



ANDES in Sight

ANDES TECHNOLOGY Newsletter, US Edition

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Zinitix BT541 Touch Screen Controller Uses Andes N968A

Fabless chip giant Zinitix, based in Yongin, South Korea, has licensed the AndesCore N968A-S CPU IP for its Progressive Capacitive (PCAP) **Touch Screen Controller BT541**. Zinitix BT541 leverages the AndesCore N968A's high performance and small gate count to provide the advanced PCAP functionality found in today's smart phone touch panel controllers: multi-touch capability, gesture recognition, and touch accuracy. The Zinitix BT541 has been incorporated into the worldwide mobile phone industry supply chain.

According to IHS Inc., the capacitive **touch controller IC market** is forecast to double in size to \$2.8 billion in 2017, from \$1.4 billion in 2012, growing at a compound annual growth rate of 14.6 percent during the period.

The El Segundo, Calif. based market research firm declares capacitive touch technology is leading the growth." In the past eight years, it has been steadily advancing in many areas including touch panel structure, its materials, and the manufacturing process. Along with this, the market for touch controller ICs, one of the key components that determine the touch screen panel's performance, has also experienced growth."

"We are thrilled that Zinitix selected Andes from among our competitors for their BT541 fourth generation capacitive touch screen controller," said Frankwell Lin, President of Andes." We look forward to continue enabling Zinitix to achieve their goal of becoming a global system IC leader. Korea is one of the most important markets for Andes.

In the future, Andes will aggressively promote its entire range of processors, the N7, N8, N9, N10, and N13, to provide SoC designers in Korea a wider selection of processor cores."

AndesCore N968A contributes to the cost/performance advantage of Zinitix's BT541 to enable its success in the highly competitive PCAP touch screen market. Geff Walker, Senior Touch Technologist, Intel Corp. places Zinitix in the top 15 PCAP controller suppliers worldwide. ("Fundamentals of projected-Capacitive Touch Technology," p.55) the N968A **AndeStar™ V3 instruction set Architecture** adds 38 instructions to achieve superior system performance, minimum code size, and the lowest power consumption among competitive alternatives.



Zinitix Co., Ltd. Aims To Be the Global System IC Leader

Zinitix Co. is a fabless semiconductor enterprise specializing in developing world-class system integrated circuits began in business nearly 20 years ago. Since its founding, Zinitix has been invested heavily in innovative research and development. Today, Zinitix is in high volume production of a wide variety of system ICs; touch controller ICs, auto focus driver ICs, haptic driver ICs, and motor driver ICs. Designed into smart phones, tablet PCs, laptop PCs, home appliances, and automotive applications, Zinitix products provide customers and markets epoch-making technology such as 1-layer touch and one chip auto-focus. Through creative R&D and leading technology, Zinitix's goal is to become a global system IC leader providing the best products and services. For more information about Zinitix Co., Ltd, please visit <http://www.zinitix.com/eng/main/main.php>.

Andes CPU Core Small Die Area and Low Power Consumption Wins New Socket in MediaTek SoCs

Andes Technology Corporation, the leader in developing easy to integrate, scalable, and configurable CPUs and platforms, announced this month that MediaTek Inc., a leading fabless semiconductor company, has adopted the AndesCore™ N9 CPU IP in their SoCs. The **AndesCore N9** is intended for deeply embedded applications that require optimal interrupt response time, efficient performance and compact code size, including wireless networking and sensors.

"We are thrilled that **AndesCore N9** was selected for use in the MediaTek SoCs," said Dr. Charlie Su, Chief Technical Officer and SVP of R&D at Andes. "The N9 dramatically reduces the instruction memory size and cost of the SoC through higher code density, when compared to legacy 8- or 16-bit MCUs. Despite the N9's compact size, it still provides more than 40 percent better performance than competing 32-bit

processor cores to enable functionality such as 802.11 drivers and TCP/IP protocol stack for network applications, GPIO and PWM for intelligent control, as well as UART and SPI interfaces for device communication."

According to market analyst BI (**Business Intelligence**), smart home device shipments will grow faster than smart phones or other portable devices, at a compound annual rate of 67 percent for the next five years. The market research firm expects as many as 1.8 billion units to ship in 2019, including safety and security devices such as internet-connected sensors, monitors, cameras, and alarm systems and energy management components such as smart thermostats and lights. As Andes customers produce SoCs for this market opportunity, embedded processors such as the N9 will continue to see strong demand.

Motorola Mobility LLC





About the AndeStar™ N9 Family

The AndeStar N9 Family serves deeply embedded applications requiring optimal interrupt response, wireless networking and sensors. These include microcontrollers, automotive electronics, and industrial control systems. The low-power N9 Family's low gate count, low interrupt latency, and low-cost debug meets the challenges of low dynamic and static power constraints. The N9 Family implements v3, the patented AndeStar™ 32-bit RISC-style CPU architecture. It enables designers to adjust CPU size, power, and performance: 16 or 32 general registers, a fast or a small multiplier, a 24-bit or 32-bit address space, and different bus (APB, AHB, AHB-Lite, or AXI) interfaces, and many more.

Evaluate Andes IP Cores

Andes has over 80 licensees and Andes-based products are shipping in more than a half a billion devices around the globe from licensees in Taiwan, Japan, Korea, and China. The company is expanding into the Americas.



If you have an SOC design in need of a low power, low cost

MCU/CPU with full toolchain and peripheral support, contact us to arrange a free evaluation. Let us help with your next design. E-mail us at info@andestech.com.
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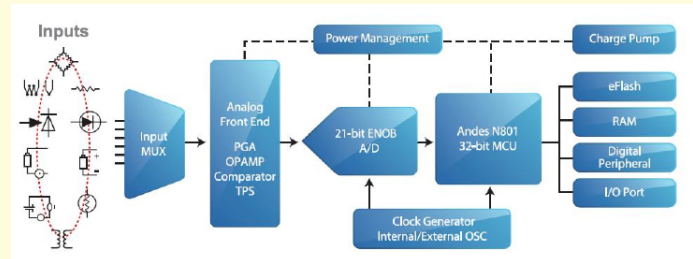
Hycon Technology Selects Andes N8 CPU Core for Next Generation High-End 24-bit Analog-to-Digital Converter

Hycon Technology Corporation, based in Taipei City Taiwan, selected the Andes N8 32-bit processor core for its HY16F Series next generation high-end 24-bit Analog-to-Digital Converter (ADC). The Andes core helps Hycon's higher resolution 24-bit ADC achieve a competitive advantage in the demanding and rapid growth health care device market of digital scales, blood pressure and insulin monitors, wearables, and other devices that monitor chronic medical conditions outside the hospital.

"Andes Technology provided Hycon with on-time and effective technical support and service that ensured our design team's schedule was maintained as we integrated the Andes core into our new 24-bit ADC design," Hsu Wen-Yee, Senior Director at Hycon Technology said, "and their excellent support helped reduce our time to market. While Andes is a newer CPU IP supplier in the industry, the company's strong and continued insistence on self-discipline, growth, eagerness to listen to customers, and continuous hardware and software improvements makes them a partner worthy to engage with in the long term."

"We are extremely pleased that Hycon chose the Andes N8 processor core for

their next generation 24-bit ADC product," said Frankwell Lin, President of Andes. "In the field of healthcare applications such as glucose meter, digital weight scale, temperature sensor, etc., Hycon has achieved international tier-1 status in terms of quality and performance. In the future,



Andes will continue to devote ourselves to providing excellent products and superior technical service to all our customers. By creating a win-win business engagement with our customers, we can grow together and help one another succeed."

The efficient AndeStar™ Instruction Set Architecture enables superior 32-bit performance with lower power consumption than and gate-count equivalent to an older 8-bit processor. The three-stage pipelined N8 works with separate flash acceleration IP called FlashFetch that boosts performance without consuming added power. The key component of FlashFetch consists of a small amount of buffer near the processor core that enables repetitive functions to be executed efficiently thus eliminating power consuming flash memory accesses.

Andes Technology Corp.

Founded in March 2005, Andes Technology Corporation headquartered in SiSoft Research Center, Hsinchu, Taiwan is a leading Taiwan CPU intellectual property (IP) supplier, with over 80 licensees in Taiwan, Japan, Korea, and China that have shipped over a half billion units. Its products range from the entry level N7 and N8 with 2- and 3-stage pipelines, to the high-end N13 with 8-stage and longer pipelines. The mid-range N9 has the highest customer shipping volume while the mid-range N10 and high-end N13 support Linux and floating-point coprocessor. Configurable and extensible Andes cores enable designers to create unique designs. AndeSight™ IDE enable customers to efficiently develop, debug, tune and regress their software. AndeSoft™ provides customers optimized fundamental software such as OS, drivers, standard C libraries, middleware, etc. for rapid application development. The company has sales offices throughout Asia and the U.S.

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