

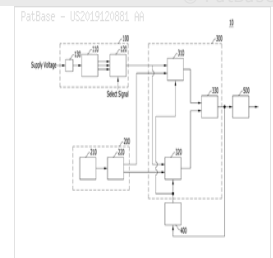
1) Family number: 68931431 (US2019120881 AA)

BROWN OUT DETECTOR WITH HYSTERESIS SPECIFICITY

Abstract: Source: US2019120881 AA A brown out detector (BOD) may include: a first reference voltage comparison unit configured to generate a first comparison signal by comparing the supply voltage to a first reference voltage; a second reference voltage comparison unit configured to generate a second comparison signal by comparing the supply voltage to a second reference voltage; a hysteresis comparator configured to generate a signal for suspending the operation of the external system when the supply voltage drops below the first reference voltage, and generate a signal for maintaining or resuming the operation of the external system when the supply voltage rises over the second reference voltage, based on the first and second comparison signals; and a reference voltage decider configured to control on/off of the first and second reference voltage comparison units based on an output signal of the hysteresis comparator.

Probable Assignee: AIRPOINT

Earliest Publication Date: 20180320



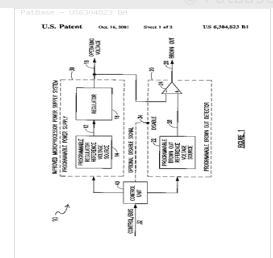
2) Family number: 28428265 (US6304823 BA)

MICROPROCESSOR POWER SUPPLY SYSTEM INCLUDING A PROGRAMMABLE POWER SUPPLY AND A PROGRAMMABLE BROWNOUT DETECTOR

Abstract: Source: US6304823 BA A microprocessor power supply system, which features a programmable power supply and a programmable brownout detector with a central control unit that allows for independent, but coordinated, control of operating voltage and brownout reference voltage. The invention prevents improper programming of the operating voltage and the brownout reference voltage levels. The programmable power supply and brownout detector threshold can also be controlled to provide an optimum threshold over a range of operating voltages.

Probable Assignee: MICROCHIP TECHNOLOGY INC

Earliest Publication Date: 20000322



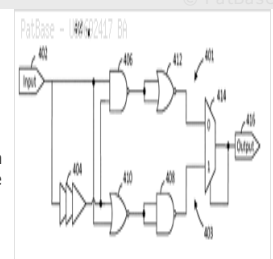
3) Family number: 66191589 (US9692417 BA)

TRANSITION GLITCH SUPPRESSION CIRCUIT

Abstract: Source: US9692417 BA A transition glitch suppression circuit can be used to remove unwanted glitches occurring within a time delay of the rising edge or falling edge of a signal. The transition glitch suppression circuit has a delay element that can delay the input signal by the time delay to generate a delayed input signal. The transition glitch suppression circuit also has first and second logic circuits that process the input signal and the delayed input signal to generate corresponding outputs. A multiplexer provides the output signal for the suppression circuit by selecting between the output of the first logic circuit and the output of the second logic circuit based on the value of the output signal.

Probable Assignee: SQUARE INC

Earliest Publication Date: 20170627



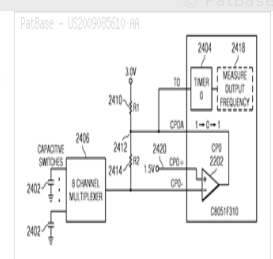
4) Family number: 43089165 (US2009085610 AA)

GENERAL PURPOSE COMPARATOR WITH MULTIPLEXER INPUTS

Abstract: Source: US2009085610 AA A circuitry comprises a comparator for comparing a signal received on a first input to a signal received on a second input. A control register associated with the first multiplexer stores control values enabling connection of one input of the first multiplexer to the output of the first multiplexer.

Probable Assignee: SILICON LABORATORIES INC

Earliest Publication Date: 20090402

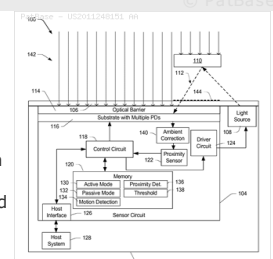


5) Family number: 49714647 (US2011248151 AA)

SYSTEM AND CIRCUIT INCLUDING MULTIPLE PHOTO DETECTORS

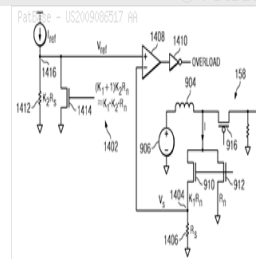
Abstract: Source: US2011248151 AA A system includes a plurality of photo detectors, which generate signals proportional to incident light. The system further includes an optical barrier adjacent to a surface and includes a control circuit. The optical barrier partially obstructs reflected light from reaching the plurality of photo detectors to produce a spatially dependent reflectance pattern that is dependent on a position of an object relative to a substrate. The control circuit determines a position of the object during a reflectance measurement cycle using each of the plurality of photo detectors by calibrating to ambient light conditions, measuring ambient plus reflected light, determining the reflected light and detecting the position of the object based on a ratio of the reflected light received by at least two of the plurality of photo detectors.

Probable Assignee: SILICON LABORATORIES INC

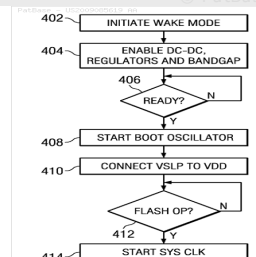


6) Family number: 43089896 (US2009086517 AA)**DC/DC BOOST CONVERTER WITH RESISTORLESS CURRENT SENSING**

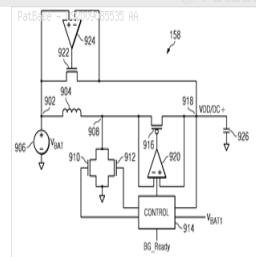
Abstract: Source: US2009086517 AA A DC to DC boost converter circuit receives a DC input voltage and converts it to a DC output voltage at a different voltage level than the DC input voltage. The DC to DC boost converter includes a switching power converter for receiving the input voltage on an input and converting the input voltage to an output as the DC output voltage in response to pulse control signals. A switching controller generates the pulse control signals during a switching cycle. Current sensing circuitry limits a current passing through the switching power converter. The current sensing circuitry generates an overload signal when the current exceeds a reference value. The current sensing circuitry sensing the current with a current sensing resistor having a size of at least approximately 500 ohms.

Probable Assignee: SILICON LABORATORIES INC**Earliest Publication Date:** 20090402**7) Family number: 43089190** (US2009085619 AA)**POWER SUPPLY VOLTAGE MONITORS**

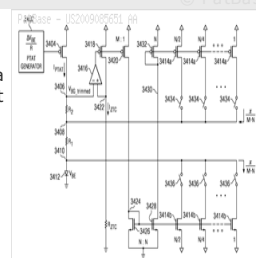
Abstract: Source: US2009085619 AA The single chip microcontroller unit includes a processing unit having normal power mode of operation and a low power mode of operation. Analog circuitry and digital circuitry are connected to the processing unit. Monitoring circuitry determines if a chip supply voltage level exceeds a threshold level necessary to maintain operation of the digital circuitry.

Probable Assignee: SILICON LABORATORIES INC**Earliest Publication Date:** 20090402**8) Family number: 43089303** (US2009085535 AA)**DC/DC BOOST CONVERTER WITH PULSE SKIPPING CIRCUITRY**

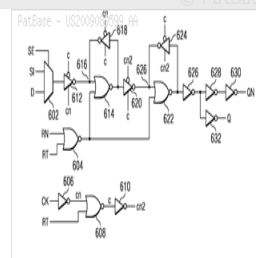
Abstract: Source: US2009085535 AA A DC to DC boost converter circuit receives a DC input voltage and converts it to a DC output voltage at a different voltage level than the DC input voltage. The DC to DC boost converter includes a switching power converter for receiving the input voltage on an input and converting the input voltage to an output as the DC output voltage in response to pulse control signals. A switching controller generates the pulse control signals during a switching cycle. The switching controller further includes pulse skipping circuitry for generating a pulse width modulated signal to the switching power converter. A pulse width of the pulse width modulated signal is decreased responsive to a voltage level of an output voltage of the DC to DC boost converter being less than a control saw tooth waveform and the pulses width of the pulse width modulated signal is increased responsive to the voltage level of the output voltage of the DC to DC boost converter being greater than the control saw tooth waveform.

Probable Assignee: SILICON LABORATORIES INC**Earliest Publication Date:** 20090402**9) Family number: 43089378** (US2009085651 AA)**SYSTEM FOR ADJUSTING OUTPUT VOLTAGE OF BAND GAP VOLTAGE GENERATOR**

Abstract: Source: US2009085651 AA An apparatus comprises a band gap voltage generator circuit for generating a band gap voltage. A temperature invariant current generator is located within the band gap voltage generator circuit for generating a temperature invariant current. A temperature invariant current correction circuit is located within the band gap voltage generator circuit and adjusts the output voltage responsive to the temperature invariant current without altering temperature characteristics of the temperature invariant current.

Probable Assignee: SILICON LABORATORIES INC**Earliest Publication Date:** 20090402**10) Family number: 43091882** (US2009089599 AA)**POWER SUPPLY SYSTEM FOR LOW POWER MCU**

Abstract: Source: US2009089599 AA A microcontroller includes a processing unit having a processing unit having normal power mode of operation and a low power mode of operation. The processing unit further having digital circuitry connected to the processing unit having a plurality of logic circuits associated therewith for processing digital values. A plurality of retention flip-flops are associated with the digital circuitry for storing a logical state of at least one or more of the logic circuits within the digital circuitry when the processing unit enters the low power mode of operation. The plurality of retention flip flops include a first type of transistors for operating in both the low and high power modes of operation and a second type of transistors for operation only in the normal mode of operation and wherein substantially the remainder of the digital circuitry in the processing unit comprises the second type of transistors.

Probable Assignee: SILICON LABORATORIES INC**Earliest Publication Date:** 20090402**11) Family number: 43089440** (US2009085685 AA)**SYSTEM AND METHOD FOR CALIBRATING BIAS CURRENT FOR LOW POWER RTC OSCILLATOR**

Earliest Publication Date: 20090402

Earliest Publication Date: 20090402

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graph TD
    502[Determine Transfer Rate] --> 504[Transfer Rate MB/s]
    504 --> 506{Bandwidth Limit Exceeded?}
    506 --> 508{Transfer Rate Exceeded?}
    508 --> 510{Transfer Rate Exceeded?}
    506 --> 512[Transfer Rate Exceeded]
    508 --> 512[Transfer Rate Exceeded]
    510 --> 512[Transfer Rate Exceeded]
    512 --> 514[Transfer Rate Exceeded]
    514 --> 516[Transfer Rate Exceeded]
  
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Earliest Publication Date: 20040318

Earliest Publication Date: 20030617

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graph TD
    START([START]) --> S210[SET AN INPUT PARAMETER VALUE AT A MEASUREMENT NODE]
    S210 --> S220[MEASURE AN OUTPUT PARAMETER VALUE AT A SENSE NODE]
    S220 --> S230[DETERMINE A VOLTAGE-CURRENT CHARACTERISTIC]
    S230 --> END([END])
  
```

The flowchart illustrates the measurement method for the first embodiment. It begins with a 'START' terminal, followed by three sequential steps: 'SET AN INPUT PARAMETER VALUE AT A MEASUREMENT NODE' (labeled S210), 'MEASURE AN OUTPUT PARAMETER VALUE AT A SENSE NODE' (labeled S220), and 'DETERMINE A VOLTAGE-CURRENT CHARACTERISTIC' (labeled S230). The process concludes at an 'END' terminal.

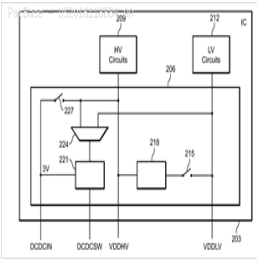
Earliest Publication Date: 20181031

SYSTEM AND APPARATUS FOR IMPROVING THE UTILITY OF REGULATORS AND ASSOCIATED METHODS

Abstract: Source: US2016118884 AA An integrated circuit (IC) includes a first circuit that is powered by a first supply voltage, and a second circuit that is powered by a second supply voltage. The second supply voltage has a lower level than the first supply voltage. The IC further includes a power management circuit. The power management circuit includes a switch-mode DC-DC regulator that is coupled to a plurality of pins of the IC in a pre-defined configuration. The power management circuit provides the first and second supply voltages to power up the IC in a default configuration without knowledge of the pre-defined configuration.

Probable Assignee: SILICON LABORATORIES INC

Earliest Publication Date: 20160428



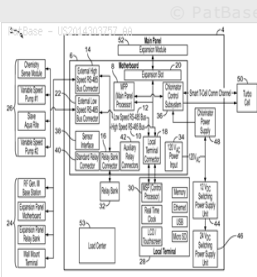
17) Family number: 57412081 (US2014303757 AA)

MODULAR POOL/SPA CONTROL SYSTEM

Abstract: Source: US2014303757 AA A pool or spa control system includes, a main control panel housing a motherboard, relay bank, and local terminal. The motherboard includes a processor in two-way communication with a relay bank socket via an internal bus. The relay bank is connectable to the relay bank socket and includes a processor, memory, plurality of relays, connector, and an internal bus establishing two-way communication between the relay bank processor and the motherboard processor when the relay bank is connected to the relay bank socket. The local terminal includes a control processor, user interface, and memory, and is in two-way communication with the motherboard processor for allowing user control of the system. The control processor automatically discovers and assigns the relay bank a network address upon connection of the relay bank to the motherboard relay bank socket, and the relay bank returns relay bank parameter information, which the local terminal stores in memory.

Probable Assignee: HAYWARD IND INC

Earliest Publication Date: 20140918



18) Family number: 31720595 (US2005047493 AA)

CROSS-CORRELATION REMOVAL OF CARRIER WAVE JAMMING SIGNALS

Abstract: Source: US2005047493 AA A receiver capable of receiving a spread spectrum signal and having a crosscorrelator that enables a carrier wave (CW) jamming to be identified, tracked, replicated and removed from the received spread spectrum signal after demodulation of a weak signal has occurred.

Probable Assignee: CSR TECHNOLOGY INC

Earliest Publication Date: 20050303

