



THE BEST 100 PRODUCTS OF 2003 encompass a range of architectures and technologies and a plethora of categories—from analog ICs to multimedia to test-and-measurement tools. All are innovative, but, of the thousands that manufacturers announce each year and the hundreds that *EDN* reports about, only about 100 hot products really make our readers sit up and take notice. Here are the picks from this year's crop.

We present the basic info here. To get the whole scoop and find out why these products are so compelling, go to the Web version of this article on our Web site at www.edn.com. There, you'll find links to the full text of the articles that cover these products' dazzling features.

Analog ICs

Analog Devices

AD8348 quadrature demodulator
www.analog.com

BitBlitz

BBTX400 quad transceiver for 10-Gbps Ethernet and Fibre Channel
www.bitblitz.com

Intersil

EL9110 video receiver/equalizer
www.intersil.com

Linear Technology

LT1568 dual matched filter
www.linear.com

Mindspeed

M210xx family clock- and data-recovery ICs
www.mindspeed.com

National Semiconductor

LMV1012 and LMV1014 electret amplifiers
www.national.com

Texas Instruments

TPS2383 PSE controller
www.ti.com

Wolfson Microelectronics

WM9712L audio-codec and touchscreen interface
www.wolfsonmicroelectronics.com

Communications

Atheros

AR5004X 802.11 wireless-LAN IC with 802.11 a/b/g support
www.atheros.com

Broadcom

AirForce One single-chip 802.11b implementation for handheld devices
www.broadcom.com

Cambridge Silicon Radio

BlueCore 3 Bluetooth 1.2 chip set
www.csr.com

IceFyre

SureFyre and TwinFyre wireless-LAN ICs with 802.11a and a/b/g support
www.icefyre.com



IDT
72T6480 and 72T6360
sequential flow-control ICs
www.idt.com

Lantronix
DSTni-Xport embedded-
Internet Web module
www.lantronix.com

Motorola
MPC885/MPC8272 PowerQUICC
communication-controller ICs with
integrated data-security features
www.motorola.com/sps

Texas Instruments
AC7 16-port ADSL chip set
for the central office
www.ti.com/dsl

Texas Instruments
TNETW1130 multimode, multi-
band 802.11a/b/d chip set
www.ti.com

Toshiba
TC-35654 Bluetooth IC
www.toshiba.com

Components

Agilent Technologies
HCPL-7510 and HCPL-7520
linear optocoupler
www.agilent.com

Fairchild Semiconductor Corp
QSB34 IR photosensor
www.fairchildsemi.com

JW Miller
HT power inductors
www.jwmiller.com

LEDtronics Inc
L200 series
www.ledtronics.com

Murata Electronics
MA200D1 220-kHz
ultrasonic sensor
www.murata.com

Sarantel
Helix antenna
www.sarantel.com

**Texas Advanced
Optoelectronic Solutions**
TCS230 RGB color sensor
www.taosinc.com

Tyco Electronics
MMCX micro RF connector
www.tycoelectronics.com

Vishay Intertechnology
CSM2512 and CSM3637
current-sensing resistor
www.vishay.com

Computers, boards, and buses

General Micro Systems
C269 Equinox CompactPCI
CPU board
www.gms4sbc.com

Kontron America
CP306 3U CompactPCI
CPU module
www.kontron.com

MaxStream
9XCite 900-MHz wireless
OEM module
www.maxstream.com

Micro/sys
Thunderbolt GC SBC 1586
PC/104 CPU module
www.embeddedsys.com

Pentek
Model 7631 16-channel
digital-receiver PMC
www.pentek.com

Radicom Research
240IM-T-LP embedded modem
www.radi.com

WinSystems
PPM-Cardbus PC/104-card
bus adapter
www.winsystems.com

Discrete semiconductors

International Rectifier
IR331x family solid-state
power switches
www.irf.com

STMicroelectronics
STS130NH02L low-voltage
MOSFET
www.st.com

**Toshiba America Electronic
Components**
2SC-5775 bipolar transistors with
ultralow saturation voltage
www.toshiba.com

Digital and programmable logic

Actel
RTAX-S antifuse FPGA
www.actel.com

Lattice Semiconductor
PowerPAC analog/digital
hybrid chip
www.latticesemi.com

MoSys
1T-SRAM-Q one-transistor
SRAM technology
www.mosys.com

M-Systems
G3 Mobile DiskOnChip NAND-
flash-memory architecture
www.m-systems.com

NexFlash Technologies
SPI flash memories
www.nexflash.com

Toshiba
2-Gbit single-die NAND flash
memory
www.toshiba.com

Xilinx
Spartan-III FPGAs
www.xilinx.com

EDA

Cadence
Incisive scalable simulator
www.cadence.com

ChipMD
DesignMD yield-optimization tool
www.chipmd.com

Hier Design
Planahead virtual-silicon
prototyping tool
www.hierdesign.com

Magma Design Automation
Blast Create power-analysis tool
www.magma-da.com

Mentor Graphics
Advance MS analog/mixed-signal
simulator
www.mentor.com

Nassda
Critic dynamic-timing-analysis tool
www.nassda.com

Novas
Verdi debugging tool
www.novas.com

Synopsys
Saber electromechanical simulator
www.synopsys.com

Embedded tools

Cygnal Integrated Products
C8051F320DK development kit
for C8051F321
www.cygnal.com

Eclipse Project
Eclipse open-source integrated
development tool
www.eclipse.org

InHand Electronics
Elf3 mobile-device-development
platform
www.inhandelectronics.com

Kdevelop Project
Kdevelop Linux-based software-
development platform
www.kdevelop.org

Microchip Technology
PICkit 1 flash starter kit all-in-one
development platform
www.microchip.com

Motorola
USB08 evaluation board
reference design and starter kit
for USB 2.0 designs
www.motorola.com

SofTec Microsystems
inDart-HCS12 in-circuit debug-
ger/programmer
www.softemicro.com



Softwire Technology

Softwire for the Pocket PC Web-services-development tool
www.softwire.com

Multimedia

LSI Logic

ZiVA-6 processor family
www.lsillogic.com

MediaQ (now Nvidia)

MQ2100 handheld graphics accelerator
www.nvidia.com

MediaQ (now Nvidia)

MQ9000 handheld graphics accelerator
www.nvidia.com

NanoAmp Solutions

MOCA-J (Memory Oriented Coprocessor Accelerator-Java) processor
www.nanoamp.com

NeoMagic

MiMagic 6 multimedia processor
www.neomagic.com

Wolfson Microelectronics

WM9712L audio-processing chip
www.wolfsonmicro.com

Network Processors

Cypress

Ayama 1000 NSE family network search engine
www.cypress.com

IDT

75K72100 network search engine
www.idt.com

Xelerated

X10q family network processors
www.xelerated.com

Non-IC Power

Maxell

CR2450 Series coin cells for powering automotive tire-pressure sensors and similar applications
www.maxell.com

Power-One

X3015P sub-postage-stamp-sized, nonisolated, 15A point-of-load regulator
www.power-one.com

Vicor

V*1 Chip electrical architecture and packaging for distributed-power dc/dc-converter products
www.vicorpower.com

Peripherals

ATI Technologies

Mobility Radeon 9600 notebook-graphics accelerator
www.ati.com

Cornice

Storage Element rotating-storage device
www.corniceco.com

Marvell

88SX6041 and 88SX6081 Serial ATA host-side controllers
www.marvell.com

Nvidia

GeForce FX 5800 graphics accelerator
www.nvidia.com

Nvidia

GeForce FX Go5600 graphics accelerator
www.nvidia.com

Palmchip

BK-3719 Serial ATA host-controller core
www.palmchip.com

ServerWorks Division of Broadcom

SWC-IB7451 and SWC-IB7453 Serial ATA-drive-management processors
www.serverworks.com

Processors

Altera

Nios 3.0 processor core
www.altera.com

Analog Devices

ADSP-TS20x TigerSHARC DSP
www.analog.com

Atmel

Magic DSP core
www.atmel.com

Cypress

CY8C27x reconfigurable microcontroller
www.cypress.com

Motorola

56F8300 hybrid DSP/RISC controller
www.motorola.com

Uicom

IP3023 multithreaded processor
www.uicom.com

Zilog

eZ80F91 Web-server microcontroller
www.zilog.com

Software

Addison-Wesley

Facts and Fallacies of Software Engineering book
www.aw.com

Green Hills Software

TimeMachine embedded-software debugger
www.ghs.com

International Rectifier

IRMCS203 and IRMCO203 motor-control software
www.irf.com

Mathsoft

Application Server calculation-management package
www.mathsoft.com

National Instruments

LabView 7 Express data-acquisition and analysis package
www.ni.com

National Semiconductor

Webench 4.0 analog and power online-design tool
www.national.com

Test and Measurement

Agilent Technologies

Test Automation Kit hardware and software for rapid development of test programs
www.agilent.com

Intellitech

PT 100 modular test system for digital boards and subassemblies with boundary-scan architecture
www.intellitech.com

LeCroy Corp

WaveLink D600 6-GHz-bandwidth differential active probe
www.lecroy.com

RockyLogic

Ant8 FPGA-based, 100- to 500-MHz-sampling rate, eight-channel, 3072-sample/channel logic analyzer
www.rockylogic.com

SyntheSys Research

BitAlyzer 1500 1.5-Gbps bit-error-rate tester
www.synthesysresearch.com/ba1500.htm

Tektronix Inc

TDS7704B 7-GHz-bandwidth Digital Phosphor Oscilloscope
www.tektronix.com

Teradyne Inc

TestStation SafeTest feature in-circuit pc-board-test system
www.teradyne.com

Yokogawa Corp of America

DL 750 ScopeCorder with Voice Memo feature scopelike modular data-acquisition unit
www.us.yokogawa.com