Low-power sensor evaluation platform based on Bluetooth Smart SOC

The STEVAL-IDB007V1 evaluation platform based on our low-power Bluetooth® Smart system-on-chip (BlueNRG-1) provides a set of hardware resources for implementing a wide range of sensor (accelerometer, pressure and temperature) scenarios and manage debug messages. Firmware lets you interface with a mobile BlueNRG sensor application (iOS or Android) with acceleration and environmental services. 3 power options are available for increased development and testing flexibility. Read more

5 V - 3 A output CC primary sensing USB adapter increases performance and reliability

Based on the STCH02 current mode controller, the STEVAL-ISA193V1 evaluation board implements a 15 W USB adapter with primary sensing constant current (CC) feature, eliminating the need of a dedicated current reference IC and of a current sensor. With an extremely high power density per watt, the power supply provides very high efficiency, low standby power (less than 10 mW), excellent EMI performance and a complete set of integrated protection features that considerably increase end-product safety and reliability. Read more

Advanced System Basis Chip solution tailored for automotive applications

The L99PM62GXP System Basis Chip (SBC) provides enhanced power supply functions including various standby modes. The SPI interface lets you develop generic software and take advantage of the advanced high-speed CAN transceiver with local failure and bus failure diagnostics and a complete 3-channel contact monitoring interface with programmable cyclic sense function. A LIN 2.1 compliant transceiver is embedded as well. Multiple high- and low-side drivers ensure accurate driving of motor controls and external loads including LEDs and sensors. Read more

Nano-power op amp helps cut the size and energy needs of analog circuits

Specifically designed to run longer and more efficiently in low-power applications, the TSU111 op amp offers an ultra-low power consumption of 900 nA (typ.) and 1.2 µA (max.) when supplied by 3.3 V. Its high accuracy of 150 µV (max.), 11.5 kHz gain bandwidth and tiny 1.2 x 1.3 mm outline make the TSU111 ideal for medical monitors, wearables, gas detectors, pH sensors, infrared motion sensors, and payment tags. Read more

New programmable TVS board validates lightning protection for SLIC transceivers

The STEVAL-OET001V1 board is designed to validate lightning protection for SLIC transceivers. Based on the LCP154DJF programmable transient voltage suppressor, the board is able to protect 4 POTS lines against transient overvoltages; and several boards can be used if the number of lines is higher. The board complies with ITU-T K20/21/45 and GR1089-Core associated with Cooper Bussmann Telecom Circuit Protector fuse TCP 1.25 A. Read more

12 V - 0.6 A flyback isolated converter using innovative VIPer0P IC for green energy management

The STEVAL-ISA180V1 evaluation board implements a wide mains range flyback isolated converter using ST's new VIPer0P IC with zero-power features for building smart power supplies. With five-star energy efficiency when operating with no load, the board features a small size and minimal BOM, high efficiency, low standby consumption and high reliability due to pulse skip mode to avoid flux-runaway, delayed overload protection (OLP), max duty cycle counter, V_{CC} clamp and thermal shutdown. Read more

Experience high-performance LED driving in commercial and high-bay applications

The STEVAL-ILL074V1 evaluation board provides a stable, isolated 52 V bus to drive LEDs in 60 W applications with wide input voltage range, using our HVLED001A flyback controller in quasi-resonant mode. A power factor in excess of 0.9 is provided together with total harmonic distortion below 10 % and power conversion efficiency above 90 % to ensure compliance with the most stringent lighting standards in an efficient, compact, and cost-effective solution. Read more

Advanced adaptive synchronous rectification controller for LLC resonant converters

The STEVAL-ISA168V1 evaluation board features the SRK2001 controller for secondary-side synchronous rectification in LLC resonant converters. It provides 2 independent high-current gate-drive outputs and an interlock logic circuit that prevents the synchronous rectifier MOSFETs from conducting simultaneously. Various operating modes can also be programmed to ensure compliance with the most stringent energy-saving standards and no-load consumption requirements. Read more

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Low-power wide-area network demo among CES highlights

This blog post shows how ST's guests traveling in limos to and from the private ST demo suites at a hotel on the Las Vegas Strip are enjoying an upgrade in service while helping show off the benefits of the Teseo III navigation IC and the LoRa low-power, wide-area network. Read more

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