



## SoC variety spices up NextGen solutions

Systems-on-Chip (SoCs) come in many flavors. They range from general purpose processing cores to very application specific devices. In fact, the terms *Application Specific Standard Product (ASSP)*, *Application Specific Custom Product (ASCP)*, and *Customer Specific Standard Product (CSSP)* are often used in many product descriptions.

Several IP developers are designing complementary IP that can be integrated alongside the processing core of your choice. A substantial industry has emerged for cores and other licensable technology to be combined into an SoC for unique consumer products. Companies that focus exclusively on design are prevalent.

The demand for SoC technology appears very strong, considering all the devices that now use SoCs. IP innovation continues to provide a solid base for SoC designers to choose from when creating their next-generation solutions.

This table provides a summary of the many SoC suppliers in the market today. It is by no means comprehensive. Suppliers that may have been omitted are encouraged to contact me at [jgipper@opensystems-publishing.com](mailto:jgipper@opensystems-publishing.com) for inclusion in our online roundup.

– Jerry Gipper

Company	Website	Product type
5V Technologies Ltd.	<a href="http://www.5vtechnologies.com">www.5vtechnologies.com</a>	Broadband communications
Abilis Systems	<a href="http://www.abiliss.com">www.abiliss.com</a>	Adaptive TV receiver chips for mobile consumer terminals
Actel Corporation	<a href="http://www.actel.com">www.actel.com</a>	Processor cores for programmable logic
Actions Semiconductor	<a href="http://www.actions.com.cn">www.actions.com.cn</a>	Multimedia
Adimos	<a href="http://www.adimos.com">www.adimos.com</a>	Wireless multimedia
Alereon, Inc.	<a href="http://www.alereon.com">www.alereon.com</a>	Ultra Wideband (UWB)
Alpha Imaging Technology Corp.	<a href="http://www.a-i-t.com.tw">www.a-i-t.com.tw</a>	Mobile multimedia
AMD	<a href="http://www.amd.com">www.amd.com</a>	Embedded digital devices and DTV
AMLOGIC	<a href="http://www.amlogic.com">www.amlogic.com</a>	Audio and video decoding
Analog Devices Inc.	<a href="http://www.analog.com">www.analog.com</a>	Embedded processing and DSPs
Applied Micro Circuits Corporation (AMCC)	<a href="http://www.amcc.com">www.amcc.com</a>	Embedded digital devices
ARC International	<a href="http://www.arc.com">www.arc.com</a>	Core IP licensing
ARM	<a href="http://www.arm.com">www.arm.com</a>	Core IP licensing
Atheros Communications	<a href="http://www.atheros.com">www.atheros.com</a>	Wireless and network communications
Atmel Corporation	<a href="http://www.atmel.com">www.atmel.com</a>	Application Specific Standard Products (ASSP)
Axis Communications	<a href="http://www.axis.com">www.axis.com</a>	Network cameras
Boston Circuits, Inc.	<a href="http://www.bostoncircuits.com">www.bostoncircuits.com</a>	Multicore processors for home and business multimedia devices
Broadcom Corporation	<a href="http://www.broadcom.com">www.broadcom.com</a>	Wired and wireless communications
Broadlight	<a href="http://www.broadlight.com">www.broadlight.com</a>	Broadband Passive Optical Network (BPON) and Gigabit PON (GPON)
Cambridge Silicon Radio	<a href="http://www.csr.com">www.csr.com</a>	Wireless Personal Area Network (PAN) and LAN solutions
Cavium Networks	<a href="http://www.caviumnetworks.com">www.caviumnetworks.com</a>	Intelligent processing in networking, communications, storage, and security
CEC Huada Electronic Design Co., Ltd. (HEC)	<a href="http://www.hed.com.cn">www.hed.com.cn</a>	Set-top boxes and smart cards
Celestial Semiconductor, Inc.	<a href="http://www.celestialsemi.cn">www.celestialsemi.cn</a>	DTV and IPTV
Centillium Communications	<a href="http://www.centillium.com">www.centillium.com</a>	Broadband access and VoIP
Chipnuts Technology Inc.	<a href="http://www.chipnuts.com">www.chipnuts.com</a>	Mobile multimedia
Chips & Media Inc.	<a href="http://www.chipsnmedia.com">www.chipsnmedia.com</a>	IP licensing and DTV/HDTV
ChipX, Inc.	<a href="http://www.chipx.com">www.chipx.com</a>	Programmable logic
Cirrus Logic Inc.	<a href="http://www.cirrus.com">www.cirrus.com</a>	Embedded processing and analog/mixed-signal ICs
Conexant Systems, Inc.	<a href="http://www.conexant.com">www.conexant.com</a>	Broadband communications for the digital home
Crystal Media Inc.	<a href="http://crystalmedia.com.tw">http://crystalmedia.com.tw</a>	VoIP
Cypress Semiconductor Corp.	<a href="http://www.cypress.com">www.cypress.com</a>	Mixed-signal arrays
DSP Group, Inc.	<a href="http://www.dspg.com">www.dspg.com</a>	Portable multimedia, short-range communication, and VoIP
e2v	<a href="http://www.e2v.com">www.e2v.com</a>	High reliability
Entropic Communications, Inc.	<a href="http://www.entropic-communications.com">www.entropic-communications.com</a>	Home networking
ESS Technology, Inc.	<a href="http://www.esstech.com">www.esstech.com</a>	Networked media
Fangtek, Inc.	<a href="http://www.fangtek.com">www.fangtek.com</a>	Data communication, wireless, voice processing, audio processing, image processing, and games
Faraday Technology Corporation	<a href="http://www.faraday-tech.com">www.faraday-tech.com</a>	IP licensing and ASICs
Focus Enhancements Semiconductor Group	<a href="http://www.focusesemi.com">www.focusesemi.com</a>	TV-out video encoders, video scan converters, and Ultra Wideband (UWB) wireless chips
Freescale Semiconductor	<a href="http://www.freescale.com">www.freescale.com</a>	Embedded digital devices
Frontier Silicon	<a href="http://www.frontier-silicon.com">www.frontier-silicon.com</a>	Digital broadcast
Fujitsu Microelectronics	<a href="http://www.fujitsu.com">www.fujitsu.com</a>	Embedded digital devices
GCT Semiconductor, Inc.	<a href="http://www.gctsemi.com">www.gctsemi.com</a>	Wireless communications
Genesis Microchip	<a href="http://www.genesis-microchip.com">www.genesis-microchip.com</a>	Display control
IBM	<a href="http://www.ibm.com">www.ibm.com</a>	Embedded digital devices
Ikanos Communications Inc.	<a href="http://www.ikanos.com">www.ikanos.com</a>	Interactive broadband
Imagination Technologies	<a href="http://www.imgtec.com">www.imgtec.com</a>	IP licensing, multimedia, and communication
Imsys Technologies	<a href="http://www.imsystech.com">www.imsystech.com</a>	Communications
Infineon Technologies	<a href="http://www.infineon.com">www.infineon.com</a>	Network processing, VoIP, home networking
Integrated Device Technology, Inc.	<a href="http://www.idt.com">www.idt.com</a>	Communications and digital media
Intel Corporation	<a href="http://www.intel.com">www.intel.com</a>	Embedded digital devices

Company	Website	Product type
ITE Tech. Inc.	www.ite.com.tw	PC chipsets
Jennic Ltd.	www.jennic.com	Wireless sensor networks
Key ASIC, Inc.	www.keyasic.com	Embedded digital devices
Kolorific	www.kolorific.com	Video processing
LSI Corporation	www.lsi.com	Embedded digital devices, ATM processing, and set-top boxes
Luminary Micro, Inc.	www.luminarymicro.com	Mixed-signal microcontrollers
Magnum Semiconductor, Inc.	www.magnumsemi.com	Consumer entertainment
Marvell Semiconductor, Inc.	www.marvell.com	Storage, communications, and consumer devices
MediaTek Inc.	www.mtk.com.tw	Wireless communications and digital media
MegaChips Corporation LSI Business	www.lsi.megachips.co.jp	Application Specific Standard Products (ASSP)
Micronas	www.micronas.com	Consumer electronics and PCs
Mindspeed Technologies, Inc.	www.mindspeed.com	Communications
MIPS Technologies, Inc.	www.mips.com	Core IP licensing
Mobileye	www.mobileye.com	Vision systems for intelligent transportation systems
Mobilygen	www.mobilygen.com	Multimedia
NEC Electronics Corporation	www.necel.com	Embedded digital devices
NeoMagic Corporation	www.neomagic.com	Mobile multimedia
NuCORE Technology, Inc.	www.nucoretech.com	Digital and analog imaging
NVIDIA Corporation	www.nvidia.com	Graphics and video
NXP Semiconductors	www.nxp.com	Embedded digital devices
Oki Semiconductor	www.okisemi.com	Application Specific Standard Products (ASSP) and Application Specific Custom Products (ASCP)
Opulan Technologies Corporation	www.opulan.com	xDSL, IPTV, 3G infrastructure, Carrier Ethernet, NGN, and FTTx access
P.A. Semi, Inc.	www.pasemi.com	Embedded digital devices
picoChip Designs Limited	www.picochip.com	Signal processing
Pixelworks, Inc.	www.pixelworks.com	Display control
PMC-Sierra, Inc.	www.pmc-sierra.com	Broadband communications and storage
Quartics, Inc.	www.quartics.com	Wireless communication
QuickLogic Corporation	www.quicklogic.com	Customer Specific Standard Product (CSSP)
Raza Microelectronics, Inc.	www.razamicroelectronics.com	Information infrastructure
Realtek Semiconductor Corp.	www.realtek.com.tw	Consumer electronics and PCs
Renesas Technology Corp.	www.renesas.com	Embedded digital devices
Samsung Semiconductor, Inc.	www.samsung.com	Embedded digital devices
Sandbridge Technologies Inc.	www.sandbridgetech.com	Wireless devices
SEQUANS Communications	www.sequans.com	Fixed and mobile WiMAX
Shanghai Jade Technologies Co., Ltd.	www.jadechip.com	Multimedia
Sharp Microelectronics	www.sharpsma.com	Embedded digital devices
Siano Mobile Silicon	www.siano-ms.com	Mobile Digital TV (MDTV)
Sigma Designs, Inc.	www.sigmadesigns.com	DTV and Ultra Wideband (UWB) communications
SigmaTel, Inc.	www.sigmatel.com	Multimedia
Silicon Motion Technology Corp.	www.siliconmotion.com	Multimedia and flash memory
SiRF Technology, Inc.	www.sirf.com	Portable location awareness
SMSC	www.smsc.com	Connectivity, networking, and embedded control
Spreadtrum Communications, Inc.	www.spreadtrum.com	Baseband processing
Staccato Communications, Inc.	www.staccatocommunications.com	WiMedia Ultra Wideband (UWB)
STMicroelectronics	www.st.com	Embedded digital devices
Stretch Inc.	www.stretchinc.com	High-speed video and image processing
Sunplus Technology Co., Ltd.	www.sunplus.com	Video processing
Taifatech Inc.	www.taifatech.com	Networking and video
Telegent Systems, Inc.	www.telegentsystems.com	Mobile TV receivers
Tensilica, Inc.	www.tensilica.com	Core IP licensing
Teridian Semiconductor Corp.	www.teridian.com	Analog and mixed signal
Texas Instruments Inc.	www.ti.com	Embedded digital devices
Toshiba Corporation	www.toshiba.com	Embedded digital devices
Transmeta Corporation	www.transmeta.com	Core IP licensing
TranSwitch Corporation	www.transwitch.com	SONET/SDH, ATM, and broadband
Tzero Technologies	www.tzerotech.com	Ultra Wideband (UWB)
VIA Technologies, Inc.	www.via.com.tw	Embedded digital devices
ViXS Systems, Inc.	www.vixs.com	Video processing
Wavecom	www.wavecom.com	Wireless communications
Winbond Electronics Corporation	www.winbond.com	Consumer electronics and PCs
Wintegra	www.wintegra.com	Network and packet processing
XGI Technology, Inc.	www.xgitech.com	Visual computing
Zarlink Semiconductor Inc.	www.zarlink.com	Communications
Zilog, Inc.	www.zilog.com	Embedded digital devices
Zoran Corporation	www.zoran.com	Embedded digital devices