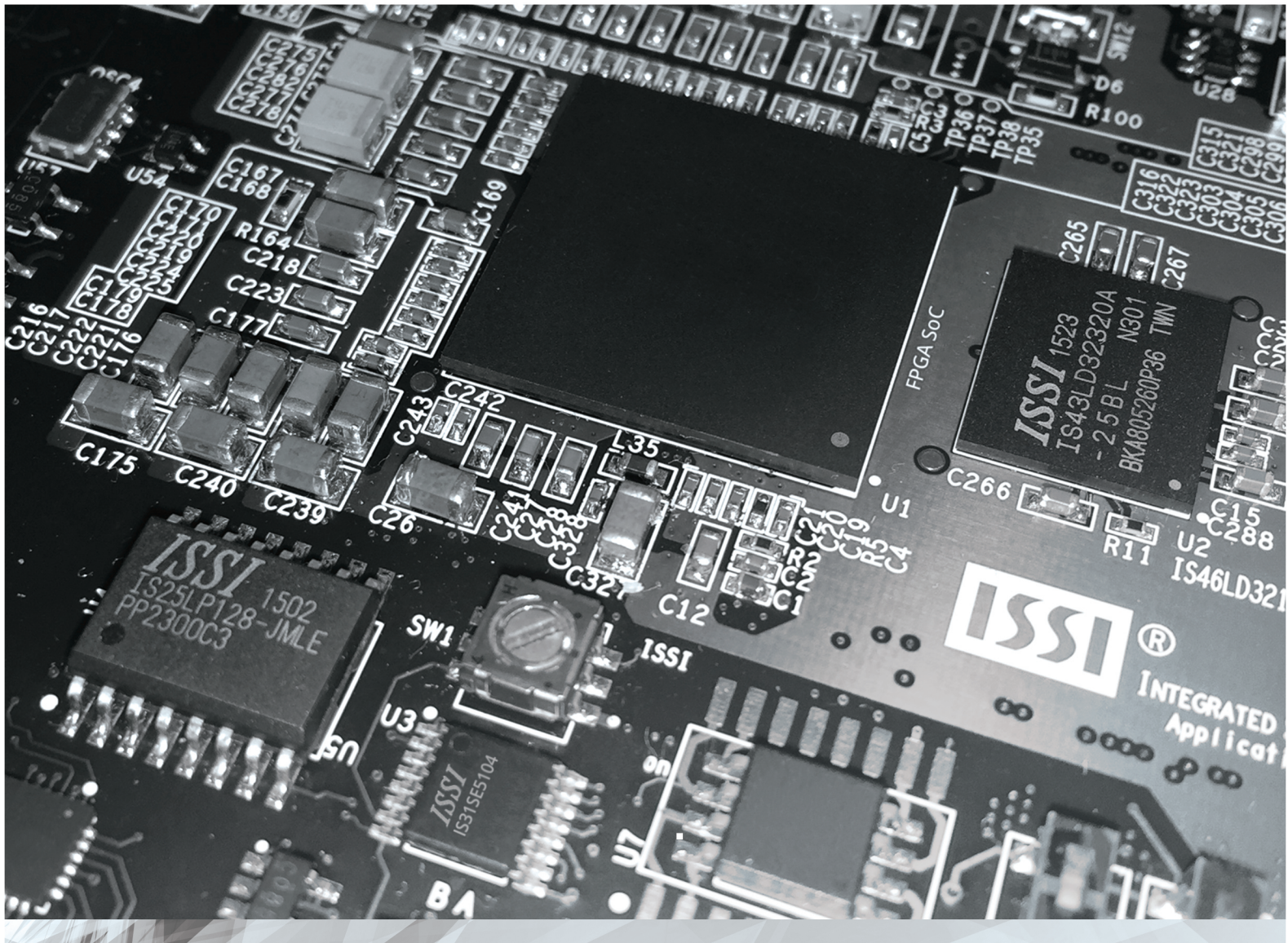




Long-term Support
World Class Quality



APRIL 2017

Product Selector Guide

DRAM ■ FLASH ■ SRAM ■ ANALOG & MIXED SIGNAL

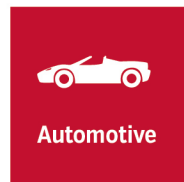


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1.2V DDR4 SDRAM

Den	Org	Type	Part Number	Vcc	Refresh	Speed [MT/s]	Pkg[Pins]	Status	Comment
4G	256Mx16	DDR4	IS43QR16256A	1.2V	8K	2400, 2133, 1866, 1600	BGA[96]	Prod	

Automotive 1.2V DDR4 SDRAM

Den	Org	Type	Part Number	Vcc	Refresh	Speed [MT/s]	Pkg[Pins]	Status	Comment
4G	256Mx16	DDR4	IS46QR16256A	1.2V	8K	2400, 2133, 1866, 1600	BGA[96]	Prod	

1.5V DDR3 SDRAM

Den	Org	Type	Part Number	Vcc	Refresh	Speed [MT/s]	Pkg[Pins]	Status	Comment
1G	128Mx8	DDR3	IS43TR81280B	1.5V	8K	2133,1866,1600,1333	BGA[78]	Prod	
	64Mx16	DDR3	IS43TR16640B	1.5V	8K	2133,1866,1600,1333	BGA[96]	Prod	
2G	256Mx8	DDR3	IS43TR82560B	1.5V	8K	2133,1866,1600,1333	BGA[78]	Prod	
	256Mx8	DDR3	IS43TR82560C	1.5V	8K	2133,1866,1600,1333	BGA[78]	Prod	
	128Mx16	DDR3	IS43TR16128B	1.5V	8K	2133,1866,1600,1333	BGA[96]	Prod	
128Mx16	DDR3	IS43TR16128C	1.5V	8K	2133,1866,1600,1333	BGA[96]	Prod		
	4G	512Mx8	DDR3	IS43TR85120A	1.5V	8K	2133,1866,1600,1333	BGA[78]	Prod
256Mx16	DDR3	IS43TR16256A	1.5V	8K	2133,1866,1600,1333	BGA[96]	Prod		
	8G	512Mx16	DDR3	IS43TR16512A	1.5V	8K	1866,1600,1333	BGA[96]	Prod

1.35V DDR3L SDRAM

Den	Org	Type	Part Number	Vcc	Refresh	Speed [MT/s]	Pkg[Pins]	Status	Comment
1G	128Mx8	DDR3	IS43TR81280BL	1.35V	8K	1866,1600,1333	BGA[78]	Prod	
	64Mx16	DDR3	IS43TR16640BL	1.35V	8K	1866,1600,1333	BGA[96]	Prod	
2G	256Mx8	DDR3	IS43TR82560BL	1.35V	8K	1866,1600,1333	BGA[78]	Prod	
	256Mx8	DDR3	IS43TR82560CL	1.35V	8K	1866,1600,1333	BGA[78]	Prod	
	128Mx16	DDR3	IS43TR16128BL	1.35V	8K	1866,1600,1333	BGA[96]	Prod	
128Mx16	DDR3	IS43TR16128CL	1.35V	8K	1866,1600,1333	BGA[96]	Prod		
	4G	512Mx8	DDR3	IS43TR85120AL	1.35V	8K	1866,1600,1333	BGA[78]	Prod
256Mx16	DDR3	IS43TR16256AL	1.35V	8K	1866,1600,1333	BGA[96]	Prod		
	8G	512Mx16	DDR3	IS43TR16512AL	1.35V	8K	1866,1600,1333	BGA[96]	Prod

Automotive 1.5V DDR3 SDRAM

Den	Org	Type	Part Number	Vcc	Refresh	Speed [MT/s]	Pkg[Pins]	Status	Comment
1G	128Mx8	DDR3	IS46TR81280B	1.5V	8K	1866,1600,1333	BGA[78]	Prod	
	128mX8	DDR3	IS46TR81280ED	1.5V	8K	1600,1333	BGA[78]	Prod	ECC
64Mx16	DDR3	IS46TR16640B	1.5V	8K	1866,1600,1333	BGA[96]	Prod		
	64Mx16	DDR3	IS46TR16640ED	1.5V	8K	1600,1333	BGA[96]	Prod	ECC
2G	256Mx8	DDR3	IS46TR82560B	1.5V	8K	1866,1600,1333	BGA[78]	Prod	
	256Mx8	DDR3	IS46TR82560C	1.5V	8K	1866,1600,1333	BGA[78]	Prod	
	128Mx16	DDR3	IS46TR16128B	1.5V	8K	1866,1600,1333	BGA[96]	Prod	
128Mx16	DDR3	IS46TR16128C	1.5V	8K	1866,1600,1333	BGA[96]	Prod		
	4G	512Mx8	DDR3	IS46TR85120A	1.5V	8K	1866,1600,1333	BGA[78]	Prod
256Mx16	DDR3	IS46TR16256A	1.5V	8K	1866,1600,1333	BGA[96]	Prod		
	8G	512Mx16	DDR3	IS46TR16512A	1.5V	8K	1600,1333	BGA[96]	Prod

Notes : 1. S= Sample 2. Prod=Production 3. NR= Not recommended for new design 4. MT/s : millions of transfers per second [data rate]. 5. Speed of 2133 may be available.

DRAM

Automotive 1.35V DDR3L SDRAM

Den	Org	Type	Part Number	Vcc	Refresh	Speed [MT/s]	Pkg(Pins)	Status	Comment
1G	128Mx8	DDR3	IS46TR81280BL	1.35V	8K	1866,1600,1333	BGA[78]	Prod	
	64Mx16	DDR3	IS46TR16640BL	1.35V	8K	1866,1600,1333	BGA[96]	Prod	
2G	256Mx8	DDR3	IS46TR82560BL	1.35V	8K	1866,1600,1333	BGA[78]	Prod	
	256Mx8	DDR3	IS46TR82560CL	1.35V	8K	1866,1600,1333	BGA[78]	Prod	
	128Mx16	DDR3	IS46TR16128BL	1.35V	8K	1866,1600,1333	BGA[96]	Prod	
	128Mx16	DDR3	IS46TR16128CL	1.35V	8K	1866,1600,1333	BGA[96]	Prod	
4G	512Mx8	DDR3	IS46TR85120AL	1.35V	8K	1866,1600,1333	BGA[78]	Prod	
	256Mx16	DDR3	IS46TR16256AL	1.35V	8K	1866,1600,1333	BGA[96]	Prod	
8G	512Mx16	DDR3	IS46TR16512AL	1.35V	8K	1600,1333	BGA[96]	Prod	2 Ranks

1.8V DDR2 SDRAM

Den	Org	Type	Part Number	Vcc	Refresh	Speed [MT/s]	Pkg(Pins)	Status	Comment
256M	16Mx16	DDR2	IS43DR16160B	1.8V	8K	800,667,533,400	WBGA[84]	Prod	
	8Mx32	DDR2	IS43DR32801B	1.8V	8K	667,533,400	BGA[126]	Prod	
512M	64Mx8	DDR2	IS43DR86400D	1.8V	8K	800,667,533,400	BGA[60]	Prod	
	64Mx8	DDR2	IS43DR86400E	1.8V	8K	800,667,533,400	BGA[60]	Prod	
	32Mx16	DDR2	IS43DR16320D	1.8V	8K	800,667,533,400	BGA[84]	Prod	
	32Mx16	DDR2	IS43DR16320E	1.8V	8K	800,667,533,400	BGA[84]	Prod	
	16Mx32	DDR2	IS43DR32160C	1.8V	8K	667,533,400	BGA[126]	Prod	
1G	128Mx8	DDR2	IS43DR81280B	1.8V	8K	800,667,533,400	BGA[60]	Prod	
	128Mx8	DDR2	IS43DR81280C	1.8V	8K	800,667,533,400	BGA[60]	Prod	
	64Mx16	DDR2	IS43DR16640B	1.8V	8K	800,667,533,400	BGA[84]	Prod	
	64Mx16	DDR2	IS43DR16640C	1.8V	8K	800,667,533,400	BGA[84]	Prod	
2G	256Mx8	DDR2	IS43DR82560C	1.8V	8K	800,667,533,400	BGA[60]	Prod	
	128Mx16	DDR2	IS43DR16128C	1.8V	8K	800,667,533,400	BGA[84]	Prod	

Automotive 1.8V DDR2 SDRAM

Den	Org	Type	Part Number	Vcc	Refresh	Speed [MT/s]	Pkg(Pins)	Status	Comment
256M	16Mx16	DDR2	IS46DR16160B	1.8V	8K	800,667,533,400	WBGA[84]	Prod	
	8Mx32	DDR2	IS46DR32801B	1.8V	8K	667,533,400	BGA[126]	Prod	
512M	64Mx8	DDR2	IS46DR86400D	1.8V	8K	800,667,533,400	BGA[60]	Prod	
	64Mx8	DDR2	IS46DR86400E	1.8V	8K	800,667,533,400	BGA[60]	Prod	
	32Mx16	DDR2	IS46DR16320D	1.8V	8K	800,667,533,400	BGA[84]	Prod	
	32Mx16	DDR2	IS46DR16320E	1.8V	8K	800,667,533,400	BGA[84]	Prod	
	16Mx32	DDR2	IS46DR32160C	1.8V	8K	667,533,400	BGA[126]	Prod	
1G	128Mx8	DDR2	IS46DR81280B	1.8V	8K	800,667,533,400	BGA[60]	Prod	
	128Mx8	DDR2	IS46DR81280C	1.8V	8K	800,667,533,400	BGA[60]	Prod	
	64Mx16	DDR2	IS46DR16640B	1.8V	8K	800,667,533,400	BGA[84]	Prod	
	64Mx16	DDR2	IS46DR16640C	1.8V	8K	800,667,533,400	BGA[84]	Prod	
2G	256Mx8	DDR2	IS46DR82560C	1.8V	8K	800,667,533,400	BGA[60]	Prod	
	128Mx16	DDR2	IS46DR16128C	1.8V	8K	800,667,533,400	BGA[84]	Prod	

Notes : 1. S= Sample 2. Prod=Production 3. NR= Not recommended for new design 4. ECC=Error Correcting Code

2.5V DDR SDRAM

Den	Org	Type	Part Number	Vcc	Refresh	Speed [MHz]	Pkg(Pins)	Status	Comment
128M	8Mx16	DDR	IS43R16800E	2.5V	4K	200,166,133	TSOP2[66],BGA[60]	Prod	
	4Mx32	DDR	IS43R32400E	2.5V	4K	250,200,166	BGA[144]	Prod	
256M	32Mx8	DDR	IS43R83200D	2.5V	8K	200,166,133	TSOP2[66]	Prod	
	32Mx8	DDR	IS43R83200F	2.5V	8K	200,166,133	TSOP2[66]	Prod	
	16Mx16	DDR	IS43R16160D	2.5V	8K	200,166,133	TSOP2[66],BGA[60]	Prod	
	16Mx16	DDR	IS43R16160F	2.5V	8K	200,166,133	TSOP2[66],BGA[60]	Prod	
	8Mx32	DDR	IS43R32800D	2.5V	4K	200,166,133	BGA[144]	Prod	
512M	64Mx8	DDR	IS43R86400E	2.5V	8K	200,166,133	TSOP2[66],BGA[60]	Prod	
	64Mx8	DDR	IS43R86400F	2.5V	8K	200,166,133	TSOP2[66],BGA[60]	Prod	
	32Mx16	DDR	IS43R16320E	2.5V	8K	200,166,133	TSOP2[66],BGA[60]	Prod	
	32Mx16	DDR	IS43R16320F	2.5V	8K	200,166,133	TSOP2[66],BGA[60]	Prod	
	16Mx32	DDR	IS43R32160D	2.5V	8K	200,166,133	BGA[144]	Prod	

Notes : 1. S= Sample 2. Prod=Production 3. NR= Not recommended for new design

Automotive 2.5V DDR SDRAM

Den	Org	Type	Part Number	Vcc	Refresh	Speed [MHz]	Pkg(Pins)	Status	Comment
256M	16Mx16	DDR	IS46R16160D	2.5V	8K	200,166,133	TSOP2[66],BGA[60]	Prod	
	16Mx16	DDR	IS46R16160F	2.5V	8K	200,166,133	TSOP2[66],BGA[60]	Prod	
512M	64Mx8	DDR	IS46R86400E	2.5V	8K	200,166,133	TSOP2[66],BGA[60]	Prod	
	64Mx8	DDR	IS46R86400F	2.5V	8K	200,166,133	TSOP2[66],BGA[60]	Prod	
	32Mx16	DDR	IS46R16320E	2.5V	8K	200,166,133	TSOP2[66],BGA[60]	Prod	
	32Mx16	DDR	IS46R16320F	2.5V	8K	200,166,133	TSOP2[66],BGA[60]	Prod	

3.3V SDR SDRAM

Den	Org	Type	Part Number	Vcc	Refresh	Speed	Pkg(Pins)	Status	Comment	
16M	1Mx16	SDR	IS42S16100H	3.3V	2K	200,166,143	TSOP2[50],BGA[60]	Prod		
64M	4Mx16	SDR	IS42S16400J	3.3V	4K	200,166,143	TSOP2[54],BGA[54],BGA[60]	Prod		
	2Mx32	SDR	IS42S32200L	3.3V	4K	200,166,143	TSOP2[86],BGA[90]	Prod		
128M	16Mx8	SDR	IS42S81600F	3.3V	4K	200,166,143	TSOP2[54]	Prod		
	8Mx16	SDR	IS42S16800F	3.3V	4K	200,166,143	TSOP2[54],BGA[54]	Prod		
	4Mx32	SDR	IS42S32400F	3.3V	4K	166,143,133	TSOP2[86],BGA[90]	Prod		
256M	16Mx16	SDR	IS42S16160G	3.3V	8K	200,166,143,133	TSOP2[54],BGA[54]	Prod		
	16Mx16	SDR	IS42S16160J	3.3V	8K	166,143,133	TSOP2[54],BGA[54]	Prod		
	8Mx32	SDR	IS42S32800G	3.3V	4K	200,166,143,133	BGA[90]	Prod		
	8Mx32	SDR	IS42S32800J	3.3V	4K	166,143,133	TSOP2[86],BGA[90]	Prod		
	32Mx8	SDR	IS42S83200G	3.3V	8K	200,166,143,133	TSOP2[54],BGA[54]	Prod		
	32Mx8	SDR	IS42S83200J	3.3V	8K	166,143,133	TSOP2[54],BGA[54]	Prod		
	512M	64Mx8	SDR	IS42S86400D	3.3V	8K	200,166,143,133	TSOP2[54]	Prod	
	64Mx8	SDR	IS42S86400F	3.3V	8K	200,166,143,133	TSOP2[54]	Prod		
	32Mx16	SDR	IS42S16320D	3.3V	8K	200,166,143,133	TSOP2[54],BGA[54]	Prod		
	32Mx16	SDR	IS42S16320F	3.3V	8K	200,166,143,133	TSOP2[54],BGA[54]	Prod		
	16Mx32	SDR	IS42S32160D	3.3V	8K	166,143,133	BGA[90]	Prod		
	16Mx32	SDR	IS42S32160F	3.3V	8K	166,143,133	TSOP2[86],BGA[90]	Prod		

Notes : 1. S = Samples 2. Prod = Production 3. NR = Not recommended for new design 4. Available in automotive temperature grade of -40°C to +105°C
5. Some TSOP2[54] are available in copper leadframe 6. Contact=Contact ISSI for availability.

DRAM

Automotive 3.3V SDR SDRAM

Den	Org	Type	Part Number	Vcc	Refresh	Speed [MHz]	Pkg[Pins]	Status	Comment
16M	1Mx16	SDR	IS45S16100H	3.3V	2K	166,143	TSOP2[50],BGA[60]	Prod	
64M	4Mx16	SDR	IS45S16400J	3.3V	4K	200,166,143	TSOP2[54],BGA[54]	Prod	
	2Mx32	SDR	IS45S32200L	3.3V	4K	200,166,143	TSOP2[86],BGA[90]	Prod	
128M	16Mx8	SDR	IS45S81600F	3.3V	4K	166,143	TSOP2[54]	Prod	
	8Mx16	SDR	IS45S16800F	3.3V	4K	166,143	TSOP2[54],BGA[54]	Prod	
	4Mx32	SDR	IS45S32400F	3.3V	4K	166,143	TSOP2[86],BGA[90]	Prod	
256M	32Mx8	SDR	IS45S83200G	3.3V	8K	200,166,143,133	TSOP2[54],BGA[54]	Prod	
	32Mx8	SDR	IS45S83200J	3.3V	8K	200,166,143,133	TSOP2[86],BGA[90]	Prod	
	16Mx16	SDR	IS45S16160G	3.3V	8K	200,166,143,133	TSOP2[54],BGA[54]	Prod	
	16Mx16	SDR	IS45S16160J	3.3V	8K	200,166,143,133	TSOP2[86],BGA[90]	Prod	
	8Mx32	SDR	IS45S32800G	3.3V	4K	166,143	BGA[90]	Prod	
	8Mx32	SDR	IS45S32800J	3.3V	4K	166,143	TSOP2[86],BGA[90]	Prod	
512M	32Mx16	SDR	IS45S16320D	3.3V	8K	166,143,133	TSOP2[54],BGA[54]	Prod	
	32Mx16	SDR	IS45S16320F	3.3V	8K	166,143,133	TSOP2[86],BGA[90]	Prod	
	16Mx32	SDR	IS45S32160D	3.3V	8K	166,143,133	BGA[90]	Prod	
	16Mx32	SDR	IS45S32160F	3.3V	8K	166,143,133	TSOP2[86],BGA[90]	Prod	

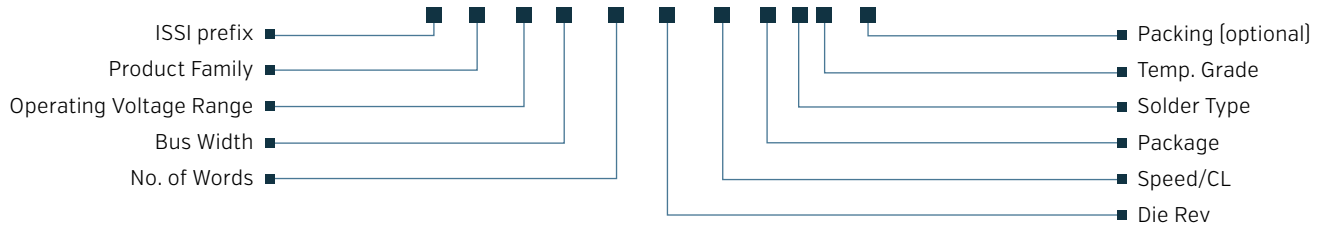
3.3V EDO & Fast Page Mode DRAM

Den	Org	Type	Part Number	Vcc	Refresh	Speed[ns]	Pkg[Pins]	Status	Comment
4M	256Kx16	EDO	IS41LV16256D	3.3V	512	35	TSOP2[40/44]	Prod	
	256Kx16	FP	IS41LV16257D	3.3V	512	35	TSOP2[40/44]	Prod	
16M	1Mx16	EDO	IS41LV16100D	3.3V	1K	50	SOJ[42],TSOP2[44/50]	Prod	
	1Mx16	FP	IS41LV16105D	3.3V	1K	50	SOJ[42],TSOP2[44/50]	Prod	

Notes : 1. S = Samples 2. Prod = Production 3. NR = Not recommended for new design 4. Available in automotive temperature grade of -40°C to +105°C 5. Some TSOP2[54] are available in copper leadframe

DRAM Part Decoder

IS 43 DR 8 1280 C - 25D B L I - TR



■ SDRAM Product Family

- 41 = Asynchronous
- 42 = SDR Commercial/Industrial grade
- 43 = DDR/DDR2/DDR3/DDR4
Commercial/Industrial grade
- 45 = SDR Automotive grade
- 46 = DDR/DDR2/DDR3/DDR4
Automotive grade

■ Operating Voltage Range

- Asynchronous: Fast Page and EDO**
- C = 5V
- LV = 3.3V

Synchronous

- S = 3.3V SDR
- SM/RM/VM = 3.3V/2.5V/1.8V mobile SDR
- VS = 1.8V SDR
- R = 2.5V DDR or 2.5V SDR
- LR = 1.8V mobile DDR (LPDDR)
- LD = LPDDR2
- DR = DDR2
- TR = DDR3
- QR = DDR4

■ Bus Width

- 8 = x8
- 16 = x16
- 32 = x32

■ No. of Words

- 100 = 1M
- 200 = 2M
- ...
- 128 = 128M
- 256 = 256M
- 512 = 512M

■ Generation (Rev)

- A-Z

■ Speed

- 7 = up to 143Mhz
- 6 = up to 166Mhz
- 75E = up to 133Mhz @ CL2
- 5 = up to 200Mhz
- 37 = up to 266Mhz
- 3 = up to 333Mhz
- 25 = up to 400Mhz
- 187 = up to 533Mhz (1066 Data Rate)
- 15 = up to 667 Mhz (1333 Data Rate)
- 125 = up to 800Mhz (1600 Data Rate)
- 107 = up to 933Mhz (1866 Data Rate)
- 093 = up to 1066Mhz (2133 Data Rate)
- 083 = up to 1200Mhz (2400 Data Rate)

■ CL (CAS Latency)

- B = 3, C = 4, D = 5, E = 6,
 - F = 7, G = 8, H = 9, J = 10,
 - K = 11, L = 12, M = 13, N = 14,
 - P = 15, R = 16, T = 17, U = 18
- [Not all speeds and CL's available for all products.]

■ Solder Type

- [Blank] = Sn/Pb
- L = 100% matte Sn for non-BGA or SnAgCu for BGA

■ Temp. Grade

- Blank = Commercial Grade [0°C to +70°C]
 - I = Industrial Grade [-40°C to +85°C]
 - A1 = Automotive Grade [-40°C to +85°C]
 - A2 = Automotive Grade [-40°C to +105°C]
 - A25 = Automotive Grade [-40°C to +115°C]
 - A3 = Automotive Grade [-40°C to +125°C]
- (Ambient or case temperature limits shown for most products. Refer to specs.)

■ Package Type

- B = BGA
- CT = Copper TSOP
- T = TSOP
- BP = PoP BGA
- K = S0J

Mobile DRAM

PowerSaver™ LPDDR2 SDRAM

Den	Org	Type	Part Number	Vcc	Refresh	Speed(MHz)	Pkg(Pins)	Status	Comment
256M	16Mx16	LPDDR2	IS43LD16160A	1.2/1.8V	4K	533,400,333	BGA[134],PoP[168]	Prod	
	8Mx32	LPDDR2	IS43LD32800A	1.2/1.8V	4K	533,400,333	BGA[134],PoP[168]	Prod	
512M	32Mx16	LPDDR2	IS43LD16320A	1.2/1.8V	4K	533,400,333	BGA[134],PoP[168]	Prod	
	16Mx32	LPDDR2	IS43LD32160A	1.2/1.8V	4K	533,400,333	BGA[134],PoP[168]	Prod	
1G	64Mx16	LPDDR2	IS43LD16640C	1.2/1.8V	4K	533,400,333	BGA[134],PoP[168]	Prod	
	32Mx32	LPDDR2	IS43LD32320C	1.2/1.8V	4K	533,400,333	BGA[134],PoP[168]	Prod	
2G	128Mx16	LPDDR2	IS43LD16128B	1.2/1.8V	8K	533,400,333	BGA[134],PoP[168]	Prod	
	64Mx32	LPDDR2	IS43LD32640B	1.2/1.8V	8K	533,400,333	BGA[134],PoP[168]	Prod	
4G	256Mx16	LPDDR2	IS43LD16256A	1.2/1.8V	8K	533,400,333	PoP[168]	S=NOW	
	128Mx32	LPDDR2	IS43LD32128A	1.2/1.8V	8K	533,400,333	PoP[168]	Prod	
8G	256Mx32	LPDDR2	IS43LD32256S2A	1.2/1.8V	8K	533,400,333	PoP[168]	S=NOW	

Automotive PowerSaver™ LPDDR2 SDRAM

Den	Org	Type	Part Number	Vcc	Refresh	Speed(MHz)	Pkg(Pins)	Status	Comment
256M	16Mx16	LPDDR2	IS46LD16160A	1.2/1.8V	4K	533,400,333	BGA[134],PoP[168]	Prod	
	8Mx32	LPDDR2	IS46LD32800A	1.2/1.8V	4K	533,400,333	BGA[134],PoP[168]	Prod	
512M	32Mx16	LPDDR2	IS46LD16320A	1.2/1.8V	4K	533,400,333	BGA[134],PoP[168]	Prod	
	16Mx32	LPDDR2	IS46LD32160A	1.2/1.8V	4K	533,400,333	BGA[134],PoP[168]	Prod	
1G	64Mx16	LPDDR2	IS46LD16640C	1.2/1.8V	4K	533,400,333	BGA[134],PoP[168]	Prod	
	32Mx32	LPDDR2	IS46LD32320C	1.2/1.8V	4K	533,400,333	BGA[134],PoP[168]	Prod	
2G	128Mx16	LPDDR2	IS46LD16128B	1.2/1.8V	8K	533,400,333	BGA[134],PoP[168]	Prod	
	64Mx32	LPDDR2	IS46LD32640B	1.2/1.8V	8K	533,400,333	BGA[134],PoP[168]	Prod	
4G	256Mx16	LPDDR2	IS46LD16256A	1.2/1.8V	8K	533,400,333	PoP[168]	S=NOW	
	128Mx32	LPDDR2	IS46LD32128A	1.2/1.8V	8K	533,400,333	PoP[168]	Prod	
8G	256Mx32	LPDDR2	IS46LD32256S2A	1.2/1.8V	8K	533,400,333	PoP[168]	S=NOW	

PowerSaver™ Mobile DDR SDRAM

Den	Org	Type	Part Number	Vcc	Refresh	Speed(MHz)	Pkg(Pins)	Status	Comment
32M	2Mx16	MDDR	IS43LR16200D	1.8V	4K	200,166,133	BGA[60]	Prod	
	1Mx32	MDDR	IS43LR32100D	1.8V	4K	200,166,133	BGA[90]	Prod	
64M	4Mx16	MDDR	IS43LR16400C	1.8V	4K	200,166,133	BGA[60]	Prod	
	2Mx32	MDDR	IS43LR32200C	1.8V	4K	200,166,133	BGA[90]	Prod	
128M	8Mx16	MDDR	IS43LR16800G	1.8V	4K	200,166,133	BGA[60]	Prod	
	4Mx32	MDDR	IS43LR32400G	1.8V	4K	200,166,133	BGA[90]	Prod	
256M	16Mx16	MDDR	IS43LR16160G	1.8V	8K	200,166,133	BGA[60]	Prod	
	8Mx32	MDDR	IS43LR32800G	1.8V	4K	200,166,133	BGA[90]	Prod	
512M	32Mx16	MDDR	IS43LR16320C	1.8V	8K	200,166,133	BGA[60]	Prod	
	16Mx32	MDDR	IS43LR32160C	1.8V	8K	200,166,133	BGA[90]	Prod	
1G	64Mx16	MDDR	IS43LR16640A	1.8V	8K	200,166,133	BGA[60]	Prod	
	32Mx32	MDDR	IS43LR32320B	1.8V	8K	200,166,133	BGA[90]	Prod	
2G	64Mx32	MDDR	IS43LR32640A	1.8V	8K	200,166,133	BGA[90]	Prod	

Notes : 1. S = Samples 2. Prod = Production 3. NR = Not recommended for new design 4. Please contact ISSI for availability of KGD options

Mobile DRAM

Automotive PowerSaver™ Mobile DDR SDRAM

Den	Org	Type	Part Number	Vcc	Refresh	Speed[MHz]	Pkg[Pins]	Status	Comment
32M	2Mx16	MDDR	IS46LR16200D	1.8V	4K	200,166,133	BGA[60]	Prod	
	1Mx32	MDDR	IS46LR32100D	1.8V	4K	200,166,133	BGA[90]	Prod	
64M	4Mx16	MDDR	IS46LR16400C	1.8V	4K	200,166,133	BGA[60]	Prod	
	2Mx32	MDDR	IS46LR32200C	1.8V	4K	200,166,133	BGA[90]	Prod	
128M	8Mx16	MDDR	IS46LR16800G	1.8V	4K	200,166,133	BGA[60]	Prod	
	4Mx32	MDDR	IS46LR32400G	1.8V	4K	200,166,133	BGA[90]	Prod	
256M	16Mx16	MDDR	IS46LR16160G	1.8V	8K	200,166,133	BGA[60]	Prod	
	8Mx32	MDDR	IS46LR32800G	1.8V	4K	200,166,133	BGA[90]	Prod	
512M	32Mx16	MDDR	IS46LR16320C	1.8V	8K	200,166,133	BGA[60]	Prod	
	16Mx32	MDDR	IS46LR32160C	1.8V	8K	200,166,133	BGA[90]	Prod	
1G	64Mx16	MDDR	IS46LR16640A	1.8V	8K	200,166,133	BGA[60]	Prod	
	32Mx32	MDDR	IS46LR32320B	1.8V	8K	200,166,133	BGA[90]	Prod	
2G	64Mx32	MDDR	IS46LR32640A	1.8V	8K	200,166,133	BGA[90]	Prod	

PowerSaver™ Mobile SDR SDRAM

Den	Org	Type	Part Number	Vcc	Refresh	Speed[MHz]	Pkg[Pins]	Status	Comment
32M	2Mx16	MSDR	IS42VM/RM/SM16200D	1.8,2.5,3.3V	4K	166,133	BGA[54]	Prod	
	1Mx32	MSDR	IS42VM/RM/SM32100D	1.8,2.5,3.3V	4K	166,133	BGA[90]	Prod	
64M	4Mx16	MSDR	IS42VM/RM/SM16400M	1.8,2.5,3.3V	4K	166,133	BGA[54]	Prod	
	2Mx32	MSDR	IS42VM/RM/SM32200M	1.8,2.5,3.3V	4K	166,133	BGA[90]	Prod	
128M	8Mx16	MSDR	IS42VM/RM/SM16800H	1.8,2.5,3.3V	4K	166,133	BGA[54]	Prod	
	4Mx32	MSDR	IS42VM/RM/SM32400H	1.8,2.5,3.3V	4K	166,133	BGA[90]	Prod	
256M	16Mx16	MSDR	IS42VM/RM/SM16160K	1.8,2.5,3.3V	8K	166,133	BGA[54]	Prod	
	8Mx32	MSDR	IS42VM/RM/SM32800K	1.8,2.5,3.3V	4K	166,133	BGA[90]	Prod	
512M	32Mx16	MSDR	IS42VM16320D	1.8V	8K	166,133	BGA[54]	Prod	
	32Mx16	MSDR	IS42VM/RM/SM16320E	1.8,2.5,3.5V	8K	166,133	BGA[54]	Prod	
	16Mx32	MSDR	IS42VM32160D	1.8V	8K	166,133	BGA[90]	Prod	
	16Mx32	MSDR	IS42VM/RM/SM32160E	1.8,2.5,3.5V	8K	166,133	BGA[90]	Prod	

Notes : 1. S = Samples 2. Prod = Production 3. NR = Not recommended for new design 4. Please contact ISSI for availability of KGD options

Automotive PowerSaver™ Mobile SDR SDRAM

Den	Org	Type	Part Number	Vcc	Refresh	Speed[MHz]	Pkg[Pins]	Status	Comment
32M	2Mx16	MSDR	IS45VM/RM/SM16200D	1.8,2.5,3.3V	4K	166,133	BGA[54]	Prod	
	1Mx32	MSDR	IS45VM/RM/SM32100D	1.8,2.5,3.3V	4K	166,133	BGA[90]	Prod	
64M	4Mx16	MSDR	IS45VM/RM/SM16400M	1.8,2.5,3.3V	4K	166,133	BGA[54]	Prod	
	2Mx32	MSDR	IS45VM/RM/SM32200M	1.8,2.5,3.3V	4K	166,133	BGA[90]	Prod	
128M	8Mx16	MSDR	IS45VM/RM/SM16800H	1.8,2.5,3.3V	4K	166,133	BGA[54]	Prod	
	4Mx32	MSDR	IS45VM/RM/SM32400H	1.8,2.5,3.3V	4K	166,133	BGA[90]	Prod	
256M	16Mx16	MSDR	IS45VM/RM/SM16160K	1.8,2.5,3.3V	8K	166,133	BGA[54]	Prod	
	8Mx32	MSDR	IS45VM/RM/SM32800K	1.8,2.5,3.3V	4K	166,133	BGA[90]	Prod	
512M	32Mx16	MSDR	IS45VM16320D	1.8V	8K	166,133	BGA[54]	Prod	
	32Mx16	MSDR	IS45VM/RM/SM16320E	1.8,2.5,3.5V	8K	166,133	BGA[54]	Prod	
	16Mx32	MSDR	IS45VM32160D	1.8V	8K	166,133	BGA[90]	Prod	
	16Mx32	MSDR	IS45VM/RM/SM32160E	1.8,2.5,3.5V	8K	166,133	BGA[90]	Prod	

MCP (Multi-Chip Package)

LPDDR2 DRAM + Serial NOR Flash

Den	Part Number	DRAM Vcc	DRAM Speed [MHz]	Flash Vcc	Flash Speed [MHz]	Pkg(Pins)	Status	Comment
256Mb DRAM + 64Mb Flash	IS71/72LD32800WP064	1.2/1.8V	533,400,333	1.8V	133	PoP(168)	S=NOW	
256Mb DRAM + 128Mb Flash	IS71/72LD32800WP128	1.2/1.8V	533,400,333	1.8V	133	PoP(168)	S=NOW	
512Mb DRAM + 128Mb Flash	IS71/72LD32160WP128	1.2/1.8V	533,400,333	1.8V	133	PoP(168)	S=NOW	
1Gb DRAM + 128Mb Flash	IS71/72LD32320WP128	1.2/1.8V	533,400,333	1.8V	133	PoP(168)	S=NOW	

Flash

2.5/3V, IS25Lx Family - Multi I/O Quad SPI (DTR Available in LP Series)

Den	Part Number	Vcc	Freq. [MHz]	Package Type	Temp. Range	Status
256K	IS25LQ025B	2.3V-3.6V	33/104	SOP [8] 208mil, SOP [8] 150mil, TSSOP, VVSOP [8] 150mil, WSON 6x5mm, USON 2x3mm, KGD	-40° to 125°C	Prod
512K	IS25LQ512B	2.3V-3.6V	33/104	SOP [8] 208mil, SOP [8] 150mil, TSSOP, VVSOP [8] 150mil, WSON 6x5mm, USON 2x3mm, KGD	-40° to 125°C	Prod
1M	IS25LQ010B	2.3V-3.6V	33/104	SOP [8] 208mil, SOP [8] 150mil, TSSOP, VVSOP [8] 150mil, WSON 6x5mm, USON 2x3mm, KGD	-40° to 125°C	Prod
2M	IS25LQ020B	2.3V-3.6V	33/104	SOP [8] 208mil, SOP [8] 150mil, TSSOP, VVSOP [8] 150mil, WSON 6x5mm, USON 2x3mm, KGD	-40° to 125°C	Prod
4M	IS25LQ040B	2.3V-3.6V	33/104	SOP [8] 208mil, SOP [8] 150mil, TSSOP, VVSOP [8] 150mil, WSON 6x5mm, USON 2x3mm, KGD	-40° to 125°C	Prod
8M	IS25LP080D	2.3V-3.6V	50/133	SOP [8] 208mil, SOP [8] 150mil, VVSOP [8] 150mil, WSON 6x5mm, USON 4x3mm, USON 2x3mm, KGD	-40 to 125°C	Prod
16M	IS25LP016D	2.3V-3.6V	50/133	SOP [16] 300mil, SOP [8] 208mil, SOP [8] 150mil, VVSOP [8] 150mil, WSON 6x5mm, USON 4x3mm, USON 2x3mm, BGA [24], KGD	-40° to 125°C	Prod
32M	IS25LP032D	2.3V-3.6V	50/133	SOP [16] 300mil, SOP [8] 208mil, SOP [8] 150mil, WSON 8x6mm, WSON 6x5mm, USON 4x3mm, BGA [24], KGD	-40° to 125°C	Prod
64M	IS25LP064A	2.3V-3.6V	50/133	SOP [16] 300mil, SOP [8] 208mil, VSOP [8] 208mil, WSON 8x6mm, WSON 6x5mm, BGA [24], KGD	-40° to 125°C	Prod
128M	IS25LP128	2.3V-3.6V	50/133	SOP [16] 300mil, SOP [8] 208mil, VSOP [8] 208mil, WSON 8x6mm, WSON 6x5mm, BGA [24], KGD	-40° to 125°C	Prod
256M	IS25LP256D	2.3V-3.6V	80/166	SOP [16] 300mil, WSON 8x6mm, BGA [24], KGD	-40° to 125°C	Prod

1.8V, IS25Wx Family - Multi I/O Quad SPI (DTR Available in WP Series)

Den	Part Number	Vcc	Freq. [MHz]	Package Type	Temp. Range	Status
2M	IS25WQ020	1.65V-1.95V	33/104	SOP [8] 208mil, SOP [8] 150mil, VVSOP [8] 150mil, WSON 6x5mm, USON 2x3mm, KGD	-40° to 105°C	Prod
4M	IS25WQ040	1.65V-1.95V	33/104	SOP [8] 208mil, SOP [8] 150mil, VVSOP [8] 150mil, WSON 6x5mm, USON 2x3mm, KGD	-40° to 105°C	Prod
8M	IS25WP080D	1.65V-1.95V	50/133	SOP [8] 208mil, SOP [8] 150mil, VVSOP [8] 150mil, WSON 6x5mm, USON 4x3mm, USON 2x3mm, KGD	-40 to 125°C	Prod
16M	IS25WP016D	1.65V-1.95V	50/133	SOP [16] 300mil, SOP [8] 208mil, SOP [8] 150mil, VVSOP [8] 150mil, WSON 6x5mm, USON 4x3mm, USON 2x3mm, BGA [24], KGD	-40° to 125°C	Prod
32M	IS25WP032D	1.65V-1.95V	50/133	SOP [16] 300mil, SOP [8] 208mil, SOP [8] 150mil, WSON 8x6mm, WSON 6x5mm, USON 4x3mm, BGA [24], KGD	-40° to 125°C	Prod
64M	IS25WP064A	1.65V-1.95V	50/133	SOP [16] 300mil, SOP [8] 208mil, WSON 8x6mm, WSON 6x5mm, BGA [24], KGD	-40° to 125°C	Prod
128M	IS25WP128	1.65V-1.95V	50/133	SOP [16] 300mil, SOP [8] 208mil, WSON 8x6mm, WSON 6x5mm, BGA [24], KGD	-40° to 125°C	Prod
256M	IS25WP256D	1.65V-1.95V	80/166	SOP [16] 300mil, WSON 8x6mm, BGA [24], KGD	-40° to 125°C	Prod

Twin Serial NOR Flash (SPI)

Den	Part Number	Type	Vcc	Freq. [MHz]	Temp.Range	Package Type	Status
512M	IS25DLP512M	Multi I/O SPI x8, QPI, DTR	2.3-3.6V	80/166	-40 to 125°C	SOP [16] 300mil, BGA [24]	S=NOW
	IS25DWP512M	Multi I/O SPI x8, QPI, DTR	1.65-1.95V	80/166	-40 to 125°C	SOP [16] 300mil, BGA [24]	S=Q3/17

SLC NAND Flash

Den*	Part Number	Vcc	Ecc Requirement	Bus Width	Squential Read Speed [ns]	Temp.Range	Package Type	Status
1G	IS34ML01G081	2.7-3.6V	1-bit	X8	25	-40° to 85°C	TSOP [48], BGA [63]	S=NOW
	IS34ML01G084	2.7-3.6V	4-bit	X8	25	-40° to 85°C	TSOP [48], BGA [63]	S=NOW
	IS34MW01G084	1.7-1.95V	4-bit	X8	45	-40° to 85°C	TSOP [48], BGA [63]	Contact Factory
	IS34MW01G164	1.7-1.95V	4-bit	X16	45	-40° to 85°C	BGA [63]	Contact Factory
2G	IS34ML02G081	2.7-3.6V	1-bit	X8	25	-40° to 85°C	48-TSOP1	S=Q1/18
	IS34ML02G084	2.7-3.6V	4-bit	X8	25	-40° to 85°C	48-TSOP1	S=Q1/18
	IS34MW02G084	1.7-1.95V	4-bit	X8	45	-40° to 85°C	48-TSOP1	S=Q1/18
	IS34MW02G164	1.7-1.95V	4-bit	X16	45	-40° to 85°C	48-TSOP1	S=Q1/18
4G	IS34ML04G081	2.7-3.6V	1-bit	X8	25	-40° to 85°C	TSOP [48]	Prod
	IS34ML04G084	2.7-3.6V	4-bit	X8	25	-40° to 85°C	TSOP [48]	Prod
	IS34MW04G084	1.7-1.95V	4-bit	X8	45	-40° to 85°C	TSOP [48]	Prod
	IS34MW04G164	1.7-1.95V	4-bit	X16	45	-40° to 85°C	TSOP [48]	Contact Factory

Flash

Automotive SLC NAND Flash

Den*	Part Number	Vcc	Ecc Requirement	Bus Width	Sequential Read Speed [ns]	Temp.Range	Package Type	Status
1G	IS35ML01G081	2.7-3.6V	1-bit	X8	25	-40° to 85°C	TSOP [48], BGA [63]	S=NOW
	IS35ML01G084	2.7-3.6V	4-bit	X8	25	-40° to 85°C	TSOP [48], BGA [63]	S=NOW
	IS35MW01G084	1.7-1.95V	4-bit	X8	45	-40° to 85°C	TSOP [48], BGA [63]	Contact Factory
	IS35MW01G164	1.7-1.95V	4-bit	X16	45	-40° to 85°C	BGA [63]	Contact Factory
2G	IS35ML02G081	2.7-3.6V	1-bit	X8	25	-40° to 85°C	48-TSOP1	S=Q1/18
	IS35ML02G084	2.7-3.6V	4-bit	X8	25	-40° to 85°C	48-TSOP1	S=Q1/18
	IS35MW02G084	1.7-1.95V	4-bit	X8	45	-40° to 85°C	48-TSOP1	S=Q1/18
	IS35MW02G164	1.7-1.95V	4-bit	X16	45	-40° to 85°C	48-TSOP1	S=Q1/18
4G	IS35ML04G081	2.7-3.6V	1-bit	X8	25	-40° to 85°C	TSOP [48]	Prod
	IS35ML04G084	2.7-3.6V	4-bit	X8	25	-40° to 85°C	TSOP [48]	Prod
	IS35MW04G084	1.7-1.95V	4-bit	X8	45	-40° to 85°C	TSOP [48]	Prod
	IS35MW04G164	1.7-1.95V	4-bit	X16	45	-40° to 85°C	TSOP [48]	Contact Factory

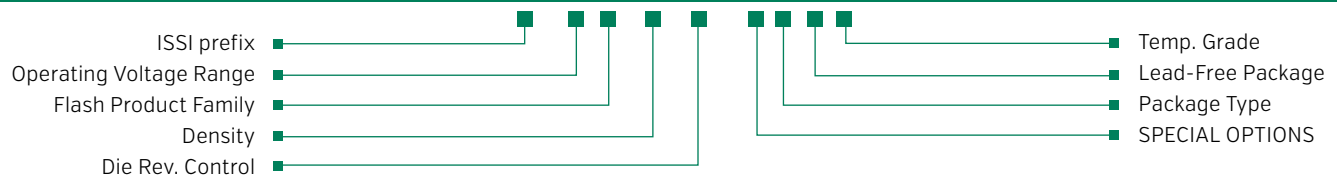
*Contact Factory for other densities.

HyperFlash™

Den	Part Number	Type	Vcc	Freq. [MHz]	Temp. Range	Package Type	Status	Comment
128M	IS26KL128S	HyperFlash™	2.7-3.6V	100	-40 to 125 deg °C	BGA [24]	Prod	
	IS26KS128S	HyperFlash™	1.7-1.95V	166	-40 to 125 deg °C	BGA [24]	Prod	
256M	IS26KL256S	HyperFlash™	2.7-3.6V	100	-40 to 125 deg °C	BGA [24]	Prod	
	IS26KS256S	HyperFlash™	1.7-1.95V	166	-40 to 125 deg °C	BGA [24]	Prod	
512M	IS26KL512S	HyperFlash™	2.7-3.6V	100	-40 to 125 deg °C	BGA [24]	Prod	
	IS26KS512S	HyperFlash™	1.7-1.95V	166	-40 to 125 deg °C	BGA [24]	Prod	

Serial NOR Flash (SPI) Part Decoder

IS25 L Q 020 B - J N L E



Operating Voltage Range

L = 2.3-3.6V
W = 1.65-1.95V

Flash Product Family

Q = Single/Dual/Quad SPI
P = Single/Dual/Quad/QPI SPI
DTR Options Available

Die Rev. Control

Blank = First Rev.

Density

025 = 256Kb
512 = 512Kb
010 = 1Mb
020 = 2Mb
040 = 4Mb
080 = 8Mb
016 = 16Mb
032 = 32Mb
064 = 64Mb
128 = 128Mb
256 = 256Mb
512M = 512Mb
01G = 1Gb

Package Type

M = 16 pin SOIC 300mil
B = 8 pin SOIC 208mil
N = 8 pin SOIC 150mil
D = 8 pin TSSOP
K = 8 pin WSON [6x5 mm]
L = 8 pin WSON [8x6 mm]
U = 8 pin USON [2x3mm]
T = 8 pin USON [4x3mm]
F = 8 pin VSOP 208mil
V = 8 pin VVSOP 150mil
H = 24 ball [BGA 6x8 mm]

Lead-free Package

L = Lead-Free (Pb Free) and Halogen Free

Temperature Grade

E = Extended grade [-40°C to +105°C]
A3 = Automotive grade [-40°C to +125°C]

SPECIAL OPTIONS

J = Standard
Q = QE bit set to 1

Notes: Call Factory for KGD and WLCSP.
Please refer to the datasheet for product specifications and ordering information.

5V High-Speed Asynchronous SRAM

Den	Org	Part Number	Vcc	Speed[ns]	Pkg[Pins]	Status	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],sTSOP[32]	Prod	
4M	512Kx8	IS61C5128AL	5V	10,12	SOJ[36],TSOP2[44]	Prod	
	512Kx8	IS61C5128AS	5V	25	SOP[36],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 Number	Vcc	Speed[ns]	Pkg[Pins]	Status	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],TSOP1[32],sTSOP1[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 Number	Vcc	Speed[ns]	Pkg[Pins]	Status	Comment/ Previous rev.
256K	32Kx8	IS61LV256AL	3.3V	10	SOJ[28],TSOP1[28]	Prod	
512K	32Kx16	IS61WV3216DBLL	2.4-3.6V	8,10,12	TSOP2[44],BGA[48]	Prod	IS61WV3216BLL
1M	64Kx16	IS61WV6416EEBLL	2.4-3.6V	8,10	TSOP2[44],SOJ[44], BGA[48]	Prod	ECC Based SRAM
	128Kx8	IS61WV1288EEBLL	2.4-3.6V	8,10	TSOP2[32],BGA[48], sTSOP1[32],SOJ[32.3]	Prod	ECC Based SRAM
2M	128Kx16	IS61WV12816EDBLL	2.4-3.6V	8,10	TSOP2[44],BGA[48]	Prod	ECC Based SRAM
	256Kx8	IS61WV2568EDBLL	2.4-3.6V	8,10	SOJ[36],TSOP2[44], BGA[36]	Prod	ECC Based SRAM
3M	128Kx24	IS61LV12824	3.3V	8,10	PBGA[119],QFP[100]	Prod	x24 Interface
4M	256Kx16	IS61WV25616EDALL	1.65-2.2V	20	TSOP2[44],BGA[48]	Prod	ECC Based SRAM
	256Kx16	IS61WV25616EDBLL	2.4-3.6V	8,10	TSOP2[44],BGA[48]	Prod	ECC Based SRAM
	256Kx16	IS61WV25616LEBLL	2.4-3.6V	12,15	TSOP2[44],BGA[48]	S=NOW	Latch
	256Kx16	IS61WV25616MEBLL	2.4-3.6V	10,12	TSOP2[44],BGA[48]	S=NOW	MUX
	512Kx8	IS61WV5128EDBLL	2.4-3.6V	8,10	TSOP2[44],BGA[36]	Prod	ECC Based SRAM
8M	512Kx16	IS61WV51216EDALL/BLL	1.65-3.6V	8,10,20	TSOP2[44],BGA[48]	Prod	ECC Based SRAM
	512Kx16	IS61WV51216EEALL/BLL	1.65-3.6V	8,10,20	TSOP1[48], TSOP2[44], TSOP2[54], BGA[48]	S=NOW	ECC Based SRAM
	1Mx8	IS61WV10248EDBLL	2.4-3.6V	8,10,20	TSOP2[44],BGA[48]	Prod	ECC Based SRAM
	1Mx8	IS61WV10248EEALL/BLL	1.65-3.6V	8,10,20	TSOP2[44], TSOP2[54], BGA[48]	S=NOW	ECC Based SRAM
	256Kx32	IS61WV25632ALL/BLL	1.65-3.6V	8,10,20	BGA[90]	Prod	

SRAM

High Speed Low Power Asynchronous SRAM contd.

Den	Org	Part Number	Vcc	Speed[ns]	Pkg[Pins]	Status	Comment/ Previous rev.
16M	1Mx16	IS61WV102416DALL/BLL	1.65-3.6V	10	TSOP1[48],BGA[48]	Prod	IS61WV102416BLL
	1Mx16	IS61WV102416EDALL/BLL	1.65-3.6V	10	TSOP1[48],BGA[48]	Prod	ECC based SRAM
	1Mx16	IS61WV102416FALL/BLL	1.65-3.6V	8,10,20	TSOP1[48], TSOP2[54], BGA[48]	S=NOW	
	2Mx8	IS62WV20488ALL/BLL	1.65-3.6V	25,35	TSOP2[44],BGA[48]	Prod	Low Power
	2Mx8	IS61WV20488FALL/BLL	1.65-3.6V	8,10,20	TSOP2[44],TSOP2[54], BGA[48]	S=NOW	
	512Kx32	IS61WV51232ALL/BLL	1.65-3.6V	8,10,20	BGA[90]	Prod	
32M	2Mx16	IS61WV204816ALL/BLL	1.65-3.6V	10,12	TSOP1[48],BGA[48]	Prod	

PowerSaver™ Lower Power Asynchronous SRAM

Den	Org	Part Number	Vcc	Speed[ns]	Pkg[Pins]	Status	Comment/ Previous rev.
256K	32Kx8	IS62LV256AL	3.3V	20,45	SOJ[28],SOP[28],TSOP1[28]	Prod	
1M	64Kx16	IS62WV6416ALL/BLL	1.7-3.6V	45,55	TSOP2[44],BGA[48]	Prod	
	128Kx8	IS62WV1288ALL/BLL	1.65-3.6V	45,55,70	SOP[32],sTSOP1[32], TSOP1[32],BGA[36]	Prod	
2M	128Kx16	IS62WV12816EALL/EBLL	1.65-3.6V	45,55	TSOP2[44],BGA[48]	Prod	
	256Kx8	IS62WV2568EALL/EBLL	1.65-3.6V	45,55	sTSOP1[32],TSOP1[32], BGA[36]	Prod	
4M	256Kx16	IS62WV25616EALL/EBLL/ ECLL	1.65-3.6V	35,45,55	TSOP2[44],BGA[48]	Prod	
	512Kx8	IS62WV5128EALL/EBLL/ ECLL	1.65-3.6V	35,45,55	sTSOP1[32],TSOP1[32], TSOP2[32],BGA[36],SOP[32]	Prod	
8M	512Kx16	IS62WV51216EALL/EBLL	1.65-3.6V	45,55	TSOP2[44],BGA[48]	Prod	IS62WV51216ALL/BLL
	512Kx16	IS62WV51216EFALL/EFBLL	1.65-3.6V	45,55	TSOP2[44],BGA[48]	S=NOW	ECC based SRAM
	512Kx16	IS62WV51216GALL/GBLL	1.65-3.6V	45,55	TSOP1[48]	S=NOW	
	1Mx8	IS62WV10248EALL/EBLL	1.65-3.6V	45,55	TSOP2[44],BGA[48]	Prod	IS62WV10248DALL/BLL
	1Mx8	IS62WV10248EFALL/EFBLL	1.65-3.6V	45,55	TSOP2[44],BGA[48]	S=NOW	ECC based SRAM
16M	1Mx16	IS62WV102416EALL/BLL	1.65-3.6V	45,55	BGA[48]	Prod	
	1Mx16	IS62WV102416FALL/BLL	1.65-3.6V	45,55	BGA[48]	S=NOW	
	2Mx8	IS62WV20488EALL/BLL	1.65-3.6V	45,55	BGA[48]	Prod	
	2Mx8	IS62WV20488FALL/BLL	1.65-3.6V	45,55	BGA[48]	S=NOW	
	1Mx16/ 2Mx8	IS62WV102416DALL/BLL	1.65-3.6V	45,55	TSOP1[48]	Prod	x8/x16 configurable
	1Mx16/ 2Mx8	IS62WV102416GALL/BLL	1.65-3.6V	45,55	TSOP1[48]	S=NOW	

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

Automotive Asynchronous SRAM

Den	Org	Part Number	Vcc	Speed(ns)	Pkg[Pins]	Status	Comment/ Previous rev.
256K	32Kx8	IS65C256AL	5V	25,45	SOP[28],TSOP1[28]	Prod	
	32Kx8	IS65LV256AL	3.3V	15	TSOP2[44],BGA[48]	Prod	
1M	64Kx16	IS64WV6416EEBLL	2.4-3.6V	8,10	TSOP2[44],BGA[48]	Prod	ECC Based SRAM
	64Kx16	IS64C6416AL	4.5-5.5V	15	SOJ[44],TSOP2[44]	Prod	
	128Kx8	IS64C1024AL	5V	15	SOJ[32.4],TSOP1[32]	Prod	
	128Kx8	IS65C1024AL	5V	45	SOP[32],TSOP1[32]	Prod	
2M	128Kx8	IS65WV1288BLL	2.5-3.6V	55	TSOP1[32],sTSOP1[32]	Prod	
	256Kx8	IS64WV2568EDBLL	2.4-3.6V	10	SOJ[36],TSOP2[44],BGA[36]	Prod	ECC Based SRAM
	128Kx16	IS64WV12816EDBLL	2.4-3.6V	10	TSOP2[44],BGA[48]	Prod	ECC Based SRAM
	128Kx16	IS65WV12816EBLL	2.2-3.6V	55	TSOP2[44],BGA[48]	Prod	
4M	512Kx8	IS64WV5128EDBLL	2.4-3.6V	10	TSOP2[44],BGA[36]	Prod	ECC Based SRAM
	512Kx8	IS65WV5128EBLL/ECLL	2.2-3.6V	45,55	sTSOP1[32],TSOP1[32], TSOP2[32],BGA[36],SOP[32]	Prod	
	256Kx16	IS64WV25616EDBLL	2.4-3.6V	10	TSOP2[44],BGA[48]	Prod	ECC Based SRAM
	256Kx16	IS65WV25616EBLL/ECLL	2.2-3.6V	45,55	TSOP2[44],BGA[48]	Prod	
	8M	512Kx16	IS64WV51216EDBLL	2.4-3.6V	10	TSOP2[44],BGA[48]	Prod
8M	512Kx16	IS65WV51216EALL/EBLL	1.65-3.6V	45,55	TSOP2[44],BGA[48]	Prod	
	512Kx16	IS65WV51216GALL/GBLL	1.65-3.6V	45,55	TSOP1[48]	S=NOW	
	1Mx8	IS65WV10248EALL/EBLL	1.65-3.6V	45,55	TSOP2[44],BGA[48]	Prod	
16M	1Mx16	IS64WV102416BLL	2.4-3.6V	10	TSOP1[48],BGA[48]	Prod	
	1Mx16	IS64WV102416DBLL	2.4-3.6V	12	TSOP1[48],BGA[48]	Prod	IS64WV102416BLL
	2Mx8	IS64WV20488BLL	2.4-3.6V	10	TSOP2[44],BGA[48]	Prod	
32M	2Mx16	IS64WV204816BLL	2.4-3.6V	12	TSOP1[48],BGA[48]	Prod	

SRAM

CellularRAM/Pseudo SRAM

Den	Org	Part Number	Vcc	Speed(ns)	Pkg(Pins)	Status	Comment/Previous Rev.
8M	512Kx16	IS66WV51216EBLL	1.7-1.95V	70	TSOP2[44],BGA[48]	Prod	Standard Asynch
	512Kx16	IS66WVE51216EALL/BLL/CLL	1.7-1.95V/ 2.7-3.6V	70	BGA[48]	Prod	Asynch/Page
16M	1Mx16	IS66WV1M16EBLL	1.7-1.95V	70	TSOP2[44],BGA[48]	Prod	Standard Asynch
	1Mx16	IS66WVC1M16EALL	1.7-1.95V	70	BGA[54]	Prod	CRAM 1.5
	1Mx16	IS66WVE1M16EALL/BLL/CLL	1.7-1.95V/ 2.7-3.6V	70	BGA[48]	Prod	Asynch/Page
32M	2Mx16	IS66WVC2M16EALL	1.7-1.95V	70	BGA[54]	Prod	CRAM 1.5
	2Mx16	IS66WVC2M16ECLL	1.7-1.95V	70	BGA[54]	Prod	CRAM 1.5
	2Mx16	IS66WVE2M16EALL/BLL/CLL	1.7-1.95V/ 2.7-3.6V	70	BGA[48]	Prod	Asynch/Page
64M	4Mx16	IS66WVC4M16EALL	1.7-1.95V	70	BGA[54]	Prod	CRAM 1.5
	4Mx16	IS66WVC4M16ECLL	1.7-1.95V	70	BGA[54]	Prod	CRAM 1.5
	4Mx16	IS66WVE4M16EALL/BLL/CLL	1.7-1.95V/ 2.7-3.6V	70	BGA[48]	Prod	Asynch/Page
	4Mx16	IS66WVE4M16TALL/BLL/CLL	1.7-1.95V/ 2.7-3.6V	70	BGA[48]	Prod	Asynch/Page

Automotive CellularRAM/Pseudo SRAM

Den	Org	Part No.	Vcc	Speeds (ns)	Pkg [#Pins]	Status	Comment
8M	512Kx16	IS67WV51216EBLL	1.7-1.95V/ 2.5-3.6V	70	TSOP2[44],BGA[48]	Prod	Standard Asynch
	512Kx16	IS67WVE51216EALL/BLL/CLL	1.7-1.95V/ 2.7-3.6V	70	BGA[48]	Prod	Asynch/Page
16M	1Mx16	IS67WV1M16EBLL	1.7-1.95V/ 2.5-3.6V	70	TSOP2[44],BGA[48]	Prod	Standard Asynch
	1Mx16	IS67WVC1M16EALL	1.7-1.95V	70	BGA[54]	Prod	CRAM 1.5
	1Mx16	IS67WVE1M16EALL/BLL/CLL	1.7-1.95V/ 2.7-3.6V	70	BGA[48]	Prod	Asynch/Page
32M	2Mx16	IS67WVC2M16EALL	1.7-1.95V	70	BGA[54]	Prod	CRAM 1.5
	2Mx16	IS67WVC2M16ECLL	1.7-1.95V/ 2.7-3.6V	70	BGA[54]	Prod	CRAM 1.5
	2Mx16	IS67WVE2M16EALL/BLL/CLL	1.7-1.95V/ 2.7-3.6V	70	BGA[48]	Prod	Asynch/Page
64M	4Mx16	IS67WVC4M16EALL	1.7-1.95V	70	BGA[54]	Prod	CRAM 1.5
	4Mx16	IS67WVC4M16ECLL	1.7-1.95V/ 2.7-3.6V	70	BGA[54]	Prod	CRAM 1.5
	4Mx16	IS67WVE4M16EALL/BLL/CLL	1.7-1.95V/ 2.7-3.6V	70	BGA[48]	Prod	Asynch/Page
	4Mx16	IS67WVE4M16TALL/BLL/CLL	1.7-1.95V/ 2.7-3.6V	70	BGA[48]	Prod	Asynch/Page

HyperRAM™

Den	Org	Part Number	Vcc	Speed(MHz)	Pkg(Pins)	Status	Comment
64M	8Mx8	IS66/67WVH8M8ALL	1.7-1.95V	166	BGA[24]	Prod	
	8Mx8	IS66/67WVH8M8BLL	2.7-3.6V	100	BGA[24]	Prod	
128M	16Mx8	IS66/67WVH16M8ALL	1.7-1.95V	166	BGA[24]	Prod	
	16Mx8	IS66/67WVH16M8BLL	2.7-3.6V	100	BGA[24]	Prod	
256M	32Mx8	IS66/67WVH32M8ALL	1.7-1.95V	166	BGA[24]	Contact Factory	
	32Mx8	IS66/67WVH32M8BLL	2.7-3.6V	100	BGA[24]	Contact Factory	

Pipeline Synchronous SRAM

Den	Org	Part Number	Vcc	VccQ	Speed(MHz)	tKQ(ns)	Pkg(Pins)	Status	Comment
2M	64Kx32	IS61LP6432A	3.3V	2.5/3.3V	133	4	QFP[100]	Prod	P
	64Kx36	IS61LP6436A	3.3V	2.5/3.3V	166,133	3.5,4	QFP[100]	Prod	P
4M	128Kx32	IS61LPS12832EC	3.3V	2.5/3.3V	250,200	2.6,3.1	BGA[119],QFP[100], BGA[165]	Prod	P/SCD,ECC feature
	128Kx36	IS61LPS12836EC	3.3V	2.5/3.3V	250,200	2.6,3.1	BGA[119],QFP[100], BGA[165]	Prod	P/SCD,ECC feature
	256Kx18	IS61LPS25618EC	3.3V	2.5/3.3V	250,200	2.6,3.1	BGA[119],QFP[100], BGA[165]	Prod	P/SCD,ECC feature
	128Kx32	IS61VPS12832EC	2.5V	2.5V	250,200	2.6,3.1	BGA[119],QFP[100], BGA[165]	Prod	P/SCD,ECC feature
	128Kx36	IS61VPS12836EC	2.5V	2.5V	250,200	2.6,3.1	BGA[119],QFP[100], BGA[165]	Prod	P/SCD,ECC feature
	256Kx18	IS61VPS25618EC	2.5V	2.5V	250,200	2.6,3.1	BGA[119],QFP[100], BGA[165]	Prod	P/SCD,ECC feature
9M	256Kx32	IS61LPS25632B	3.3V	2.5/3.3V	200,166	3.1,3.8	QFP[100]	Prod	P/SCD, IS61LPS25632A
	256Kx36	IS61LPS25636B	3.3V	2.5/3.3V	250,200,166	2.6,3.1,3.8	BGA[119], QFP[100], BGA[165]	Prod	P/SCD, IS61LPS25636A
	512Kx18	IS61LPS51218B	3.3V	2.5/3.3V	250,200,166	2.6,3.1,3.8	BGA[119], QFP[100], BGA[165]	Prod	P/SCD, IS61LPS51218A
	256Kx36	IS61VPS25636B	2.5V	2.5V	250,200,166	2.6,3.1,3.8	BGA[119], QFP[100], BGA[165]	Prod	P/SCD, IS61VPS25636A
	512Kx18	IS61VPS51218B	2.5V	2.5V	250,200,166	2.6,3.1,3.8	BGA[119], QFP[100], BGA[165]	Prod	P/SCD, IS61VPS51218A
	256Kx36	IS61LPD25636A	3.3V	2.5/3.3V	250,200	2.6,3.1	BGA[119], QFP[100], BGA[165]	Prod	P/DCD
	512Kx18	IS61LPD51218A	3.3V	2.5/3.3V	250,200	2.6,3.1	BGA[119], QFP[100], BGA[165]	Prod	P/DCD
	256Kx36	IS61VPD25636A	2.5V	2.5V	250,200	2.6,3.1	BGA[119], QFP[100], BGA[165]	Prod	P/DCD
	512Kx18	IS61VPD51218A	2.5V	2.5V	250,200	2.6,3.1	BGA[119], QFP[100], BGA[165]	Prod	P/DCD
	18M	256Kx72	IS61LPS25672A	3.3V	2.5/3.3V	250,200	2.6,3.1	BGA[209]	Prod
512Kx36		IS61LPS51236B	3.3V	2.5/3.3V	250,200	2.6,3.0	QFP[100],BGA[119], BGA[165,209]	Prod	P/SCD, IS61LP- S51236A 300MHz available
1Mx18		IS61LPS102418B	3.3V	2.5/3.3V	250,200	2.6,3.0	QFP[100],BGA[119], BGA[165,209]	Prod	P/SCD, IS61LP- S102418A 300MHz available
256Kx72		IS61VPS25672A	2.5V	2.5V	250,200	2.6,3.1	BGA[209]	Prod	P/SCD
512Kx36		IS61VPS51236B	2.5V	2.5V	250,200	2.6,3.0	QFP[100],BGA[119], BGA[165,209]	Prod	P/SCD, IS61VP- S51236A
1Mx18		IS61VPS102418B	2.5V	2.5V	250,200	2.6,3.0	QFP[100],BGA[119], BGA[165,209]	Prod	P/SCD, IS61VP- S102418A
512Kx36		IS61LPD51236B	3.3V	2.5/3.3V	250,200	2.6,3.0	QFP[100],BGA[165], BGA[119]	Prod	P/DCD
1Mx18		IS61LPD102418B	3.3V	2.5/3.3V	250,200	2.6,3.0	QFP[100],BGA[165], BGA[119]	Prod	P/DCD
512Kx36		IS61VPD51236B	2.5V	2.5V	250,200	2.6,3.0	QFP[100],BGA[165], BGA[119]	Prod	P/DCD
1Mx18		IS61VPD102418B	2.5V	2.5V	250,200	2.6,3.0	QFP[100],BGA[165], BGA[119]	Prod	P/DCD

SRAM

Pipeline Synchronous SRAM contd.

Den	Org	Part Number	Vcc	VccQ	Speed(MHz)	tKQ(ns)	Pkg(Pins)	Status	Comment
36M	1Mx36	IS61LPS102436B	3.3V	2.5/3.3V	250,200,166	2.8,3.1,3.8	QFP[100],BGA[165], BGA[119]	Prod	P/ SCD,IS61LPS102436A
	2Mx18	IS61LPS204818B	3.3V	2.5/3.3V	250,200,166	2.8,3.1,3.8	QFP[100],BGA[165], BGA[119]	Prod	P/ SCD,IS61LPS204818A
	1Mx36	IS61VPS102436B	2.5V	2.5V	250,200,166	2.8,3.1,3.8	QFP[100],BGA[165], BGA[119]	Prod	P/ SCD,IS61VPS102436A
	2Mx18	IS61VPS204818B	2.5V	2.5V	250,200,166	2.8,3.1,3.8	QFP[100],BGA[165], BGA[119]	Prod	P/ SCD,IS61VPS204818A
	1Mx36	IS61VPS102436B	1.8V	1.8V	250,200,166	2.8,3.1,3.8	QFP[100],BGA[165], BGA[119]	Prod	P/SCD
	2Mx18	IS61VPS204818B	1.8V	1.8V	250,200,166	2.8,3.1,3.8	QFP[100],BGA[165], BGA[119]	Prod	P/SCD
72M	2Mx32	IS61LPS204832B	3.3V	2.5/3.3V	200	3.1	QFP[100]	Prod	P/SCD
	2Mx36	IS61LPS204836B	3.3V	2.5/3.3V	250,200,166	2.8,3.1,3.8	QFP[100],BGA[165], BGA[119]	Prod	P/SCD
	4Mx18	IS61LPS409618B	3.3V	2.5/3.3V	250,200,166	2.8,3.1,3.8	QFP[100],BGA[165], BGA[119]	Prod	P/SCD
	2Mx36	IS61VPS204836B	2.5V	2.5V	250,200,166	2.8,3.1,3.8	QFP[100],BGA[165], BGA[119]	Prod	P/SCD
	4Mx18	IS61VPS409618B	2.5V	2.5V	250,200,166	2.8,3.1,3.8	QFP[100],BGA[165], BGA[119]	Prod	P/SCD
	2Mx36	IS61VPS204836B	1.8V	1.8V	166	3.8	QFP[100],BGA[165], BGA[119]	Prod	P/SCD
	4Mx18	IS61VPS409618B	1.8V	1.8V	166	3.8	QFP[100],BGA[165], BGA[119]	Prod	P/SCD

Flow-Through Synchronous SRAM

Den	Org	Part Number	Vcc	VccQ	Speed(MHz)	tKQ[ns]	Pkg(Pins)	Status	Comment
2M	64Kx32	IS61LF6432A	3.3V	2.5/3.3V	90	8.5	QFP[100]	Prod	F
	64Kx36	IS61LF6436A	3.3V	2.5/3.3V	90	8.5	QFP[100]	Prod	F
4M	128Kx32	IS61LF12832EC	3.3V	2.5/3.3V	133,117	6.5,7.5	BGA[119],QFP[100],BGA[165]	Prod	F,ECC feature
	128Kx36	IS61LF12836EC	3.3V	2.5/3.3V	133,117	6.5,7.5	BGA[119],QFP[100],BGA[165]	Prod	F,ECC feature
	256Kx18	IS61LF25618EC	3.3V	2.5/3.3V	133,117	6.5,7.5	BGA[119],QFP[100],BGA[165]	Prod	F,ECC feature
	128Kx32	IS61VF12832EC	2.5V	2.5V	133,117	6.5,7.5	BGA[119],QFP[100],BGA[165]	Prod	P,ECC feature
	128Kx36	IS61VF12836EC	2.5V	2.5V	133,117	6.5,7.5	BGA[119],QFP[100],BGA[165]	Prod	F,ECC feature
	256Kx18	IS61VF25618EC	2.5V	2.5V	133,117	6.5,7.5	BGA[119],QFP[100],BGA[165]	Prod	F,ECC feature
9M	256Kx36	IS61LF25636B	3.3V	2.5/3.3V	133,117	6.5,7.5	BGA[119],QFP[100],BGA[165]	Prod	F, IS61LF25636A
	512Kx18	IS61LF51218B	3.3V	2.5/3.3V	133,117	6.5,7.5	BGA[119],QFP[100],BGA[165]	Prod	F, IS61LF51218A
	256Kx36	IS61VF25636B	2.5V	2.5V	133,117	6.5,7.5	BGA[119],QFP[100],BGA[165]	Prod	F, IS61VF25636A
	512Kx18	IS61VF51218B	2.5V	2.5V	133,117	6.5,7.5	BGA[119],QFP[100],BGA[165]	Prod	F, IS61VF51218A
18M	256Kx72	IS61LF25672A	3.3V	2.5/3.3V	133,117	6.5,7.5	BGA[209]	Prod	F
	512Kx36	IS61LF51236B	3.3V	2.5/3.3V	133,117	6.5,7.5	BGA[119],QFP[100],BGA[165]	Prod	F, IS61LF51236A
	1Mx18	IS61LF102418B	3.3V	2.5/3.3V	133,117	6.5,7.5	BGA[119],QFP[100],BGA[165]	Prod	F, IS61LF102418A
	256Kx72	IS61VF25672A	2.5V	2.5V	133,117	6.5,7.5	BGA[209]	Prod	F
	512Kx36	IS61VF51236B	2.5V	2.5V	133,117	6.5,7.5	BGA[119],QFP[100],BGA[165]	Prod	F, IS61VF51236A
	1Mx18	IS61VF102418B	2.5V	2.5V	133,117	6.5,7.5	BGA[119],QFP[100],BGA[165]	Prod	F, IS61VF102418A

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

Flow-Through Synchronous SRAM contd.

Den	Org	Part Number	Vcc	VccQ	Speed(MHz)	tKQ(ns)	Pkg(Pins)	Status	Comment
36M	1Mx36	IS61LF102436B	3.3V	2.5/3.3V	133,117	6.5,7.5	QFP(100),BGA(165), BGA(119)	Prod	F, IS61LF102436A
	2Mx18	IS61LF204818B	3.3V	2.5/3.3V	133,117	6.5,7.5	QFP(100),BGA(165), BGA(119)	Prod	F, IS61LF204818A
	1Mx36	IS61VF102436B	2.5V	2.5V	133,117	6.5,7.5	QFP(100),BGA(165), BGA(119)	Prod	F, IS61VF102436A
	2Mx18	IS61VF204818B	2.5V	2.5V	133,117	6.5,7.5	QFP(100),BGA(165), BGA(119)	Prod	F, IS61VF204818A
	1Mx36	IS61VVF102436B	1.8V	1.8V	133,117	6.5,7.5	QFP(100),BGA(165), BGA(119)	Prod	F
	2Mx18	IS61VVF204818B	1.8V	1.8V	133,117	6.5,7.5	QFP(100),BGA(165), BGA(119)	Prod	F
72M	2Mx36	IS61LF204836B	3.3V	2.5/3.3V	133,117	6.5,7.5	QFP(100),BGA(165), BGA(119)	Prod	F
	4Mx18	IS61LF409618B	3.3V	2.5/3.3V	133,117	6.5,7.5	QFP(100),BGA(165), BGA(119)	Prod	F
	2Mx36	IS61VF204836B	2.5V	2.5V	133,117	6.5,7.5	QFP(100),BGA(165), BGA(119)	Prod	F
	4Mx18	IS61VF409618B	2.5V	2.5V	133,117	6.5,7.5	QFP(100),BGA(165), BGA(119)	Prod	F
	2Mx36	IS61VVF204836B	1.8V	1.8V	117	7.5	QFP(100),BGA(165), BGA(119)	Prod	F
	4Mx18	IS61VVF409618B	1.8V	1.8V	117	7.5	QFP(100),BGA(165), BGA(119)	Prod	F

No-Wait (ZBT) Synchronous SRAM

Den	Org	Part Number	Vcc	VccQ	Speed(MHz)	tKQ(ns)	Pkg(Pins)	Status	Comment
2M	64Kx32	IS61NLP6432A	3.3V	2.5/3.3V	250,200	2.6,3.1	QFP(100)	Prod	P
	64Kx36	IS61NLP6436A	3.3V	2.5/3.3V	250,200	2.6,3.1	QFP(100)	Prod	P
4M	128Kx32	IS61NLP12832EC	3.3V	2.5/3.3V	250,200	2.6,3.1	BGA(119),QFP(100),BGA(165)	Prod	P,ECC feature
	128Kx36	IS61NLP12836EC	3.3V	2.5/3.3V	250,200	2.6,3.1	BGA(119),QFP(100),BGA(165)	Prod	P,ECC feature
	256Kx18	IS61NLP25618EC	3.3V	2.5/3.3V	250,200	2.6,3.1	BGA(119),QFP(100),BGA(165)	Prod	P,ECC feature
	128Kx32	IS61NVP12832EC	2.5V	2.5V	250,200	2.6,3.1	BGA(119),QFP(100),BGA(165)	Prod	P,ECC feature
	128Kx36	IS61NVP12836EC	2.5V	2.5V	250,200	2.6,3.1	BGA(119),QFP(100),BGA(165)	Prod	P,ECC feature
	256Kx18	IS61NVP25618EC	2.5V	2.5V	250,200	2.6,3.1	BGA(119),QFP(100),BGA(165)	Prod	P,ECC feature
	128Kx32	IS61NLF12832EC	3.3V	2.5/3.3V	177,133	6.5, 7.5	BGA(119),QFP(100),BGA(165)	Prod	F,ECC feature
	128Kx36	IS61NLF12836EC	3.3V	2.5/3.3V	177,133	6.5, 7.5	BGA(119),QFP(100),BGA(165)	Prod	F,ECC feature
	256Kx18	IS61NLF25618EC	3.3V	2.5/3.3V	177,133	6.5, 7.5	BGA(119),QFP(100),BGA(165)	Prod	F,ECC feature
	128Kx32	IS61NVF12832EC	2.5V	2.5V	177,133	6.5, 7.5	BGA(119),QFP(100),BGA(165)	Prod	F,ECC feature
	128Kx36	IS61NVF12836EC	2.5V	2.5V	177,133	6.5, 7.5	BGA(119),QFP(100),BGA(165)	Prod	F,ECC feature
	256Kx18	IS61NVF25618EC	2.5V	2.5V	177,133	6.5, 7.5	BGA(119),QFP(100),BGA(165)	Prod	F,ECC feature
9M	256Kx36	IS61NLP25636B	3.3V	2.5/3.3V	250,200	2.6,3.1	BGA(119),QFP(100),BGA(165)	Prod	P, IS61NLP25636A
	512Kx18	IS61NLP51218B	3.3V	2.5/3.3V	250,200	2.6,3.1	BGA(119),QFP(100),BGA(165)	Prod	P, IS61NLP51218A
	256Kx36	IS61NVP25636B	2.5V	2.5V	250,200	2.6,3.1	BGA(119),QFP(100),BGA(165)	Prod	P, IS61NVP25636A
	512Kx18	IS61NVP51218B	2.5V	2.5V	250,200	2.6,3.1	BGA(119),QFP(100),BGA(165)	Prod	P, IS61NVP51218A
	256Kx36	IS61NLF25636B	3.3V	2.5/3.3V	133,117	6.5,7.5	BGA(119),QFP(100),BGA(165)	Prod	F, IS61NLF25636A
	512Kx18	IS61NLF51218B	3.3V	2.5/3.3V	133,117	6.5,7.5	BGA(119),QFP(100),BGA(165)	Prod	F, IS61NLF51218A
	256Kx36	IS61NVF25636B	2.5V	2.5V	133,117	6.5,7.5	BGA(119),QFP(100),BGA(165)	Prod	F, IS61NVF25636A
	512Kx18	IS61NVF51218B	2.5V	2.5V	133,117	6.5,7.5	BGA(119),QFP(100),BGA(165)	Prod	F, IS61NVF51218A

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

SRAM

No-Wait (ZBT) Synchronous SRAM contd.

Den	Org	Part Number	Vcc	VccQ	Speed[MHz]	tKQ[ns]	Pkg[Pins]	Status	Comment
18M	256Kx72	IS61NLP25672	3.3V	2.5/3.3V	250,200	2.6,3.1	BGA[209]	Prod	P, 300MHz available
	512Kx36	IS61NLP51236B	3.3V	2.5/3.3V	250,200	2.6,3.0	QFP[100], BGA[119,165]	Prod	IS61NLP51236 P, 300MHz available
	1Mx18	IS61NLP102418B	3.3V	2.5/3.3V	250,200	2.6,3.0	QFP[100], BGA[119,165]	Prod	IS61NLP102418 P, 300MHz available
	256Kx72	IS61NVP25672	2.5V	2.5V	250,200	2.6,3.1	BGA[209]	Prod	P
	512Kx36	IS61NVP51236B	2.5V	2.5V	250,200	2.6,3.0	QFP[100], BGA[119,165]	Prod	P,IS61NVP51236
	1Mx18	IS61NVP102418B	2.5V	2.5V	250,200	2.6,3.0	QFP[100], BGA[119,165]	Prod	P, IS61NVP02418
	256Kx72	IS61NLF25672	3.3V	2.5/3.3V	133,117	6.5,7.5	BGA[209]	Prod	F
	512Kx36	IS61NLF51236B	3.3V	2.5/3.3V	133,117	6.5,7.5	QFP[100],BGA[165,119]	Prod	F, IS61NLF51236
	1Mx18	IS61NLF102418B	3.3V	2.5/3.3V	133,117	6.5,7.5	QFP[100],BGA[165,119]	Prod	F, IS61NLF102418
	256Kx72	IS61NVF25672	2.5V	2.5V	133,117	6.5,7.5	BGA[209]	Prod	F
	512Kx36	IS61NVF51236B	2.5V	2.5V	133,117	6.5,7.5	QFP[100],BGA[165,119]	Prod	F, IS61NVF51236
	1Mx18	IS61NVF102418B	2.5V	2.5V	133,117	6.5,7.5	QFP[100],BGA[165,119]	Prod	F, IS61NVF102418
36M	1Mx36	IS61NLP102436B	3.3V	2.5/3.3V	250,200,166	2.8,3.1,3.8	QFP[100],BGA[165,119]	Prod	P,IS61NLP102436A
	2Mx18	IS61NLP204818B	3.3V	2.5/3.3V	250,200,166	2.8,3.1,3.8	QFP[100],BGA[165,119]	Prod	P,IS61NLP204818A
	1Mx36	IS61NVP102436B	2.5V	2.5	250,200,166	2.8,3.1,3.8	QFP[100],BGA[165,119]	Prod	P, IS61NVP102436A
	2Mx18	IS61NVP204818B	2.5V	2.5	250,200,166	2.8,3.1,3.8	QFP[100],BGA[165,119]	Prod	P,IS61NVP204818A
	1Mx36	IS61NVVP102436B	1.8V	1.8V	250,200,166	2.8,3.1,3.8	QFP[100],BGA[165,119]	Prod	P
	2Mx18	IS61NVVP204818B	1.8V	1.8V	250,200,166	2.8,3.1,3.8	QFP[100],BGA[165,119]	Prod	P
	1Mx36	IS61NLF102436B	3.3V	2.5/3.3V	133,117	6.5,7.5	QFP[100],BGA[165,119]	Prod	F,IS61NLF102436A
	2Mx18	IS61NLF204818B	3.3V	2.5/3.3V	133,117	6.5,7.5	QFP[100],BGA[165,119]	Prod	F,IS61NLF204818A
	1Mx36	IS61NVF102436B	2.5V	2.5V	133,117	6.5,7.5	QFP[100],BGA[165,119]	Prod	F,IS61NVF102436A
	2Mx18	IS61NVF204818B	2.5V	2.5V	133,117	6.5,7.5	QFP[100],BGA[165,119]	Prod	F,IS61NVF204818A
	1Mx36	IS61NVVF102436B	1.8V	1.8V	133,117	6.5,7.5	QFP[100],BGA[165,119]	Prod	F
	2Mx18	IS61NVVF204818B	1.8V	1.8V	133,117	6.5,7.5	QFP[100],BGA[165,119]	Prod	F
72M	2Mx36	IS61NLP204836B	3.3V	2.5/3.3V	250,200,166	2.8,3.1,3.8	QFP[100],BGA[165,119]	Prod	P
	4Mx18	IS61NLP409618B	3.3V	2.5/3.3V	250,200,166	2.8,3.1,3.8	QFP[100],BGA[165,119]	Prod	P
	2Mx36	IS61NVP204836B	2.5V	2.5V	250,200,166	2.8,3.1,3.8	QFP[100],BGA[165,119]	Prod	P
	4Mx18	IS61NVP409618B	2.5V	2.5V	250,200,166	2.8,3.1,3.8	QFP[100],BGA[165,119]	Prod	P
	2Mx36	IS61NVVP204836B	1.8V	1.8V	250,200,166	2.8,3.1	QFP[100],BGA[165,119]	Prod	P
	4Mx18	IS61NVVP409618B	1.8V	1.8V	250,200,166	2.8,3.1	QFP[100],BGA[165,119]	Prod	P
	2Mx36	IS61NLF204836B	3.3V	2.5/3.3V	133,117	6.5,7.5	QFP[100],BGA[165,119]	Prod	F
	4Mx18	IS61NLF409618B	3.3V	2.5/3.3V	133,117	6.5,7.5	QFP[100],BGA[165,119]	Prod	F
	2Mx36	IS61NVF204836B	2.5V	2.5V	133,117	6.5,7.5	QFP[100],BGA[165,119]	Prod	F
	4Mx18	IS61NVF409618B	2.5V	2.5V	133,117	6.5,7.5	QFP[100],BGA[165,119]	Prod	F
	2Mx36	IS61NVVF204836B	1.8V	1.8V	133,117	6.5,7.5	QFP[100],BGA[165,119]	Prod	F
	4Mx18	IS61NVVF409618B	1.8V	1.8V	133,117	6.5,7.5	QFP[100],BGA[165,119]	Prod	F

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

Automotive Synchronous SRAM

Den	Org	Part Number	Vcc	VccQ	Speed(MHz)	tKQ(ns)	Pkg(Pins)	Status	Comment
4M	128x32	IS64LPS12832EC	3.3V	2.5/3.3V	250,200	2.6,3.1	QFP[100],BGA[119],BGA[165]	Prod	P/SCD,ECC feature
	128x36	IS64LPS12836EC	3.3V	2.5/3.3V	250,200	2.6,3.1	QFP[100],BGA[119],BGA[165]	Prod	P/SCD,ECC feature
	256Kx18	IS64LPS25618EC	3.3V	2.5/3.3V	250,200	2.6,3.1	QFP[100],BGA[119],BGA[165]	Prod	P/SCD,ECC feature
	128Kx32	IS64VPS12832EC	2.5V	2.5V	250,200	2.6,3.1	QFP[100],BGA[119],BGA[165]	Prod	P/SCD,ECC feature
	128Kx36	IS64VPS12836EC	2.5V	2.5V	250,200	2.6,3.1	QFP[100],BGA[119],BGA[165]	Prod	P/SCD,ECC feature
	256x18	IS64VPS25618EC	2.5V	2.5V	250,200	2.6,3.1	QFP[100],BGA[119],BGA[165]	Prod	P/SCD,ECC feature
	128Kx32	IS64LF12832EC	3.3V	2.5/3.3V	133,117	6.5,7.5	QFP[100],BGA[119],BGA[165]	Prod	F,ECC feature
	128Kx36	IS64LF12836EC	3.3V	2.5/3.3V	133,117	6.5,7.5	QFP[100],BGA[119],BGA[165]	Prod	F,ECC feature
	256Kx18	IS64LF25618EC	3.3V	2.5/3.3V	133,117	6.5,7.5	QFP[100],BGA[119],BGA[165]	Prod	F,ECC feature
	128Kx32	IS64VF12832EC	2.5V	2.5V	133,117	6.5,7.5	QFP[100],BGA[119],BGA[165]	Prod	F,ECC feature
	128Kx36	IS64VF12836EC	2.5V	2.5V	133,117	6.5,7.5	QFP[100],BGA[119],BGA[165]	Prod	F,ECC feature
	256Kx18	IS64VF25618EC	2.5V	2.5V	133,117	6.5,7.5	QFP[100],BGA[119],BGA[165]	Prod	F,ECC feature
	128x32	IS64NLF12832EC	3.3V	2.5/3.3V	117,133	6.5,7.5	QFP[100],BGA[119],BGA[165]	Prod	F,ECC feature
	128Kx36	IS64NLF12836EC	3.3V	2.5/3.3V	117,133	6.5,7.5	QFP[100],BGA[119],BGA[165]	Prod	F,ECC feature
	256Kx18	IS64NLF25618EC	3.3V	2.5/3.3V	117,133	6.5,7.5	QFP[100],BGA[119],BGA[165]	Prod	F,ECC feature
	128Kx32	IS64NVF12832EC	2.5V	2.5V	117,133	6.5,7.5	QFP[100],BGA[119],BGA[165]	Prod	F,ECC feature
	128Kx36	IS64NVF12836EC	2.5V	2.5V	117,133	6.5,7.5	QFP[100],BGA[119],BGA[165]	Prod	F,ECC feature
	256Kx18	IS64NVF25618EC	2.5V	2.5V	117,133	6.5,7.5	QFP[100],BGA[119],BGA[165]	Prod	F,ECC feature
	128Kx32	IS64NLP12832EC	3.3V	2.5/3.3V	250,200	2.6,3.1	QFP[100],BGA[119],BGA[165]	Prod	P,ECC feature
	128Kx36	IS64NLP12836EC	3.3V	2.5/3.3V	250,200	2.6,3.1	QFP[100],BGA[119],BGA[165]	Prod	P,ECC feature
	256Kx18	IS64NLP25618EC	3.3V	2.5/3.3V	250,200	2.6,3.1	QFP[100],BGA[119],BGA[165]	Prod	P,ECC feature
	128Kx32	IS64NVP12832EC	2.5V	2.5V	250,200	2.6,3.1	QFP[100],BGA[119],BGA[165]	Prod	P,ECC feature
	128Kx36	IS64NVP12836EC	2.5V	2.5V	250,200	2.6,3.1	QFP[100],BGA[119],BGA[165]	Prod	P,ECC feature
	256Kx18	IS64NVP25618EC	2.5V	2.5V	250,200	2.6,3.1	QFP[100],BGA[119],BGA[165]	Prod	P,ECC feature
9M	256Kx36	IS64LPS25636B	3.3V	2.5/3.3V	166	3.8	QFP[100]	Prod	P, IS64LPS25636A
	256Kx36	IS64LF25636B	3.3V	2.5/3.3V	117	7.5	QFP[100],BGA[119],BGA[165]	Prod	F, IS64LF25636A
	512Kx18	IS64LF51218B	3.3V	2.5/3.3V	117	7.5	QFP[100],BGA[119],BGA[165]	Prod	F, IS64LF51218A
	256Kx36	IS64VF25636B	2.5V	2.5V	117	7.5	QFP[100],BGA[119],BGA[165]	Prod	F
	512Kx18	IS64VF51218B	2.5V	2.5V	117	7.5	QFP[100],BGA[119],BGA[165]	Prod	F
18M	512Kx36	IS64LPS51236B	3.3V	2.5V/3.3V	200	3.0	BGA[119],BGA[165],TQFP[100]	Prod	P
	512Kx36	IS64LF51236B	3.3V	2.5V/3.3V	117	7.5	BGA[119],BGA[165],TQFP[100]	Prod	F
	512Kx36	IS64NLP51236B	3.3V	2.5V/3.3V	250,200	2.6, 3.0	BGA[119],BGA[165],TQFP[100]	Prod	P
	512Kx36	IS64NLF51236B	3.3V	2.5V/3.3V	133,117	6.5, 7.5	BGA[119],BGA[165],TQFP[100]	Prod	F
36M	1Mx36	IS64LPS102436B	3.3V	2.5V/3.3V	200,166	3.1, 3.8	BGA[119],BGA[165],TQFP[100]	Prod	P
	2Mx18	IS64LPS204818B	3.3V	2.5V/3.3V	200,166	3.1, 3.8	BGA[119],BGA[165],TQFP[100]	Prod	P
	1Mx36	IS64VPS102436B	2.5V	2.5V	200,166	3.1, 3.5	BGA[119],BGA[165],TQFP[100]	Prod	P
	2Mx18	IS64VPS204818B	2.5V	2.5V	200,166	3.1, 3.5	BGA[119],BGA[165],TQFP[100]	Prod	P

SRAM

Automotive Synchronous SRAM contd.

Den	Org	Part Number	Vcc	VccQ	Speed(MHz)	tKQ(ns)	Pkg(Pins)	Status	Comment
36M	1Mx36	IS64LF102436B	3.3V	2.5V/3.3V	117	7.5	BGA[119],BGA[165],TQFP[100]	Prod	F
	2Mx18	IS64LF204818B	3.3V	2.5V/3.3V	117	7.5	BGA[119],BGA[165],TQFP[100]	Prod	F
	1Mx36	IS64VF102436B	2.5V	2.5V	117	7.5	BGA[119],BGA[165],TQFP[100]	Prod	F
	2Mx18	IS64VF204818B	2.5V	2.5V	117	7.5	BGA[119],BGA[165],TQFP[100]	Prod	F
	1Mx36	IS64NLP102436B	3.3V	2.5V/3.3V	166	3.8	BGA[119],BGA[165],TQFP[100]	Prod	P
	2Mx18	IS64NLP204818B	3.3V	2.5V/3.3V	166	3.8	BGA[119],BGA[165],TQFP[100]	Prod	P
	1Mx36	IS64NVP102436B	2.5V	2.5V	166	3.8	BGA[119],BGA[165],TQFP[100]	Prod	P
	2Mx18	IS64NVP204818B	2.5V	2.5V	166	3.8	BGA[119],BGA[165],TQFP[100]	Prod	P
	1Mx36	IS64NLF102436B	3.3V	2.5V/3.3V	117	7.5	BGA[119],BGA[165],TQFP[100]	Prod	F
	2Mx18	IS64NLF204818B	3.3V	2.5V/3.3V	117	7.5	BGA[119],BGA[165],TQFP[100]	Prod	F
	1Mx36	IS64NVF102436B	2.5V	2.5V	117	7.5	BGA[119],BGA[165],TQFP[100]	Prod	F
	2Mx18	IS64NVF204818B	2.5V	2.5V	117	7.5	BGA[119],BGA[165],TQFP[100]	Prod	F
72M	2Mx36	IS64LPS204836B	3.3V	2.5/3.3V	166	3.8	QFP[100],BGA[119],BGA[165]	Prod	P
	4Mx18	IS64LPS409618B	3.3V	2.5/3.3V	166	3.8	QFP[100],BGA[119],BGA[165]	Prod	P
	2Mx36	IS64VPS204836B	2.5V	2.5V	166	3.8	QFP[100],BGA[119],BGA[165]	Prod	P
	4Mx18	IS64VPS409618B	2.5V	2.5V	166	3.8	QFP[100],BGA[119],BGA[165]	Prod	P
	2Mx36	IS64VVF204836B	3.3V	2.5V/3.3V	113,117	6.5, 7.5	BGA[119],BGA[165],TQFP[100]	Prod	F
	4Mx18	IS64VVF409618B	3.3V	2.5V/3.3V	113,117	6.5, 7.5	BGA[119],BGA[165],TQFP[100]	Prod	F
	2Mx36	IS64VVPS204836B	1.8V	1.8V	200,166	3.1, 3.8	BGA[119],BGA[165],TQFP[100]	Prod	P
	4Mx18	IS64VVPS409618B	1.8V	1.8V	200,166	3.1, 3.8	BGA[119],BGA[165],TQFP[100]	Prod	P

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

QUAD

Den	Org	Part Number	Burst	Speed(MHz)	Status	Comments/Previous revision
18M	1Mx18	IS61QDB41M18C	4	250,300,333,400	Prod	
	512Kx36	IS61QDB451236C	4	250,300,333,400	Prod	
	1Mx18	IS61QDB21M18C	2	250,300,333,400	Prod	
	512Kx36	IS61QDB251236C	2	250,300,333,400	Prod	
36M	1Mx36	IS61QDB41M36C	4	250,300,333,400	Prod	
	2Mx18	IS61QDB42M18C	4	250,300,333,400	Prod	
	1Mx36	IS61QDB21M36C	2	250,300,333,400	Prod	
	2Mx18	IS61QDB22M18C	2	250,300,333,400	Prod	
72M	2Mx36	IS61QDB42M36C	4	250,300,333,400	Prod	IS61QDB42M36A
	4Mx18	IS61QDB44M18C	4	250,300,333,400	Prod	IS61QDB44M18A
	2Mx36	IS61QDB22M36C	2	250,300,333	Prod	IS61QDB22M36A
	4Mx18	IS61QDB24M18C	2	250,300,333	Prod	IS61QDB24M18A

QUADP

Den	Org	Part Number	Burst	Speed[MHz]	Status	Comments/Previous revision
18M	1Mx18	IS61QDPB41M18C/C1/C2	4	450,500,550,567	Prod	2.5 Cycle Read Latency
	1Mx18	IS61QDP2B41M18C/C1/C2	4	300,333,400,450	Prod	2.0 Cycle Read Latency
	1Mx18	IS61QDPB21M18C/C1/C2	2	333,400,450,500	Prod	2.5 Cycle Read Latency
	1Mx18	IS61QDP2B21M18C/C1/C2	2	300,333,400,450	Prod	2.0 Cycle Read Latency
	512Kx36	IS61QDPB451236C/C1/C2	4	450,500,550,567	Prod	2.5 Cycle Read Latency
	512Kx36	IS61QDP2B451236C/C1/C2	4	300,333,400,450	Prod	2.0 Cycle Read Latency
	512Kx36	IS61QDPB251236C/C1/C2	2	333,400,450,500	Prod	2.5 Cycle Read Latency
	512Kx36	IS61QDP2B251236C/C1/C2	2	300,333,400,450	Prod	2.0 Cycle Read Latency
36M	2Mx18	IS61QDPB42M18C/C1/C2	4	450,500,550,567	Prod	2.5 Cycle Read Latency
	2Mx18	IS61QDP2B42M18C/C1/C2	4	300,333,400,450	Prod	2.0 Cycle Read Latency
	2Mx18	IS61QDPB22M18C/C1/C2	2	333,400,450,500	Prod	2.5 Cycle Read Latency
	2Mx18	IS61QDP2B22M18C/C1/C2	2	300,333,400,450	Prod	2.0 Cycle Read Latency
	1Mx36	IS61QDPB41M36C/C1/C2	4	450,500,550,567	Prod	2.5 Cycle Read Latency
	1Mx36	IS61QDP2B41M36C/C1/C2	4	300,333,400,450	Prod	2.0 Cycle Read Latency
	1Mx36	IS61QDPB21M36C/C1/C2	2	333,400,450,500	Prod	2.5 Cycle Read Latency
	1Mx36	IS61QDP2B21M36C/C1/C2	2	300,333,400,450	Prod	2.0 Cycle Read Latency
72M	4Mx18	IS61QDPB44M18C/C1/C2	4	450,500,550,567	Prod	2.5 Cycle Read Latency
	4Mx18	IS61QDP2B24M18C/C1/C2	2	300,333,400,450	Prod	2.0 Cycle Read Latency
	2Mx36	IS61QDPB42M36C/C1/C2	4	450,500,550,567	Prod	2.5 Cycle Read Latency
	2Mx36	IS61QDP2B22M36C/C1/C2	2	300,333,400,450	Prod	2.0 Cycle Read Latency

DDR-II, Common I/O

Den	Org	Part Number	Burst	Speed[MHz]	Status	Comments/Previous rev.
18M	1Mx18	IS61DDB41M18C	4	250,300,333,400	Prod	
	1Mx18	IS61DDB21M18C	2	250,300,333,400	Prod	
	1Mx18	IS61DDB21M18C	2	250,300,333,400	Prod	Separate I/O
	512Kx36	IS61DDB451236C	4	250,300,333,400	Prod	
	512Kx36	IS61DDB251236C	2	250,300,333,400	Prod	
	512Kx36	IS61DDB251236C	2	250,300,333,400	Prod	Separate I/O
36M	2Mx18	IS61DDB42M18C	4	250,300,333,400	Prod	
	2Mx18	IS61DDB22M18C	2	250,300,333,400	Prod	
	2Mx18	IS61DDB22M18C	2	250,300,333,400	Prod	Separate I/O
	1Mx36	IS61DDB41M36C	4	250,300,333,400	Prod	
	1Mx36	IS61DDB21M36C	2	250,300,333,400	Prod	
72M	1Mx36	IS61DDB21M36C	2	250,300,333,400	Prod	Separate I/O
	2Mx36	IS61DDB22M36C	2	250,300,333,400	Prod	IS61DDB22M36A
	4Mx18	IS61DDB24M18C	2	250,300,333,400	Prod	IS61DDB24M18A

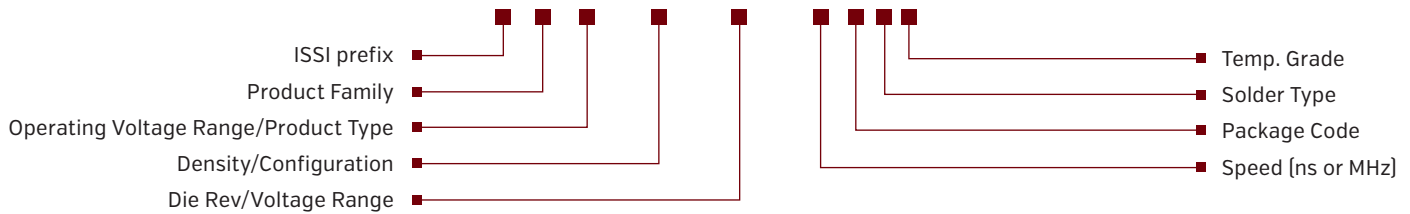
SRAM

DDR-IIP, Common I/O

Den	Org	Part Number	Burst	Speed[MHz]	Status	Comments/Previous rev.
18M	1Mx18	IS61DDPB41M18C/C1/C2	4	450,500,550,567	Prod	2.5 Cycle Read
	1Mx18	IS61DDP2B41M18C/C1/C2	4	300,333,400,450	Prod	2.0 Cycle Read
	1Mx18	IS61DDPB21M18C/C1/C2	2	450,500,550,567	Prod	2.5 Cycle Read
	1Mx18	IS61DDP2B21M18C/C1/C2	2	300,333,400,450	Prod	2.0 Cycle Read
	512Kx36	IS61DDPB451236C/C1/C2	4	450,500,550,567	Prod	2.5 Cycle Read
	512Kx36	IS61DDP2B451236C/C1/C2	4	300,333,400,450	Prod	2.0 Cycle Read
	512Kx36	IS61DDPB251236C/C1/C2	2	450,500,550,567	Prod	2.5 Cycle Read
	512Kx36	IS61DDP2B251236C/C1/C2	2	300,333,400,450	Prod	2.0 Cycle Read
36M	2Mx18	IS61DDPB42M18C/C1/C2	4	450,500,550,567	Prod	2.5 Cycle Read
	2Mx18	IS61DDPB22M18C/C1/C2	2	450,500,550,567	Prod	2.5 Cycle Read
	2Mx18	IS61DDP2B22M18C/C1/C2	2	300,333,400,450	Prod	2.0 Cycle Read
	1Mx36	IS61DDPB41M36C/C1/C2	4	450,500,550,567	Prod	2.5 Cycle Read
	1Mx36	IS61DDPB21M36C/C1/C2	2	450,500,550,567	Prod	2.5 Cycle Read
	1Mx36	IS61DDP2B21M36C/C1/C2	2	300,333,400,450	Prod	2.0 Cycle Read
	72M	4Mx18	IS61DDPB44M18A/A1/A2	4	300,333,400,450	Prod
4Mx18		IS61DDPB44M18B/B1/B2	4	400,450,500,550	Prod	2.5 Cycle Read
4Mx18		IS61DDP2B44M18A/A1/A2	4	300,333,400,450	Prod	2.0 Cycle Read
4Mx18		IS61DDPB24M18A/A1/A2	2	300,333,400,450	Prod	2.5 Cycle Read
4Mx18		IS61DDPB24M18B/B1/B2	2	400,450,500,550	Prod	2.5 Cycle Read
4Mx18		IS61DDPB24M18C/C1/C2	2	450,500,550,567	Prod	2.5 Cycle Read Latency
4Mx18		IS61DDP2B24M18A/A1/A2	2	300,333,400,450	Prod	2.0 Cycle Read
2Mx36		IS61DDPB42M36A/A1/A2	4	300,333,400,450	Prod	2.5 Cycle Read
2Mx36		IS61DDPB42M36B/B1/B2	4	400,450,500,550	Prod	2.5 Cycle Read
2Mx36		IS61DDP2B42M36A/A1/A2	4	300,333,400,450	Prod	2.0 Cycle Read
2Mx36		IS61DDPB22M36A/A1/A2	2	300,333,400,450	Prod	2.5 Cycle Read
2Mx36		IS61DDPB22M36B/B1/B2	2	400,450,500,550	Prod	2.5 Cycle Read
2Mx36		IS61DDPB22M36C/C1/C2	2	450,500,550,567	Prod	2.5 Cycle Read Latency
2Mx36		IS61DDP2B22M36A/A1/A2	2	300,333,400,450	Prod	2.0 Cycle Read

SRAM Part Decoder

IS 61 WV 12816 DBLL - 10 T L I



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 = 2.2V [2.4V/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

Temp. Grade

- Blank = Commercial Grade [0C to +70°C]
- I = Industrial Grade [-40C to +85°C]
- A1 = Automotive Grade [-40C to +85°C]
- A2 = Automotive Grade [-40C to +105°C]
- A3 = Automotive Grade [-40C to +125°C]

Solder Type

- Blank = SnPb
- L = Lead-free [RoHS Compliant]

Speed (ns or MHz)

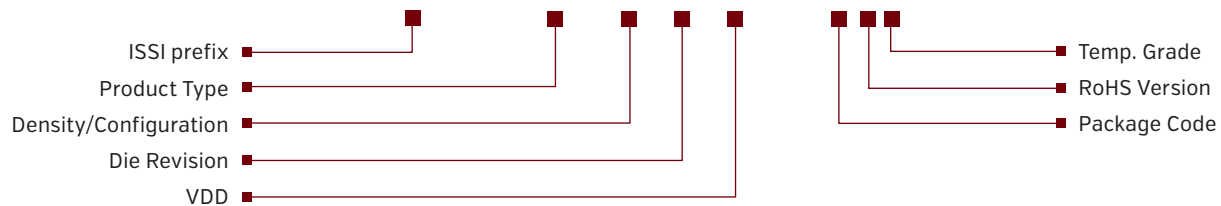
- Example:
- 8 = 8ns
 - 200 = 200MHz

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

PSRAM Part Decoder

IS 66/67 WVE 4M16 x BLL - 70 B L I



PSRAM Product Type

- Blank = Standard Asynch PSRAM
- E = Asynch/Page PSRAM
- C = Cellular RAM 1.5
- D = Cellular RAM 2.0

Density/Configuration

- 51216 = 8Mb /512K x16
- 1M16 = 16Mb /1M x16
- 2M16 = 32Mb /2M x16
- 4M16 = 64Mb /4M x16

Die Rev

Die Rev

VDD

- ALL = 1.8V
- BLL = 3V

Package Code

- B = BGA
- T = TSOP

RoHS Version

- Blank = Leaded
- L = Lead-free

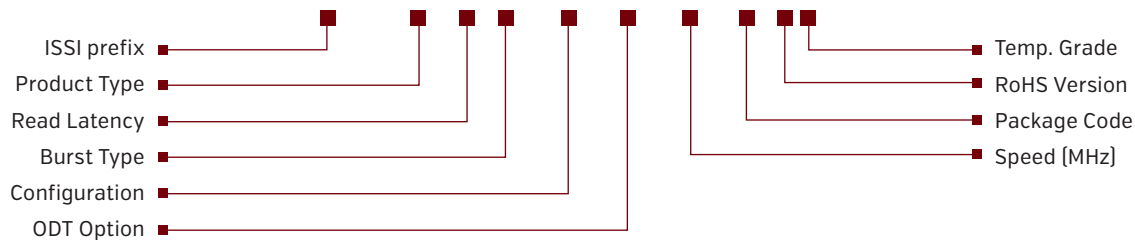
Temperature Range

- I = Industrial [-40°C to 85°C]
- A1 = Automotive [-40°C to 85°C]

SRAM

QUAD/P, DDR-II/P Part Decoder

IS 61 QDP 2 B4 4M18 A1 - 333 M3 L I



■ Product Type

QD = QUAD
QDP = QUADP
DD = DDR-II, Common I/O
DDP = DDR-IIP, Common I/O

■ Configuration

51236 = 512Kb x 36
1M18 = 1Mb x 18
1M36 = 1Mb x 36
2M18 = 2Mb x 18
2M36 = 2Mb x 36
4M18 = 4Mb x 18

■ Read Latency (RL):

For QUAD/DDR-II devices:
Blank = 1.5 clock cycles

For QUADP/DDR-IIP devices:
Blank = 2.5 clock cycles
2 = 2.0 clock cycles

■ Burst Type:

B2 = Burst 2
B4 = Burst 4

■ ODT Option (if supported):

A: No ODT
A1: ODT Option 1
If ODT = HIGH or floating, a high range termination resistance is selected.
If ODT = LOW, a low range termination resistance is selected.
A2: ODT Option 2
If ODT = HIGH, a high range termination resistance is selected.
If ODT = LOW or floating, ODT is disabled

■ Speed

Example
250 = 250MHz

■ Package Code

B4 = 165 ball BGA (13 x 15 mm)
M3 = 165-ball BGA (15 x 17 mm)

■ RoHS Version

Blank = Leaded
L = Lead-free

■ Temperature Range

Blank = Commercial (0C to 70°C)
I = Industrial (-40C to 85°C)

RLDRAM 2 & 3

RLDRAM® 2 Memory

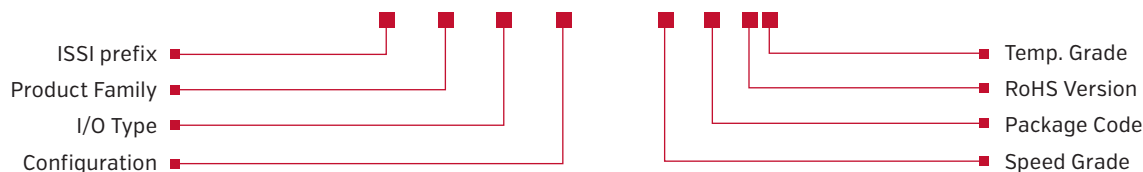
Den	Org	Interface	Part Number	Speed [MHz]	Trc [ns]	Pkg[Pins]	Status	Comment
288M	32Mx9	Common I/O	IS49NLC93200	300,400	15	BGA[144]	Prod	
	16Mx18	Common I/O	IS49NLC18160	300,400	15	BGA[144]	Prod	
	8Mx36	Common I/O	IS49NLC36800	300,400	15	BGA[144]	Prod	
	32Mx9	Separate I/O	IS49NLS93200	300,400	15	BGA[144]	Prod	
576M	16Mx18	Separate I/O	IS49NLS18160	300,400	15	BGA[144]	Prod	
	64Mx9	Common I/O	IS49NLC96400	300,400	15	BGA[144]	Prod	
	64Mx9	Common I/O	IS49NLC96400A	300,400,533	15	BGA[144]	Prod	
	32Mx18	Common I/O	IS49NLC18320	300,400	15	BGA[144]	Prod	
	32Mx18	Common I/O	IS49NLC18320A	300,400,533	15	BGA[144]	Prod	
	16Mx36	Common I/O	IS49NLC36160	300,400	15	BGA[144]	Prod	
	16Mx36	Common I/O	IS49NLC36160A	300,400,533	15	BGA[144]	Prod	
	64Mx9	Separate I/O	IS49NLS96400	300,400	15	BGA[144]	Prod	
	64Mx9	Separate I/O	IS49NLS96400A	300,400	15	BGA[144]	Prod	
	32Mx18	Separate I/O	IS49NLS18320	300,400	15	BGA[144]	Prod	
32Mx18	Separate I/O	IS49NLS18320A	300,400	15	BGA[144]	Prod		

RLDRAM® 3 Memory

Den	Org	Interface	Part Number	Speed [MHz]	Trc [ns]	Pkg[Pins]	Status	Comment
576M	32Mx18	Common I/O	IS49RL18320	800,933,1066	8/10	BGA[168]	Prod	
	16Mx36	Common I/O	IS49RL36160	800,933,1066	8/10	BGA[168]	Prod	
1G	64Mx18	Common I/O	IS49RL18640	667,800	10	BGA[168]	S=Q1/18	Monolithic [1-rank/2-ranks]
	32Mx36	Common I/O	IS49RL36320	667,800	10	BGA[168]	S=Q1/18	Monolithic [1-rank]
2G	128Mx18	Common I/O	IS49RL18128	667,800	10	BGA[168]	S=Q2/18	Dual Die PKG [2-ranks]
	64Mx36	Common I/O	IS49RL36640	667,800	10	BGA[168]	S=Q2/18	Dual Die PKG [1-rank]

RLDRAM® 2, RLDRAM® 3 Part Decoder

IS 49NL C 36800 - 25E B L I



Product Family:

49NL = RLDRAM®2
 49RL = RLDRAM®3

I/O Type:

C = Common I/O
 S = Separate I/O
 Blank = RLDRAM®3

Configuration

288Mb
 93200 = 32M x 9
 18160 = 16M x 18
 36800 = 8M x 36

1Gb
 18640 = 64M x 18
 36320 = 32M x 36

2Gb
 18128 = 128M x 18
 36640 = 64M x 36

Speed Grade:

25E - tCK = 2.5ns; tRC = 15ns
 25 - tCK = 2.5ns; tRC = 20ns
 33 - tCK = 3.3ns; tRC = 20ns
 5 - tCK = 5ns; tRC = 20ns
 093E - tCK = 0.93ns; tRC = 8ns
 093 - tCK = 0.93ns; tRC = 10ns
 107E - tCK = 1.07ns; tRC = 8ns
 107 - tCK = 1.07ns; tRC = 10ns
 125F - tCK = 1.25ns; tRC = 8ns
 125E - tCK = 1.25ns; tRC = 10ns
 125 - tCK = 1.25ns; tRC = 12ns

Package Code:

B = 168-ball FBGA [RLDRAM®3]
 B = 144-ball FBGA [RLDRAM®2]
 WB = 144 - ball WBGA [RLDRAM®2]

RoHS Version:

Blank = SnPb
 L = Lead-free [RoHS compliant]

Temperature Range:

Blank = Commercial [0C to 70°C]
 I = Industrial [-40C to 85°C]

Notes : 1. RLDRAM® is a registered trademark of Micron, Technology Inc. 2. S= Sample, Prod=Production

Analog

Class-AB Audio Power Amplifier with or without Headphone Driver

Part No.	No. of Channel	Power [W]	THD+N [kHs]	PSRR [dB]	VDD [V]	IDD [mA]	Package [Size in mm]	Key Feature	Status
IS31AP4066D	2	1.3	0.10%	60	2.7 - 5.5	3.9	QFN-16 [3.0x3.0]	Dual 1.3W Stereo Audio Power Amplifier	Prod
IS31AP4088A	2+2 HP	2.84	0.06%	80	2.7 - 5.5	5.7	QFN-16 [4.0x4.0]	Dual 2.84W Stereo Audio Power Amplifier with Headphone Driver	Prod
IS31AP4088D	2	2.6	0.10%	60	2.7 - 5.5	4.5	QFN-16 [4.0x4.0]	Dual 2.6W Stereo Audio Power Amplifier	Prod
IS31AP4833	2+2HP	2.8	0.022%	67	3.0 - 5.5	6	QFN-36[4x4] TQFP48[9x9]	Stereo audio PA with headphone driver, with Multi input & I2C control for 3D, Tone, Volume	Prod
IS31AP4990D	1	1.2	0.23%	61	2.7 - 5.5	3.8	UTQFN-9L [1.5x1.5]	1.2W Mono Audio Power Amplifier in UTQFN Package	Prod
IS31AP4991A	1	1.1	0.074%	68	2.7 - 5.5	3.0	MSOP-8 [3.0x5.0] SOP-8 [5.0x6.0]	1.1W Mono Audio Power Amplifier	Prod
IS31AP4996	1	1.1	0.074%	68	2.7 - 5.5	3	MSOP-8 SOP-8	Ultra-low power, low distortion Amplifier with BTL output	Prod

Class-D Audio Power Amplifier

Part No.	No. of Channel	Power [W]	THD+N [kHs]	PSRR [dB]	VDD [V]	IDD [mA]	Package [Size in mm]	Key Feature	Status
IS31AP2005	1	2.95	0.20%	65	2.5 - 5.5	2.6	DFN-8[3x3] MSOP-8	2.95W Mono Filter-less Class-D Audio Power Amplifier	Prod
IS31AP2006	1	3	0.28%	55	2.7 - 5.5	2.6	DFN-8[3x3]	3W Mono Filter-less Class-D Audio Power Amplifier	Prod
IS31AP2010B	1	3	0.22%	75	2.7 - 5.5	2.6	UTQFN-9 [1.5x1.5]	3W Mono Filter-less Class-D Audio Power Amplifier	Prod
IS31AP2145A	1	2.9	0.2%	72	2.7 - 5.5	2.0	UTQFN-9 [1.5x1.5]	2.9W Mono Clip-less & Filter-less Audio Amplifier with Built-in AGC	Prod
IS31AP2145E	1	2.7	0.20%	67	2.7 - 5.5	2.0	UTQFN-9 [1.5x1.5]	2.7W Mono Clip-less & Filter-less Audio Amplifier with Built in AGC	Prod
IS31AP2110	2	Mono 40 /Dual 20	0.20%	62	8~26	20	eTSSOP-28	Differential input, power limit, dynamic temperature control, four selectable gain settings	Prod
IS31AP2111	2	Mono 40 /Dual 20	0.26%	68	7~26	-	eTSSOP-24	Digital I2S input, multiple sample frequencies, fast system clock, 20 bands EQ functions, I2C control	Prod
IS31AP2121	2	Mono 50 / Dual 25	0.2%	76	10~26	-	eLQFP-48	Digital I2S input, multiple sample frequencies, fast system clock, 20 bands EQ functions, I2C control	Prod
IS31AP2036A	1	2	0.05%	66	3-5	12	FCQFN-16	High efficiency, Class-K audio power amplifier with integrated charge pump converter	Prod

Headphone Driver

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

Class-G Speaker Amplifier

Part No.	No. of Channel	Power [W]	THD+N [kHs]	SNR [dB]	VDD [V]	IDD [mA]	Package [Size in mm]	Key Feature	Status
IS31AP4915A	1	20VP-P	0.01%	100	2.5 - 5.5	6	QFN-16 [4.0x4.0]	20VP-P Charge Pump Ceramic Speaker Driver	Prod

Class-K Speaker Amplifier

Part No.	No. of Channel	Power [W]	THD+N [kHs]	SNR [dB]	VDD [V]	IDD [mA]	Package [Size in mm]	Key Feature	Status
IS31AP2031	1	2W [8Ω Spkr]	0.33%	-	2.7 - 4.5	5	QFN-20 [3.0x3.0]	High Power, Ultra-Low EMI Class-G Amplifier with AGC	Prod
IS31AP2036	1	2W [8Ω Spkr]	0.05%	-72dB	3.0-5.0	10	FCQFN-16	Advanced K-charge pump to boost supply voltage with a 92% efficiency and increased amplifier efficiency of 75%	Prod
IS31AP2036A	1	2W [8Ω Spkr]	0.05%	-64dB	3.0-5.0	10	FCQFN-16	Advanced K-charge pump to boost supply voltage with a 92% efficiency and increased amplifier efficiency of 75%	Prod

FxLED Driver

Part No.	No. of Channel	No. RGB Group	Gamma Correction	Control Interface	Audio Sync.	Auto Dimming	VDD [V]	Package [Size mm]	Key Feature	Status
IS31FL3190	1	-	Built-in	I ² C	No	Yes	2.7-5.5	UTQFN-9 [1.5x1.5]	Single LED driver with auto breath mode and 128 levels programmable current	Prod
IS31FL3191	1	-	Built-in	I ² C	No	Yes	2.7-5.5	UTQFN-9 [1.5x1.5]	Single LED driver with auto breath mode and 5 levels programmable current	Prod
IS31FL3193	3	1	Built-in	I ² C	No	Yes	2.7-5.5	DFN-10 [3.0x3.0]	16 Million color RGB auto and semi-auto breathing with pre-set pattern	Prod
IS31FL3193D	3	1	Built-in	I ² C	No	Yes	2.7-5.5	WLCSP-8 [1x1.6]	16 Million color RGB auto and semi-auto breathing with pre-set pattern	Prod
IS31FL3194	3	1	Built-In	I ² C	No	Yes	2.7-5.5	WLCSP-8 [1x1.6]	16 Million color RGB auto and semi-auto breathing with pre-set pattern for each LED	Prod
IS31FL3196	6	2	Built-in	I ² C	Yes	Yes	2.7-5.5	QFN-20 [3.0x3.0]	16 Million color RGB auto and semi-auto breathing with pre-set pattern and audio sync mode	Prod
IS31FL3199	9	3	Built-in	I ² C	Yes	Yes	2.7-5.5	QFN-20 [3.0x3.0]	16 Million color RGB auto and semi-auto breathing with AGC Audio Sync mode	Prod
IS31FL3216	16	-	External	I ² C	Yes	No	2.7-5.5	QFN-28 [4.0x4.0]	Audio modulated, Internal SRAM supports animation frames, 16 independent channels	Prod
IS31FL3218	18	6	External	I ² C	No	No	2.7-5.5	QFN-24 [4.0x4.0] SOP-24 [10x15]	Modulate 18 Independent LED channels with 256 steps PWM	Prod
IS31FL3235	28	9	External	I ² C	No	No	2.7-5.5	QFN-36 [4.0x4.0]	Modulate 28 Independent LED channels with 256 steps PWM	Prod
IS31FL3235A	28	9	External	I ² C	No	No	2.7-5.5	QFN-36 [4.0x4.0]	Modulate 28 Independent LED channels with 256 steps PWM. +22kHz PWM frequency option	Prod
IS31FL3236	36	12	External	I ² C	No	No	2.7-5.5	QFN-44 [5.0x5.0] TQFP-48	Modulate 36 Independent LED channels with 256 steps PWM	Prod

*-40C to +125C: Extended temperature range option available

Analog

FxLED Driver Contd.

Part No.	No. of Channel	No. RGB Group	Gamma Correction	Control Interface	Audio Sync.	Auto Dimming	VDD [V]	Package [Size mm]	Key Feature	Status
IS31FL3236A	36	12	External	I ² C	No	No	2.7-5.5	QFN-44 [5.0x5.0]	Modulate 36 Independent LED channels with 256 steps PWM +22kHz PWM frequency option	Prod
IS31FL3726	16	-	-	Serial	No	No	3.3-5.5	QFN-24 [4.0x4.0] TSSOP-24	16-channels On/Off LED driver with serial-in and serial-out for cascade application	Prod
IS31FL3728	8x8 Matrix 64	-	External	I ² C	Yes	No	2.7-5.5	QFN-24 [4.0x4.0]	16-row/column outputs, Audio Modulated. 8x8,7x9,6x10,5x11 matrix arrays.	Prod
IS31FL3730	8x8x2 Matrix 128	-	External	I ² C	Yes	No	2.7-5.5	QFN-24 [4.0x4.0]	16-row/column outputs, Audio Modulated. 8x8,7x9,6x10,5x11 dual matrix arrays.	Prod
IS31FL3731	8x9x2 Matrix 144	32	External	I ² C	Yes	Yes	2.7-5.5	QFN-28 [4.0x4.0] SSOP-28	18 row/column outputs. Audio Modulated, Two 8x9 arrays with SRAM. 8-image swapping 8x9x2 [144 dot] LED array display	Prod
IS31FL3731C	18 Matrix 144	32	External	I ² C	Yes	Yes	2.7-5.5	QFN-28 [4.0x4.0] SSOP-28	18 row/column outputs. Audio Modulated, Two 8x9 arrays with SRAM. 8-image swapping 8x9x2 [144 dot] LED array display, Within robust I2C for white goods application	Prod
IS31FL3732	8x9x2 Matrix 144	32	External	I ² C	Yes	Yes	2.7-5.5	QFN-40 [5x5]	Robust version of IS31FL3731, separate power rails, synchronize 8 devices, address 16, global current	Prod
IS31FL3732A	8x9x2 Matrix 144	32	External	I ² C	Yes	Yes	2.7-5.5	QFN-40 [5x5]	Robust version of IS31FL3731, separate power rails, synchronize 8 devices, address 16, global current. Double PWM frequency based on FL3732	Prod
IS31FL3733	12x16 Matrix 192	64	Built-in	I ² C	No	Yes	2.7-5.5	QFN-48 [6X6] eTQFP-48	True multiplex matrix architecture for RGB. Individual LED open/short detection and programming. De-ghost, auto modes	Prod
IS31FL3736	12x8 Matrix 96	32	Built-in	I ² C	No	Yes	2.7-5.5	QFN-40 [5x5]	True multiplex matrix architecture for RGB. Individual LED open/short detection and programming. De-ghost, auto modes	Prod
IS31FL3737	12x12 Matrix 144	48	Built-in	I ² C	No	Yes	2.7-5.5	QFN-40 [5x5]	True multiplex matrix architecture for RGB. Individual LED open/short detection and programming. De-ghost, auto modes	Prod
IS31FL3738	6x8 Matrix 48	16	Built-in	I ² C	No	Yes	2.7-5.5	QFN-28 [4x4]	True multiplex matrix architecture for RGB. Individual LED open/short detection and programming. De-ghost, auto modes	S=Q2/17

*-40C to +125C: Extended temperature range option available

HBLEDD Driver Switching (AC/DC & DC/DC)

Part No.	Driver	VIN [V]	IOUT Accuracy	Effcy [%]	Power Transistor	Typical Applications	Package	Key Feature	Status
IS31LT3350	DC/DC Buck	6-40	750mA ±5%	95	Built-in	Low voltage LED lighting, MR16 replacement	SOT23-5, SOT89-5	Single pin ON/OFF or brightness control with DC/PWM, thermal shutdown	Prod
IS31LT3353	DC/DC Buck	6-40	1A ±3%	97	Built-in	Low voltage LED lighting, Industrial lighting	SOT23-5, SOT89-5	High efficiency, 1MHz switching 1A driver	Prod

HBLED Driver Switching (AC/DC & DC/DC) Contd.

Part No.	Driver	VIN [V]	IOUT Accuracy	Effcy [%]	Power Transistor	Typical Applications	Package	Key Feature	Status
IS31LT3360*	DC/DC Buck	6-40	1.2A ±3%	98	Built-in	MR16, MR11 spot light, PAR light	SOT89-5	High efficiency with buck converter, with analog or PWM dimming	Prod
IS31LT3380	DC/DC Buck	8.5-40	1.2A ±5%	98	Built-in	MR16, MR11 spot light, PAR light	SOP-8	3-level switch dimming control, open/short and thermal shutdown protection	Prod
IS31LT3505	DC/DC Boost	6-30	24W ±5%	90	Built-in	Battery powered LED, solar light	MSOP-10	1MHz Boost Converter with 35V Internal NMOS	Prod
IS31LT3938	DC/DC, AC/DC Buck	10-450 DC 85-265 AC	- ±3%	95	External	LED Lighting; Signal & decorative lighting	SOP-8	High voltage LED driver with Switch Dimming, Single External FET	Prod
IS31LT3948*	DC/DC Boost	5-100		90	External	Street lamp, LED lighting, Gen. illum.	SOP-8	Wide input voltage range, Boost, over-voltage/temperature protection	Prod

*-40C to +125C: Extended temperature range option available

Linear

Part No.	Driver	VIN [V]	IOUT Accuracy	Power Transistor	Typical Applications	Package	Key Feature	Status
IS31LT3117	Linear	6 - 53V	350mA* 4CH	Integrated	Low-side CCR	eTSSOP-16	Four 350 mA channel current sinks. Support for external ballast transistor	Prod
IS31LT3135	Constant Current	2.7-5.5V	350mA	Built-in	Miner lamp, Torch, Battery powered LED lighting	SOP-8	Main/sub dual-channel driver with short circuit and over temp. protection	Prod
IS31LT3170	Constant Current	5 - 42V	150mA	Built-in	Architectural, appliance, emergency lighting	SOT23-6	Adjustable CCR 10 to 150mA, negative thermal coeff., low/high side, power supply dimming	Prod
IS31LT3171	Constant Current	2.5 - 42V	150mA	Built-in	Architectural, appliance, emergency lighting	SOT23-6	Adjustable CCR 10 to 150mA, negative thermal coeff., low/high side, Logic PWM dimming	Prod
IS31LT3172	Constant Current	5-42V	200mA	Built-in	Architectural, appliance, emergency lighting	SOP-8-EP	Adjustable CCR 10 to 200mA, negative thermal coeff., low/high side, power supply dimming	Prod
IS31LT3173	Constant Current	2.5-42V	200mA	Built-in	Architectural, appliance, emergency lighting	SOP-8-EP	Adjustable CCR 10 to 200mA, negative thermal coeff., low/high side, Logic PWM dimming	Prod

White LED Driver for LCD Backlight & Flash

Part No.	No. of LED	Type of Driver	IOUT [mA]	VDD [V]	ISD [uA]	Intensity Control	Package [Size in mm]	Key Feature	Status
IS31BL3212	4	Constant Current	23	2.7 - 5.5	1.0	Pulse Count	SOT23-6 [3.0x3.0], DFN-8 [2.0x2.0]	Ultra low headroom voltage, highly integrated design with minimal component	Prod
IS31BL3228A/B	4/6	Constant Current	20	2.8 - 5.5	0.5	Pulse Count	UTQFN-12 [2.0x2.0]	4/6 channel with 14 programmable current levels, built-in charge pump for high efficiency mode	Prod
IS31BL3229	8	Constant Current w/charge pump	25	2.7 - 5.5	1.0	PWM	QFN-20 [3.0x3.0]	8 channel output with 32 programmable current levels, built-in charge pump for high efficiency mode [1x/1.5x]	Prod

Analog

White LED Driver for LCD Backlight & Flash Contd.

Part No.	No. of LED	Type of Driver	IOUT [mA]	VDD [V]	ISD [μ A]	Intensity Control	Package [Size in mm]	Key Feature	Status
IS31BL3230	8	Constant Current	40mA or 320mA in parallel	2.7 - 5.5	1.6	PWM	QFN-16 [3.0x3.0]	Ultra low headroom voltage. All outputs may be connected in parallel	Prod
IS31BL3231	1	Charge Pump	750	2.7 - 5.5	1.0	Pulse Count	DFN-10 [3.0x3.0]	Camera Flash LED Driver	Prod
IS31BL3232	1	Charge Pump	1200	2.5 - 5.5	1.0	Pulse Count	DFN-10 [3.0x3.0]	Camera Flash LED Driver with time out protection	Prod
IS31BL3233A	2	Flash/Torch	1.5A	2.7 - 5.5	1.0	Enable Pin	DFN-14 [3.0x2.0]	Camera Flash LED Driver with time out protection	Prod
IS31BL3506A	9	Boost	20	2.7 - 5.5	1.5	PWM or DC Level	TSOT23-6 [3.0x3.0] DFN-8 [2.0x2.0]	35V Internal MOSFET 1MHz Step-up Converter; VFB = 300mV	Prod
IS31BL3506B	8	Boost	20	2.7 - 5.5	1.5	PWM or DC Level	TSOT23-6 [3.0x3.0]	35V Internal MOSFET 1MHz Step-up Converter; VFB = 200mV	Prod
IS31BL3508A	10	Boost	20	2.7 - 5.5	2.0	PWM or DC Level	TSOT23-6 [3.0x3.0] SOT23-6 [3.0x3.0]	1.0MHz Boost Converter with 38V internal switch; VFB = 300mV	Prod
IS31BL3508B	10	Boost	20	2.7 - 5.5	2.0	PWM or DC Level	SOT23-6 [3.0x3.0]	1.0MHz Boost Converter with 38V internal switch; VFB = 200mV	Prod

Sensor

Device	Sensor Type	VIN [V]	No. Channels	Package	Key Feature	Status
IS31SE5000	Gesture Sensor	2.7-5.5	1 Trans, 2 Recv	UTQFN-12 [2x2]	IR Light Sensor for gesture or movement detection	Prod
IS31SE5001	Proximity Sensor	2.7-5.5	1 Trans, 1 Recv [Integrated]	QFN-8 [2x2]	IR Light Sensor for proximity detection	Prod
IS31SE5100	Capacitive Touch	2.7-5.5	8 Cap Touch Input, 8 LED Drive Output	QFN-24, SSOP-24	Capacitance sensor, 8 sense plate input with 8 LED outputs	Prod
IS31SE5104	Capacitive Touch	2.7-5.5	4 Cap Touch Input, 4 LED Drive Output	SOP-16, QFN-16	Capacitance sensor, 4 sense plate input with 8 LED outputs	Prod

Automotive Audio

Part No.	NO. of output	Power [W]	THD+N	PSRR	VDD [V]	IDD [mA]	Package	Key Feature	Status
IS32AP2120	1	7	0.15%	70	4.5V-24V	16	eTSSOP-16	Mono Class-D Audio Amplifier for auto., telematics, instrument cluster, and infotainment applications	S=Q4/17

Automotive Backlight LED Drivers

Part No.	Driver	VIN [V]	IOUT Accuracy	Power Transistor	Typical Applications	Package	Key Feature	Status
IS32BL3555	DC/DC Boost	4.75-40V	\pm 1.0%	Built-in	Automotive lighting, LCD monitor backlight	eTSSOP-16	Two 240mA channel current sinks. String-to-string accuracy 1%	S=NOW
IS32BL3556	DC/DC Boost	4.75-40V	\pm 1.0%	Built-in	Automotive lighting, LCD monitor backlight	eTSSOP-20	Four 120mA channel current sinks. String-to-string accuracy 1%	S=NOW

Automotive HBLED - Linear

Part No.	No. of Channels	IOUT [mA]	VIN [V]	Dimming	Protection	Fault report	Package	Key Feature	Status
IS32LT3120	2	200*2	6-45	Momentary button to fade in/out	LED Short, ISET pin short, over temp, thermal rolloff	No	SOP-8-EP	Dual Channel, Linear LED Driver with fade in/fade out	Prod
IS32LT3124	4	150*4	5-42	PWM & BCM	LED open/Short, signal LED short, ISET pin open/short, over temp	Yes	eTSSOP-16	Quad Channel, Linear LED driver with fault reporting and dynamic headroom control	S=Q2/17
IS32LT3125	1	250	5-42	PWM & BCM	LED Open/Short, ISET pin open/short, OUT short to VCC, over temp, thermal rolloff	Yes	SOP-8-EP	250mA Single Channel linear programmable current regulator with 30mA ICC current fault reporting	S=Q2/17
IS32LT3126	2	150*2	5-42	PWM & BCM	LED Open/Short, signal LED short, ISET pin open/short, OUT short to VCC, over temp, thermal rolloff	Yes	eTSSOP-16	150mA Dual Channel LED Driver with fault reporting	S=Q2/17
IS32LT3170	1	150	5-42	BCM	Negative temp coefficient	No	SOT23-6	Adjustable linear current regulator with excellent temp. stability	Prod
IS32LT3171	1	150	2.5-42	PWM	Negative temp coefficient	No	SOT23-6	Adjustable linear current regulator with excellent temp. stability	Prod
IS32LT3172	1	200	5-42	BCM	Negative temp coefficient	No	SOP-8-EP	Adjustable linear current regulator with excellent temp. stability	Prod
IS32LT3173	1	200	2.5-42	PWM	Negative temp coefficient	No	SOP-8-EP	Adjustable linear current regulator with excellent temp. stability	Prod
IS32LT3174	1	200	6-45	Momentary button to fade in/out	LED Short, ISET pin short, over temp, thermal rolloff	No	SOP-8-EP	Single Channel, Linear LED Driver with fade in/fade out	Prod
IS32LT3175P/N	1	150	5-42	Momentary button to fade in/out & BCM	LED Short, ISET pin short, over temp, thermal rolloff	No	SOP-8-EP	Single Channel, Linear LED Driver with fade in/fade out and BCM PWM Input	Prod
IS32LT3180	8	75*8	6-16	Internal PWM dimming	LED open/Short, ISET pin short, OVP, over temp, thermal rolloff	Yes	eTSSOP-16	Settable dual intensity linear driver for RCL	Prod
IS32LT3181	6	75*6	6-42	Internal PWM dimming	LED open, ISET pin short, over temp	Yes	eTSSOP-16	Settable dual intensity linear driver for RCL	Prod

Analog

Automotive HBLED - Switching

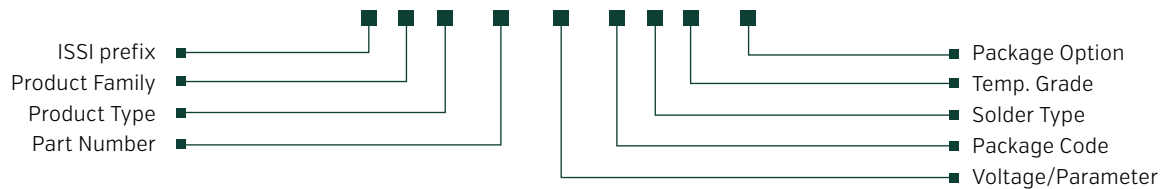
Part No.	Driver	VIN [V]	IOUT Accuracy	Dimming	Efficiency	Power transistor	Package	Key Feature	Status
IS32LT3952	Buck	5-40	±5%	PMW	93%	Built-in	SOP-8-EP	1.5-Ampere PWM dimmable constant-current buck LED driver	S=Q2/17
IS32LT3953	Buck	5-40	±5%	PMW	93%	Built-in	SOP-8-EP	3-Ampere PWM dimmable constant-current buck LED driver	S=Q2/17
IS32LT3954	Buck	5-40	±5%	PWM	93%	Built-in	SOP-8-EP	3-Ampere PWM dimmable constant-current buck LED driver with robust protection and fault reporting	S=Q2/17
IS32LT3957	Buck, boost, buck-boost	5-75	±3%	PWM, Analog	93%	External	eTSSOP-16	High voltage LED lighting driver for buck-boost, boost topology	S=Q2/17

Automotive FxLED

Part No.	No. of output	No. RGB group	Gamma correction	Control interface	Auto dimming	VDD [V]	Package	Key Feature	Status
IS32FL3738	6x8 Matrix 48	16	Built-in	I2C	Yes	2.7-5.5	eTSSOP-28	6 switch sinks/8 current source outputs. 6*8 array. 3 selectable Auto Breathing Modes. Each dot with Individual 512 steps PWM control. Open/short detect for each dots. De-ghost function	S=NOW
IS32FL3740	3x4 Matrix 12	4	Built-in	I2C	Yes	2.7-5.5	eTSSOP-20	3 switch sinks/4 current source outputs. 3*4 array. 3 selectable Auto Breathing Modes. Each dot with individual 1024 steps PWM control. Open/short detect for each dots. De-ghost function	S=NOW

Analog Part Decoder

IS 31 LT 3135 V1 - GR L S2 - TR



Analog Product Family

- 31 = Commercial/Industrial Analog
- 32 = Automotive Analog and Mixed Signal

Product Type

- AP = Audio Power Amplifier
- BL = White LED Driver for LCD Backlight
- FL = FxLED Driver
- LT = Lighting LED Driver
- SE = Sensor
- IO = Multi- Function IO & Expander
- PW = Power Management
- PM = DC/DC Converter

Temperature Grade

- S1 = Commercial (0°C to 70°C)
- S2 = Industrial temp. [-40°C to 85°C]
- S3 = Industrial temp. [-40°C to 105°C]
- S4 = Industrial temp. [-40°C to 125°C]
- A1 = Automotive Grade [-40°C to +85°C]
- A2 = Automotive Grade [-40°C to +105°C]
- A3 = Automotive temp. [-40 to 125°C]

Solder Type

- Blank = Sn/Pb
- L = Lead-free [RoHS Compliant]

Package Type

- C = WCSP
- D = DFN
- GR = SOP
- QF = QFN
- S = MSOP
- SD = SOT89
- ST = SOT23
- TT = TSOT23
- UT = UTQFN
- Z = TSSOP

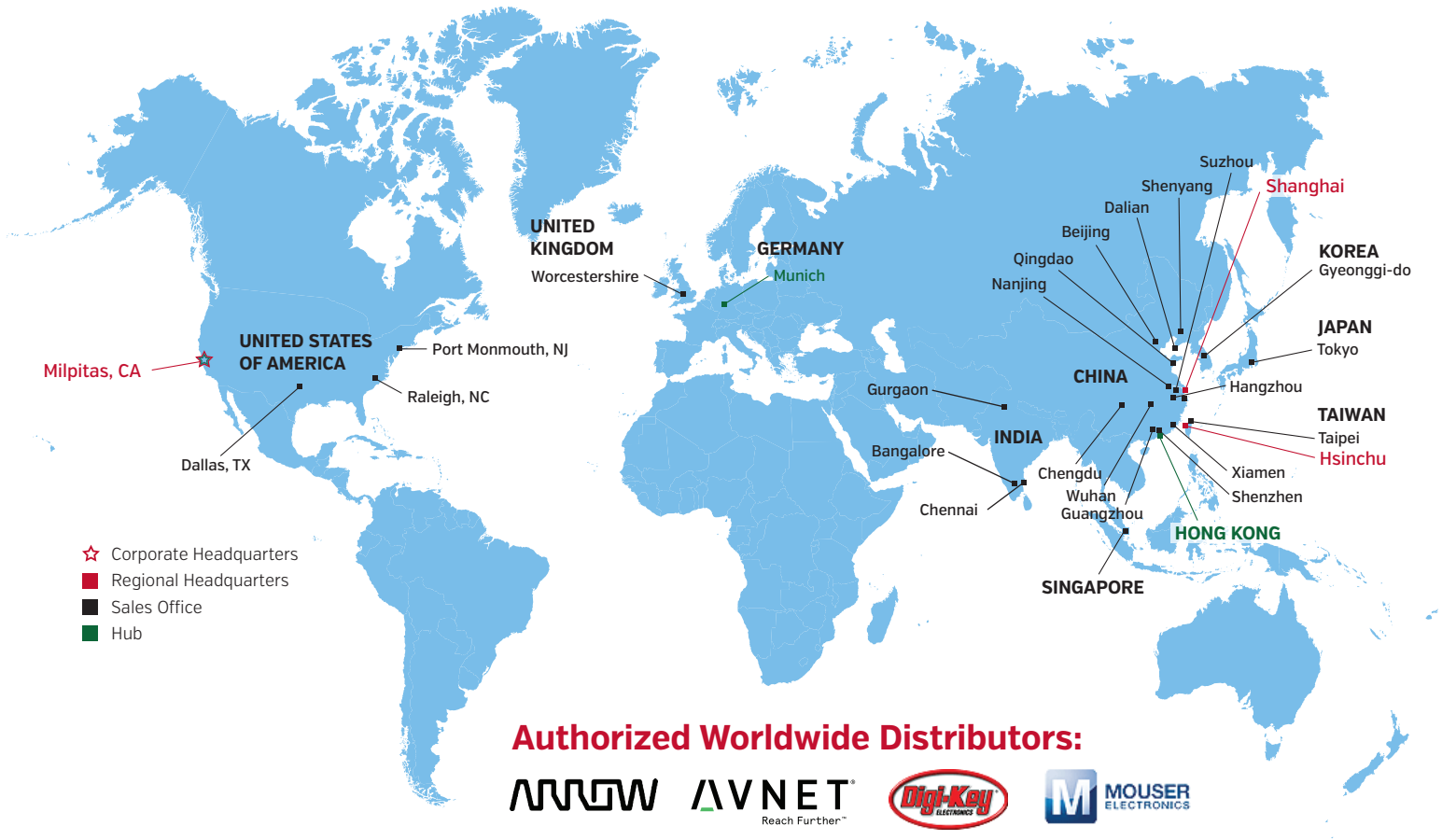
Voltage Range / Parameters

- 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

Package Option

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

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