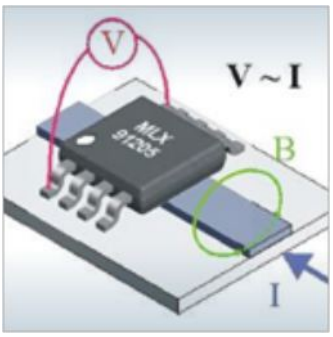
CST ELECTRONICS (PTY) LTD

concept news

july 2010

Current Sensor



The new Triaxis™ current sensor MLX91205 is a single axis integrated magnetic sensor based on the Hall effect. It produces an analog, ratio-metric output voltages proportional to the applied magnetic field parallel with the chip surface.

The MLX91205 is ideally suited for current sensing in automotive and industrial environments. Two different versions with different magnetic ranges are available.

Features & Benefits

- Triaxis™ Hall Technology
- Sensitive to a magnetic field parallel to the chip surface
- Linear output voltage proportional to a magnetic field
- Zero power loss in primary circuit
- Very high sensitivity
- Excellent nonlinearity
- Wideband: DC to 100kHz
- Very low offset and offset drift
- Very low noise
- Isolated from current conductor
- Surface mount SOIC8 package

Read more at Melexis

Dual-band antenna

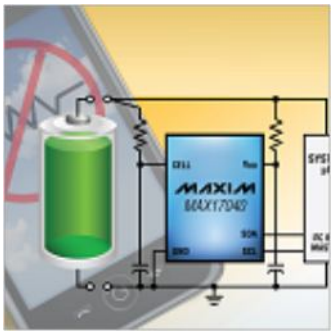
Mixtus A10194 is a highly efficient dual-band 2.4 GHz and 5 GHz SMD antenna which operates over the full 2.4-2.5 GHz and 4.9-5.9 GHz bands and designed for use in all Wi-Fi applications, including 802.11n. In addition, good isolation can be achieved between two closely spaced Mixtus antennas on the same platform making it ideal for MIMO applications. It can be placed directly onto a groundplane; no need for empty, groundfree areas that add to your total board size. It is especially suitable for mass production since it comes in tape and reel packaging.

Applications:

- Mobile phones • PDAs • Portable Media Players (PMPs) • Headsets • PC-Cards
- Game Consoles • Access Points • Set-top-box • Networked Digital TVs

Read more at Antenova

Smarten Up Your Dumb Battery!



The MAX17040/MAX17041 are ultra-compact, low-cost, host-side fuel-gauge systems for lithium-ion (Li+) batteries in handheld and portable equipment. The MAX17040 is configured to operate with a single lithium cell and the MAX17041 is configured for a dual-cell 2S pack.

The MAX17040/MAX17041 use a sophisticated Li+ battery-modelling scheme, called ModelGauge™ to track the battery's relative state-of-charge (SOC) continuously over a widely varying charge/discharge profile. Unlike traditional fuel gauges, the ModelGauge algorithm eliminates the need for battery relearn cycles and an external current-sense resistor. Temperature compensation is possible in the application with minimal interaction between a µC and the device.

Key Features

- Host-Side or Battery-Side Fuel Gauging
  - 1 Cell (MAX17040)
  - 2 Cell (MAX17041)
- Precision Voltage Measurement
  - ±12.5mV Accuracy to 5.00V (MAX17040)
  - ±30mV Accuracy to 10.00V (MAX17041)
- Accurate Relative Capacity (RSOC) Calculated from ModelGauge Algorithm
- No Offset Accumulation on Measurement
- No Full-to-Empty Battery Relearning Necessary
- No Sense Resistor Required
- 2-Wire Interface
- Low Power Consumption
- Tiny, Lead-Free, 8-Pin, 2mm x 3mm TDFN Package

Read more at Maxim

Thermal printing mechanism

Control board for MT 558 thermal printing mechanism, 5V power supply, 58mm paper width. It is available a wide range of accessories and options such as cutters, paper rewinders, step motor drivers, paper sensors etc. is available.

It is possible to implement boards or products on the basis of the customer specifications or modify the characteristics of the standard models.

Read more at Custom

APPLICATION NOTES

Important design considerations for digital thermometers.

Read more here.

This application note is an introduction to the types of digital thermometers and the basic concept of how thermistors and thermopiles calculate temperature. The use of natural logs versus lookup tables, the trade-offs designers make for faster calculation and accuracy, and the various components needed for a digital thermometer are also discussed.

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