



100 of 2004 HOT PRODUCTS

THE BEST 100 PRODUCTS OF 2004 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 on, only about 100 hot products make our readers really 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

AD1954 audio DAC
www.analog.com

D2Audio

XR125 seven-channel module
www.d2audio.com

International Rectifier

IR2520D CFL ballast power controller
www.irf.com

Power Integrations

LNK306P switching power converter
www.powerint.com

Texas Instruments

VCA8613 eight-channel VGA
www.ti.com

Wolfson Microelectronics

WM8740 audio DAC
www.wolfsonmicro.com

COMMUNICATIONS

Atheros Communications

AR5005 Wi-Fi chip sets
www.atheros.com

Fulcrum Microsystems

FM1010 six-port SPI-4,2 switch chip
www.fulcrummicro.com

Motia

Javelin smart-antenna IC
www.motia.com

NetLogic Microsystems

NSE5512GLQ network search engine
www.netlogicmicro.com

Parama Networks

PNI8040 add-drop multiplexer
www.paramanet.com

PMC-Sierra

MSP2015, 2020, 4000, and 5000 VoIP gateway chips
www.pmc-sierra.com

Texas Instruments

TCS3500 EDGE handset chip set
www.ti.com

Zarlink

TDM-over-IP packet processor
www.zarlink.com

COMPONENTS

AVX/Kyocera

KNA21series EMI filter in chip form
www.avxcorp.com

Coto Technology

B41 BGA quad reed relay
www.cotorelay.com

GrafTech International

Spreadersheet anisotropic heat spreader
www.graftech.com

Hermetic Switch

HSR-003 reed relay
www.hermeticswitch.com

LEDtronics

Concave-lens LED family
www.ledtronics.com

Murata Electronics

North America
NFM18PS low-ESL capacitor
www.murata.com

NVE Corp

IL6xx family GMR digital couplers
www.nve.com

Vishay Intertechnology

SSA23L series Schottky rectifiers
www.vishay.com

COMPUTERS, BOARDS, AND BUSES

Digi International

Digi Connect Wi-ME/EM 802.11b modules
www.digi.com

Inova Computers

ICP-PM single-board computer
www.inova-computers.com

Intel

NetStructure MPCBL0001 single-board computer
www.intel.com

Gumstix

Gumstix single-board computer
www.gumstix.com

General Micro Systems

P60x single-board computer
www.gms4sbc.com

Micro/sys

SBC4495 single-board computer
www.embeddedsys.com

Parvus

MPEG104 PC/104 encoder
www.parvus.com

Radiotronic

Wi.232 transceiver/controller
www.radiotronic.com

DIGITAL AND PROGRAMMABLE ICs

Altera

Max II high-density CPLDs
www.altera.com

Altera

Stratix II FPGA family
www.altera.com

Lattice

EC and ECP conventional and DSP-enhanced FPGA families
www.latticesemi.com

Leopard Logic

Gladiator CLDs standard-cell-ASICs with embedded FPGA cores
www.leopardlogic.com

Renesas

4-Gbit AG (assist gate)-AND flash memory for data/file-storage applications
www.renesas.com

Xilinx

Virtex-4 FX, LX and SX next-generation high-end FPGAs
www.xilinx.com

DISCRETE SEMICONDUCTORS

Advanced Linear Devices

ALD1121E and ALD1123E matched MOSFETs
www.aldinc.com

Vishay Intertechnology

SSA23L through SSC54 Schottky-rectifier family
www.vishay.com

EDA

Cadence

Allegro Package Designer for pc-board package and interconnect design
www.cadence.com

Coventor

CoventorWare MEMS-design tool
www.coventor.com

Denali Software

PureSuite interface-verification suite for PCI Express compliance
www.denali.com

Flomerics

Flo/PCB electrical-and-mechanical-collaboration software
www.flomerics.com

Jasper Design Automation

JasperGold formal-verification tool
www.jasper-da.com

Mentor

Catapult C algorithm-synthesis tool
www.mentor.com

Novas

Reusner Design Knowledge Publisher design-reuse tool
www.novas.com

PowerEscape

PowerEscape Analyzer+Cache software algorithm analyzer tools
www.powerescape.com

EMBEDDED TOOLS

EEMBC

Digital-entertainment security benchmarks
www.eembc.org

Enea Embedded Technology

Orchestra Development Suite Linux/OSE development platform
www.ose.com

Fluent

IcePak thermal-analysis software
www.fluent.com

Green Hills Software

CAN Development Kit application-development tool
www.ghs.com

National Instruments

CompactRIO custom embedded hardware
www.ni.com

Open Source

TinyOS embedded-sensor OS
www.tinyos.net

Swell Software

Portable Embedded GUI software
www.swellsoftware.com

TimeSys

TimeStorm IDE development and testing environment
www.timesys.com

MULTIMEDIA

Analog Devices

ADSP-21365 and ADSP-21364 audio DSPs
www.analog.com

Cirrus Logic

CS49500, CS49510, and CS49520 audio DSPs
www.cirrus.com

LSI Logic

DMN-8602 and DMN-8652 DVD-recorder chips
www.lsillogic.com

National Semiconductor
LM2501 and LM2502 Mobile Pixel Link transmitter/receivers
www.national.com

Nvidia
GoForce 3D 4500 graphics and imaging processor
www.nvidia.com

Silicon Image
SiI 9030 HDMI transmitter and SiI 9021 and SiI 9031 receivers
www.siimage.com

Texas Instruments
TMS320DM320 imaging processor
www.ti.com

ViXS
XCode II multimedia processors
www.vixs.com

NETWORK PROCESSORS

AMCC
Mission Access multiservice network processor
www.amcc.com

Cavium Networks
Oceon NSP network-services processors
www.cavium.com

Mindspeed Technologies
TSP3 family programmable traffic-management processors
www.mindspeed.com

PERIPHERALS

ATI Technologies
X800 graphics-processor family
www.ati.com

ATI Technologies
Radeon Xpress 200 core-logic chip-set series
www.ati.com

Broadcom
BCM4780 NAsoc processor chip
www.broadcom.com

Creative Labs 3DLabs subsidiary
Realizm 100, 200, and 800 graphics boards
www.creativelabs.com

Nvidia
GeForce 6800 graphics-processor family
www.nvidia.com

Seagate Technology
Savvio 2.5-in. hard-disk drives
www.seagate.com

POWER

Artesyn Technologies
VRM10 series nonisolated point-of-load converter
www.artesyn.com

E-T-A Circuit Breakers
ESS60-T electronic, controllable circuit breaker
www.e-t-a.com

Evans Capacitor
Button Cell Hybrid super-capacitor in button cell
www.evanscap.com

Power Integrations
LinkSwitch-TN family switcher-core IC
www.powerint.com

Vicor Corp
VIC-in-a-Brick IBC series bus-converter modules
www.vicr.com

V-Infinity LLC
VPHV12 series high-voltage supplies
www.v-infinity.com

PROCESSORS

Atmel
AT572D740 Diopsis dual-core DSP/RISC processor
www.atmel.com

Dallas Semiconductor
MAXQ2000 low-power, low-noise 16-bit processor
www.maxim-ic.com

Freescale
MSC812x Family quad-core DSP
www.freescale.com

Royal Philips Electronics
LPC2130 32-bit ARM7 microcontroller
www.semiconductors.philips.com

Stretch
S5000 Family of software-configurable processors
www.stretchinc.com

Tensilica
Xtensa LX flexible-length instruction-extension processor architecture
www.tensilica.com

Texas Instruments
C6414/15/16 90-nm, 1-GHz DSPs
www.ti.com

RF LINKS

Microtune
MT212 150- to 1000-MHz tuner
www.microtune.com

OKW Electronics
110 Series KEELOQ AM keyfob encoders
www.okwelectronics.com

Peregrine Semiconductor
PE4261 and PE4263 RF switch
www.peregrine-semi.com

Vishay Intertechnology
TSDF12830YS VHF/UHF amplifier and switch
www.vishay.com

Zarlink Semiconductor
ZL10038 set-top-box/DTV tuner
www.zarlink.com

SOFTWARE

Agilent Technologies
VEE Pro 7.0 software for T&M application development
www.agilent.com

Ansoft
ePhysics software for thermal, stress analysis
www.ansoft.com

The MathWorks
Matlab 7; Simulink 6 math, simulation tools
www.mathworks.com

The MathWorks
Video and Image Processing Blockset C-code model development
www.mathworks.com

National Instruments
SignalExpress virtual-instrumentation software
www.ni.com

TEST AND MEASUREMENT

Agilent
DSO80000 series 10- to 13-GHz-bandwidth, real-time-sampling DSOs
www.agilent.com

Agilent
B4655A FPGA dynamic-probe logic-analysis application
www.agilent.com

LeCroy Corp
WaveSurfer series small-footprint, large-screen DSOs
www.lecroy.com

Strategic Test
UF7221 32-channel, 40-MHz pulse-pattern generator
www.strategic-test.com

Tektronix
TDS8200 series 70-GHz-bandwidth sequential-equivalent-time-sampling DSOs
www.tek.com

VeriWave
WaveTest IEEE 802.11 protocol-test system
www.veriwave.com