Integrated Power Management Solution For USB Peripherals

California Micro Devices announced the availability of it's CMPWR160 integrated circuit (IC) which provides an integrated power management solution targeting Universal Serial Bus (USB) Peripherals and other hot insertion equipment. The CMPWR160 combines a Low Dropout Regulator (LDO) with a Power-On-Reset (POR) pulse generator. To meet the specification requirements of both USB 1.0 and USB 2.0 the CMPWR160 draws a very low quiescent current (35 &#956A), while delivering up to 500mA of load current at a fixed 3.3 V output. The LDO is implemented using CAMD's SmartOR&#153 technology to provide a glitch free regulated output.
A shutdown feature is included which can force the regulator to be powered down on demand while drawing only 7 &#956A of current. When in shutdown mode the POR circuitry will remain active, making the device suitable for systems that contain back-up or alternative power sources.
The CMPWR160 is suitable for use in self powered (using internal batteries or AC adapter supply) and bus powered (using USB port power supply) USB peripherals. Typical peripherals include keyboards, digital cameras, storage devices, audio speakers, microphones, and video game controls such as joysticks. This new part expands CAMD's success with the existing family of SmartOR&#153 Power Management ICs into the USB marketplace, which is rapidly expanding now that USB ports are a standard feature of all personal computer (PC) systems. USB ports now serve digital cameras and other sophisticated peripherals in addition to classic products such as keyboards, and pointing devices.
The CMPWR160 is packaged in a thermally enhanced 8 pin SOIC which is ideal in applications where a small printed circuit board is required. This package uses a fused leadframe where the ground pins are integral to the leadframe so that a double-sided printed circuit board can act as a &quotheat spreader.&quot

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