

# Capabilities for 2000 & Beyond

**ISSI**<sup>®</sup>

Integrated Silicon Solution, Inc.



## Q2 2000 Product Selection Guide April 2000

### ASYNCHRONOUS & APPLICATION SPECIFIC STATIC RAM

Den	Org.	P/N	Vcc	Speeds ns	Packages (#Pins)	Status	Comment
<b>5V High Asynchronous SRAM</b>							
64K	8Kx8	IS61C64B	5V	10,12,15	SOJ(28), TSOP1(28)	Prod	/CE
256K	32Kx8	IS61C256AH	5V	10,12,15,20	SOJ(28), TSOP1(28)	Prod	
512K	32Kx16	IS61C3216	5V	12,15,20	SOJ(44), TSOP2(44)	Prod	CE Active Low
	32Kx16	IS61C3216B	5V	12,15,20	SOJ(44), TSOP2(44)	Prod	CE Active High
1M	128Kx8	IS61C1024/L	5V	12,15,20	SOJ(32.3),SOJ(32.4) TSOP1(32),sTSOP(32)	Prod	CornerPower
	64Kx16	IS61C6416	5V	10,12,15,20	SOJ(44), TSOP2(44)	Prod	
2M	128Kx16	IS61C12816	5V	12,15	SOJ(44), TSOP2(44)	Prod	
<b>5V Low Power Asynchronous SRAM</b>							
256K	32Kx8	IS62C256	5V	45,70	SOP(28),TSOP1(28)	Prod	
1M	128Kx8	IS62C1024/L	5V	35,45,70	SOP(32), TSOP1(32)	Prod	
<b>3.0V - 3.6V High Speed Asynchronous SRAM</b>							
256K	32Kx8	IS61LV256	3.3V	8,10,12,15	SOJ(28), TSOP1(28)	Prod	
512K	32Kx16	IS61LV3216/L	3.3V	10,12,15,20	SOJ(44),TSOP2(44)	Prod	
1M	128Kx8	IS63LV1024	3.3V	8,10,12,15	SOJ(32/3),SOJ(32/4),TSOP2(32)	Prod	CenterPower
	64Kx16	IS61LV6416	3.3V	8,10,12,15	SOJ(44),TSOP2(44),mBGA(48)	Prod	
1.5M	64Kx24	IS61LV6424	3.3V	9,10,12,15	TQFP(100)	Prod	24 BIT I/O
2M	256Kx8	IS61LV2568	3.3V	(8),10,12,15	SOJ(36),TSOP2(44)	Prod	
	128Kx16	IS61LV12816	3.3V	8,10,12,15	SOJ(44),TSOP2(44) LQFP(44),mBGA(48)	Prod	
3M	128Kx24	IS61LV12824	3.3V	8,9,10	PBGA(119),TQFP(100)	Prod	24 BIT I/O
4M	512Kx8	IS61LV5128	3.3V	10,12,15	SOJ(36),TSOP2(44)	S = NOW	
	256Kx16	IS61LV25616	3.3V	10,12,15	SOJ(44),TSOP2(44) LQFP(44),mBGA(48)	S = NOW	
<b>"PowerSaver": Low Power Asynchronous SRAM</b>							
256K	32Kx8	IS62LV256	3.0V-3.6V	45,70	SOJ(28),SOP(28),TSOP1(28)	Prod	
	32Kx8	IS62LV256L	3.0V-3.6V	15,20	SOJ(28),TSOP1(28)	Prod	
1M	128Kx8	IS62LV1024LL	2.5V-3.0V	45,55,70	SOP(32),TSOP1(32),sTSOP(32)	Prod	
	64Kx16	IS62V6416BL/LL	2.7V-3.0V	100,120	SOJ(44),TSOP2(44),mBGA(48)	Prod	

**ASYNCHRONOUS & APPLICATION SPECIFIC STATIC RAM (Cont)**

Den	Org.	P/N	Vcc	Speeds ns	Packages (#Pins)	Status	Comment
2M	256Kx8	IS62LV2568L/LL	2.5V-3.0V	70,85,100	sTSOP1(32),TSOP1(32) mBGA(36)	Prod	
	128Kx16	IS62LV12816L/LL	2.5V-3.0V	55,70,100	TSOP2(44),mBGA(48)	Prod	
	128Kx16	IS62LV12816BL/LL	2.5V-3.0V	55,70,100	TSOP2(44),mBGA(48)	Prod	UB/LB Standby mode
4M	512Kx8	IS62LV5128L/LL	2.5V-3.0V	70	TSOP1(32)	S = Q3/00	
	256Kx16	IS62LV25616L/LL	2.5V-3.0V	70	TSOP2(44),mBGA(48)	S = Q3/00	

**Application Specific SRAM**

1M	64Kx16	IS82C600	3.0V-3.6V	133,100	PBGA(119)	Prod.	Verilog,VHDL, IBIS,DSP Apps
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- Notes:**
1. ( ) = Product speed under development; call 1-800-379-4774 or email for availability
  2. S = Sample
  3. Prod = Production

**SYNCHRONOUS STATIC RAM**

Den	Org	P/N	Vcc	VccQ	SpeedMhz	tKQns	Packages (#Pins)	Status	Comment
<b>3.3V &amp; 2.5V Pipelined and Flow-Thru Synchronous SRAM</b>									
1M	32Kx32	IS61C632A	3.3V	3.3V	100,83,75,66	5,6,7,8	PQFP/TQFP(100)	Prod	PB Part
	32Kx32	IS61LV632A	3.3V	2.5V	100,83,75,66	5,6,7,8	PQFP/TQFP(100)	Prod	PB Part
2M	64Kx32	IS61S6432	3.3V	3.3V	166,133,117,100,83,75	3.5,4,4.5,5,6,7	PQFP/TQFP(100)	Prod	PB Part
	64Kx32	IS61LV6432	3.3V	2.5V	117,100,83,75,66	5,5,6,7,8	PQFP/TQFP(100)	Prod	PB Part
	64Kx32	IS61SF6432	3.3V	3.3V	66	10	PQFP/TQFP(100)	Prod	FT Part
2M+	64Kx36	IS61SP6436	3.3V	3.3V	133,117,100,83,75,66	5,5,5,6,7,8	PQFP/TQFP(100)	Prod	PB Part
	64Kx36	IS61SF6436	3.3V	3.3V	66	10	PQFP/TQFP(100)	Prod	FT Part
4M	256Kx16	IS61SP25616	3.3V	3.3V	(200),166,150,133,100	(3.1),3.5,3.8,4,5	PBGA(119),TQFP(100)	Prod	PB Part
	256Kx16	IS61SF25616	3.3V	3.3V	(117),100,90,66	(7.5),8,8.5,10	PQFP/TQFP(100)	Prod	FT Part
	128Kx32	IS61SP12832	3.3V	3.3V/2.5V	200,150,133,100	3.1,3.5,3.8,4.5	PBGA(119),TQFP(100)	Prod	PB Part
	128Kx32	IS61SF12832	3.3V	3.3V/2.5V	117,100,90,66	7.5,8,8.5,10	PBGA(119),TQFP(100)	Prod	FT Part
	64Kx64	IS61SP6464	3.3V	3.3V	133,117,100,83,75,66	5,5,5,6,7,8	PQFP/TQFP(100)	Prod	PB Part
	64Kx64	IS61LV6464	3.3V	2.5V	83,75,66	6,7,8	PQFP/TQFP(100)	Prod	PB Part
4M+	256Kx18	IS61SP25618	3.3V	3.3V	(200),166,150,133,100	(3.1),3.5,3.8,4,5	PBGA(119),TQFP(100)	Prod	PB Part
	256Kx18	IS61SF25618	3.3V	3.3V	(117),100,90,66	(7.5),8,8.5,10	PBGA(119),TQFP(100)	Prod	FT Part
	128Kx36	IS61SP12836	3.3V	3.3V/2.5V	200,166,150,133,100	3.1,3.5,3.8,4.5	PBGA(119),TQFP(100)	Prod	PB Part
	128Kx36	IS61SF12836	3.3V	3.3V/2.5V	117,100,90,66	7.5,8,8.5,10	PBGA(119),TQFP(100)	Prod	FT Part
8M	256Kx32	IS61SP25632	3.3V	3.3V/2.5V	166,150,138,117,100	3.5,3.8,4.0,4.2,4.5	PBGA(119),TQFP(100)	S = Q3/00	PB 2 & 3 CE
	256Kx32	IS61SF25632	3.3V	3.3V/2.5V	117,100,83	7.5,8,9	PBGA(119),TQFP(100)	S = Q3/00	FT 2 & 3 CE
8M+	512Kx18	IS61SP51218	3.3V	3.3V/2.5V	166,150,138,117,100	3.5,3.8,4.0,4.2,4.5	PBGA(119),TQFP(100)	S = Q3/00	PB 2 & 3 CE
	512Kx18	IS61SF51218	3.3V	3.3V/2.5V	117,100,83	7.5,8,9	PBGA(119),TQFP(100)	S = Q3/00	FT 2 & 3 CE
	256Kx36	IS61SP25636	3.3V	3.3V/2.5V	166,150,138,117,100	3.5,3.8,4.0,4.2,4.5	PBGA(119),TQFP(100)	S = Q3/00	PB 2 & 3 CE
	256Kx36	IS61SF25636	3.3V	3.3V/2.5V	117,100,83	7.5,8,9	PBGA(119),TQFP(100)	S = Q3/00	FT 2 & 3 CE

### SYNCHRONOUS STATIC RAM (Cont)

Den	Org	P/N	Vcc	VccQ	Speed Mhz	tKQ ns	Packages (#Pins)	Status	Comment
16M	512Kx32	IS61SP51232	3.3V	3.3V/2.5V	166,150,138,117,100	3.5,3.8,4.0,4.2,4.5	PBGA(119),TQFP(100)	S = Q4/00	PB 2 & 3 CE
	512Kx32	IS61SF51232	3.3V	3.3V/2.5V	117,100,83	7.5,8,9	PBGA(119),TQFP(100)	S = Q4/00	FT 2 & 3 CE
16M+	1Mx18	IS61SP10018	3.3V	3.3V/2.5V	166,150,138,117,100	3.5,3.8,4.0,4.2,4.5	PBGA(119),TQFP(100)	S = Q4/00	PB 2 & 3 CE
	1Mx18	IS61SF10018	3.3V	3.3V/2.5V	117,100,83	7.5,8,9	PBGA(119),TQFP(100)	S = Q4/00	FT 2 & 3 CE
	512Kx36	IS61SP51236	3.3V	3.3V/2.5V	166,150,138,117,100	3.5,3.8,4.0,4.2,4.5	PBGA(119),TQFP(100)	S = Q4/00	PB 2 & 3 CE
	512Kx36	IS61SF51236	3.3V	3.3V/2.5V	117,100,83	7.5,8,9	PBGA(119),TQFP(100)	S = Q4/00	FT 2 & 3 CE

### 3.3V & 2.5V "No-Wait" Synchronous SRAM (Compatible with Zero Bus Turnaround Devices)

2M	64Kx32	IS61NW6432	3.3V	3.3V	100,83,75,66	5,6,7,8	PQFP/TQFP(100)	Prod	PB Part
4M	128Kx32	IS61NP12832	3.3V	3.3V/2.5V	(150),133,117,100	(3),4,2,4.5,5	PBGA(119),TQFP(100)	S = NOW	PB Part
	128Kx32	IS61NF12832	3.3V	3.3V/2.5V	100,83	8.5,9	PBGA(119),TQFP(100)	S = Q2/00	FT Part
4M+	256Kx18	IS61NP25618	3.3V	3.3V/2.5V	(150),133,117,100	(3),4,2,4.5,5	PBGA(119),TQFP(100)	S = NOW	PB Part
	256Kx18	IS61NF25618	3.3V	3.3V/2.5V	100,83	8.5,9	PBGA(119),TQFP(100)	S = Q2/00	FT Part
	128Kx36	IS61NP12836	3.3V	3.3V/2.5V	(150),133,117,100	3,4,2,4.5,5	PBGA(119),TQFP(100)	S = NOW	PB Part
	128Kx36	IS61NF12836	3.3V	3.3V/2.5V	100,83	8.5,9	PBGA(119),TQFP(100)	S = Q2/00	FT Part
8M	256Kx32	IS61NP25632	3.3V	3.3V/2.5V	(150),133,100	(3.8),4,2,5	PBGA(119),TQFP(100)	S = NOW	PB Part
	256Kx32	IS61NF25632	3.3V	3.3V/2.5V	100,83	8.5,9,10	PBGA(119),TQFP(100)	S = Q2/00	FT Part
8M+	512Kx18	IS61NP51218	3.3V	3.3V/2.5V	(150),133,100	(3.5),3.8,4.0,4.2,4.5	PBGA(119),TQFP(100)	S = NOW	PB Part
	512Kx18	IS61NF51218	3.3V	3.3V/2.5V	100,83	7.5,8,9	PBGA(119),TQFP(100)	S = Q2/00	FT Part
	256Kx36	IS61NP25636	3.3V	3.3V/2.5V	(150),133,100	(3.5),3.8,4.0,4.2,4.5	PBGA(119),TQFP(100)	S = NOW	PB Part
	256Kx36	IS61NF25636	3.3V	3.3V/2.5V	117,100,83	7.5,8,9	PBGA(119),TQFP(100)	S = Q2/00	FT Part
16M	512Kx32	IS61NP51232	3.3V	3.3V/2.5V	166,150,138,117,100	3.5,3.8,4.0,4.2,4.5	PBGA(119),TQFP(100)	S = Q4/00	PB 2 & 3 CE
	512Kx32	IS61NF51232	3.3V	3.3V/2.5V	117,100,83	7.5,8,9	PBGA(119),TQFP(100)	S = Q4/00	FT 2 & 3 CE
16M+	1Mx18	IS61NP10018	3.3V	3.3V/2.5V	166,150,138,117,100	3.5,3.8,4.0,4.2,4.5	PBGA(119),TQFP(100)	S = Q4/00	PB 2 & 3 CE
	1Mx18	IS61NF10018	3.3V	3.3V/2.5V	117,100,83	7.5,8,9	PBGA(119),TQFP(100)	S = Q4/00	FT 2 & 3 CE
	512Kx36	IS61NP51236	3.3V	3.3V/2.5V	166,150,138,117,100	3.5,3.8,4.0,4.2,4.5	PBGA(119),TQFP(100)	S = Q4/00	PB 2 & 3 CE
	512Kx36	IS61NF51236	3.3V	3.3V/2.5V	117,100,83	7.5,8,9	PBGA(119),TQFP(100)	S = Q4/00	FT 2 & 3 CE

- Notes
1. ( ) = Product speed under development; call 1-800-379-4774 or email for availability
  2. S = Sample
  3. Prod = Production

### NON-VOLATILE

Den	Org	P/N	Vcc	Speed Hz	Packages (#Pins)	Status	Comment
<b>2.7V - 6.0V Micro-Wire Serial EEPROM</b>							
1K	64x16	IS93C46-3	2.7V-6.0V	1Mhz	PDIP(8),SOIC(8)	Prod	Industry Standard
2K	128x16	IS93C56-3	2.7V-6.0V	1Mhz	PDIP(8),SOIC(8)	Prod	Industry Standard
4K	256x16	IS93C66-3	2.7V-6.0V	1Mhz	PDIP(8),SOIC(8)	Prod	Industry Standard
<b>2.5V - 5.5V Two-Wire Serial EEPROM</b>							
1K	128x8	IS24C01-3	2.5V-5.5V	(100Khz - 1Mhz)	PDIP(8),SOIC(8)	S = NOW	Industry Standard
2K	256x8	IS24C02-3	2.5V-5.5V	100Khz - 1Mhz	PDIP(8),SOIC(8),TSSOP(8),MSOP(8)	S = Q2/00	Industry Standard

**NON-VOLATILE (Cont)**

Den	Org	P/N	Vcc	Speed Hz	Packages (#Pins)	Status	Comment
8K	1024x8	IS24C08-3	2.5V-5.5V	100Khz - 1Mhz	PDIP(8),SOIC(8)	Prod	Industry Standard
16K	2Kx8	IS24C16-3	2.5V-5.5V	100Khz - 1Mhz	PDIP(8),SOIC(8)	Prod	Industry Standard
32K	4Kx8	IS24C32-3	2.5V-5.5V	100Khz - 1Mhz	PDIP(8),SOIC(8)	S = NOW	Industry Standard
64K	8Kx8	IS24C64-3	2.5V-5.5V	100Khz - 1Mhz	PDIP(8),SOIC(8)	S = NOW	Industry Standard

**1.8V - 5.5V Two-Wire Serial EEPROM**

1K	128x8	IS24C01-2	1.8V-5.5V	100Khz - 1Mhz	PDIP(8),SOIC(8)	S = Q2/00	Industry Standard
2K	256x8	IS24C02-2	1.8V-5.5V	100Khz - 1Mhz	PDIP(8),SOIC(8),TSSOP(8),MSOP(8)	S = Q2/00	Industry Standard
8K	1024x8	IS24C08-2	1.8V-5.5V	100Khz - 1Mhz	PDIP(8),SOIC(8)	Prod	Industry Standard
16K	2Kx8	IS24C16-2	1.8V-5.5V	100Khz - 1Mhz	PDIP(8),SOIC(8)	Prod	Industry Standard
32K	4Kx8	IS24C32-2	1.8V-5.5V	100Khz - 1Mhz	PDIP(8),SOIC(8)	S = NOW	Industry Standard
64K	8Kx8	IS24C64-2	1.8V-5.5V	100Khz - 1Mhz	PDIP(8),SOIC(8)	S = NOW	Industry Standard

**4.5V - 5.5V Secure Serial EEPROM**

8K	1Kx8	IS23SC4428	4.5V-5.5V	20Khz	Die, Wafer, Module	Prod	Siemens Compatible
16K	2Kx8	IS23SC1604	4.5V-5.5V	300Khz	Die, Wafer, Module	Prod	Atmel Compatible

**1.8V - 5.5V SPI (Serial Peripheral Interface) EEPROM**

32K	4Kx8	IS25C32	1.8V-5.5V	2.1Mhz	PDIP(8),SOIC(8)	TBD	Industry Standard
64K	8Kx8	IS25C64	1.8V-5.5V	2.1Mhz	PDIP(8),SOIC(8),TSSOP(8),MSOP(8)	S = Q2/00	Industry Standard

**EPROM & PARALLEL FLASH PRODUCTS**

CONTACT ISSI AT 1-800-379-4774 FOR INFORMATION

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**DYNAMIC RAM**

Den	Org	Type	P/N	Vcc	Refsh	Ras ns	Packages (#Pins)	Status	Comment
<b>5V EDO and Fast Page Mode DRAM</b>									
2M	128Kx16	EDO	IS41C16128	5V	128	35,60	SOJ(40),TSOP2(40/44)	Prod	LVTTTL
4M	256Kx16	EDO	IS41C16256	5V	128	35,60	SOJ(40),TSOP2(40/44)	Prod	LVTTTL
	256Kx16	FP	IS41C16257	5V	128	35,60	SOJ(40),TSOP2(40/44)	Prod	LVTTTL
16M	4Mx4	EDO	IS41C44002	5V	2K	50,60	SOJ(24/26),TSOP2(24/26)	Prod	LVTTTL
	4Mx4	EDO	IS41C44004	5V	4K	50,60	SOJ(24/26),TSOP2(24/26)	Prod	LVTTTL
	4Mx4	FP	IS41C44052	5V	2K	50,60	SOJ(24/26),TSOP2(24/26)	Prod	LVTTTL
	4Mx4	FP	IS41C44054	5V	4K	50,60	SOJ(24/26),TSOP2(24/26)	Prod	LVTTTL
	1Mx16	EDO	IS41C16100	5V	1K	50,60	SOJ(42),TSOP2(44/50)	Prod	LVTTTL
	1Mx16	FP	IS41C16105	5V	1K	50,60	SOJ(42),TSOP2(44/50)	Prod	LVTTTL

**3.3V & 2.5V EDO and Fast Page Mode DRAM**

4M	256Kx16	EDO	IS41LV16256	3.3V	128	35,60	SOJ(40),TSOP2(40/44)	Prod	LVTTTL
	256Kx16	FP	IS41LV16257	3.3V	128	35,60	SOJ(40),TSOP2(40/44)	Prod	LVTTTL
8M	256Kx32	EDO	IS41LV32256	3.3V	128	30,35	PQFP(100),TQFP(100)	Prod	LVTTTL

### DYNAMIC RAM (Cont)

Den	Org	Type	P/N	Vcc	Refsh	Ras ns	Packages (#Pins)	Status	Comment
16M	4Mx4	EDO	IS41LV44002	3.3V	2K	50,60	SOJ(24/26), TSOP2(24/26)	Prod	LVTTTL
	4Mx4	EDO	IS41LV44004	3.3V	4K	50,60	SOJ(24/26), TSOP2(24/26)	Prod	LVTTTL
	4Mx4	FP	IS41LV44052	3.3V	2K	50,60	SOJ(24/26), TSOP2(24/26)	Prod	LVTTTL
	4Mx4	FP	IS41LV44054	3.3V	4K	50,60	SOJ(24/26), TSOP2(24/26)	Prod	LVTTTL
	1Mx16	EDO	IS41LV16100	3.3V	1K	50,60	SOJ(42), TSOP2(44/50)	Prod	LVTTTL
	1Mx16	FP	IS41LV16105	3.3V	1K	50,60	SOJ(42), TSOP2(44/50)	Prod	LVTTTL
64M	4Mx16	EDO	IS41LV16400	3.3V	4K	50,60	TSOP2(50)	Prod	LVTTTL

### 3.3V SDR (Single Data Rate) Synchronous DRAM

4M	256Kx16	SD	IS42S16128	3.3V	2K	125,100	TSOP2(50)	Prod	LVTTTL
16M	1Mx16	SD	IS42S16100	3.3V	4K	166,143,125,100	TSOP2(50)	Prod	LVTTTL
64M	4Mx16	SD	IS42S16400	3.3V	4K	166,143,125,100	TSOP2(54)	S = Q3/00	LVTTTL
	2Mx32	SD	IS42S32200	3.3V	4K	200,166,143,125	TSOP2(86)	S = Q3/00	LVTTTL

### 3.3V Synchronous Graphics DRAM

16M	512Kx32	SG	IS42G32256	3.3V	2K	125	PQFP(100)	Prod	LVTTTL
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- Notes**
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### 8-BIT MICROCONTROLLERS

Memory	Size	P/N	Vcc	Speed MHz	Packages (#Pins)	Status	Comment
RAM/ROM	128/NA	IS80C31	5V	12, 24, 40	PDIP(40), PLCC(44), PQFP(44)	Prod	
	128/NA	IS80LV31	3.3V	12, 24, 40	PDIP(40), PLCC(44), PQFP(44)	Prod	
	256B/NA	IS80C32	5V	40	PDIP(40), PLCC(44), PQFP(44)	Prod	
	256B/NA	IS80LV32	3.3V	24	PDIP(40), PLCC(44), PQFP(44)	Prod	
	128B/4KB	IS80C51	5V	12, 24, 40	PDIP(40), PLCC(44), PQFP(44)	Prod	
	128B/4KB	IS80LV51	3.3V	12, 24, 40	PDIP(40), PLCC(44), PQFP(44)	Prod	
	256B/8KB	IS80C52	5V	40	PDIP(40), PLCC(44), PQFP(44)	Prod	
	256B/8KB	IS80LV52	3.3V	24	PDIP(40), PLCC(44), PQFP(44)	Prod	
	256B/16KB	IS80C54	5V	40	PDIP(40), PLCC(44)	Prod	
	256B/16KB	IS80LV54	3.3V	24	PDIP(40), PLCC(44)	Q2/00	
	256B/32KB	IS80C58	5V	40	PDIP(40), PLCC(44)	Prod	
	256B/32KB	IS80LV58	3.3V	24	PDIP(40), PLCC(44)	Q2/00	
	RAM/Flash	256B/8KB	IS89C52A	5V	40	PDIP(40), PLCC(44)	Prod
256B/8KB		IS89LV52A	3.3V	24	PDIP(40), PLCC(44)	Q1/00	
256B/8KB		IS89C52	5V	24, 40	PLCC(44)	Prod	
256B/16KB		89C54A	5V	40	PDIP(40), PLCC(44)	Q2/00	
256B/32KB		89C58A	5V	40	PDIP(40), PLCC(44)	Q2/00	
256B/64KB		89C64A	5V	40	PDIP(40), PLCC(44)	Q2/00	

- Notes**
1. ( ) = Product speed under development; call 1-800-379-4774 or email for availability
  2. S = Sample
  3. Prod = Production

**VOICE PRODUCTS**

Memory	Capacity	P/N	Vcc	S = rate	Packages (#Pins)	Status	Comment
OTP	10 Sec.	IS22C011	2.4V-6.0V	5KHz to 22KHz	PDIP(16), Die	Prod	Sound Synthesis
	10 Sec.	IS22C012	2.4V-6.0V	5KHz to 22KHz	PDIP(16), Die	Prod	Enhanced
	20 Sec.	IS22C020	2.4V-6.0V	5KHz to 22KHz	PDIP(16), Die	Prod	Sound Synthesis
	20 Sec	IS22C022	2.4V-6.0V	5KHz to 22KHz	PDIP(16), Die	Prod	Enhanced
	40 Sec	IS22C040	3.0V-6.0V	5KHz to 22KHz	PDIP(20), Die	Prod	Sound Synthesis
	40 Sec	IS22C042	3.0V-6.0V	5KHz to 22KHz	PDIP(20)	Q3/00	Enhanced
	60 Sec	IS22C100	3.0V-6.0V	5KHz to 22KHz	PDIP(20)	Q4/00	MCU embedded

### ORDERING INFORMATION

The diagram illustrates the structure of a part number: **IS XX XX XXXX - XX X X**. Brackets connect each segment to its corresponding label: 'IS' is the ISSI Prefix; 'XX XX' is the Product Family; 'XXXX' is the Product Subfamily; 'XX' is the Temperature Range; 'X' is the Package Type; 'X' is the Speed Grade; and the entire string is the Part Number.

**Product Family**

- 22 = Voice ROM
- 23 = Secure Serial EEPROM
- 24 = Serial EEPROM
- 93 = Serial EEPROM
- 4X = DRAM
- 6X = SRAM
- 8X = μCONTROLLER

**Package Type**

- B = PBGA or mBGA
- G = JEDEC SOIC (EE)
- GR = JEDEC SOIC (Rotated)
- H = STSOP
- J = 300-mil Plastic SOJ
- K = 400-mil Plastic SOJ
- LQ = LQFP
- P = 300-mil Plastic DIP (8-pin)
- PL = PLCC
- PQ = PQFP
- Q = 450-mil SOP
- S = 300-mil SOP
- T = TSOP
- TQ = TQFP
- U = 330-mil Plastic SOP
- X = Unpackaged Dice
- Z = TSSOP

**Temperature Range**

- Blank = Commercial (0°C to +70°C)
- I = Industrial (-40°C to +85°C)
- E = Extended (-30°C to +85°C)

**ISSI SALES OFFICES**

**Headquarters**  
**Santa Clara, CA**  
 800-379-4774 Tel.  
 408-588-0805 Fax

**West Coast Office**  
**Santa Clara, CA**  
 408-588-0800 Tel.  
 408-588-0805 Fax

**East Coast Office**  
**Nashua, NH**  
 603-594-4176 Tel.  
 603-594-4181 Fax

**Central Office**  
**Dallas, TX**  
 972-488-9691 Tel.  
 972-488-9690 Fax

**Europe Office**  
 44-1803--840-110 Tel.  
 44-1803-840-603 Fax

**Taiwan Office**  
 88622-696-2140 Tel.  
 88622-696-2252 Fax

**Japan Office**  
 813-3255-5351 Tel.  
 813-3255-5354 Fax

**Korea Office**  
 82-2-566-8124 Tel.  
 82-2-566-8467 Fax

**China Office**  
**Hong Kong**  
 852-2319-2212 Tel.  
 852-2319-2004 Fax

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 86512-725-0384 Tel.  
 86512-725-0536 Fax

**China Office**  
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 8621-6317-5389 Tel.  
 8621-6317-5383 Fax

**China Office**  
**Shenzhen**  
 86755-663-3977 Tel.  
 86755-663-3984 Fax

**China Office**  
**Beijing**  
 8610-6824-3301 Tel.  
 8610-6816-9097 Fax

**For up-to-date versions of product specifications and the latest new product announcements, refer to our web site: [www.issi.com](http://www.issi.com)**