

Cypress's PSoC® and CyFi™ Low-Power Wireless Solution Enables Smart Connectivity for Remote Controls in PURE's Audio Systems

Remote Control Enhances User Experience by Delivering Robust Communication without Infrared's Line-of-Sight Limitations

Bangalore, Karnataka, June 3, 2009 /[India PRwire](#)/ -- Cypress Semiconductor Corp. (NYSE: CY) today announced that PURE, the UK's leading radio manufacturer, has employed Cypress's CyFi™ Low-Power Wireless powered by a PSoC® programmable system-on-chip to implement communication in the remote control for the EVOKE Flow and AVANTI Flow digital audio systems. The CyFi wireless solution overcomes infrared's line-of-sight requirement, enabling the full-featured remote controls to access the audio systems from another room. The EVOKE Flow also leverages the versatile Cypress CapSense™ solution to implement the touch-sensing controls on its front panel.

The CyFi Low-Power Wireless solution's ultra-low-power consumption prolongs battery life. Its industry-leading interference immunity allows remote controls to operate uninterrupted in the home environment, where the 2.4-GHz spectrum is crowded with signals from Wi-Fi, microwaves, cordless phones and other devices. The CyFi solution is enhanced by the flexible and easy-to-use PSoC programmable system-on-chip, which reduces the complexity of quantifying a sensor's signal by integrating the amplification, filtering, and ADC stages into a single device.

The award-winning EVOKE Flow portable radio and AVANTI Flow tabletop digital audio system offer users a rich choice of audio content from sources such as internet radio using the built in Wi-Fi connection, DAB or FM broadcasts, or even music on a home Wi-Fi network.

"Top-quality digital audio systems such as PURE's Flow products demand a feature-rich remote control with high reliability and low-power consumption for years of battery life," said Martin Harrison, Director of Hardware Development at PURE. "We chose the CyFi solution for its ease of integration and flexibility. The versatility of PSoC to control multiple functions helped us to reduce our BOM costs while also providing our products with a very marketable USP (unique selling point)."

"The PSoC and CyFi wireless solution delivers robust connectivity and flexibility to the remote for PURE's award-winning products," said Matt Branda, marketing director for PSoC at Cypress. "Cypress's solution provides the innovative features and performance required by next-generation remote controls."

About CyFi Low-Power Wireless

The CyFi solution uses Direct Sequence Spread Spectrum (DSSS) modulation to encode data and allow the CyFi receiver to recover the signal when faced with interference. The solution intelligently selects a clear channel from the 80 narrow, 1 MHz channels at the transceiver's disposal. No other 2.4-GHz solution combines DSSS modulation with this level of frequency agility. The solution can also increase power amplification to overcome interference. This dynamic adaptability to the operating environment also lends to optimizing power consumption. In noise-free environments the CyFi solution communicates at 1 Mbps to minimize transfer time and leverage the ultra-low-power sleep current of 0.8 uA. The solution automatically drops to a slower, more robust 250 kbps data rate when it detects interference, and it can increase power amplification to reduce retransmissions and return to sleep-mode faster.

The CyFi protocol stack has the smallest memory footprint of any comparable wireless solution at 5.5K in Flash, leaving room for additional system functionality in the controlling PSoC device. Designers can use the compact protocol stack to build a complete wireless star-topology network with fewer peripherals and greater functionality. The protocol stack has a network capacity of up to 255 nodes per hub, all with asynchronous, bi-directional communication. For more information, visit www.cypress.com/CyFi.

PSoC—Because Change Happens

PSoC devices employ a highly configurable system-on-chip architecture for embedded control design, offering a flash-based equivalent of a field-programmable ASIC without lead-time or NRE penalties. PSoC devices integrate

configurable analog and digital circuits, controlled by an on-chip microcontroller, providing both enhanced design revision capability and component count savings. They include up to 32 Kbytes of Flash memory, 2 Kbytes of SRAM, an 8x8 multiplier with 32-bit accumulator, power and sleep monitoring circuits, and hardware I2C communications.

A single PSoC device can integrate as many as 100 peripheral functions saving customers design time, board space and power consumption while improving system quality and reducing system cost.

The flexible PSoC resources allow designers to future-proof their products by enabling firmware-based changes during design, validation, production, and in the field. The unique PSoC flexibility shortens design cycle time and allows for late-breaking feature enhancements. All PSoC devices are also dynamically reconfigurable, enabling designers to morph internal resources on-the-fly, utilizing fewer components to perform a given task. More information about PSoC products is available at www.cypress.com/psoc and free online training is at www.cypress.com/psoctraining.

Notes to Editor

About PURE Digital

PURE is the world's leading manufacturer of broadcast and Internet-connected digital radios, the number one supplier of digital radios in Europe and the creator of the world's most popular and iconic digital radios.

PURE radios increasingly support all the broadcast standards in the DAB family used across Europe and beyond. PURE leads the way in Internet-connected radios with its Flow technology and the PURE Lounge portal (www.thelounge.com). Designed and engineered in the UK, all of PURE's products are manufactured with the environment in mind and at ethically audited facilities. PURE is a division of Imagination Technologies Group plc. See www.pure.com.

About Cypress

Cypress delivers high-performance, mixed-signal, programmable solutions that provide customers with rapid time-to-market and exceptional system value. Cypress offerings include the PSoC® programmable system-on-chip, USB controllers, general-purpose programmable clocks and memories. Cypress also offers wired and wireless connectivity technologies ranging from its CyFi™ Low-Power RF solution, to West Bridge® and EZ-USB® FX2LP controllers that enhance connectivity and performance in multimedia handsets. Cypress serves numerous markets including consumer, computation, data communications, automotive, and industrial. Cypress trades on the NYSE under the ticker symbol CY. Visit Cypress online at www.cypress.com.

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