mx16	IS66WVD4M16ALL	1.8V	70	VFBGA(54)	Prod	CRAM 2.0
	4Mx16	IS66WVE4M16ALL	1.8V	70	TFBGA(48)	Prod	Asynch/Page
	4Mx16	IS66WVE4M16BLL	3.3V	70	TFBGA(48)	Prod	Asynch/Page

*Contact SRAM Marketing for questions

Notes: 1. S = Sample 2. Prod = Production 3. 2CS = 2 chip enable

Available in Commercial (0°C to +70°C) and Industrial (-40°C to +85°C) temperature options.

RLDRAM® 2 MEMORY

Den	Org	Interface	Part No.	Pkg (#Pins)	Status
288M	32Mx9	Common I/O	IS49NLC93200	BGA(144)	S=NOW
	16Mx18	Common I/O	IS49NLC18160	BGA(144)	S=NOW
	8Mx36	Common I/O	IS49NLC36800	BGA(144)	S=NOW
	32Mx9	Separate I/O	IS49NLS93200	BGA(144)	S=NOW
	16Mx18	Separate I/O	IS49NLS18160	BGA(144)	S=NOW
576M	64Mx9	Common I/O	IS49NLC96400	BGA(144)	S=NOW
	32Mx18	Common I/O	IS49NLC18320	BGA(144)	S=NOW
	16Mx36	Common I/O	IS49NLC36160	BGA(144)	S=NOW
	64Mx9	Separate I/O	IS49NLS96400	BGA(144)	S=NOW
	32Mx18	Separate I/O	IS49NLS18320	BGA(144)	S=NOW

Notes:

1. Initial samples available. Contact ISSI or your sales channel for availability.
2. RLDRAM® is a registered trademark of Micron Technology, Inc.

DYNAMIC RAM

3.3V EDO and Fast Page Mode DRAM

Den	Org	Type	Part No.	Vcc	Refresh	RAS (ns)	Pkg (#Pins)	Status ^(1,2,5)	Comment ⁽³⁾
16M	4Mx4	EDO	IS41LV44002C	3.3V	2K	50	TSOP2(24/26)	Prod	
	4Mx4	FP	IS41LV44052C	3.3V	2K	50	TSOP2(24/26)	Prod	
	1Mx16	EDO	IS41LV16100C	3.3V	1K	50	SOJ(42),TSOP2(44/50)	Prod	
	1Mx16	FP	IS41LV16105C	3.3V	1K	50	SOJ(42),TSOP2(44/50)	Prod	

5V EDO and Fast Page Mode DRAM

Den	Org	Type	Part No.	Vcc	Refresh	RAS (ns)	Pkg (#Pins)	Status ^(1,2)	Comment ⁽³⁾
16M	4Mx4	EDO	IS41C44002C	5V	2K	50	TSOP2(24/26)	S=NOW	
	4Mx4	FP	IS41C44052C	5V	2K	50	TSOP2(24/26)	S=NOW	
	1Mx16	EDO	IS41C16100C	5V	1K	50	SOJ(42),TSOP2(44/50)	S=NOW	
	1Mx16	FP	IS41C16105C	5V	1K	50	SOJ(42),TSOP2(44/50)	S=NOW	

3.3V SDR (Single Data Rate) Synchronous DRAM

Den	Org	Type	Part No.	Vcc	Refresh	Speed (Mhz)	Pkg (#Pins)	Status ^(1,2,5)	Comment ⁽³⁾
16M	1Mx16	SDR	IS42S16100E	3.3V	2K	200,166,143	TSOP2(50), BGA(60)	Prod	
	1Mx16	SDR	IS42S16100F	3.3V	2K	200,166,143	TSOP2(50), BGA(60)	Prod	
64M	4Mx16	SDR	IS42S16400F	3.3V	4K	200,166,143	TSOP2(54), BGA(54)	Prod	
	4Mx16	SDR	IS42S16400J	3.3V	4K	200,166,143	TSOP2(54), BGA(54) BGA(60)	Prod	
	2Mx32	SDR	IS42S32200E	3.3V	4K	200,166,143	TSOP2(86), BGA(90)	Prod	
128M	16Mx8	SDR	IS42S81600E	3.3V	4K	200,166,143,133	TSOP2(54)	Prod	
	16Mx8	SDR	IS42S81600F	3.3V	4K	200,166,143	TSOP2(54)	S=NOW	
	8Mx16	SDR	IS42S16800E	3.3V	4K	200,166,143,133	TSOP2(54), BGA(54)	Prod	
	8Mx16	SDR	IS42S16800F	3.3V	4K	200,166,143	TSOP2(54), BGA(54)	S=NOW	
	4Mx32	SDR	IS42S32400E	3.3V	4K	166,143,133	TSOP2(86), BGA(90)	Prod	
	4Mx32	SDR	IS42S32400F	3.3V	4K	166,143,133	TSOP2(86), BGA(90)	S=NOW	
256M	32Mx8	SDR	IS42S83200D	3.3V	8K	166,143,133	TSOP2(54), BGA(54)	NR	
	32Mx8	SDR	IS42S83200G	3.3V	8K	166,143,133	TSOP2(54), BGA(54)	S=NOW	
	16Mx16	SDR	IS42S16160D	3.3V	8K	166, 143,133	TSOP2(54), BGA(54)	Prod	

- Notes:** 1. S = Sample 2. Prod = Production 3. Industrial temp: -40°C to +85°C 4. Do not support mobile features
5. NR = Not recommended for new design 6. KGD available for most products. Contact your ISSI sales channel.

DYNAMIC RAM (CONT'D)

3.3V SDR (Single Data Rate) Synchronous DRAM

Den	Org	Type	Part No.	Vcc	Refresh	Speed (Mhz)	Pkg (#Pins)	Status ^(1,2,5)	Comment ⁽³⁾
256M	16Mx16	SDR	IS42S16160G	3.3V	8K	166, 143, 133	TSOP2(54), BGA(54)	S=NOW	
	8Mx32	SDR	IS42S32800D	3.3V	4K	166, 143, 133	TSOP2(86), BGA(90)	Prod	
	8Mx32	SDR	IS42S32800G	3.3V	4K	166, 143, 133	BGA(90)	S=NOW	
512M	64Mx8	SDR	IS42S86400B	3.3V	8K	166, 143, 133	TSOP2(54)	Prod	
	64Mx8	SDR	IS42S86400D	3.3V	8K	166, 143, 133	TSOP2(54)	Prod	
	32Mx16	SDR	IS42S16320B	3.3V	8K	166, 143, 133	TSOP2(54), BGA(54)	Prod	
	32Mx16	SDR	IS42S16320D	3.3V	8K	166, 143, 133	TSOP2(54), BGA(54)	Prod	
	16Mx32	SDR	IS42S32160B	3.3V	8K	166, 143, 133	TSOP2(86), BGA(90)	Prod	11x13mm BGA
	16Mx32	SDR	IS42S32160C	3.3V	8K	166, 133	BGA(90)	Prod	stacked die, 8x13mm BGA
	16Mx32	SDR	IS42S32160D	3.3V	8K	166, 133	BGA(90)	Prod	8x13mm BGA

PowerSaver™ / Mobile SDR Synchronous DRAM

Den	Org	Type	Part No.	Vcc	Refresh	Speed (Mhz)	Pkg (#Pins)	Status ^(1,2,5)	Comment ⁽³⁾
16M	1Mx16	LPSDR	IS42VM16100G	1.8V	4K	166, 133	BGA(60)	Prod	
32M	2Mx16	LPSDR	IS42SM16200C	3.3V	4K	166, 133	BGA(54)	Prod	
	2Mx16	LPSDR	IS42RM16200C	2.5V	4K	166, 133	BGA(54)	Prod	
	2Mx16	LPSDR	IS42VM16200C	1.8V	4K	166, 133	BGA(54)	Prod	
	1Mx32	LPSDR	IS42SM32100C	3.3V	4K	166, 133	BGA(90)	Prod	
	1Mx32	LPSDR	IS42RM32100C	2.5V	4K	166, 133	BGA(90)	Prod	
	1Mx32	LPSDR	IS42VM32100C	1.8V	4K	166, 133	BGA(90)	Prod	
64M	4Mx16	LPSDR	IS42VM16400K	1.8V	4K	166, 133	BGA(54)	Prod	
	4Mx16	LPSDR	IS42RM16400K	2.5V	4K	166, 133	BGA(54)	Prod	
	4Mx16	LPSDR	IS42SM16400K	3.3V	4K	166, 133	BGA(54)	Prod	
	2Mx32	LPSDR	IS42VM32200K	1.8V	4K	166, 133	BGA(90)	Prod	
	2Mx32	LPSDR	IS42RM32200K	2.5V	4K	166, 133	BGA(90)	Prod	
	2Mx32	LPSDR	IS42SM32200K	3.3V	4K	166, 133	BGA(90)	Prod	
128M	8Mx16	LPSDR	IS42SM16800G	3.3V	4K	166, 133	BGA(54)	Prod	
	8Mx16	LPSDR	IS42RM16800G	2.5V	4K	166, 133	BGA(54)	Prod	
	8Mx16	LPSDR	IS42VM16800G	1.8V	4K	166, 133	BGA(54)	Prod	
	4Mx32	LPSDR	IS42SM32400G	3.3V	4K	166, 133	BGA(90)	Prod	
	4Mx32	LPSDR	IS42RM32400G	2.5V	4K	166, 133	BGA(90)	Prod	
	4Mx32	LPSDR	IS42VM32400G	1.8V	4K	166, 133	BGA(90)	Prod	
256M	16Mx16	LPSDR	IS42SM16160D	3.3V	8K	143	TSOP2(54), BGA(54)	Prod	
	16Mx16	LPSDR	IS42RM16160D	2.5V	8K	143	TSOP2(54), BGA(54)	Prod	
	16Mx16	LPSDR	IS42VM16160D	1.8V	8K	125	TSOP2(54), BGA(54)	Prod	
	16Mx16	LPSDR	IS42VM16160E	1.8V	8K	166, 133	BGA(54)	S=NOW	
	16Mx16	LPSDR	IS42RM16160E	2.5V	8K	166, 133	BGA(54)	S=NOW	
	16Mx16	LPSDR	IS42SM16160E	3.3V	8K	166, 133	BGA(54)	S=NOW	
	8Mx32	LPSDR	IS42SM32800D	3.3V	4K	133	TSOP2(86), BGA(90)	Prod	
	8Mx32	LPSDR	IS42RM32800D	2.5V	4K	133	TSOP2(86), BGA(90)	Prod	
	8Mx32	LPSDR	IS42VM32800D	1.8V	4K	100	TSOP2(86), BGA(90)	Prod	
	8Mx32	LPSDR	IS42VM32800E	1.8V	4K	166, 133	BGA(90)	S=NOW	
	8Mx32	LPSDR	IS42RM32800E	2.5V	4K	166, 133	BGA(90)	S=NOW	
	8Mx32	LPSDR	IS42SM32800E	3.3V	4K	166, 133	BGA(90)	S=NOW	

Notes: 1. S = Sample 2. Prod = Production 3. Industrial temp: -40°C to +85°C 4. Do not support mobile features
5. NR = Not recommended for new design 6. KGD available for most products. Contact your ISSI sales channel.

DYNAMIC RAM (CONT'D)

PowerSaver™ / Mobile SDR Synchronous DRAM

Den	Org	Type	Part No.	Vcc	Refresh	Speed (Mhz)	Pkg (#Pins)	Status ^(1,2,5)	Comment ⁽³⁾
512M	32Mx16	LPSDR	IS42VM16320D	1.8V	8K	166,133	BGA(54)	Prod	8x13mm BGA
	16Mx32	LPSDR	IS42SM32160C	3.3V	8K	133	BGA(90)	Prod	8x13mm BGA
	16Mx32	LPSDR	IS42RM32160C	2.5V	8K	133	BGA(90)	Prod	8x13mm BGA
	16Mx32	LPSDR	IS42VM32160D	1.8V	8K	166,133	BGA(90)	Prod	8x13mm BGA

2.5V DDR (Double Data Rate) Synchronous DRAM

Den	Org	Type	Part No.	Vcc	Refresh	Speed (Mhz)	Pkg (#Pins)	Status ^(1,2,5)	Comment ⁽³⁾
64M	4Mx16	DDR	IS43R16400B	2.5V	4K	200,166,133	TSOP2(66)	Prod	
128M	8Mx16	DDR	IS43R16800CC	2.5V	4K	200,166	TSOP2(66)	NR	
	8Mx16	DDR	IS43R16800E	2.5V	4K	200,166	TSOP2(66)	S=NOW	
	4Mx32	DDR	IS43R32400D	2.5V	4K	250,200,166	BGA(144)	Prod	
256M	32Mx8	DDR	IS43R83200B	2.5V	8K	200,166	TSOP2(66)	NR	
	32Mx8	DDR	IS43R83200D	2.5V	8K	200,166,133	TSOP2(66)	S=NOW	
	16Mx16	DDR	IS43R16160B	2.5V	8K	200,166	TSOP2(66), BGA(60)	NR	
	16Mx16	DDR	IS43R16160D	2.5V	8K	200,166,133	TSOP2(66), BGA(60)	S=NOW	
	8Mx32	DDR	IS43R32800B	2.5V	4K	200,166	BGA(144)	NR	
	8Mx32	DDR	IS43R32800D	2.5V	4K	200,166,133	BGA(144)	S=NOW	
512M	64Mx8	DDR	IS43R86400D	2.5V	8K	200,166,133	TSOP2(66), BGA(60)	Prod	
	32Mx16	DDR	IS43R16320D	2.5V	8K	200,166,133	TSOP2(66), BGA(60)	Prod	
	16Mx32	DDR	IS43R32160D	2.5V	8K	200,166,133	BGA(144)	S=NOW	

1.8V Mobile DDR (Double Data Rate) Synchronous DRAM

Den	Org	Type	Part No.	Vcc	Refresh	Speed (Mhz)	Pkg (#Pins)	Status ^(1,2)	Comment ⁽³⁾
32M	2Mx16	MDDR	IS43LR16200C	1.8V	4K	166,143	BGA(60)	Prod	
	1Mx32	MDDR	IS43LR32100C	1.8V	4K	166,143	BGA(90)	Prod	
64M	4Mx16	MDDR	IS43LR16400B	1.8V	4K	166,143	BGA(60)	Prod	
	2Mx32	MDDR	IS43LR32200B	1.8V	4K	166,143	BGA(90)	Prod	
128M	8Mx16	MDDR	IS43LR16800F	1.8V	4K	166,133	BGA(60)	Prod	
	4Mx32	MDDR	IS43LR32400F	1.8V	4K	166,133	BGA(90)	Prod	
256M	16Mx16	MDDR	IS43LR16160F	1.8V	8K	200,166,133	BGA(60)	S=NOW	
	8Mx32	MDDR	IS43LR32800F	1.8V	4K	200,166,133	BGA(90)	S=NOW	
512M	32Mx16	MDDR	IS43LR16320B	1.8V	8K	166,133	BGA(60)	Prod	
	16Mx32	MDDR	IS43LR32160B	1.8V	8K	166,133	BGA(90)	Prod	
1G	64Mx16	MDDR	IS43LR16640A	1.8V	8K	200,166,133	BGA(60)	S=Q2/12	

1.8V DDR2 (Double Data Rate) Synchronous DRAM

Den	Org	Type	Part No.	Vcc	Refresh	Speed (MT/s)	Pkg (#Pins)	Status ^(1,2,5)	Comment ⁽³⁾
256M	32Mx8	DDR2	IS43DR83200A	1.8V	8K	800,667,533,400	BGA(60)	Prod	
	16Mx16	DDR2	IS43DR16160A	1.8V	8K	800,667,533,400	BGA(84)	Prod	
	8Mx32	DDR2	IS43DR32801A	1.8V	8K	533,400	BGA(126)	Prod	Reduced Page
512M	64Mx8	DDR2	IS43DR86400B	1.8V	8K	800,667,533,400	BGA(60)	Prod	
	32Mx16	DDR2	IS43DR16320B	1.8V	8K	800,667,533,400	BGA(84)	Prod	
1G	128Mx8	DDR2	IS43DR81280A	1.8V	8K	800,667,533,400	BGA(60)	Prod	
	64Mx16	DDR2	IS43DR16640A	1.8V	8K	800,667,533,400	BGA(84)	Prod	
2G	128Mx16	DDR2	IS43DR16128	1.8V	8K	667,533,400	BGA(84)	Prod	Stacked die, 10.5x13.5mm BGA

Notes: 1. S = Sample 2. Prod = Production 3. Industrial temp: -40°C to +85°C 4. Support mobile features
5. NR = Not recommended for new design 6. KGD available for most products. Contact your ISSI sales channel.

AUTOMOTIVE MEMORY PRODUCTS

Automotive Synchronous SRAM

Den	Org	Part No.	Vcc	VccQ	Speed (Mhz)	tKQ (ns)	Pkg (#Pins)	Status ⁽¹⁾⁽²⁾	Comment ^(3,4,5,6)
4M	128Kx32	IS64VPS12832A	2.5V	2.5V	200	3.1	TQFP(100), PBGA(165)	Prod	P/SC
	128Kx36	IS64VPS12836A	2.5V	2.5V	200	3.1	TQFP(100), PBGA(165)	Prod	P/SC
	256Kx18	IS64VPS25618A	2.5V	2.5V	200	3.1	TQFP(100)	Prod	P/SC
	128Kx32	IS64LPS12832A	3.3V	2.5V/3.3V	200	3.1	TQFP(100), PBGA(165)	Prod	P/SC
	128Kx36	IS64LPS12836A	3.3V	2.5V/3.3V	200	3.1	TQFP(100), PBGA(165)	Prod	P/SC
	256Kx18	IS64LPS25618A	3.3V	2.5V/3.3V	200	3.1	TQFP(100)	Prod	P/SC
	128Kx32	IS64LF12832A	3.3V	2.5V/3.3V	117	7.5	TQFP(100), PBGA(165)	Prod	F
	128Kx36	IS64LF12836A	3.3V	2.5V/3.3V	117	7.5	TQFP(100), PBGA(165)	Prod	F
	256Kx18	IS64LF25618A	3.3V	2.5V/3.3V	117	7.5	TQFP(100)	Prod	F
	128Kx32	IS64VF12832A	2.5V	2.5V	117	7.5	TQFP(100), PBGA(165)	Prod	F
	128Kx36	IS64VF12836A	2.5V	2.5V	117	7.5	TQFP(100), PBGA(165)	Prod	F
	256Kx18	IS64VF25618A	2.5V	2.5V	117	7.5	TQFP(100)	Prod	F
9M	512Kx18	IS64LF51218A	3.3V	2.5V/3.3V	117	7.5	TQFP(100), PBGA(165)	Prod	F, copper ⁽⁹⁾
	256Kx36	IS64LF25636A	3.3V	2.5V/3.3V	117	7.5	TQFP(100), PBGA(165)	Prod	F, copper ⁽⁹⁾
	256Kx36	IS64LPS25636A	3.3V	2.5V/3.3V	166	2.6	TQFP(100), PBGA(165)	Prod	P/SC, copper ⁽⁹⁾

Automotive Asynchronous SRAM

Den	Org	Part No.	Vcc	Speeds (ns)	Pkg (#Pins)	Status ⁽¹⁾⁽²⁾	Comment ⁽⁶⁾
256K	32Kx8	IS65C256AL	5V	25,45	SOP(28), TSOP1(28)	Prod	
	32Kx8	IS65LV256AL	3.3V	45	SOP(28), TSOP1(28)	Prod	
512K	32Kx16	IS64WV3216BLL	2.5V-3.6V	15	TSOP2(44), mBGA(48)	Prod	
1M	64Kx16	IS64C6416AL	4.5V-5.5V	15	SOJ(44), TSOP2(44)	Prod	
	64Kx16	IS64WV6416BLL	2.5V-3.6V	15	TSOP2(44), mBGA(48)	Prod	
	128Kx8	IS64C1024AL	5.0V	15	SOJ(32.4), TSOP1(32)	Prod	
	128Kx8	IS64WV1024BLL	2.5V-3.6V	15	TSOP2(32), mBGA(48), sTSOP1(32)	Prod	
	128Kx8	IS65WV1288BLL	2.5V-3.6V	55	TSOP1(32), sTSOP1(32)	Prod	
	128Kx8	IS65C1024AL	5.0V	45	SOP(32), TSOP1(32)	Prod	
2M	128Kx16	IS65WV12816ALL/BLL	1.65V-3.6V	55,70	TSOP2(44), mBGA(48)	Prod	
	128Kx16	IS64WV12816DBLL	2.4V-3.6V	12	TSOP2(44), mBGA(48)	Prod	
4M	512Kx8	IS64WV5128BLL/BLS	2.4V-3.6V	10	TSOP2(44), mBGA(36)	Prod	
	512Kx8	IS64WV5128EDBLL	2.4V-3.6V	10	TSOP2(44), mBGA(36)	Prod	ECC based SRAM
	256Kx16	IS64WV25616BLL/BLS	2.4V-3.6V	10	TSOP2(44), mBGA(48)	Prod	
	256Kx16	IS64WV25616EDBLL	2.4V-3.6V	10	TSOP2(44), mBGA(48)	Prod	ECC based SRAM
	256Kx16	IS65WV25616ALL/BLL	1.65V-3.3V	55,70	TSOP2(44), mBGA(48)	Prod	
8M	512Kx16	IS64WV51216BLL	2.4V-3.3V	10	TSOP2(44), mBGA(48)	Prod	
16M	1Mx16	IS64WV102416BLL	2.4V-3.6V	10	TSOP1(48), mBGA(48)	Prod	
	2Mx8	IS64WV20488BLL	2.4V-3.6V	10	TSOP2(44), mBGA(48)	Prod	

3.3V Synchronous Automotive DRAM

Den	Org	Part No.	Vcc	Refresh	Speed (MHz)	Pkg (#Pins)	Status ^(1,2)	Comment
16M	1Mx16	IS45S16100E	3.3V	2K	166,143	TSOP2(50), BGA(60)	Prod	A2 ⁽⁸⁾
64M	4Mx16	IS45S16400F	3.3V	4K	166,143	TSOP2(54), BGA(54)	Prod	A2 ⁽⁸⁾ , copper ⁽⁹⁾
	4Mx16	IS45S16400J	3.3V	4K	166,143	TSOP2(54), BGA(54)	Prod	A2 ⁽⁸⁾ , copper ⁽⁹⁾
	2Mx32	IS45S32200E	3.3V	4K	166,143	TSOP2(86), BGA(90)	Prod	A2 ⁽⁸⁾
128M	16Mx8	IS45S81600E	3.3V	4K	166,143	TSOP2(54)	Prod	A2 ⁽⁸⁾ , copper ⁽⁹⁾
	16Mx8	IS45S81600F	3.3V	4K	166,143	TSOP2(54)	S=NOW	A2 ⁽⁸⁾ , copper ⁽⁹⁾
	8Mx16	IS45S16800E	3.3V	4K	166,143	TSOP2(54), BGA(54)	Prod	A2 ⁽⁸⁾ , copper ⁽⁹⁾
	8Mx16	IS45S16800F	3.3V	4K	166,143	TSOP2(54), BGA(54)	S=NOW	A2 ⁽⁸⁾ , copper ⁽⁹⁾
	4Mx32	IS45S32400E	3.3V	4K	166,143	TSOP2(86), BGA(90)	Prod	
	4Mx32	IS45S32400F	3.3V	4K	166,143	TSOP2(86), BGA(90)	S=NOW	A2 ⁽⁸⁾

Notes: 1. S = Samples 2. Prod = Production 3. P = Pipeline 4. F = Flow Through 5. SC = Single Cycle Deselect
6. Available in automotive temperature grade of -40°C to +125°C 7. NR = Not recommended for new design
8. Available in automotive temperature grade of -40°C to +105°C 9. Available in copper leadframe

AUTOMOTIVE MEMORY PRODUCTS (CONT'D)

3.3V Synchronous Automotive DRAM

Den	Org	Part No.	Vcc	Refresh	Speed (MHz)	Pkg (#Pins)	Status ^(1,2)	Comment
256M	32Mx8	IS45S83200D	3.3V	8K	166,143	TSOP2(54),BGA(54)	NR	A2 ⁽⁸⁾ , copper ⁽⁹⁾
	32Mx8	IS45S83200G	3.3V	8K	166,143	TSOP2(54),BGA(54)	S=NOW	A2 ⁽⁸⁾
	16Mx16	IS45S16160D	3.3V	8K	166,143	TSOP2(54),BGA(54)	Prod	A2 ⁽⁸⁾ , copper ⁽⁹⁾
	16Mx16	IS45S16160G	3.3V	8K	166,143	TSOP2(54),BGA(54)	S=NOW	A2 ⁽⁸⁾ , copper ⁽⁹⁾
	8Mx32	IS45S32800D	3.3V	4K	166,143	TSOP2(86),BGA(90)	Prod	A2 ⁽⁸⁾
	8Mx32	IS45S32800G	3.3V	4K	166,143	BGA(90)	S=NOW	A2 ⁽⁸⁾
	512M	32Mx16	IS45S16320B	3.3V	8K	143	TSOP2(54),BGA(54)	Prod
32Mx16		IS45S16320D	3.3V	8K	166,143	TSOP2(54),BGA(54)	Prod	A2 ⁽⁸⁾ , copper ⁽⁹⁾
16Mx32		IS45S32160B	3.3V	8K	143	TSOP2(86),BGA(90)	Prod	
16Mx32		IS45S32160D	3.3V	8K	166,143	BGA(90)	Prod	A2 ⁽⁸⁾

2.5V DDR (Double Data Rate) Synchronous Automotive DRAM

Den	Org	Part No.	Vcc	Refresh	Speed (Mhz)	Pkg (#Pins)	Status ^(1,2)	Comment
64M	4Mx16	IS46R16400B	2.5V	4K	200,166	TSOP2(66)	Prod	A2 ⁽⁸⁾
128M	4Mx32	IS46R32400D	2.5V	4K	200,166	BGA(144)	Prod	A2 ⁽⁸⁾
256M	32Mx8	IS46R83200B	2.5V	8K	166	TSOP2(66)	NR	
	32Mx8	IS46R83200D	2.5V	8K	200,166,133	TSOP2(66)	S=NOW	A2 ⁽⁸⁾
	16Mx16	IS46R16160B	2.5V	8K	200,166	TSOP2(66), BGA(60)	NR	
	16Mx16	IS46R16160D	2.5V	8K	200,166,133	TSOP2(66), BGA(60)	S=NOW	A2 ⁽⁸⁾
	8Mx32	IS46R32800B	2.5V	4K	200,166	BGA(144)	NR	
	8Mx32	IS46R32800D	2.5V	4K	200,166,133	BGA(144)	S=NOW	A2 ⁽⁸⁾
	512M	64Mx8	IS46R86400D	2.5V	8K	200,166,133	TSOP2(66), BGA(60)	Prod
32Mx16		IS46R16320D	2.5V	8K	200,166,133	TSOP2(66), BGA(60)	Prod	A2 ⁽⁸⁾
16Mx32		IS46R32160D	2.5V	8K	200,166,133	BGA(144)	S=NOW	A2 ⁽⁸⁾

1.8V Mobile DDR (Double Data Rate) Synchronous Automotive DRAM

Den	Org	Part No.	Vcc	Refresh	Speed (Mhz)	Pkg (#Pins)	Status ^(1,2)	Comment
32M	2Mx16	IS46LR16200C	1.8V	4K	166,133	BGA(60)	Prod	A2 ⁽⁸⁾
	1Mx32	IS46LR32100C	1.8V	4K	166,133	BGA(90)	Prod	A2 ⁽⁸⁾
64M	4Mx16	IS46LR16400B	1.8V	4K	166,133	BGA(60)	S=NOW	A2 ⁽⁸⁾
	2Mx32	IS46LR32200B	1.8V	4K	166,133	BGA(90)	S=NOW	A2 ⁽⁸⁾
128M	8Mx16	IS46LR16800E	1.8V	4K	166,133	BGA(60)	NR	
	8Mx16	IS46LR16800F	1.8V	4K	166,133	BGA(60)	Prod	A2 ⁽⁸⁾
	4Mx32	IS46LR32400E	1.8V	4K	166,133	BGA(90)	NR	
	4Mx32	IS46LR32400F	1.8V	4K	166,133	BGA(90)	Prod	A2 ⁽⁸⁾
	512M	32Mx16	IS46LR16320B	1.8V	8K	166,133	BGA(60)	Prod
16Mx32		IS46LR32160B	1.8V	8K	166,133	BGA(90)	Prod	A2 ⁽⁸⁾

Notes: 1. S = Samples 2. Prod = Production 3. P = Pipeline 4. F = Flow Through 5. SC = Single Cycle Deselect
 6. Available in automotive temperature grade of -40°C to +125°C 7. NR = Not recommended for new design
 8. Available in automotive temperature grade of -40°C to +105°C 9. Available in copper leadframe

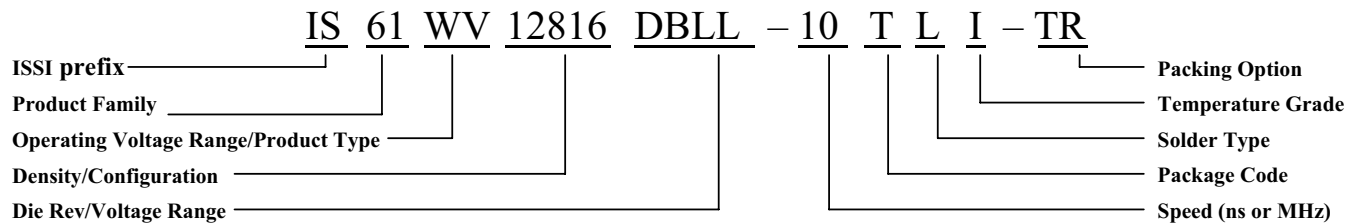
AUTOMOTIVE MEMORY PRODUCTS (CONT'D)

1.8V DDR2 (Double Data Rate) Synchronous Automotive DRAM

Den	Org	Part No.	Vcc	Refresh	Speed (MT/s)	Pkg (#Pins)	Status ^(1,2)	Comment
256M	32Mx8	IS46DR83200A	1.8V	8K	667,533,400	BGA(60)	Prod	A2 ⁽⁸⁾
	16Mx16	IS46DR16160A	1.8V	8K	667,533,400	BGA(84)	Prod	A2 ⁽⁸⁾
	8Mx32	IS46DR32801A	1.8V	8K	400	BGA(126)	Prod	A2 ⁽⁸⁾
512M	64Mx8	IS46DR86400B	1.8V	8K	800,667,533,400	BGA(60)	Prod	A2 ⁽⁸⁾
	32Mx16	IS46DR16320B	1.8V	8K	800,667,533,400	BGA(84)	Prod	A2 ⁽⁸⁾
1G	128Mx8	IS46DR81280A	1.8V	8K	800,667,533,400	BGA(60)	Prod	A2 ⁽⁸⁾
	64Mx16	IS46DR16640A	1.8V	8K	800,667,533,400	BGA(84)	Prod	A2 ⁽⁸⁾
2G	128Mx16	IS46DR16128	1.8V	8K	667,533,400	BGA(84)	Prod	A2 ⁽⁸⁾

Notes: 1. S = Samples 2. Prod = Production 3. P = Pipeline 4. F = Flow Through 5. SC = Single Cycle Deselect
 6. Available in automotive temperature grade of -40°C to +125°C 7. NR = Not recommended for new design
 8. Available in automotive temperature grade of -40°C to +105°C 9. Available in copper leadframe

ORDERING INFORMATION FOR ISSI SRAM DEVICES



SRAM Product Family
 61/63 = High Speed
 62 = Low Power
 64 = Automotive High Speed
 65 = Automotive Low Power
 66 = Pseudo SRAM
 67 = Automotive PSRAM

Density/Configuration
 Example:
 25636 = 256Kx36
 51216 = 512Kx16
 1M36 = 1Mx36

Die Rev/Voltage Range
Die Rev
 Blank-Z
Voltage Range (WV)
 ALL = 1.65V to 2.2V
 BLL = 2.5V to 3.6V

Operating Voltage Range/ Product Type
Asynchronous SRAM
 C = 5V
 LV = 3.3V
 WV = Wide Voltage Range

Synchronous SRAM
 P = Pipeline, F = Flowthrough
 NLP/NLF/NVP/NVF = No-Wait Option
 LP/LF: Vcc = 3.3V, VccQ = 3.3V/2.5V
 VP/VF: Vcc = 2.5V, VccQ = 2.5V
 QD = QUAD, DD = DDR-II Common I/O: Vcc = 1.8V, VccQ = 1.8V/1.5V

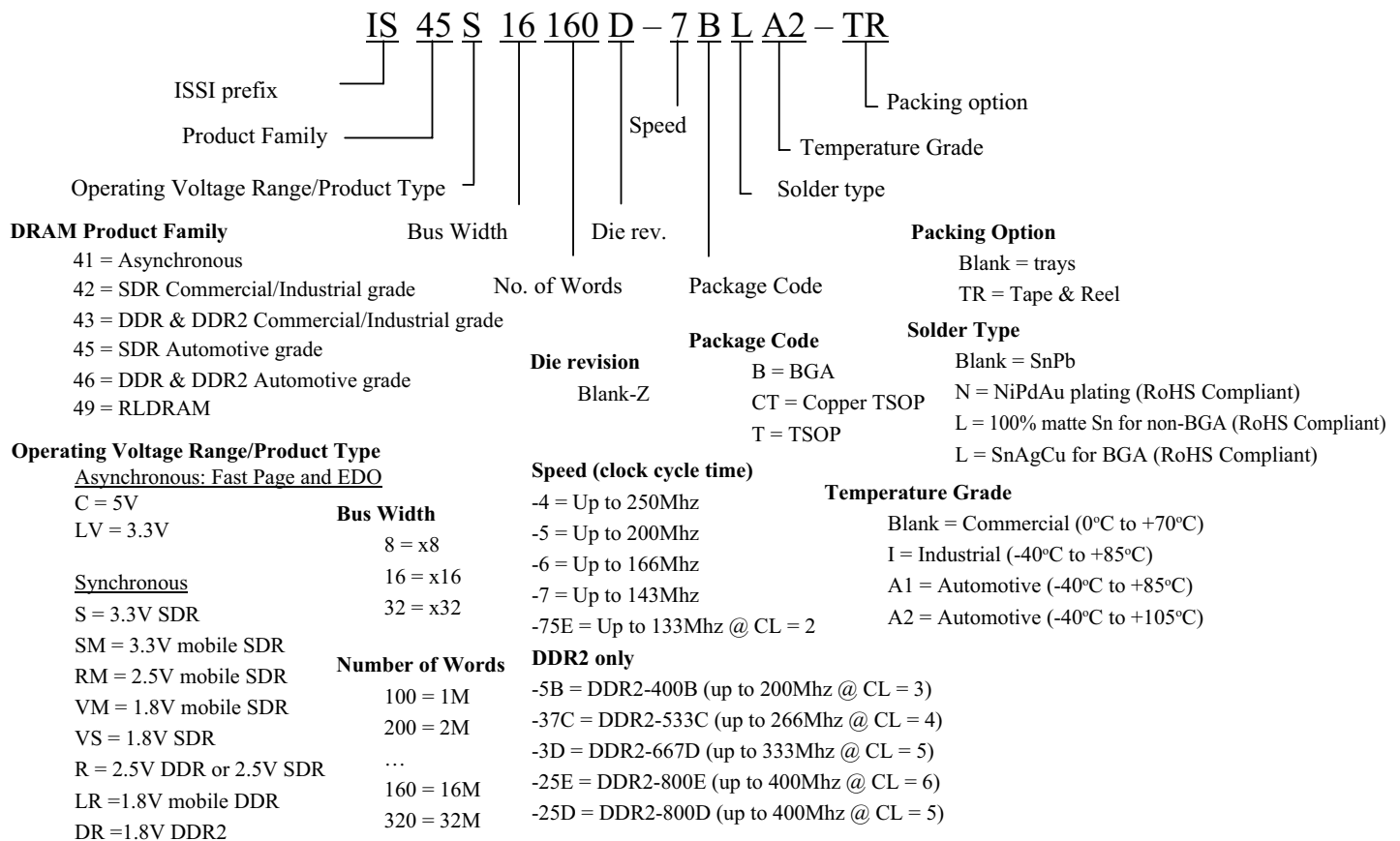
Packing Option
 Blank = Tray or Tube
 TR = Tape & Reel
Temperature Grade
 Blank = Commercial (0°C to 70°C)
 I = Industrial (-40°C to 85°C)
 A1 = Automotive (-40°C to 85°C)
 A2 = Automotive (-40°C to 105°C)
 A3 = Automotive (-40°C to 125°C)

Solder Type
 Blank = SnPb
 L = Lead-free (RoHS Compliant)

Package Code
 B, B1, B2, B3 = BGA
 CT = Copper TSOP
 H = sTSOP
 J = 300-mil SOJ
 K = 400-mil SOJ
 LQ = LQFP
 M, M3, = BGA
 Q = SOP
 T/T2 = TSOP
 TQ = TQFP
 U = SOP

Speed (ns or MHz)
 Example:
 8 = 8ns
 200 = 200MHz

ORDERING INFORMATION FOR ISSI DRAM DEVICES



DRAM Product Family
 41 = Asynchronous
 42 = SDR Commercial/Industrial grade
 43 = DDR & DDR2 Commercial/Industrial grade
 45 = SDR Automotive grade
 46 = DDR & DDR2 Automotive grade
 49 = RLDRAM

Operating Voltage Range/Product Type
Asynchronous: Fast Page and EDO
 C = 5V
 LV = 3.3V

Synchronous
 S = 3.3V SDR
 SM = 3.3V mobile SDR
 RM = 2.5V mobile SDR
 VM = 1.8V mobile SDR
 VS = 1.8V SDR
 R = 2.5V DDR or 2.5V SDR
 LR = 1.8V mobile DDR
 DR = 1.8V DDR2

Bus Width
 8 = x8
 16 = x16
 32 = x32
Number of Words
 100 = 1M
 200 = 2M
 ...
 160 = 16M
 320 = 32M

Speed (clock cycle time)
 -4 = Up to 250Mhz
 -5 = Up to 200Mhz
 -6 = Up to 166Mhz
 -7 = Up to 143Mhz
 -75E = Up to 133Mhz @ CL = 2
DDR2 only
 -5B = DDR2-400B (up to 200Mhz @ CL = 3)
 -37C = DDR2-533C (up to 266Mhz @ CL = 4)
 -3D = DDR2-667D (up to 333Mhz @ CL = 5)
 -25E = DDR2-800E (up to 400Mhz @ CL = 6)
 -25D = DDR2-800D (up to 400Mhz @ CL = 5)

Package Code
 B = BGA
 CT = Copper TSOP
 T = TSOP

Packing Option
 Blank = trays
 TR = Tape & Reel

Solder Type
 Blank = SnPb
 N = NiPdAu plating (RoHS Compliant)
 L = 100% matte Sn for non-BGA (RoHS Compliant)
 L = SnAgCu for BGA (RoHS Compliant)

Temperature Grade
 Blank = Commercial (0°C to +70°C)
 I = Industrial (-40°C to +85°C)
 A1 = Automotive (-40°C to +85°C)
 A2 = Automotive (-40°C to +105°C)

AUDIO AMPLIFIER

ISSI offers a wide range of Audio Power Amplifier support from general purpose applications to portable and mobile applications; from Class-AB, Class-D to Class-G for ceramic speaker direct drive. The proprietary UTQFN package provides a small size but low cost package solution for mobile phones and portable device applications. Amplifiers with Tone and 3D control are widely used at mini-desktop Hi-Fi system with cell phone docking.

Class-AB Audio Power Amplifier with or without Headphone Driver

Part No.	No. of Channel	Power (W)	THD+N (kHs)	PSRR (dB)	VDD (V)	ISD (uA)	IDD (mA)	Package (Size in mm)	Key Feature	Reference
IS31AP4990D	1	1.2	0.23%	61	2.7 - 5.5	1	3.8	UTQFN-9L (1.5x1.5)	1.2W Mono Audio Power Amplifier in Proprietary UTQFN Package	LM4990 NCP2990
IS31AP4991	1	1.2	0.03%	65	2.7 - 5.5	1	4.8	MSOP-8 SOP-8	1.2W Mono Audio Power Amplifier	LM4990 TS4890
IS31AP4066D	2	1.3	0.10%	60	2.7 - 5.5	1.1	3.9	QFN-16 (3.0x3.0)	Dual 1.3W Stereo Audio Power Amplifier	-
IS31AP4088D	2	2.6	0.10%	60	2.7 - 5.5	1	4.5	QFN-16 (4.0x4.0)	Dual 2.6W Stereo Audio Power Amplifier	-
IS31AP4088A	2 2 HP	2.84	0.06%	80	2.7 - 5.5	1	5.7	QFN-16 (4.0x4.0)	Dual 2.84W Stereo Audio Power Amplifier with Headphone Driver	-
IS31AP4832	2 2 HP	2.5	0.03%	70	3.0 - 5.5	3	8	QFN-28 (4.0x4.0)	Dual 2.5W Stereo Amplifier with Headphone, Tone Control and 3D using I2C interface	-

Headphone Driver

Part No.	No. of Channel	Power (mW)	THD+N (kHs)	PSRR (dB)	VDD (V)	ISD (uA)	IDD (mA)	Package (Size in mm)	Key Feature	Status
IS31AP4912	2	30	0.024%	95	2.7 - 5.5	1.0	5.0	UTQFN-12 (2.0x2.0)	High Quality Stereo Headphone Driver with High SNR and 7uV Ultra-Low O/P Noise	S=NOW Prod. in Dec.2011
IS31AP4913	2	30	0.05%	92	2.7 - 5.5	1.0	5.0	QFN-20 (3.0x3.0)	3D Surround & Bass Enhanced High Quality Stereo Headphone Driver	S=NOW Prod. in Dec.2011

Class-D Audio Power Amplifier

Part No.	No. of Channel	Power (W)	THD+N (kHs)	PSRR (dB)	VDD (V)	ISD (uA)	IDD (mA)	Package (Size in mm)	Key Feature	Reference
IS31AP2005	1	2.7	0.20%	63	2.5 - 5.5	1	3	DFN-8(3x3) MSOP-8	2.7W Mono Filter-less Class-D Audio Power Amplifier	TPA2005
IS31AP2010B	1	3	0.22%	75	2.7 - 5.5	1	2.6	UTQFN-9 (1.5x1.5)	3W Mono Filter-less Class-D Audio Power Amplifier	TPA2010 LM4673 NCP2820
IS31AP2145	1	2	0.20%	72	3.3 - 4.5	1	3	WCSP (1.42x1.42)	2W Mono Clip-less & Filter-less Audio Amplifier with Built-in AGC	
IS31AP2145A	1	2.9	0.2%	72	2.7 - 5.5	1.0	2.0	UTQFN (1.5 X 1.5)	2.9W Mono Clip-less & Filter-less Audio Amplifier with Built-in AGC	YDA145

Class-G Ceramic Speaker Amplifier

Part No.	No. of Channel	Output Power	THD+N (kHs)	SNR (dB)	VDD (V)	ISD (uA)	IDD (mA)	Package (Size in mm)	Key Feature
IS31AP4915	1	20VP-P	0.01%	100	2.5 - 6.5	1	6	QFN-16 (4.0x4.0)	20VP-P Charge Pump Ceramic Speaker Driver
IS31AP2031	1	2W (8Ω Speaker)	0.33%	-	2.7 - 4.5	1	5	QFN-20/28 (3x3;4x4)	High Power, Ultra-Low EMI Class-G Amplifier with AGC

FUN LIGHT LED DRIVER

ISSI provides a series of 256-level, PWM-controlled, RGB LED drivers to generate fun lighting effects, while off loading the host control MCU from heavy calculation tasks. This is ideal for enhancing the message display or brand logo display on different electronic devices and electrical appliances. Dimming effects with Audio Synchronization allows creative lighting effects in-line with input audio signal, which makes it ideal for toys applications. Constant current channels provide unity and steady LED brightness.

Light Effect RGB LED Driver

Part No.	No. of Channel	No. of RGB Group	Gamma Correction	Control Interface	Audio Sync.	Auto Dimming	VDD (V)	Package (Size in mm)	Key Feature
IS31FL3101	3	1	Built-in	SPI	No	No	3.0 - 5.5	DFN-10 (3.0x3.0)	Auto and individual RGB color mixing up to 16Million color
IS31FL3103	6	2	Built-in	SPI	No	No	3.0 - 5.5	QFN-20 (4.0x4.0)	Auto and individual RGB color mixing up to 16Million color
IS31FL3189	10	2	Built-in	SPI	Yes	No	3.0 - 5.5	QFN-20 (3.0x3.0)	Auto and individual RGB color mixing up to 16Million color with Audio Sync mode
IS31FL3193	3	1	Built-in	I2C	No	Yes	2.7 - 5.5	DFN-10 (3.0x3.0)	16Million color RGB auto and semi-auto breathing with pre-set pattern
IS31FL3199	9	3	Built-in	I2C	Yes	Yes	2.7 - 5.5	QFN-20 (3.0x3.0)	16Million color RGB auto and semi-auto breathing with AGC Audio Sync mode
IS31FL3216	16	-	External	I2C	Yes	No	2.7 - 5.5	QFN-28 (4.0x4.0)	Internal SRAM supports animation frames, 16 independent channels
IS31FL3218	18	6	External	I2C	No	No	2.7 - 5.5	QFN-24 (4.0x4.0)	Modulate 18 Independent LED channels with 256 steps PWM
IS31FL3726	16	-	-	Serial	No	No	3.3 - 5.5	QFN-24 (4.0x4.0)	16-channels On/Off LED driver with serial-in and serial-out for cascade application

Light Effect Matrix LED Driver

Part No.	Max No. of LED	Column/ Row Scan	Audio EQ Display	Control Interface	Audio Sync.	Auto Dimming	VDD (V)	Package (Size in mm)	Key Feature
IS31FL3728	64	Auto	Yes	I2C	Yes	Yes	2.7 - 5.5	QFN-24 (4.0x4.0)	8x8 Dot Matrix LED Drive with Audio Modulation
IS31FL3730	128	Dual Auto	No	I2C	Yes	128 PWM levels	2.7 - 5.5	QFN-24 (4.0x4.0)	8x8 Dot Matrix Dual Scan LED Driver with Audio Modulation

WHITE LED DRIVER FOR LCD BACKLIGHT & FLASH

ISSI offers two types of white LED drivers for small size LCD backlight applications which include (1) constant current source for low noise, stable light intensity applications and (2) charge pump for lithium-ion or polymer battery source applications.

Small Size LCD Backlight Driver & Flash LED Driver

Part No.	No. of LED	Type of Driver	IOUT (mA)	VDD (V)	ISD (uA)	Intensity Control	Package (Size in mm)	Key Feature
IS31BL3212	4	Constant Current	23	2.7 - 5.5	1.0	Pulse Count	DFN-8 (2.0x2.0)	Ultra low headroom voltage, highly integrated design with minimal component
IS31BL3212	3	Constant Current	23	2.7 - 5.5	1.0	Pulse Count	SOT23-6 (2.0x2.0)	Ultra low headroom voltage, highly integrated design with minimal component
IS31BL3228A	4	Charge Pump	20	2.8 - 5.5	0.5	Pulse Count	UTQFN-12 (2.0x2.0)	Low noise constant frequency charge pump with proprietary UTQFN small package
IS31BL3228B	6	Charge Pump	20	2.8 - 5.5	0.5	Pulse Count	UTQFN-12 (2.0x2.0)	Low noise constant frequency charge pump with proprietary UTQFN small package
IS31BL3506A	9	Boost	20	2.7 - 5.5	2.0	PWM or DC Level	TSOT23-6	35V Internal MOSFET 1MHz Step-up Converter
IS31BL3231	1	Charge Pump	750	2.7 - 5.5	1.0	Pulse Count	DFN-10 (3.0x3.0)	Camera Flash LED Driver

LIGHTING LED DRIVER

ISSI provides a series of LED drivers for different types of LED lighting applications. The major advantage is low external component count to keep the end product cost competitive.

Part No.	Driver	VDD (V)	IOUT Accuracy	Efficiency (%)	Power Transistor	Major Application	Package	Key Feature
IS31LT3135	Constant Current	2.7 - 5.5	500mA ±5%	90	Built-in	Miner lamp, Torch, Battery powered LED lighting	SOP-8	Main/sub dual-channel driver with short circuit and over temperature protection
IS31LT3350	DC/DC Step-down	6 - 40	750mA ±5%	95	Built-in	Low voltage LED lighting, MR16 replacement	SOT89-5 SOT23-5	Single pin ON/OFF or brightness control with DC/PWM, thermal shutdown
IS31LT3352	DC/DC Step-down	6 - 40	750mA ±5%	95	Built-in	Low voltage LED lighting, MR16 replacement	SOP-8	Cascadable, temperature compensation and one pin ON/OFF/dimming control
IS31LT3360	DC/DC Step-down	6 - 40	1.2A ±3%	98	Built-in	MR16, MR11 spot light, PAR light	SOT89-5	High efficiency with open/short and thermal shutdown protection
IS31LT3354	DC/DC Step-down	6 - 40	- ±3%	98	External	Low volt. LED lighting, Illuminated sign	SOT23-5	1200:1 dimming ratio LED driver with thermal shutdown protection
IS31LT3380	DC/DC Step-down	8.5 - 40	1.2A ±5%	98	Built-in	MR16, MR11 spot light, PAR light	SOP-8	3-level switch dim control, open/short and thermal shutdown protection
IS31LT3505	Boost Step-up	6 - 30	24W ±5%	90	Built-in	TV/Monitor back-lighting, Battery powered LED light	MSOP-10	1MHz Boost Converter with 35V Internal NMOS
IS31LT3910	AC/DC Step-down	8-450 DC 110/220 AC	500mA ±3%	90	External	T8, PAR light, LED back-light	SOP-8	Non-isolation, linear/PWM dimming, temperature compensation
IS31LT3918	DC/DC AC/DC	6-450 DC 85-265 AC	- ±3%	95	External	LED Lighting; Signal & decorative lighting	SOP-8	High voltage LED driver with Switch Dimming
IS31LT3948	Boost Step-up	5 - 100	- ±5%	90	External	TV/Monitor back-lighting, Street lamp, LED lighting	SOP-8	Wide input voltage range, over-voltage/temperature protection

OTHERS

For MCU I/O pin expansion and Key pad applications. It extends the number of GPIO of a single chip MCU.

Multi-Function I/O and I/O Expander

Part No.	No. of I/O Port	VDD (V)	ISD (uA)	Control Interface	Interrupt Output	Package (Size in mm)	Key Feature
IS31IO7325	16	2.4 - 5.5	0.3	I2C	I/O state change	QFN-24, SOP-24	8 open-drain with 20mA sink current and 8 push-pull I/O
IS31IO7326	16	2.4 - 5.5	0.3	I2C	Key pressed input	QFN-24 (4.0x4.0)	8x8 Key-scan controller with input debounce
IS31IO7328	8	2.4 - 5.5	0.3	I2C	I/O state change	QFN-16 (3.0x3.0)	4 open-drain with 20mA sink current and 4 push-pull I/O

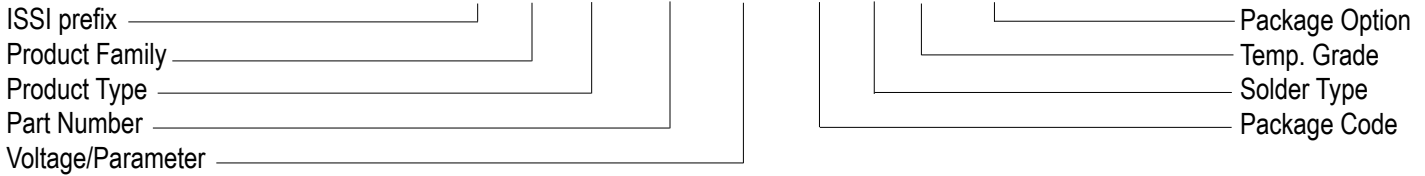
Power Management

Our Power Management products include compact DC/DC converter and Battery Management devices for different kinds of applications.

Part No.	Convert Typ	Vin (V)	Max. Vo (V)	Efficiency (%)	ISD (uA)	Package (Size in mm)	Key Feature
IS31PE3500	Boost Step-up	2.4 - 5.5	26	85	1.0	DFN-8 (2.0x2.0)	Constant current boost converter with internal FET Switch
IS31PE8200	-	2.4 - 5.5	-	-	100	QFN-20 (3.0x3.0)	Intelligent Dual Batteries Power Management IC

ORDERING INFORMATION FOR ISSI ANALOG PRODUCTS

IS 31 LT 3135 V1 -GR L S2 -TR



Product Family

31 = Analog and Mix Signal

Product Type

- AP = Audio Power Amplifier
- FL = Fun Light LED Driver
- BL = White LED Driver for LCD Backlight
- LT = Lighting LED Driver
- IO = Multi-Function IO and IO Expander
- TM = Temperature Sensor
- PW = Power Management

Voltage Range/Parameters

Sense Voltage Range

- V1 = 91mV to 101mV
- V2 = 99mV to 110mV

Under-Voltage Range

- V1 = 1.13V to 1.21V
- V2 = 1.19V to 1.26V

Temperature Range

- S1 = Commercial (0 to 70°C)
- S2 = Industrial temp. (-40 to 85°C)
- S3 = Industrial temp. (-40 to 105°C)
- S4 = Automotive temp. (-40 to 125°C)
- S5 = Military (-55 to 155°C)

Packing Option

- Blank = Tray or Tube
- TF = Tape & Reel

Solder Type

- Blank = SnPb
- L = Lead-free (RoHS Compliant)

Package Code

- C = WCSP
- D = DFN
- GR = SOP
- QF = QFN
- S = MSOP
- SD = SOT89
- ST = SOT23
- UT = UTQFN

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