

## ISSI Product News

### SRAM – DRAM – MCP

#### LIKESRAM (Pseudo SRAMs)

In Q4, 2003, 4M and 8M LIKESRAM samples will be available. Our 4Meg and 8Meg LIKESRAMs are 100% compatible with the existing low power SRAMs. Compatibility is from pin out and functionality perspectives. These are drop in replacements at a better-cost structure. Please find the desired product on the table below.

Den	Org	Part Number	Vcc	Speeds(ns)	Packages	Status	Comments
4M	256Kx16	IS32WV25616ALL/BLL	1.65V-3.6V	55,70,85,100	mBGA(48),TSOP2(44)	S=Q4/03	2CS Option Available
	512Kx8	IS32WV5128ALL/BLL	1.65V-3.6V	55,70,85,100	mBGA(36)	S=Q4/03	2CS Option Available
8M	512Kx16	IS32WV51216ALL/BLL	1.65V-3.6V	55,70,85,100	mBGA(48),TSOP2(44)	S=Q4/03	
	1Mx8	IS32WV10248ALL/BLL	1.65V-3.6V	55,70,85,100	mBGA(48),TSOP2(44)	S=Q4/03	

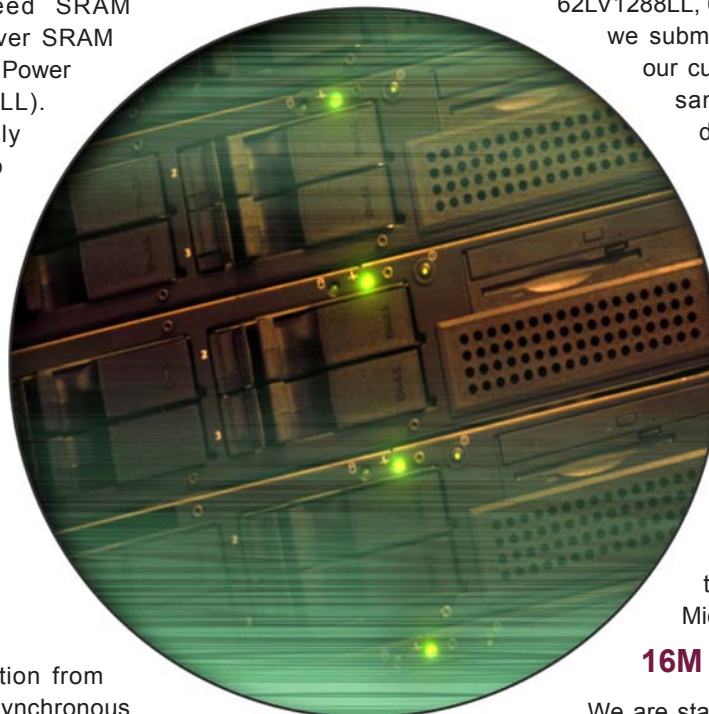
#### 8Meg Asynchronous SRAM Solution From ISSI

ISSI is the only company that has pin out compatible 8Meg High Speed SRAM (61LV51216), 8Meg Power Saver SRAM (62WV51216BLL) and 8Meg Low Power Pseudo SRAM (32WV51216BLL).

One of our customers recently qualified the 8M HS to demonstrate the speed of operation of the board, then migrated to 8M Low Power to improve the power and is waiting for samples of the 8M Pseudo SRAM to improve the cost on the board.

#### 1Meg to 8Meg Migration Path on High Speed x16 Asynchronous SRAMs

ISSI offers a seamless migration from 1Meg to 8Meg High Speed Asynchronous SRAMs in a 44-pin TSOP and 48-pin BGA package (with the exception of address pins needed for higher density). Please make sure we point this out to our customers.



#### IS62WV1288BLL

The latest 1M low power, power-saver SRAM. It replaces the old 128Kx8 products (62LV1024LL, 62LV1288LL, 62LV1288BLL). Please make sure we submitted samples of the latest die to our customers. If you already provided samples, please follow up and get design wins. Also, we are now offering the x16 option of the 1M, IS62WV6416BLL.

#### Design Wins:

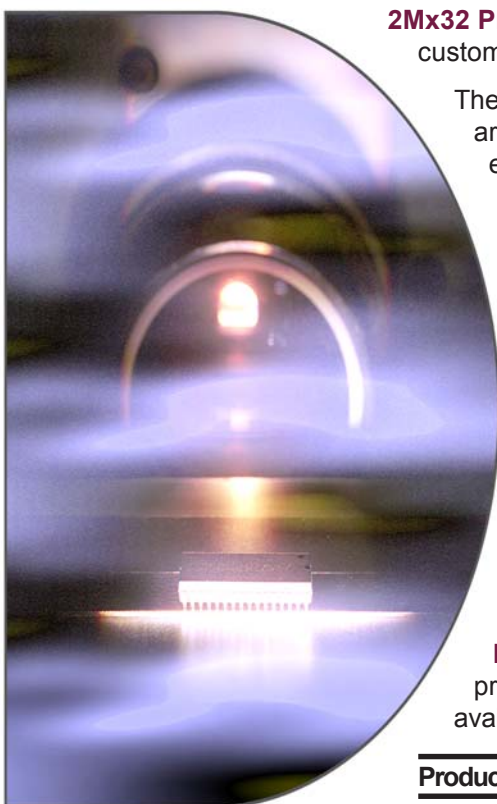
We are seeing continued success on the 61LV51216 and 61LV10248, 8M High Speed SRAMs.

After Micron's exit of SRAMs, Sample activity and design-in activity on the 4M, 8M and 16M Synchronous SRAMs has increased. Do not miss out on this golden opportunity of replacing Micron.

#### 16M Synchronous

We are starting to ship samples of our latest 16M Synchronous SRAMs. Options for the 512Kx32, 512Kx36, and 1Mx18 include both Standard Synchronous and No Wait State (ZBT) Synchronous SRAMs. The new devices operate as fast as 250 MHz and feature Vcc=3.3V and Vccq (I/O) = 2.5V/3.3V and are offered in BGA and TQFP packages.

## DRAM Update:



**2Mx32 Product Update** – ISSI is pleased to announce that we are now sampling for our customer base our newest 2Mx32, 64M SDRAM, the IS42S32200B.

The IS42S32200B uses 0.165 technology and commercial and industrial temperatures are available. ISSI supports production quantity orders for our customer base at the end of Q303 on this new device.

Product	Config	Part No.	Speeds	Sample	Production
64M	2Mx32	IS42S32200B	6ns, 7ns, 10ns	Now	Q3 '03

**Pseudo SRAM Product Update** – ISSI is excited about the release of our first Pseudo SRAM product offering. The new Pseudo SRAMs are available in both 16M / 32M densities and are sampling now. These new Pseudo SRAMs use 0.175 technology and commercial and industrial temperatures are available. See details below.

Product	Config	Part No.	Speeds	Vcc	Sample	Production
16M	1Mx16	IS32WW16100B	70ns	2.2v-3.6v	Now	Q4 '03
32M	2Mx16	IS32WW16200B	70ns	2.2v-3.6v	Now	Q4 '03

**Lead-Free DRAM Product Update** – We have received and shipped our first production order for lead-free SDRAM. The following lead-free devices are currently available for sampling

Product	Config	Part No.	Sample	Production
16M SDRAM	1Mx16	IS42S16100A1-7TL	Now	8-10 weeks ARO
64M SDRAM	4Mx16	IS42S16400A-7TL	Now	8-10 weeks ARO

We will also offer a lead-free option for other SDRAM's such as IS42S32200B, IS42S16800A, IS42S32400A, etc. More updates will be posted to the field for sample and production schedules. Please contact Tactical Marketing for your lead-free demand.

**128M SDRAM Product Update** – ISSI will be introducing our new 0.14um technology 128M SDRAM the second half of 2003. Please see chart below:

Product	Config	Part No.	Speeds	Package	Sample	Production
128M SDRAM	8Mx16	IS42S16800A	7,10ns	TSOPII	Aug. '03	CYQ403
128M SDRAM	4Mx32	IS42S32400A	7,10ns	TSOPII	CYQ4'03	CYQ1'04
128M SDRAM	16Mx8	IS42S81600A	7,10ns	TSOPII	CYQ4'03	CYQ1'04
128M LP SDRAM	8Mx16	IS42S16800AL	7,10ns	FGBA	CYQ4'03	CYQ1'04
128M LP SDRAM	4Mx32	IS42S32400AL	7,10ns	FGBA	CYQ4'03	CYQ1'04



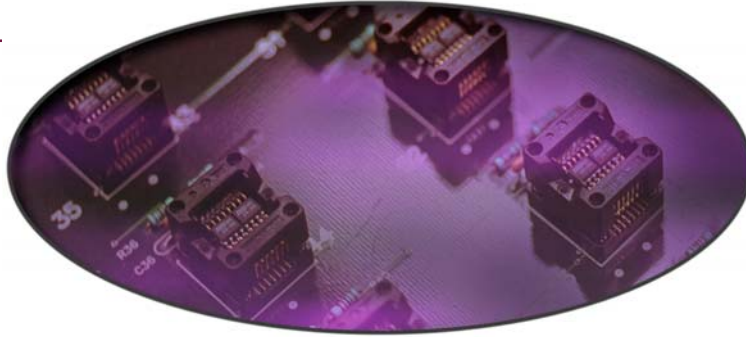
## MCP Update:

### Flash+SRAM/PSRAM

The multi-chip package is rapidly growing in popularity due to its small form factor and the increasing memory needs of applications. The board space-saving package contains both nonvolatile and asynchronous SRAM memories, economically sharing many of the balls in a “doughnut” BGA. Although MCPs are very important in multimedia - intensive products, like cell phones and GPS handsets, there’s interest for many other designs including POS scanners, modem cards, industrial controls, and other light weight uses. Please identify and develop opportunities with customers in your area for whom ISSI MCPs might be suitable.

Part No	Flash Density	Bank Split	Org	Boot Block	SRAM Density	Org	Ball Count
IS71V16F32GSB04	32	User-Configurable	x8/x16	Bottom	4	x16	56
IS71V16F32GST04	32	User-Configurable	x8/x16	Top	4	x16	56
IS71V08F32GSB08	32	User-Configurable	x8/x16	Bottom	8	x8	73
IS71V08F32GST08	32	User-Configurable	x8/x16	Top	8	x8	73
IS71V16F32GSB08	32	User-Configurable	x8/x16	Bottom	8	x16	73
IS71V16F32GST08	32	User-Configurable	x8/x16	Top	8	x16	73
IS71V08F32ESB08	32	8/24	x8/x16	Bottom	8	x8	73
IS71V08F32EST08	32	8/24	x8/x16	Top	8	x8	73
IS71V16F32ESB08	32	8/24	x8/x16	Bottom	8	x16	73
IS71V16F32EST08	32	8/24	x8/x16	Top	8	x16	73
IS71V08F64GS08	64	User-Configurable	x8/x16	U	8	x8	73
IS71V16F64GS08	64	User-Configurable	x8/x16	U	8	x16	73
IS75V16F64GS16	64	User-Configurable	x16	U	16	x16	65
IS75V16F64GS32	64	User-Configurable	x16	U	32	x16	65
IS75V16F128GS32	128	User-Configurable	x16	U	32	x16	107

Note: See web site and data sheets for complete part numbers and ordering information.



## **EEPROM Update:**

### **Serial EEPROM**

One of the most widely used serial nonvolatile devices is the 2Kbit 2-wire serial EEPROM. This kind of memory is found throughout telecom, computer, consumer, and industrial applications. ISSI's pin-compatible offering is IS24C02. The most popular usage for the IS24C02 among ISSI customers is DVD players, modems, LAN cards, DRAM DIMMs, and TVs. IS24C02 and IS24C01 (1Kb version) are available in different options to satisfy the requirements of most customers. Please introduce these products to appropriate candidates. ISSI offers competitive pricing.

<b>Part No</b>	<b>Package</b>	<b>Voltage</b>	<b>Temperature Grade</b>
IS24C02-3G	SOIC	2.5V-5.5V	Commercial
IS24C02-3GI	SOIC	2.5V-5.5V	Industrial
IS24C02-2G	SOIC	1.8V-5.5V	Commercial
IS24C02-2GI	SOIC	1.8V-5.5V	Industrial
IS24C02-3P	DIP	2.5V-5.5V	Commercial
IS24C02-3PI	DIP	2.5V-5.5V	Industrial
IS24C02-2P	DIP	1.8V-5.5V	Commercial
IS24C02-2PI	DIP	1.8V-5.5V	Industrial
IS24C02-3Z	TSSOP	2.5V-5.5V	Commercial
IS24C02-3ZI	TSSOP	2.5V-5.5V	Industrial
IS24C02-2Z	TSSOP	1.8V-5.5V	Commercial
IS24C02-2ZI	TSSOP	1.8V-5.5V	Industrial
IS24C02-3S	MSOP	2.5V-5.5V	Commercial
IS24C02-3SI	MSOP	2.5V-5.5V	Industrial
IS24C02-2S	MSOP	1.8V-5.5V	Commercial
IS24C02-2SI	MSOP	1.8V-5.5V	Industrial