Hillcrest Labs integrates Texas Instruments' ZigBee® RF4CE solutions on next-generation motion sensing remotes

Companies to unveil joint reference design for RF-based, high-precision motion control for advanced user interface navigation, motion gaming, gesture control, and more

Rockville, Md. – September 8, 2011 – Hillcrest Labs today announced an integrated motion sensing remote control solution – which includes radio frequency (RF) technology from Texas Instruments Incorporated (TI) – designed for manufacturers of motion sensing RF remote controls, Smart TVs, set-top boxes and streaming media players. Hillcrest and TI will also offer a new reference design, to be introduced by the end of this year, that combines Hillcrest's new Freespace® MotionEngine™ software with TI's RemoTI™ network protocol and ZigBee® RF4CE (Radio Frequency for Consumer Electronics) hardware platform. The two companies will showcase Hillcrest's Freespace MotionEngine working with TI's ZigBee RF4CE solutions at IBC 2011 (TI stand 9, B19, hall 9).

Most remote controls today rely upon antiquated infrared (IR) technology to communicate commands to consumer electronics devices. With the solution jointly developed by Hillcrest and TI, manufacturers can incorporate state-of-the-art natural user interfaces (NUIs) into their products. This new class of natural motion remote controls can eliminate the line-of-sight limitations of IR devices, support bi-directional communications, and incorporate low-cost, high-precision motion control to greatly expand the types and interactivity of applications available for Smart TV devices.

"We initiated our working relationship with Hillcrest Labs in 2009, and are pleased to work with their leading team on yet another advancement in the motion control software space," said Stig Torud, RF4CE strategic marketing, Low-Power RF, TI. "Together, we will provide greater, more compelling choices for customers developing RF4CE-based remote controls with high-precision motion control for user interface navigation, motion gaming, gesture control and more."

"As Smart TVs and other connected devices become more pervasive in the home, the market demands simpler, yet more interactive control of TV applications, video games and Web browsers," said Chad Lucien, senior vice president of sales and marketing, Hillcrest Labs. "TI is a proven leader in developing low-power RF4CE solutions, and we are very proud to take this next step with them to deliver a joint solution to market."

Next-Generation Motion Software

Hillcrest's Freespace MotionEngine is an embedded software platform that provides an integrated solution to enable MEMS inertial and magnetic sensors to work effectively and consistently in mass production. Hillcrest's patented motion control software platform provides a sensor-agnostic solution for motion control devices using accelerometers, gyroscopes and magnetometers (compasses) in a variety of configurations. The MotionEngine software can be licensed for integration into a customer's hardware, or it can be purchased as part of a module or remote control offered by Hillcrest.

The key functions of the MotionEngine are sensor fusion, calibration, 3D device motion, gestures, and cursor control, which are implemented with sensors from a variety of the leading MEMS suppliers. The latest MotionEngine release is a modular software solution that can run on an embedded microcontroller or host processor, which provides greater implementation flexibility than its predecessor. For remote

controls and game controllers, this enables the MotionEngine to run on the controller, on a USB dongle, or directly on a TV or set-top box system-on-a-chip (SoC). Motion data processed by the MotionEngine is delivered using a standards-based API and is compatible with USB, Bluetooth® RF4CE, and other RF protocols. Key applications of the MotionEngine include: TV remote controls, game controllers, mobile phones, and more.

Additional information about Hillcrest can be found at www.hillcrestlabs.com. Follow Hillcrest Labs on Facebook at www.facebook.com/kylobrowser or Twitter at www.twitter.com/kylotvbrowser. For more details about TI's RemoTI network protocol and ZigBee RF4CE products, visit http://www.ti.com/rf4ce.

About Hillcrest Labs

Hillcrest Laboratories (a.k.a. Hillcrest Labs) sells natural motion technology and software applications to consumer electronics manufacturers, service providers, and consumers that enable unique, interactive digital media experiences for TVs and other digital media devices. Hillcrest Labs sells and licenses its in-air pointing and motion control technology, called Freespace®, for use in a wide range of consumer devices including remote controls and game controllers for Smart TVs, streaming media players, Blu-ray players, set-top boxes, PCs, and tablets. Companies that have licensed Hillcrest Labs' technology for use in their products include: Eastman Kodak, LG Electronics, Logitech, Roku, SMK, Sony Computer Entertainment Inc., Universal Electronics (UEI), and others. For consumers, Hillcrest Labs also offers the Kylo® browser, a free Web browser for TV. Hillcrest Labs has received numerous awards and recognitions including the prestigious CES Innovations Honoree Award on three separate occasions, PC World's 100 Best Products and Greatest Tech Designs, Popular Mechanics' Editors Choice, ECN's Reader's Choice Tech, and many others. For additional information, visit www.hillcrestlabs.com.

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