

FOR DESIGN ENGINEERS

Upcoming Events:

D&E Event



Op **25 september** neemt Alcom deel aan het D&E Event, georganiseerd door het FHI. Op dit evenement geeft Alcom in samenwerking met leverancier Maxstream(Digi) een presentatie over "Designing & Configuring Zigbee networks".

M2M Event



Op **2 oktober** vindt voor de derde keer het jaarlijkse M2M Event plaats in de Doelen in Rotterdam. U kunt op deze dag kennismaken met de M2M producten uit het portfolio van Alcom. Het Event richt zich met business cases en workshops op eindgebruikersmarkten, met technologie tracks op de M2M keten. Het Event bestaat uit het Jaarcongres, M2M Award, M2M Expo en de M2M Technologie dag.

Bits & Chips Embedded Systems Event



Op **18 oktober** neemt Alcom deel aan het Bits&Chips Embedded Systemen evenement in het Evoluon in Eindhoven. Alcom is op deze dag vertegenwoordigd met haar M2M & Embedded Modules productlijnen zoals Avalue, Wavocom, Digi/Maxstream, Rabbit, Multitech en Navman. Bezoek ring 3 voor stand 3.14 van Alcom.

Voor inschrijven en meer informatie kijk op onze website in de rubriek 'news / Alcom events'.




LUMINARY MICRO

Stellaris LM3S6965 Ethernet Evaluation Kit

LM3S6965 Evaluation board, Stellaris LM3S6965 microcontroller with fully integrated 10/100 (MAC+PHY) Ethernet controller, Quickstart sample applications, and a cd with all tools and documentation needed.

Read more on page 6 and 7 and also in the enclosed Luminary Micro flyer.

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 **Alcom** electronics bv

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64 M SDRAM designed for hot or cold

The A43L2616B, is pin compatible with all industry standard 4Mx16 SDRAM - suppliers and is available in extended temperature range $-40/+85^{\circ}$. With the release of the A43L2616B, AMIC offers a die shrunked 0,11 μ m version for 3.3V and a 143Mhz speed. Samples of the 143 MHz, 54TSOP, in lead free packaging, and also in extended temperature range are available. The CSP54 will be released shortly.



AMIC 070901

Audio streaming on Ethernet or Powerline reference design

Averlogics audio board features the AL9M802 chip solution for Ethernet or Power Line real-time streaming of uncompressed stereo audio. The AL9M802 chip supports 16/24 bits with 44.1K/ 48K/ 96K/ 192kHz sampling rate, I2S, and MII interface. Audio data formats support Left Justified, and I2S with external SDRAM as data buffer. This demo board has an Ethernet Port interface that enables audio transmission by direct Ethernet connection, by external PLC adaptors (Ethernet interface), or by Home PNA.



AVERLOGIC 070902

Features

- Supports 2-channel stereo audio without compression
- Data formats: Left Justified, I2S
- Optional S/PDIF transmission
- Audio resolution: 16/24 bits
- Sampling rate: 44.1K/ 48K/ 96K/ 192kHz
- High SNR and THD+N
- Very small audio signal latency (Transmitter to Receiver)
- Configurable delay time
- Support multicast

AKM introduces new 32-bit 'Audio Experience'

The AK4397 is a 32-bit 192kHz high performance audio DAC for professional audio equipment and top-of-the-line consumer DVD/DVD-Audio/SACD player, AV receiver and digital mixer product applications. It is the newest line-up of AKMs Audio4proTM product range. The new 32-bit digital operation block provides a fully 32-bit processing for the audio interface, perfect linear phase digital filter and delta-sigma modulator. It allows high accuracy D/A conversion of 32-bit audio signal generated by high accuracy processor such as 32-bit DSP. Innovative design techniques include a symmetrical layout for the left-right switched capacitor DAC and fully separated analog power routing to avoid any degradation by cross talk and common impedance. Additionally, own unique switched capacitor DAC with excellent anti-jitter performance, circuit design to suppress the jitter generated internally and dedicated power supply pin for clock circuit result in unprecedented sound quality.

The AK4397 further provides a dedicated input port for direct stream digital (DSD) data input, sampling rate from 30kHz to 216kHz, fully differential analog outputs, digital attenuator, de-emphasis filters, soft mute and zero detection functions. The performance is THD+N of -103dB and S/N of 120dB. The operating voltage is 5V.



AKM 070903

Telecom Signalling Device offers designers increased flexibility

The CMX865A DTMF codec and telecom signalling combo gives designers increased flexibility when designing new-generation telemetry and telephone based information systems.

The CMX865A offers multi standard signalling capabilities, with data applications being facilitated by a flexible V.23/V.21 FSK (plus Bell equivalent) on-chip modem. Flexible line driver, hybrid and receiver circuits are integrated on-chip, requiring only passive components to build a 2 or 4-wire line interface. A high-quality DTMF decoder offers excellent immunity to falsing on voice and a standard DTMF encoder are included to expand the range of applications suited to the CMX865A. The CMX865A operates from a single 3.0V to 3.6V supply over a temperature range of -40°C to $+85^{\circ}\text{C}$ and is available in 16-pin SOIC (D4) or 16-pin TSSOP (E4) packages.



CML 070904

ATNGW100 Network Gateway Kit

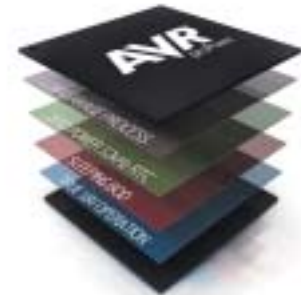
The ATNGW100 uses the AT32AP7000 which combines Atmel's state of the art AVR32 Digital Signal Processor CPU with an unrivalled selection of communication interfaces. The ATNGW100 has two Ethernet ports, SD and MMC card reader, and connectors for USB and JTAG. The ATNGW100 is also an ideal development board for the AT32AP7000. All resources are available, and it supports communication on any of the device's communication interfaces. The board is preloaded with Linux and shipped with I/O interface drivers that can be called from your own code.



ATMEL 070905

AVR 8-Bit RISC - picoPower Technology

Performance and power consumption has always been key elements of AVR's development ever since the first AT90S1200 was released in 1997. Today's increasing use of battery and signal line powered applications supports this focus and the requirements for low power solutions are stronger than ever. To meet the tough requirements to modern microcontrollers Atmel has now combined ten years of low power research and development into picoPower technology for AVR microcontrollers. PicoPower enables AVR to achieve the industry's lowest power consumption with 650 nA with a RTC running and 100nA in Power Down sleep. picoPower Technology incorporate a number of techniques for lower power consumption in sleep and active mode.



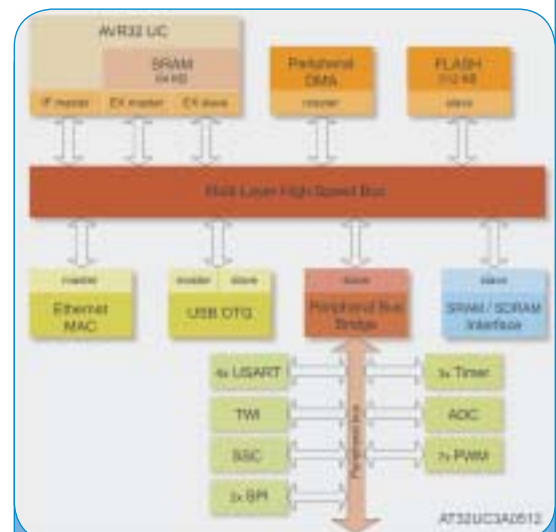
ATMEL 070906

The key elements are:

- True 1.8V Supply Voltage
- Minimized Leakage Current
- Sleeping BOD
- Ultra Low Power 32 kHz Crystal Oscillator
- Digital Input Disable Registers
- Power Reduction Register
- Clock Gating
- Flash Sampling

Atmel offers low-power 32-bit Flash MCU with Ethernet and USB On-the-Go

Based on Atmel's AVR[®]32 UC core, the UC3A Series has 512K bytes Flash and feature an embedded 10/100 Ethernet MAC, a full-speed (12 Mbps) USB 2.0 with on-the-go (OTG) capability and an SRAM/SDRAM external bus interface. The AT32UC3A0512 and AT32UC3A1512, the first devices available, deliver 80 Dhrystone MIPS (DMIPS) at 66 MHz and consume only 40 mA at 3.3V. The power consumption, as low as 1.65 mW/DMIPS, outperforms other architectures with similar features by a ratio of up to 4X. The new MCUs target networking and PC-centric embedded applications and are especially suited for portable devices.



ATMEL 070907

Inova Advanced Pixel Link with low-cost cables

APIX®, Inova Semiconductors' new Automotive Gbit/s Pixel Link, is uniquely designed to overcome the bandwidth-distance limitations of today's automotive connectivity designs. The APIX® chip family enables optimum connection of high-resolution displays and cameras to systems, using only two wires. The result is significant reduction in EMI, cable diameter and cost at maximized throughput. The APIX® requires only one twisted cable pair for full duplex video and sideband operation. A bi-directional sideband data channel, which allows for control of CMOS camera sensors or display settings, is also provided. The combination of adjustable driver characteristics, selectable operating modes (of 0.5 or 1 Gbit/s) and Spread Spectrum-Clocking enables the optimum combination of minimal EMI, maximum transmission distances, and lowest power consumption. Applications include in-car information displays, passenger infotainment systems, machine vision and remote signage.



INOVA 070908

The world's fastest MSOP Isolators

NVE announced the introduction of the IsoLoop® IL700S series of digital isolators, the world's fastest Micro-Small Outline Package (MSOP) isolators. The S-Series features best-in-class specifications: up to 150 Mbps typical data rate, and a remarkable 300 picoseconds pulse width distortion. The IL710S-1 single-channel and IL711S-1 and IL712S-1 dual-channel couplers are available in 3mm x 3mm 8-pin MSOP packages. The new series is based on NVE's patented IsoLoop spintronic giant magnetoresistor technology. Targeted at demanding applications, S-Series performance is specified over the full supply voltage range of 3 to 5.5 V and temperature range of -40 to +100°C with no derating. Typical transient immunity is 30 KV per microsecond. NVE has the industry's broadest line of high-performance isolators, including unique MSOP isolators. In addition to S-Series isolators, NVE's unique IL600 line of passive-input, failsafe-output isolators are available in MSOPs. NVE's IL600 and IL700 Isolator lines are available in SOIC, PDIP packages as well as MSOPs.



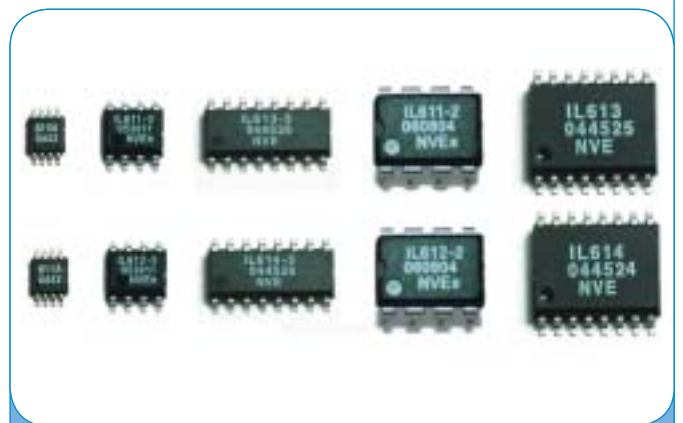
NVE 070909

IL600 Series

Passive-Input Digital Isolators – CMOS Outputs

The IL600 Series are passive input digital signal isolators with CMOS outputs and enhanced circuit performance over optocouplers. The devices are manufactured with NVE's patented IsoLoop® spintronic Giant Magnetoresistive (GMR) technology for small size, high speed, and low power. A single resistor sets the maximum input current for voltages above 0.5V. A capacitor in parallel with the current-limit resistor provides improved dynamic performance.

These versatile components simplify inventory requirements by replacing a variety of optocouplers and functioning over a wide range of data rates, edge speeds, and power supply levels.



NVE 070910

Lattice's ispLEVER 7.0 design tool suite offers new level of FPGA performance

Lattice Semiconductor has announced major performance and functional enhancements in Version 7.0 of its ispLEVER FPGA design tools. Optimized logic synthesis and place-and-route algorithms have boosted FPGA performance demonstrably by 12% on average. Tool performance has also been substantially improved, dramatically reducing design fit runtime and memory requirements.

In addition, the ispLEVER 7.0 software features Reveal, Lattice's improved logic analysis / hardware debug tool, a much improved Power Calculator and a variety of enhancements to the LatticeMico32 embedded open source microprocessor design tools.

New features in ispLEVER 7.0

- The **Reveal Logic Analyzer** uses a signal-centric model for embedded logic debugging. The user defines signals of interest and the Reveal tool then inserts the instrumentation along with the proper connections to enable the required observations. The ability to specify complex, multi-event triggering sequences makes system-level design debug smoother and faster.
- The **Power Calculator** includes new thermal resistance options that model real world thermal conditions (including heat sinks, airflow, and PCB complexity), while graphical power curves illustrate operating temperature profiles.
- **LatticeMico32 "Soft" Microprocessor** system design includes code tracing that allows the user to view and debug code leading up to a specified breakpoint. New DDRSerial SPI Flash and SDRAM peripherals have been added to ease system-on-chip FPGA designs.

Lattice XP2 FPGA family doubles density and cuts cost

Lattice announced its third generation 90nm non-volatile FPGAs, the XP2 family. This family doubles maximum logic capacity to 40K Look-Up Tables (LUTs), improves performance by 25% and adds dedicated DSP blocks, all while reducing the price per function by up to 50%. Power consumption has also been optimized, reducing static power usage by 33%. The LatticeXP2 devices use the flexiFLASH architecture that provides "instant-on" and reduced footprint benefits, while enhancing design security and live update capabilities.

Flexible I/O buffers support most popular I/O standards, including LVCMOS and LVDS. These buffers support 400Mbps DDR2 memory and 7:1 LVDS display interfaces up to 600Mbps. LatticeXP2 devices are available in a number of space-saving BGA and TQFP packages.

flexiFlash Architecture with instant-on capability

Flash memory blocks are embedded within LatticeXP2 FPGAs to store the device configuration, providing a true single chip solution. Start-up configuration time is 1ms, much faster than FPGAs that use external boot PROMs. This instant-on capability is critical for many system functions such as power up sequencing, address decoding and reset logic.

By keeping the configuration bitstream on-chip, the LatticeXP2 devices are also inherently more secure than alternative multiple device or multi-chip module solutions. Using 128-bit AES bitstream encryption even further increases security.



LATTICE 070911



LATTICE 070912

Alcom introduces Luminary Micro

Luminary Micro, Inc. designs, markets, and sells ARM® Cortex™-M3-based microcontrollers (MCUs). As ARM's lead partner for Cortex-M3 technology, Luminary Micro delivers the world's first silicon implementation of the Cortex-M3 processor, providing 32-bit performance at 8-/16-bit cost. Luminary Micro's award-winning Stellaris family of microcontrollers incorporates the Cortex-M3 MCU core running up to 50 MHz, embedded flash and SRAM, a low drop-out voltage regulator, battery-backed low-power hibernation capability, integrated brown-out reset and power-on reset functions, analog comparators, 10-bit ADC, GPIOs, and watchdog and general purpose timers. The family also integrates several serial interfaces, including 10/100 Ethernet MAC+PHY, CAN, SSI/SPI, UARTs, and I2C. Finally, the Stellaris family features peripherals designed specifically for intense industrial motor control, including motion control PWMs and quadrature encoder inputs. With every peripheral provided directly to the pins without feature multiplexing, the Stellaris family is favorably positioned for cost-conscious applications requiring significant control processing and connectivity capabilities.

First microcontroller with fully integrated 10/100 (MAC + PHY) Ethernet controller

All members of the Stellaris product family from LuminaryMicro, including the M3S6965, are designed around an ARM Cortex M3 processor core. The LM3S6965 is the first ARM based microcontroller with onboard Stellaris Ethernet controller which consists of a fully integrated media access controller [MAC] and network physical [PHY] interface device.

- ARM Cortex M3 core, 50MHz speed
- 256KB Flash/ 64KB SRAM
- 10/100 (MAC + PHY) Ethernet controller
- 100-pin LQFP package

Stellaris LM3S6965 Ethernet Evaluation Kit

Features

- LM3S6965 Evaluation Board
 - Stellaris LM3S6965 microcontroller with fully integrated 10/100 (MAC+PHY) Ethernet controller
 - Simple setup: USB cable provides serial communication, debugging, and power
 - OLED graphics display with 128 x 64 pixel resolution and 16 shades of gray
 - User LED, navigation switches, and select pushbuttons
 - Magnetic speaker
 - All LM3S6965 I/O available on labeled break-out pads
 - Standard ARM® 20-pin JTAG debug connector with input and output modes
 - MicroSD card slot
 - Retracting Ethernet cable, USB cable, and JTAG cable
- Quickstart sample application runs with or without Ethernet (direct connection to your PC), right out of the box
- CD containing:
 - Evaluation version of the software tools
 - Quickstart guide and source code
 - Complete documentation
 - Stellaris Peripheral Driver Library and example source code



LUMINARY MICRO

LUMINARY 070913



LUMINARY 070914



LUMINARY 070915

The LM3S101; 32-bit ARM Cortex M3 performance for an 8/16-bit price

LuminaryMicro is the first offering high performance microcontrollers in a small pin-count package at a very competitive price. The LM3S101 is the first in family offering the basic features needed for common designs at a performance of 1.25DMIPS/MHz.

- ARM Cortex M3 core, 20MHz speed
- 8KB Flash/ 2KB SRAM
- UART, SPI/ SSI, Watchdog, Timers, Comparators
- 28-pin SOIC package



LUMINARY 070916

Why Choose Cortex-M3 from Luminary Micro?

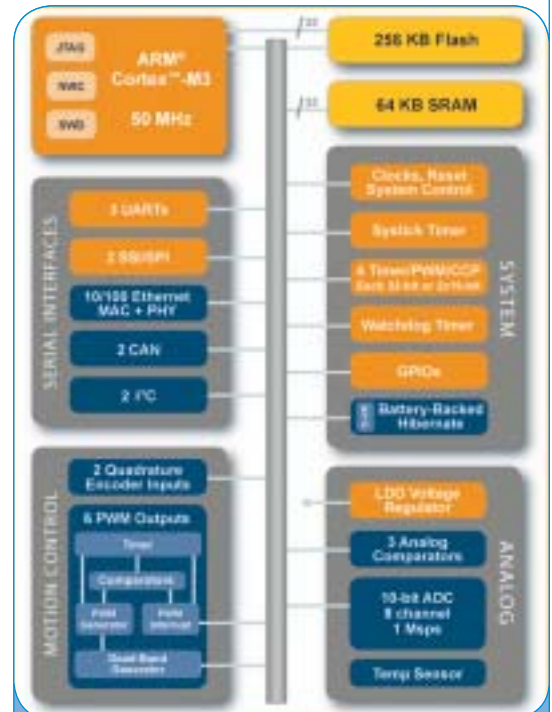
Cortex-M3 is the MCU version of ARM's V7 instruction set architecture family of cores

- Optimized for single-cycle flash usage
- Deterministic, fast interrupt processing: always 12 cycles, or just 6 cycles with tail-chaining
- Three sleep modes with clock gating for low power
- Single-cycle multiply instruction and hardware divide
- Atomic operations
- ARM Thumb2 mixed 16-/32-bit instruction set
- 1.25 DMIPS/MHz—better than ARM7 and ARM9
- Extra debug support including data watchpoints and flash patching
- Capabilities beyond ARM7 for the microcontroller market
- Requires ½ the flash (code space) of ARM7 applications
- 2–4 times faster on MCU control applications
- No assembly code required—ever!

Why Choose the Stellaris Family?

Designed for serious microcontroller applications, the Stellaris family provides the entry into the industry's strongest ecosystem, with code compatibility ranging from \$1 to 1 GHz.

- Superior integration saves in system cost
- Over 50 Stellaris family members to choose from
- Real MCU GPIOs—all can generate interrupts, are 5V-tolerant, and have programmable drive strength and slew rate control
- No functional pin muxing—choose your part by the functions you need
- Advanced communication capabilities, including 10/100 Ethernet MAC/PHY and CAN controllers
- Sophisticated motion control support in hardware and software
- Both analog comparators and ADC functionality provide on-chip system options to balance hardware and software performance
- Ease of development with the Stellaris Peripheral Driver Library's high-level API interface to the entire Stellaris peripheral set



LUMINARY 070917

GS2974A HD-LINX® III adaptive cable equalizer

The GS2974A is a high-speed BiCMOS integrated circuit designed to equalize and restore signals received over 75Ω co-axial cable. The GS2974A is designed to support SMPTE 424M, SMPTE 292M and SMPTE 259M, and is optimized for performance at 1.485Gb/s and 2.97Gb/s. The GS2974A features DC restoration to compensate for the DC content of SMPTE pathological test patterns. A voltage programmable mute threshold (MCLADJ), applicable for HD and SD mode (refer to Section 5.2), is included to allow muting of the GS2974A output when an approximate selected cable length is reached for SMPTE 259M signals. This feature allows the GS2974A to distinguish between low amplitude SD-SDI signals and noise at the input of the device. The serial digital outputs of the GS2974A may be forced to a mute state by applying a voltage to the MUTE pin.



GENNUM 070918

GS2975A HD-LINX® III Multi-Rate SDI automatic Reclocker with dual differential outputs

The GS2975A is a Multi-Rate Serial Digital Reclocker designed to automatically recover the embedded clock from a digital video signal and re-time the incoming video data. The GS2975A Serial Digital Reclocker will recover the embedded clock signal and re-time the data from a SMPTE 424M, SMPTE 292M, or SMPTE 259M-C compliant digital video signal. The GS2975A removes the high frequency jitter components from the bit-serial stream. Input termination is on-chip for seamless matching to 50Ω transmission lines. The GS2975A can operate in either auto or manual rate selection mode.



GENNUM 070919

GS2978 HD-LINX® III Multi-Rate Dual Slew-Rate Cable Driver

The GS2978 is a high-speed BiCMOS integrated circuit designed to drive one or two 75Ω co-axial cables. The GS2978 may drive data rates up to 2.97Gb/s and provides two selectable slew rates in order to achieve compliance to SMPTE 424M, SMPTE 259M, SMPTE 344M and SMPTE 292M. The GS2978 accepts a LVPECL level differential input that may be AC coupled. External biasing resistors at the inputs are not required. Power consumption is typically 168mW using a 3.3V power supply.



GENNUM 070920

Multi-Rate Serializer with Cable Driver, Audio Multiplexer and ClockCleaner™

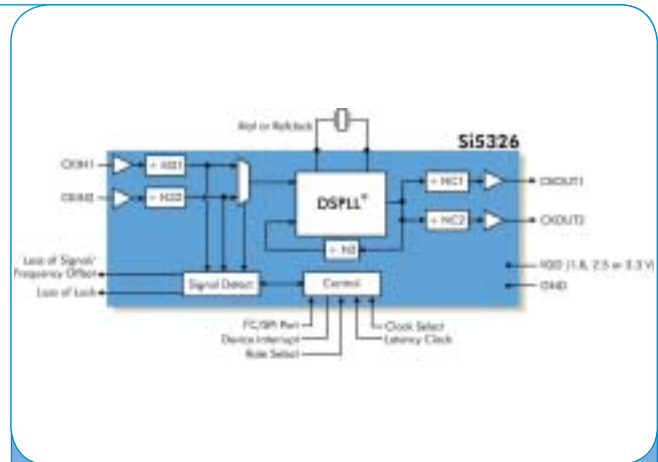
The GS1582 is the next generation multi-standard serializer with an integrated cable driver. The device provides robust parallel to serial conversion, generating a SMPTE 292M/259M-C compliant serial digital output signal. The integrated cable driver features an output disable (high impedance) mode and an adjustable signal swing. Video data input is accepted in 20 bit parallel format or 10 bit parallel multiplexed format. An associated parallel clock input must be provided at the appropriate operating frequency - 74.25 / 74.1758 / 13.5 MHz (20 bit mode) or 148.5 / 148.352 / 27 MHz (10 bit mode). The GS1582 features an internal PLL, which can be configured for loop bandwidth to below 100kHz. When used in conjunction with the G01555 Voltage Controlled Oscillator, the GS1582 can tolerate well in excess of 300ps jitter on the input PCLK and still provide output jitter within SMPTE specifications.



GENNUM 070921

Any-Rate Jitter attenuating Clock multipliers

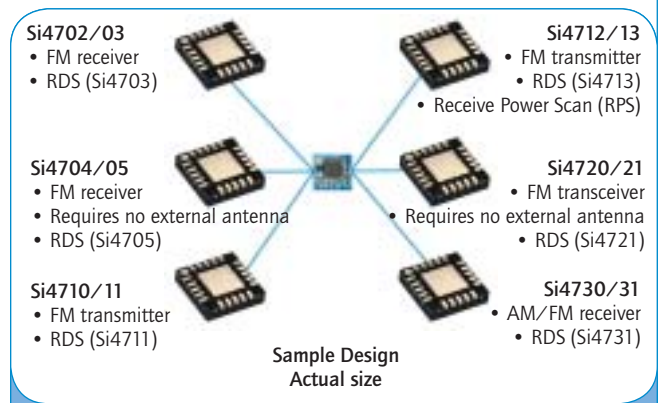
Silicon Laboratories' any-rate precision clocks provide clock multiplication, jitter attenuation and clock distribution in high performance timing applications requiring sub 1 ps jitter performance. The devices accept multiple clock inputs ranging from 2 kHz to 710 MHz and generate multiple independent, synchronous clock outputs ranging from 2 kHz to 945 MHz and select frequencies to 1.4 GHz. Microprocessor controlled devices provide virtually any frequency translation combination across this operating range. For ease of use, pin-controlled devices are preconfigured to support popular SONET/SDH, Ethernet, Fibre Channel, and HDTV frequencies. The any-rate precision clocks are based on Silicon Labs' 3rd-generation DSPLL® technology, which provides any-rate frequency synthesis and 0.3 ps rms jitter performance in a highly integrated PLL solution that eliminates the need for external VCXO and loop filter components.



SILABS 070922

Single PCB for all broadcast audio designs

The Si47xx family requires only two external components and offers footprint compatible FM receivers, AM/FM receivers, FM transmitters, and FM transceivers.



SILABS 070923

Silicon Laboratories offers highly integrated 8-bit MCE for cost-sensitive applications

Silicon Labs offers the most highly integrated 8-bit MCU combining a 25 MIPS CPU, 10-bit 500 ksp/s ADC and an internal $\pm 2\%$ oscillator in a 3x3 mm package. The C8051T60x incorporates 8 kB of OTP memory, PWM, timers, SMBus and UART and is ideal for consumer and industrial applications including toys, camera modules, cell phone accessories, portable devices, home appliances and motor controllers. The C8051T60x is pin-compatible with Silicon Laboratories' C8051F30x Flash-based MCU family to allow both upgraded and lower-cost product versions without requiring to develop multiple hardware platforms.



SILABS 070924

New serial-to-parallel converter features 32 high voltages push-pull outputs

The HV610 is a 32-channel, serial-to-parallel converter with high voltage, push-pull outputs. The IC is well suited for driving high-speed printers and LCD displays. The HV610's outputs can be individually controlled, set to high or low, or set to a high-Z state, providing useful versatility in applications requiring fast shift register and data shifting speeds. The IC features four data shift registers, directional data loading control, operating output of +50/-40 volts, and CMOS/TTL compatible inputs. The HV610 is available in a 64-lead TQFP (HV610FG-G) package. The part is "Green" and RoHS-compliant.



New integrated ultrasound pulsers ideal for portable ultrasound applications

The HV738, HV748 and HV758 are three new, fully integrated high voltage, high speed, four channel ultrasound pulser ICs. These ICs combine logic control circuitry, level translators, MOSFET gate drive buffers and high current, high voltage outputs in one small monolithic package. These ICs feature built-in output drain bleed resistors for noise reduction, up to 20MHz operating frequency, and matched delay times. The four HV738 outputs are specified at up to $\pm 65V$ and $\pm 750mA$ source and sink current each in pulsed-wave (PW) mode. The HV748's output voltage is specified at $\pm 75V$ and output current is specified at $\pm 1.25A$ source and sink each in PW mode. The HV758 output voltage is specified at $\pm 90V$ and output current is specified at $\pm 2.2A$ source and sink each in PW mode. The HV738, HV748, and HV758 have controls to enable both pulsed-wave (PW) and continuous-wave (CW) mode operations. These highly integrated, four channel, monolithic pulsers are ideal for space-constrained portable ultrasound imaging systems that require channel density and image resolutions similar to those of larger, stationary systems.



Rugged memory and mass storage solutions

STEC's Zeus Solid State Drives (SSDs) are rugged, high-capacity, and high-throughput memory and mass storage solutions for mission-critical systems in a variety of industries. Applications include data recorders, oil pipeline inspection guides, industrial automation robots and scientific equipment. Zeus SSDs provide a range of features that are designed to meet specific needs, including different form factors, interfaces, data throughputs, capacities, environmental specifications, and purge features.

Features

- Drop-in replacement for Mechanical Hard Drives
- 1.8-inch, 2.5-inch and 3.5-inch form factors
- Non-volatile memory (no mechanical components)
- Advanced Purge features (comply with NSA 130-2)
- Unique custom design capabilities
- Low power consumption & profile 9.5 mm case height
- Built and tested to MIL-STD-810
- Up to 72MBs/sec sustained throughputs



Security video camera design for all lighting conditions, 24/7

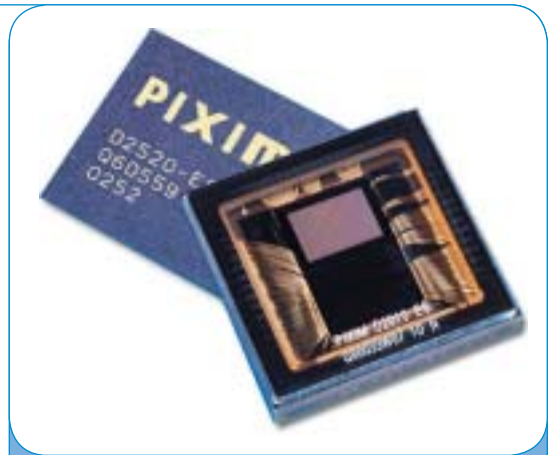
Pixim's offering for high resolution, color video cameras is the D2500 'Orca' Chipset and its accompanying firmware. The D2500 is a highly integrated two chip set utilizing Pixim's innovative Digital Pixel System (DPS) technology that provides the image sensor, image processor, and the necessary intelligence to develop advanced feature, high quality, cost-effective color CCTV and IP cameras.

DPS technology uses a patented non-destructive multi-sampling technique to greatly expand the dynamic range of captured video images in real-time. The D2500 is designed to deliver superior quality video, providing up to 102 dB dynamic range in typical operation (120 dB max) while providing high resolution (540 HTVL equivalent), sensitivity (0.5 lux color at f/1.2 aperture) and color fidelity.

The D2500 includes configurable software which allows camera manufacturers to get to market quickly and offer a number of camera products from the same base hardware design, including an option to select PAL / NTSC operation via software or switch. Simultaneous analog (composite, S-video, or component) and digital outputs are available, as well as a differential composite output capability to support analog video over unshielded twisted pair wiring. The D2010 digital image sensor and D2520 digital image processor are manufactured in low power, high volume commercial CMOS process technology. The low power dissipation enables high performance camera designs under 1.5 watts maximum at full frame rate.

Pixim CAM-B2500 Evaluation Camera

The CAM-B2500 Evaluation Camera is intended for evaluation of Pixim's Orca D2500 chipset family based on Digital Pixel System® (DPS) technology. DPS is a new image capture and processing innovation developed by Pixim, in which the quantity of light striking each picture element (pixel) is converted to a digital value at the earliest possible point: at the pixel itself. The core of the camera is a Pixim-reference module designed around the Orca D2500 chipset. This chipset provides high resolution for crisp, clear video, high sensitivity for low-light images, wide dynamic range for excellent quality in high-contrast environments, both PAL and NTSC output formats, and numerous control options. The camera is available in three versions: RGB color filters which provide better resolution, CMY color filters for higher sensitivity, and without filters for monochrome applications.



PIXIM 070928



PIXIM 070929

FTDI makes adding USB Flash disk interface simple!

FTDI introduced the VDRIVE2, a USB flash disk interface module based on its Vinculum integrated USB host controller chip. The module is ideally suited to adding USB flash disk connectivity to a broad range of industrial or commercial products that previously did not have a USB interface. Typical usage includes data capture and transfer, diagnostic analysis and software updates. The VDRIVE2 is packaged in a snap-in enclosure with a bi-color LED and a USB type 'A' socket. A PCB-only version is also available (VDRIVE1).

Vinculum's VDAP Disk and Peripheral firmware is used to control all USB mass storage class interface functions through UART or SPI interface. Vinculum also handles the file allocation table (FAT32) structure transparently, further simplifying the task of file handling.

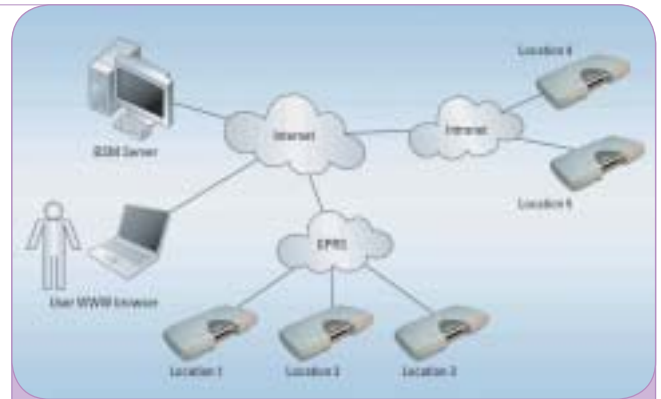


FTDI 070930

Bluegiga Access Server Network Management System

Bluegiga Solution Manager (BSM) is a web-based remote management and monitoring platform for Bluegiga Access Servers. By using BSM, you can simultaneously upgrade, monitor and configure a large number of Bluegiga Access Servers, instead of configuring each device one-by-one. This makes the installation and management of medium and large scale systems significantly easier.

- Provides remote management of Bluegiga Access Server groups
- Easy-to-use graphical user interface
- Can be used over LAN, GPRS, or any other Internet connection type
- Communicates by using secure, encrypted network protocols
- Works seamlessly through firewalls
- Enables remote upgrades of Bluegiga Access Server software and content
- APIs available enabling total customization of look and feel
- User permissions can be tailored to provide different levels of user accounts, for example full administration permissions or statistics view only



BLUEGIGA 070931

EnOcean introduces new maintenance-free sensor module

EnOcean's extremely low-power RF transmitter module STM110 enables the realization of wireless and maintenance free sensors. Power supply is provided by a small solar cell. An integrated energy store allows unrestricted functionality for several days in total darkness, while the sensor modules can operate fully autonomously in combination with EnOcean RCM 1xx receiver modules.

- Maintenance-free sensor module
- Dimensions 21 x 40 x 9 mm
- Powered by mini-solar cell, 13 x 35 mm
- No batteries required
- Operates for several days in total darkness
- Periodic presence signals
- Three Analog & four digital inputs



ENOCEAN 070932



Compact high performance active GPS antenna

Navman's ANTO6A antenna offers the ultimate in installation flexibility and performance in a cost effective and aesthetically pleasing package. The ANTO6A is rated to IPx6 and features a sturdy waterproof aluminium housing with magnetic base. The ANTO6A is configured to provide optimum tracking performance when integrated with suitable Jupiter series products. Providing a complete GPS antenna solution, the ANTO6A eliminates the risk of issues arising from incorrect antenna matching.

- Medium gain, 18 dB, RHCP, impedance matched, low VSWR active antenna
- Rugged aluminium housing which is waterproof to IPx6
- Magnetic base for ease of attachment
- Suitable for use with Jupiter 20, 21, 30 and 32
- Cable: RG174, length: 5 m (approx.), connector: SMA Plug (male)
- DC Voltage: 2.7V to 6.0V, DC Current: 3.5 ±2mA



NAVMAN 070933

Smart GPS Sensor series: fully integrated GPS antenna and receiver

GPS3260/GPS3261

Navman's Smart GPS Sensor is a fully integrated GPS antenna and high performance receiver. The GPS3260 series includes a 20-channel ultra-high sensitivity receiver based on SiRFstar III technology, providing the fastest TTFF (Time to First Fix) possible in challenging environments such as urban canyons or dense foliage, and in all weather conditions.

The Smart GPS Sensor is waterproof (IPX7), includes a LED that indicates GPS fix, and a magnetic mount base. The fixed cable with either RJ11 or USB connector provides ideal flexibility. Supporting SiRFloc, advanced power management modes, SBAS and a variety of user selectable Datums the GPS3260 Series provides the perfect plug and play GPS solution for automotive, marine, scientific, industrial, commercial, leisure and battery powered applications requiring ultimate navigation.

- Ultra-high sensitivity, 20-channel smart sensor
- User selectable SBAS (WAAS, EGNOS, MSAS)
- Built-in micro battery to reserve system data for rapid satellite acquisition
- LED indicator for GPS fix
- 3m cable with RJ11 or 2m cable with USB connector
- Selectable baud rates, default 9600 baud
- Waterproof to IPX7



NAVMAN 070934

Jupiter 30 GPS Receiver Module

Navman's Jupiter 30 GPS receiver module has been designed for low power consumption in reduced signal areas at a very competitive price. Jupiter 30 acquires GPS position faster under low signal conditions than other available GPS engines. Tracking continues in areas of dense foliage or built-up inner city environments and even indoors down to -159 dBm. Using the new and highly integrated GSC3e/LP from SiRF the Jupiter 30 offers faster GPS acquisition, a wider operating voltage range and greater noise rejection capability than leading competitor's products using a similar architecture.

- Ultra-high sensitivity, with faster times to fix under all conditions
- Low power SiRFStarIII technology
- 200000 effective correlators allows for improved indoor fixes and tracking capability
- SiRFloc and SiRFInstantFix multi-mode GPS support for improved fix availability
- 0.5 PPM TCXO for optimal performance
- User selectable SBAS (WAAS, EGNOS and MSAS) support



NAVMAN 070935

The On-Core Wi-Fi Solution

The RCM4400W RabbitCore module adds Wi-Fi/802.11b functionality to existing Rabbit® 4000 microprocessor features, allowing to create a low-cost, low-power, Wi-Fi based control and communications solution for your embedded system. The RCM4400W RabbitCore modules are equipped with on-board Wi-Fi/802.11b wireless connectivity. Features also include 512K flash memory and fast-program execution SRAM, 35 general-purpose I/O, 3.3 V I/O line, and low-power modes. With a small footprint of 1.84" x 2.85" (47 mm x 72 mm), the RCM4400W is compact and can easily be mounted directly onto a user-designed motherboard, along with CMOS-compatible digital devices.

Features

- Wi-Fi/802.11
- 35 GPIO
- 6 serial ports

Get started with the RCM4400W Development Kit!

The ZigBee is On-board!

The RCM4510W next-generation RabbitCore module adds ZigBee®/802.15.4 connectivity to the existing Rabbit® 4000 microprocessor features allowing to create a low-cost, low-power, wireless network as part of your control solution for your embedded application. The RCM4510W RabbitCore module is equipped with an on-board ZigBee/802.15.4 modem for wireless connectivity. With a small footprint of 1.84" x 2.42" (47 mm x 61 mm), the RCM4510W is compact and can easily be mounted directly onto a user-designed motherboard, along with CMOS-compatible digital devices.

Features

- ZigBee/802.15.4
- 49 GPIO
- 6 serial ports



RABBIT 070936



RABBIT 070937

Digi launches 3G Cellular to WAN router

The ConnectPort WAN VPN is an upgradeable, commercial-grade 3G cellular router that provides secure high speed wireless connectivity to remote sites and devices. It can be used for primary wireless broadband network connectivity to equipment at remote locations, as well as for a backup to existing landline communications. Applications include utilities, industrial automation, POS/retail, financial (ATMs), traffic, medical, video surveillance and more.

The Digi Connect WAN family also includes cellular routers and gateways for GSM/GPRS only and with additional support for VPN or IA protocols.

- Embedded PCI Express Mini Card module
- GSM HSDPA/UMTS support (1.8 or 3.6Mbps)
- VPN for maximum security
- 4-port Ethernet switch, 2x RS232 and 2 USB ports
- Digi SureLink™ to provide "always-on" communications
- Extended temperature specs (-30° C to +60° C) for hardened environments



DIGI/MAX 070938

Digi unites Wireless Technologies with Drop-in Networking

Digi has introduced the ConnectPort X family, a line of IP gateways that provide seamless connectivity of ZigBee®, Wi-Fi, cellular and Ethernet traffic to centralized server applications. The ConnectPort X family is augmented by new families of XBee™ adapters and wall routers that provide end-device connectivity and network extension.

These new products signify the introduction of a broader category of Drop-in Networking solutions. Digi's Drop-in Networking family of products – a collection of hardware components including mesh gateways, adapters, modules and extenders – provides the ability to network devices or groups of devices where no pre-deployed networking infrastructure exists or where access to an existing network is prohibited.

Gateways - ConnectPort™ X8

- Wireless mesh gateway with multiple configuration options
- Supports ZigBee®/802.15.4, proprietary mesh, cellular & Wi-Fi® for PAN/LAN/WAN connections
- Embedded Python® engine for custom development

Adapters – XBee™ Adapters

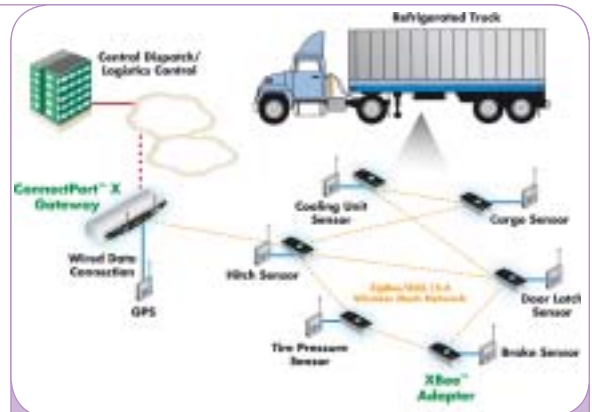
- Stand-alone ZigBee®/802.15.4 device adapters for wireless mesh connectivity
- Provide off-the-shelf mesh connectivity to existing devices
- Compatible with ConnectPort X family of IP gateways for LAN/WAN connectivity
- Multiple interface options provide broad device support

Modules – XBee™ Modules by MaxStream

- Embed networking capability in stand-alone end-point devices such as sensors, controllers and displays
- ISM 2.4 GHz operating frequency
- Outdoor RF line-of-sight range up to 1 km with XBee-PRO™

Rabbit Semiconductor Branded Products

- ZigBee-based RCM4510W and Wi-Fi-based RCM4400W RabbitCore™ modules
- Fulfill need for applications requiring ZigBee devices with programmability and configurable data filtering/control at the end device
- Use Dynamic C to deliver that functionality in an easy-to-use environment



DIGI 070939



Q2686 Wireless CPU: More Power Less Space

This integrated package has it all: huge processing power, Open AT®, the world's most powerful cellular embedded application environment and Wavecom Operating System 6.60 supporting Internet connections. The first in a bold new family of solutions from Wavecom, the OS 6.60/Q2686 is the most compact customizable quadband GSM/GPRS package available on the market. Powered by a new ARM9 processor, it provides up to six times more MIPS than previous solutions along with digital audio capability and extended connectivity features.

With low power consumption, the Q2686 module has the performance, flexibility and adaptability you need for your next wireless application. Equipped with up to 44 GPIOs, the Q2686 is especially suited to telemetry and metering applications.

The Q2686 comes with an advanced version of low latency Open AT® RTOS which features VariPower (flexible power consumption modes), VariSpeed (on-the-fly processor speed switching), a host of embedded Open AT® APIs, improved connectivity options such as USB, an all new Internet Plug-In and compatibility with the new eRide C-GPS solution.

- Based on a ARM946E-S processor with Firmware 6.62
- Use Open AT® software on the Wireless CPU for having 17 to 88 MIPS of application execution (natively executed code in C)
- Small size 40 x 32.2 x 4 mm
- Download Over The Air [DOTA]
 - DOTA type 1: Update OpenAT applicatie
 - DOTA type 2: Update Wavecom Firmware
 - DOTA type 3: Update patch
- USB 2.0 slave, 2 x UART, up to 44 GPIO, 2 x ADC, 2 x hardware interrupt, 5x5 Keyboard interface
- PCM Digital Audio Interface
- Real Time Clock met calendar
- 3 V / 1.8V SIM
- Quad band (850 / 900 / 1800 / 1900 MHz)
- Low latency Real Time OS with hardware interrupt support
- VariPower: 17µA Sleep / 1.7mA idle
- GPRS multislots Class 10, Class B
- DTMF encoder / decoder
- Supporting eRide C-GPS solutions
- More then 350 AT commando's and APIs
- Open AT® software development suite using Eclipse

GR64 Quad Band GSM/GPRS

The GR64 is a Quad Band GSM/GPRS Class 10 compact Radio Device. With functionality comparable to the Wavecom GM47/GM48 and GR47/GR48 Radio Devices, the GR64 offers a broad range of voice and data features. Its intrinsic TCP/IP stack enables designers to make effective use of GPRS. The GR64 is configurable and possesses an extended range of input/output capabilities. With its exceptionally powerful processor, the GR64 is ideal for a broad spectrum of M2M applications including fleet and asset management, POS, vending, security, metering and other solutions. Wavecom's Developer's Kit can be used with the GR64 to simplify application development. The kit provides everything required to design and develop innovative applications and to bring them to market in rapid time.



WAVECOM 070940



WAVECOM 070941

WMP100 – Wireless Microprocessor

The Wireless Microprocessor® is a powerful central processing unit with an ARM9 32 bit core, integrated cellular voice, data and wireless Internet connectivity, and unparallelled external peripherals & companion chipset management.

Wireless Microprocessor® features VariPower & VariSpeed, which allows programmable power consumption in an extremely compact BGA576 package. It has been designed to meet the demand for embedded applications with memory protection and security features.

By combining a memory and required application peripherals with an architecture that makes efficient use of existing resources, the Wireless Microprocessor® achieves superior performance while eliminating external components, easing system design and manufacture, and reducing cost compared to alternative solutions.

Features

- Compact size, suitable for almost any wireless product design
- 17 to 88 MIPS for application execution (natively executed code in C)
- Memory controller: Flash up to 128Mbytes, RAM up to 128MBytes
- Operating System: Open AT® RTOS supported
- Connectivity to more than 250 GSM cellular networks
- Companion wireless chipset support: Bluetooth, GPS
- Analogue IO: to connect sensors and audio peripherals
- Digital IO: PCM audio, USB, UART, SPI, I2C, Parallel Port. ADC, DAC, PWM
- Enhanced IO: to connect memory from a precertified range

Power Management

Wireless Microprocessor® features advanced power management capabilities that enable shutdown of most functional modules when not in use, providing significant power saving and longer battery life.

- Ultra low level 1,8V core supply voltage and 2,8V PAD supply voltage
- Core down to 1,8V in Sleep mode
- Power consumption modes: Standby mode: 1,5mA, Alarm mode: 16µA, Full speed OS: 80mA

Integrated Development Environments

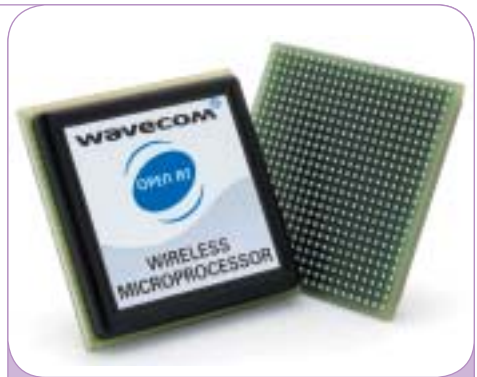
Open AT® Software Suite supports the Wireless Microprocessor® with embedded Open AT® OS and a range of Open AT® IDEs depending on the type of product being designed:

- Open AT® IDE: create natively executed code in C
- Open AT® GTi: create complex Human-Machine-Interfaces

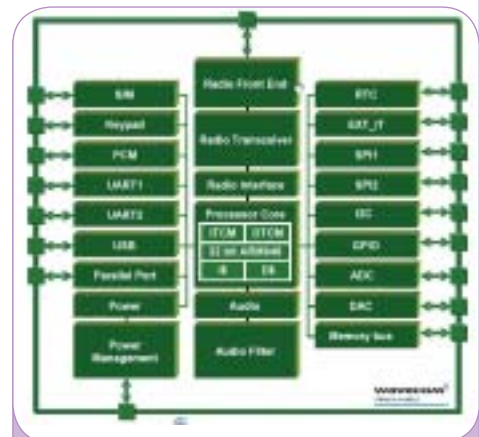
WMP100 & Open AT® Software Suite Development Kit

The first in the Wireless Microprocessor® series, the WMP100 and Wavecom's Open AT® Software Suite 1.0, comes with an advanced version of low latency Open AT® RTOS which features VariPower (flexible power consumption modes), VariSpeed (on-the-fly processor speed switching), a host of embedded Open AT® APIs, improved connectivity options such as USB and remote monitoring ports, camera and display connectivity, an all new Internet Plug-In and compatibility with the new C-GPS (Companion GPS) daughter development kit.

This development kit allows you to develop and natively execute your C program directly on the WMP100. Using the worlds most powerful cellular embedded application environment Open AT®, saves time and space to speed up development and concentrate on creating innovate marketable value through development and integration of your intellectual property.



WAVECOM 070942



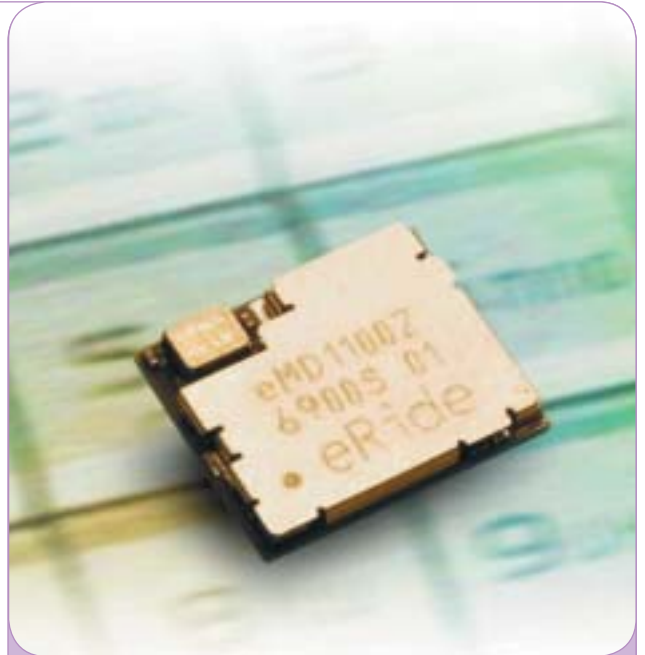
miniRide C-GPS

32 Channel host based GPS/AGPS Receiver Module

By utilising the extended MIPS capacity of the Q26/WMP series, this host based GPS solution has been created. The miniRide is a miniature high-sensitivity, low-power GPS/AGPS module that integrates eRide's OPUS ONE hardware platform into a single, compact and easy to integrate SMD device. Combined with eRide's powerful GPS software stack which is executed as an Open AT® Plug-In on the Wireless CPU, the module offers a complete high performance GPS/AGPS receiver. The miniRide module (eMD1100Z) is housed in a 10.9x9.1x1.4mm 36 pins SMD package that includes all RF matching elements, an RF SAW filter, thermal components and the TCXO crystal reference.

Features:

- Receiver Type: 32 Channel Acquisition, 8 Channel Tracking
- Maximum Update Rate: 1 Hz
- Start-up Times: - Hot start: Outdoors: <4 sec Indoors: <20 sec
- Warm Start: < 37 sec
- Cold Start: < 44 sec
- Acquisition & Tracking sensitivity: -157 dBm, 2.5 sec update rate, -155 dBm, 1 sec update rate



WAVECOM 070943

MT100SEM SocketEthernet IP

The MT100SEM is the new entry level serial-to-Ethernet device server. The SocketEthernet IP® connects serial devices to an IP network for remote monitoring, control and configuration. The space efficient module (1" x 2.5") integrates a high performance Ethernet bridge as well as a complete TCP/IP protocol stack into a single, universal socket design. It can make your existing and next generation device, machine or system, IP-ready while you focus on developing its core features.

- Complete serial-to-Ethernet connectivity solution including network
- Processor, media access controller and physical interface
- Serial interface supports DTE speeds to 230K bps
- Space efficient universal socket connectivity
- MT100SEM models support ARP, DHCP client, DNS, FTP client,
- ICMP (ping), IP, POP3, SMTP, TCP, Telnet server and UDP protocols
- LED driver outputs for visual monitoring of speed, link, activity, collision and duplex mode
- 10/100BaseT auto-sensing Ethernet or configurable for 10MB, 100MB, half-duplex or full-duplex
- AT command compatible (MT100SEM)
- Flash memory to update firmware with the latest enhancements



MULTITECH 070944



ProtoCessor OEM Industrial Protocol converter modules

ProtoCessors are a family of low cost TTL to RS-232, RS-485, Ethernet and LonWorks Embedded Coprocessor modules. These allow OEM's to rapidly implement various Industrial, Building and Machine Automation protocols in their products.

In one stroke, adding a socket to the OEM's PCB ensures compatibility with a broad range of serial and Ethernet protocols. ProtoCessors also relieve engineering and marketing from committing to a single protocol and from having to maintain skills in multiple protocols.

If a re-spin of the OEM board is not feasible, a ProtoCarrier solution RS-485, RS-232 card can be attached to the OEM's existing hardware. This ProtoCarrier includes a serial port which is used to connect to the OEM's serial port and a socket is then able to accept any ProtoCessor.

Also available is the ProtoNode, an external Building and Industrial Automation multi-protocol device server to provide translation between Serial-Serial, Serial-Ethernet and Ethernet-Ethernet devices. Multiple drivers can be installed on a single ProtoNode.

Protocols supported include Modbus, BACnet, LonWorks, Profibus and Ethernet/IP.

- Easy support for many industry standard protocols
- Dramatically reduced NRE
- Rapid Time-to-Market
- Minimal hardware and software impact
- No protocol knowledge necessary
- Built-in compliancy



PROTOCESSOR 070945



PROTOCESSOR

I want to subscribe my colleague:

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Function:

E-mail:

IF ANY OF THE DETAILS ON THE ADDRESS LABEL ARE INCORRECT OR INCOMPLETE, PLEASE FILL IN THE FOLLOWING:

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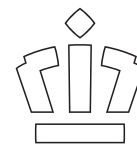
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