



# Embedded News



**The ARTEMIS Office's Bi-Weekly Newsletter Number**

## I N S I D E

**ARTEMIS: what's new?**.....p.1

**ARTEMIS Agenda**.....p.1

**IST/ICT Results/Calls**.....p.2

**NEWS**.....p.2

**BUSINESS**.....p.3

- Europe, short on manufacturing, shifting to design
- Fuel cells no use for mobile phones, says Nokia advisor
- Infineon spinoff targets new era of formal verification
- Deploying Wireless Sensor Networks for Industrial Automation & Control
- Toward self-driving cars

**EVENTS**.....p.4

**TECHNOLOGY**.....p.5

- Automotive wireless is more than cell phones and music
- Thales signs for complex channeliser design
- Europe charges up battery recycling rules

**PRODUCTS**.....p.6

- Embedded software framework adds voice processing
- Sensor monitors battery's temperature, float charge, impedance
- Nokia inks DVB-mobile TV contract with Digita
- 16-bit MCU line doubles memory size; increases functionality

## ARTEMIS : what's new?

**The ARTEMIS 2006 Annual conference took place in Graz, Austria, from May 22nd to May 24th.**

The event has been attended by nearly 250 participants from large companies, SMEs, governments, Academia and research Institutes.

The 2 day conference provided a great opportunity to all the stakeholders to receive in-depth information and to discuss different topics including:

- The Strategic Research Agenda, which defines the research priorities that will stimulate European success in Embedded Systems.
- Industry's involvement in the JTI, which is a new and innovative funding scheme for transnational R&D.

All the presentations of the speakers are available on ARTEMIS Office website: [Link](#)

## ARTEMIS Awards 2006

For the first time, ARTEMIS distributed Awards to its members, in recognition of their outstanding contribution to ARTEMIS. The following people received an award:

- Konstantinos Glinos (European Commission)
- Laila Gide (Thales), Chairman of the Working Group SRA
- Eric Schutz (STMicroelectronics), Chairman of the Working Group SRA
- Jan van den Biesen (Philips), Chairman of the Working Group Funding Strategy and JTI Structure
- Dominique Potier (Thales), Chairman of the Working Group Innovation Environment
- Yrjö Neuvo (Nokia), ARTEMIS Chairman

## ARTEMIS AGENDA

- Steering Board Meeting, 21st of November, Helsinki
- Joint Steering Board/ Mirror Group meeting, September 21st, Brussels, Belgium

## IST/ICT Calls

### Study "Impact assessment of IPv6 on vertical markets"

**Deadline: 13 June 2006**

This assessment study is aiming at identifying the impact of a wider adoption of IPv6 on the EU industries, service providers, users and citizens in different markets and ultimately its impact on EU competitiveness in line with the Lisbon Agenda. The Study will also provide recommendations guidance for further policy action.

### Study "Towards a European eInfrastructure for eScience digital repositories"

**Deadline: 14 June 2006**

The subject of the Contract is to provide a reliable overview of the situation in Europe concerning Digital Repositories of eScience information, data and knowledge. To achieve that, the Contractor will interface relevant scientific communities in different Member States and analyse their approach in developing Digital Repositories of experimental data sets, journals, theses and associated information. An important aspect of the study will be to collect information and analyse the degree of interoperability of the different approaches and technologies and study possible scenarios to build upon common requirements and synergies so that a layer of Digital Repositories can develop as part of the European Research e-Infrastructure.

### Benchmarking of activities in promoting and deploying intelligent vehicle systems (IVS) in the EU

**Deadline: 16 June 2006**

The study's objective is to show the level of awareness about intelligent vehicle systems in the different Member States among government departments, industry, other stakeholders and, above all, consumers and citizens. The study should also report on the actions which have been taken in the Member States to raise the level of awareness and to promote the use of intelligent vehicles systems, compare the diverging results and make targeted recommendations for further awareness-raising and promotional activities.

Contact: Irmgard Heiber, Scientific Officer

See also: Contract notice



## ARTEMIS ORCHESTRA

ARTEMIS launched the ARTEMIS Orchestra Contest which aims to demonstrate the capacities of Embedded Systems to a broad public.

ARTEMIS encourages you to participate to this exciting contest.

The flyer is available on the website. [Link](#)

The presentation of Pr. Hannu-Matti Järvinen, Tampere University is also available on the website: [Link](#)

## Focus on...

*This section contains information about events and news in the area of embedded systems. ARTEMIS Office would like to thank all the contributors to this section and welcome all your input if you are aware of relevant information.*

Jean-Luc Dormoy, Architecture, Software & Cognitive Systems Manager, CEA-DRT, will make a presentation of the involvement of the French CEA in ARTEMIS during a conference which will take place in Brussels on the 26th of June. The theme of this conference is the French region "Ile de France" as a European pole for Research and Innovation.

## N E W S

### Agreement on new € 3.6 billion "competitiveness and innovation programme" 1 June 2006

The European Parliament has adopted on 1 June the first "Competitiveness and Innovation Framework Programme" (CIP). Between 2007 and 2013, some 350,000 small and medium-sized enterprises (SMEs) will receive € 3.6 billion in EU support to invest in all forms of innovation and growth. The new programme will support actions to help enterprises and industry to innovate. It will also boost energy efficiency and renewable energy sources, environmental technologies and a better use of information and communication technology (ICT). The final adoption in Council will follow in the coming weeks. [Link](#)

### Commission seeks to improve network and information security in Europe 31 May 2006

31 May 2006 Businesses, individuals and public administrations in Europe still underestimate the risks of insufficiently protecting networks and information. Security presently represents only around 5-13% of IT expenditure, which is alarmingly low. The Commission is there-

fore promoting greater awareness, in a policy document adopted on 31 May, through an open and inclusive multi-stakeholder dialogue on a new IT Security Strategy for Europe. A partnership amongst Member States, involving the IT industry and users as well as the European network security agency ENISA should lead to more trustworthy, secure and reliable information and communication technologies. People and organisations must be empowered to look after their own interests and responsibilities.

### **Safer Internet plus - Draft versions of Work Programme and Call for Proposals published 31 May - 29 September 2006**

The Safer Internet plus programme aims to promote safer use of the Internet and new online technologies, particularly for children, and to fight against illegal content and content unwanted by the end-user. A new call for proposals will be launched in 2006. The Work Programme 2006 and the call for proposals are now online as drafts. The provisional date for publication of the final versions is July 2006. The provisional deadline for receipt of proposals will 29 September 2006.

### **Revised package for EU programmes 2007-2013 – priority for modernisation and economic progress**

The Commission's proposals for EU programmes, to start next year under the new 2007-2013 financial framework, prioritise policies for growth and economic progress. The revised package, which sets out details of funds for each programme and legal acts necessary for their implementation, is a major step before the programmes can be effectively launched.

### **ICT for growth and jobs: most EU Member States need to be more ambitious, criticises Commission's first annual progress report**

To get the full benefits from information and communication technologies (ICT), EU Member States need more ambitious plans to exploit them, says the Commission in its first annual progress report on i2010 – the digital economy part of the EU's revised "Lisbon" strategy for growth and jobs. To help get growth back on track, Member States need to step up their efforts to improve access to broadband internet connections, facilitate the EU-wide circulation of digital content, free up radio spectrum for new applications, integrate research and innovation and modernise public services.

### **Benchmarking of activities in promoting and deploying intelligent vehicle systems (IVS) in the EU 16 May - 16 June 2006**

The study's objective is to show the level of awareness about intelligent vehicle systems in the different Member States among government departments, industry, other stakeholders and, above all, consumers and citizens. The study should also report on the actions which have been taken in the Member States to raise the level of awareness

and to promote the use of intelligent vehicles systems, compare the diverging results and make targeted recommendations for further awareness-raising and promotional activities.

### **Q&A on the legislative package of EU programmes for the financial programming period 2007-2013**

Link

### **Janez Potočnik, European Commissioner for Science and Research - EU R&D Innovation: Opportunities for SMEs**

Conference "SME in the R&D Framework Programme"

Kortrijk, 23 May 2006 Link

### **Parliament backs emergency calls in cars**

The European Parliament gave its backing to the introduction of 'eCall' by 2009, an automated emergency dial technology that "could save up to 2,500 lives a year" and reduce severity of injuries by up to 15%. Link

## **B U S I N E S S**

### **Europe, short on manufacturing, shifting to design**

European angst over the exodus of electronics manufacturing to China and the rest of Asia is shortsighted and fails to recognize Europe's real strength as an emerging leader in electronics design and product innovation.

Europe's traditional strength in advanced electronic system design, honed over years of focus on its telecommunication infrastructure, provides the region with a core design engineering competency in short supply around the globe, especially in the U.S. It was also an early technology adaptor, having pioneered market developments in mobile communications and automotive electronics. Europe's political leaders have also been quick to recognize the strategic importance of the embedded computing market and are making significant investments in design tools and methodologies Link

### **Fuel cells no use for mobile phones, says Nokia advisor**

As more functions are embedded in the mobile phone, the communications industry is facing a power consumption problem — and unfortunately it is one that cannot be answered by the fuel cell or other battery alternatives, according to Yrjo Neuvo, formerly executive vice president and CTO for Nokia Mobile Phones, who now serves as a technology advisor to the company. Link

# E V E N T S

## **6 June 2006 , SME Day Brussels, Belgium**

SME Day will offer a series of forums where businesses, policymakers, venture capitalists, and academics will be able to discuss the challenges facing them while exploring ideas on how to accelerate innovation to build a stronger knowledge-based economy across Europe. An SME Innovation Exhibition Area will allow businesses to showcase their work.

<http://www.smeday.eu/home/>

## **8 - 9 June 2006, European Infrastructure for Repositories of Scientific Information**

### **Brussels, Belgium**

Digital repositories provide the possibility for exchanging and sharing massive quantities of information and knowledge. There is an opportunity to build in Europe a strong base of scientific and educational digital repositories as part of the European Research Infrastructure. The European Commission is organising this workshop to discuss the development of Digital Repositories under the perspective of the e-Infrastructure and to prepare the Seventh Framework Programme of the European Community for research, technological development and demonstration activities.

<http://cordis.europa.eu/ist/rn/ri-cnd/wshop-080606.htm>

## **19 - 23 June 2006, Euro-Southeast Asia 2006 Singapore**

The overall objective of the 2006 Euro-Southeast Asia (EUSEA) conference and exhibition is to provide an open co-operation platform for Europe and Southeast Asia to foster business, research, policy and regulatory collaboration. More than 800 key ICT players will participate in the conference. The latest European innovative technologies, products and solutions will be showcased in a European ICT pavillion as part of the CommunicAsia 2006 Trade Fair. The EUSEA 2006 event will be officially opened by Commissioner Reding on Monday 19 June 2006.

## **ADI's sales, profits up**

Analog Devices Inc. reported revenue of \$643.9 million for the second quarter of fiscal 2006, an increase of 7 percent compared to the same period one year ago and an increase of 4 percent compared to the immediately prior quarter. [Link](#)

## **LG.Philips completes latest TFT-LCD plant**

LG.Philips LCD has opened its 7th generation plant for volume production of thin-film transistor LCD glass substrates. [Link](#)

## **Shareholders plan class action against Vitesse**

Shareholders in Vitesse Semiconductor are preparing a class action lawsuit against the troubled chip supplier. [Link](#)

## **TTPCom sells GSM software operations to ADI**

TTP Communications plc is to focus on next generation cellular technologies, including 3G, following the sale to Analog Devices for about \$23 million of its GSM/GPRS mobile phone modem software operations. [Link](#)

## **Cost only one consideration**

The idea that all IC design soon be done in emerging markets like India and China is off base, according to Infineon Technologies CEO Wolfgang Ziebart. [Link](#)

## **Intel launches emerging markets initiative**

Intel Corp. said it will invest \$1 billion over the next five years in technology development for emerging global markets. [Link](#)

## **Infineon spinoff targets new era of formal verification**

Startup OneSpin Solutions, an Infineon spinoff, believes that it will usher in a new era of formal verification by bringing internal Infineon technology to the commercial EDA market. [Link](#)

## **Intel Launches \$1B Emerging Markets Program**

Intel will invest more than \$1 billion over the next five years in a new program to speed access to technology and education for people in the world's developing communities. [Link](#)

## **Up in the air over cell-phone EMI**

by Brad Thompson, Contributing Technical Editor  
And you thought that when you boarded an airliner, bad food, surly passengers, and airborne hazards were all you had to worry about. How about electromagnetic interference (EMI) from cell phones? According to a program segment featured on National Public Radio's "Living on Earth," the Federal Communications Commission may change its rules and allow you to use your cell phone in flight. [Link](#)

## **CEA survey finds growing consumer demand for flat panel TVs**

While only 17 percent of consumers currently own a flat panel display (FPD), 49 percent say their next television purchase will be some type of flat panel technology, according to research from the Consumer Electronics Association (CEA). CEA's study. [Link](#)

## **Philips makes self-assembly molecular electronics**

Scientists from Philips Research and University of Groningen in the Netherlands have claimed they have made a "breakthrough" step-forward in the fabrication of molecular electronics. [Link](#)

## **IDM model gets bad rap, says 'fab club' exec**

Integrated device manufacturers are getting a bad rap in the market, especially from short-sighted Wall Street analysts who lack a thorough understanding of the concept of wafer fabs, according to the executive from the "fab club." [Link](#)

## **Infineon opens Chinese automotive lab, says report**

German chip maker Infineon Technologies AG has opened an automotive electronics lab in collaboration with Tianjin University, China. The lab is chartered to work on electronic control units for car engines, according to a Xinhua report. [Link](#)

**Photomask market to grow 4.3% in 2006, says analyst.** After posting annual gains of 18.7 percent in 2004 and 9.7 percent in 2005, the semiconductor photomask market will grow 4.3 percent in 2006, reaching sales of \$3.2 billion, according to The Information Network, a market research company. [Link](#)

## **Analyst: All-in-one devices too big and costly**

Users eventually will want all-in-one devices that include music playback capabilities but, for now, such devices are too big and expensive, an industry analyst notes. [Link](#)

## **T E C H N O L O G Y**

## **Automotive wireless is more than cell phones and music**

Mature, wireless technologies other than Bluetooth are important for improving automotive security and safety. [Link](#)

## **E V E N T S**

### **29 - 30 June 2006, ICT for BIO-Medical Sciences 2006 Brussels, Belgium**

The conference will focus on topics at the crossroads of Information & Communication Technologies (ICT) research and life sciences research such as Multilevel modelling and simulation of human physiology, Biomedical informatics, Biomedical imaging, Systems Biology or Healthgrid. EU Commissioner Viviane Reding, together with invited national Ministers and Members of the European Parliament will open the conference. One of the aims is to discuss challenges that could be addressed by the 7th Framework programme for Research, Technological Development and Demonstration activities.

Contact: [ehhealth@cec.eu.int](mailto:ehhealth@cec.eu.int)

### **11 July 2006, Workshop on Commands for Assistive Mobile Device Interfaces Linz, Austria**

The objective of this workshop is to involve stakeholders from the early stages of the work in defining requirements and potential solutions for the adaptation of mobile devices for use by disabled people. For this group of users, often with multiple disabilities, it is crucial that affordable, effective and usable assistive devices be available. These devices must be able to easily connect to and interact with a multitude of fixed and mobile ICT devices. The workshop is free of charge.

### **27 - 30 August 2006, MIE 2006 - 20th International Congress of the European Federation for Medical Informatics Maastricht, The Netherlands**

In addition to the traditional topics of health and biomedical informatics, "Ubiquity: technologies for better health in aging societies", a promising field for the future of health care, has been chosen as special topic for MIE2006

Contact: [information@mie2006.org](mailto:information@mie2006.org)

**USER FOCUS: CELL-PHONE MULTI-TASKING ON THE RISE.** Cell phones continue to grow in popularity, particularly with America's youth and minorities, who are increasingly using the devices as personal computers, cameras, and digital music players, according to a survey from [www.schoolnews.com](http://www.schoolnews.com). The ability of cell phones to be adapted for multiple technological uses provides critical implications for education and social interaction, according to the results of the report. As an example, the poll revealed that the public are increasingly becoming privy to personal phone conversations. For college students, one of the suggestions called for requiring colleges to raise awareness about cell-phone etiquette with their students. [Link](#)

**GREEN ENGINEERING CHALLENGES ELECTRONICS INDUSTRY.** Impending European Union industry regulations, including severe restrictions on the use of lead, are driving the greening of chip manufacturers worldwide, analysts say. On 1 July, new EU rules go into effect on the use of six substances, but the most problematic and controversial is lead, according to experts. The biggest technical challenges are selecting a suitable replacement for reliable tin/lead finishes, and choosing a mold compound that could meet the higher reflow temperatures required by lead-free processing, experts say. One of the biggest problems in the transition to lead-free parts is so-called "tin whiskers," according to experts, electrically conductive crystalline filaments which can cause electrical shorts and system failures. Some experts also argue that removing lead in solder will actually have a negative impact on the environment, was not necessary for public safety or environmental considerations, nor was it based on any published data. Part I: [Link](#) Part II: [Link](#)



### **Interfaces promise precise clock management**

Two highly accurate, fully differential interface ICs are designed for precise clock management of telecommunications, networking, high-end computing and ATE applications. [Link](#)

### **Thales signs for complex channeliser design**

FPGA signal processing specialist RF Engines has been awarded a contract by Thales' Land and Joint Systems Division for the supply of a complex channeliser design. [Link](#)

**UCLA engineers propose spin-wave bus architectures.** Engineers at the University of California-Los Angeles Henry Samueli School of Engineering and Applied Science have announced three multiprocessing chip architectures based on a "spin-wave" bus interconnect technology that does not require wires to connect functional units. [Link](#)

**Low power double-balanced mixers work from VLF through 4-GHz** [Link](#)

### **Driving mobile headphones require attention to new details**

Headphones and mobile devices are a natural fit, but there are technical details to resolve to ensure compatibility and performance. [Link](#)

### **Using S-parameter data effectively**

S-parameters are increasingly important part of the designer's EDA/CAD toolbox, as RF becomes part of more designs. [Link](#)

### **How to design a dimming fluorescent electronic ballast**

Dimming fluorescent lamps is an attractive feature that provides mood and brightness effects as well as having tremendous energy savings potential. But how can you design one. It is a difficult task that requires knowledge of fluorescent lamp electrical behavior, control theory experience and resonant converter design skills. Learn how with this article. [Link](#)

### **Power a Serious Problem at System Level**

In a keynote address at the In-Stat Spring Microprocessor Forum, Dan Dobberpuhl, president and CEO of P.A. Semi, spoke about chip power and how it has evolved over the years, offering insight as to future techniques that can be used to manage power. [Link](#)

### **Ethernet vs. Camera Link**

Test engineers have found that the visual information acquired from high-performance digital cameras can be useful in many test-related situations. There are numerous ways to connect cameras and computers, but currently only two video-acquisition standards are fast enough and have a large enough industrial installed base to qualify as top contenders: Camera Link and Gigabit Ethernet. [Link](#)

### **Laser scanning speeds aftermarket auto electronics**

Switching from a coordinate measuring machine to a laser scanner helps an automotive aftermarket parts manufacturer get instrument panels and automotive infotainment video products to market four weeks faster. [Link](#)

### **DSP technology optimizes speech recognition in automotive environments**

Speech recognition is an increasingly important technical capability for mobile systems, especially in automotive environments. Here's how noise cancellation plays an important role in modern speech recognition systems. [Link](#)

**Capacitive sensors replace mechanical switches for touch control.** Capacitive sensors offer a sleek interface for automotive control functions. [Link](#)

**Software gains importance for silicon designers**  
The convergence of wireless and consumer electronics is creating a huge opportunity for another era of technology growth. [Link](#)

**STMicro, Microsoft team on high definition digital**  
STMicroelectronics NV is planning to demonstrate the compatibility of a chip for high-definition television set top boxes and other digital consumer equipment with the Windows CE 5.0 operating system from Microsoft Corp. [Link](#)

**European trio join forces for NFC market**  
Mobile handset software developer Esmertec AG said it has joined forces with Inside Contactless SA, a fab-less provider of smartcard chips, and Trusted Logic SA, a provider of security middleware, to develop near field communications subsystems for mobile phone makers and their chipset manufacturers. [Link](#)

**Fuel cells no use for mobile phones, says Nokia advisor**  
As more functions are embedded in the mobile phone, the communications industry is facing a power consumption problem - and unfortunately it is one that cannot be answered by the fuel cell or other battery alternatives, according to Yrjo Neuvo, formerly executive vice president and CTO for Nokia Mobile Phones, who now serves as a technology advisor to the company. [Link](#)

**Software gains importance for silicon designers**  
The convergence of wireless and consumer electronics is creating a huge opportunity for another era of technology growth, according to Doug Rasor, VP worldwide strategic marketing at Texas Instruments, with the cell phone a key growth driver. [Link](#)

**How to integrate intelligent thermal management into a CPU fan**  
The temperature challenge for today's designers is to deliver more complex cooling capability as hot spots multiply within the PC. And, it must be done while minimizing both acoustics and overall cost. Here's how to keep cool as designs get more complex with conflicting demands. [Link](#)

**Europe charges up battery recycling rules**  
Battery manufacturers and resellers are to be forced to dispose of spent units, especially those used in laptops and mobile phones, and new batteries will be restricted in the amount of mercury and cadmium they can contain, according to a deal agreed by European Union lawmakers as

part of a contentious health and safety directive. [Link](#)  
**How the 1394 over coax spec will work in Cable TV**

Cable TV operators today distribute their MPEG-2 program signals via coaxial cable, with a cable set-top box at each TV receiver. Coaxial cables abound in most homes in the United States. [Link](#)

**Build borderless networks you trust**  
An open-source, non-proprietary standard for network security is necessary to meet the challenges of borderless networks. Trusted Network Connect (TNC) is the result of the effort of 60 member companies of the Trusted Computing Group. Here are TNC's nuts, bolts, and even design tips. [Link](#)

**Smile, You're on Bacteria Cam!**  
It seems like the E. Coli bacterium can do more than provide food-poisoning — it can serve as a form of photographic film. Researchers at the University of California in San Francisco are using the genetically-modified, light-sensitive bacterium to darken an image-recording chemical and “print” a monochromatic image.  
One potential use: Development of nano-factories where “substances are produced at locations precisely defined by light beams.” [Link](#)

**Philips, Dutch University Claim Breakthrough in Plastic Electronics**  
Using molecular self-organization, researchers in the Netherlands say they have successfully fabricated functioning molecular diodes as thin as 1.5nm. [Link](#)

**Total Computer Security Could Result from Unbreakable Optical Code**  
Researchers at Mitsubishi Electric, NEC and the University of Tokyo claim to have made a breakthrough in a new technique for very secure data communications. [Link](#)

**Deploying Wireless Sensor Networks for Industrial Automation & Control**  
Wireless sensor networks using protocols like ZigBee are intriguing technologies for the industrial process control field. However, deploying wireless sensor networks is extremely time-consuming because of the complexity of creating the software that manages the networks and their components. [Link](#)

**Toward self-driving cars**  
DARPA's next Grand Challenge autonomous vehicle competition takes place late in 2007 and will require the robot vehicles to function in urban driving environments (i.e. real traffic). For developers, seed money is available and prizes will now be awarded to the top three contestants. [Link](#)

## Software may help RF ICs keep pace with Moore's Law

Moore's Law sets a tough standard, but handset component suppliers are determined not to fall behind. [Link](#)

## LASER TRAPPING OF RARE EARTH HEAVY METAL MAY LEAD TO NEW DEVICES

The trapping of erbium -- a rare earth heavy metal with unusual optical, electronic and magnetic properties -- might lead to the development of novel nanoscale devices for telecommunications, quantum computing, or fine-tuning the properties of semiconductors, according to researchers at the National Institute of Standards and Technology (NIST). The researchers used lasers to cool and trap erbium atoms, previously considered too wild to trap because of the element's complex energy structure. Trapping causes

the atoms to absorb and emit light in a way that leads to controlled loss of momentum and heat, ultimately producing a stable, nearly motionless state, according to the NIST team. Researchers say the technique might be useful for producing single photons, the smallest particles of light, at wavelengths used in telecommunications, and for "doping" semiconductors with small amounts of impurities to tailor their properties. Read more: [Link](#)



## Website is dedicated to ARM development.

A new independent website provides an online user community and resource site for developers of ARM powered MCU devices and systems. [Link](#)

## RoHS schemes provide proof of due diligence

Two new services help organisations seeking to demonstrate due diligence in compliance with the European Union's Restriction of Hazardous Substances (RoHS) Directive. [Link](#)

## Image sensor enables higher quality images and video recording in camera phones

Avago Technologies. [Link](#)

## PRODUCTS

## Embedded software framework adds voice processing.

Trinity Convergence has licensed and deployed Spirit's award-winning voice processing software. [Link](#)

## Sensor monitors battery's temperature, float charge, impedance

LEM hails its Sentinel, an intelligent sensor/transducer, as the industry's most comprehensive monitor for lead-acid batteries. [Link](#)

## Combine voice and video over IP without compromising power.

Manufacturers of handheld consumer devices can provide WLAN capability without compromising battery life, thanks to Freescale Semiconductor's WLAN solution. [Link](#)

## Automotive modules take Flash memory onboard

The ADSP-BF539F and ADSP-BF538F represent the first Blackfin devices to be combined together with Spansion Flash memory in a single package. [Link](#)

## Modules make Bluetooth integration simple

Serial to Bluetooth modules can be built-in to any product to give a powerful Bluetooth connection, without any fuss or knowledge of Bluetooth. [Link](#)

## Embedded database manages IP telephony data

IP Trade has chosen McObject's eXtremeDB in-memory embedded database for real-time data management in its Profile trading turret. [Link](#)

## ARM launches next-generation processor.

Cortex-R4 processor is designed to deliver the performance and configurability necessary for embedded markets [Link](#)

## Quadrature modulator ICs span 250-MHz to 4-GHz.

Five quadrature modulator RFICs cover the 250-MHz to 4-GHz frequency range in five bands. These devices are complemented by a pair of 20-dB RF amplifiers. [Link](#)

## VGA multiplexer cuts chip count from three to one.

Maxim Integrated Products' MAX4885 1:2 or 2:1 VGA multiplexer performs the entire video switching task: RGB, H/V sync, and display data channel (DDC) switching. Discrete solutions previously required three ICs, discrete FETs, and ESD-protection diodes. [Link](#)

## Small dc-dc converter boasts flexibility, easy design-in.

Maxim Integrated Products has introduced the MAX8614, a tiny dual-output, step-up dc-dc converter. [Link](#)

## Programmable Internet control chip safeguards applications.

Connect One Ltd. has developed a programmable Internet control chip that can be customized by means of firmware to provide Internet Security. [Link](#)

## Packet processors target secure enterprise and metro ethernet markets.

Marvell's Prestera 98DX2x5 family of packet processors enable the rapid development of high-port density gigabit standalone and stackable switching systems for Enterprise, embedded and metro Ethernet market segments. [Link](#)

**Embedded software said to ease Wi-Fi configuration.** Wireless software provider Devicescap Software introduced Easy Access, an embedded software technology that the company says eases consumers' ability to use and connect wireless devices. [Link](#)

**Clock jitter-analysis software packs femto-second resolution.** Providing a low jitter noise-floor, and fast periodic jitter separation, Agilent Technologies announces precision clock-jitter-analysis software for data-independent clock-jitter evaluation in digital communication systems, and for high-speed clock device design. [Link](#)

**High-resolution RGB amp eliminates the negative supply** [Link](#)

**Multi-standard modem includes enhanced DTMF decoder** [Link](#)

**Nokia inks DVB-mobile TV contract with Digita**  
Finland-based wireless phone supplier Nokia and U.K.-based software company Digita have signed the world's first commercial DVB-H mobile TV platform supply contract. [Link](#)

**16-bit MCU line doubles memory size; increases functionality.** Targeting designers of automotive body and multiplexing applications, Freescale is enhancing its S12X 16-bit microcontroller line. The lead device, S12XEP100, doubles the memory size at the top of the S12X range to 1 Mbyte and significantly increases MCU performance for applications including central body control, instrumentation, door modules, and chassis nodes. [Link](#)

**ARM launches real-time Cortex processor.** Processor and chip design technology licensor ARM Holdings has launched the Cortex-R4, the latest processor in Cortex range. [Link](#)

**High-temp chip resistors operate up to 200 degrees**  
IRC Advanced Film Division's PFC-HT series of tantalum nitride chip resistors is rated for operation at 200 degrees C for extremely high-temperature applications such as down-hole oil drilling sensing equipment, automotive engine compartment and aerospace equipment. [Link](#)

**Motor driver IC cuts automotive electrical and mechanical noise.** Atmel's DC motor driver IC eliminates mechanical linkage between a vehicle's left and right windshield wipers, while cutting both audible and electrical noise. [Link](#)

**Modular automotive instrumentation system streams data using USB 2.0.** National Instruments is debuting a modular platform for automotive sensor and electrical measurements under Windows. NI's Compact-

DAQ system offers an eight-slot chassis that accepts I/O modules capable of measuring up to 256 channels of electrical, physical, mechanical and acoustic signals. By combining plug-and-play USB with modular instrumentation, NI CompactDAQ comprises small, simple, portable, and cost-effective data-acq and test-and-measurement systems. [Link](#)

**Methodology opens new links.** Mentor Graphics announced moves to provide new methodology, tools and industry-wide cooperation on the next generation of functional verification. [Link](#)

**Tool claims affordable RF, microwave 3-D EM simulation.** Agilent Technologies introduced the Electromagnetic Design System for RF and microwave circuit designers. The tool integrates with Agilent's RF and microwave circuit design and simulation flow. [Link](#)

**The FM20L08 is Ramtron's highest-density FRAM memory to date and offers an unlimited number of read/write cycles.**

The product has been designed as a drop-in replacement for standard asynchronous SRAMs and is targeted for systems that collect and store data where power levels can vary or be lost suddenly, such as set-top boxes, automotive telematics and industrial applications. In addition, FRAM's unlimited write endurance makes it superior to other types of nonvolatile memory, such as EEPROM, BB-SRAM or Flash. [Link](#)

**Low-power switchers add triple-output options**  
The LPT50 series of completes the family of LP50 PSUs, adding triple-output models to the range and consolidating Astec's position as the leader in low power AC/DC products. [Link](#)

**ARTEMIS Office**

**IVO BETTENS**

Head of Office

Tél: +32 2 627 03 24

[ivo.bettens@thalesgroup.com](mailto:ivo.bettens@thalesgroup.com)

**Sophie BATAS BJELIC**

Editor

Té:: +32 2 627 03 17

Fax: +32 2 627 03 20

[sophie.batasbjelic@thalesgroup.com](mailto:sophie.batasbjelic@thalesgroup.com)

Thales Succursale

Boite 3

Avenue de Cortenberg 60

1000 Brussels

Belgium

[artemis@thalesgroup.com](mailto:artemis@thalesgroup.com)