

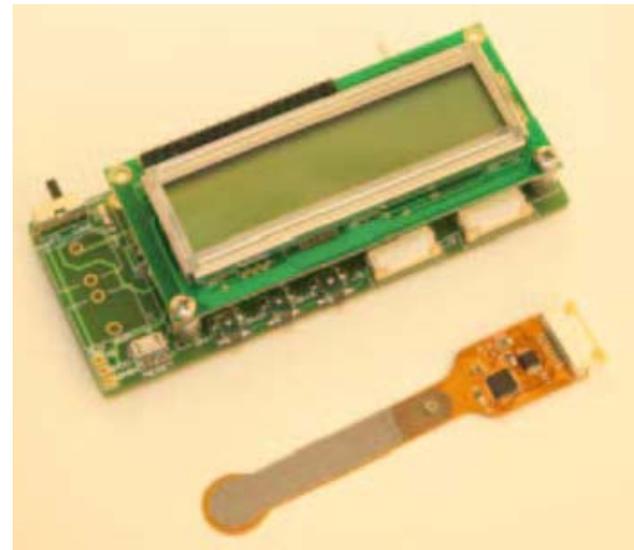
Technologies of the Month

Dave Jaffe

July 22, 2006

DigiTacts

- Digital capacitance pressure sensor
- 0 to 20 psi
- Evaluation kit with USB interface



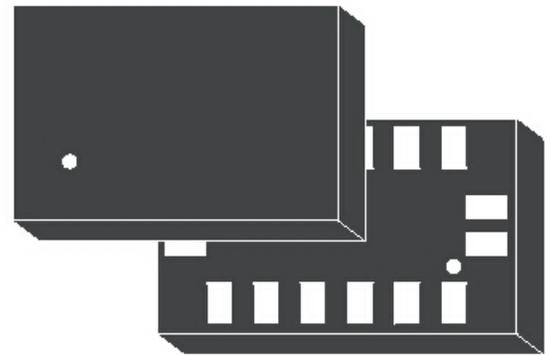
Instant LCD

- Serial / I²C / USB / parallel interface
- Downloadable fonts
- 2.7" or 5.6" color TFT
- 240x160 and 320x240 resolution
- Touch screen



Slim Accelerometer

- 3-axis digital output
- SPI / I2C
- Programmable range – 2g or 6g



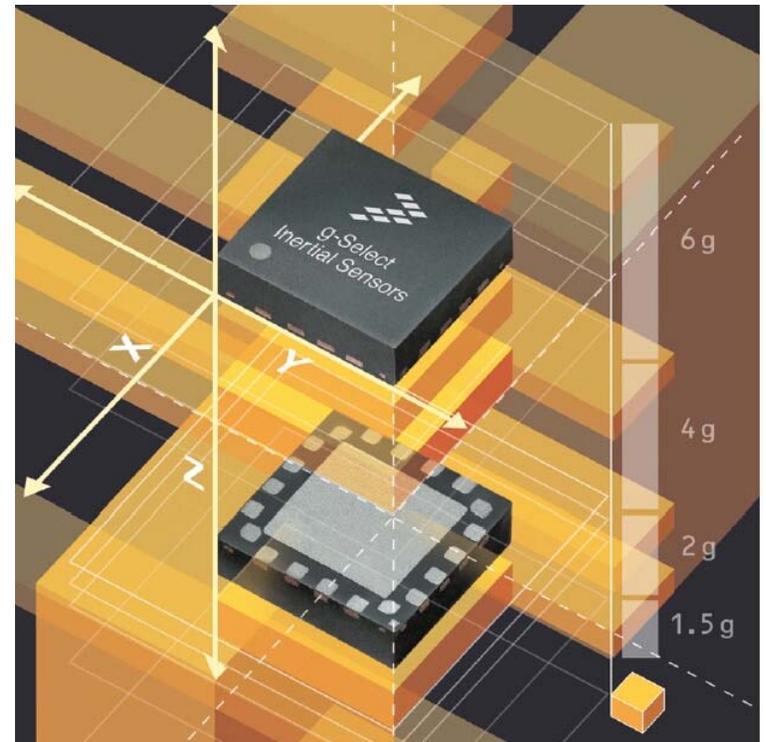
Sonar Range Finder

- 6 - 254 inch range with 1 inch resolution
- 20 Hz acquisition rate
- Pulse width, analog voltage, and serial outputs



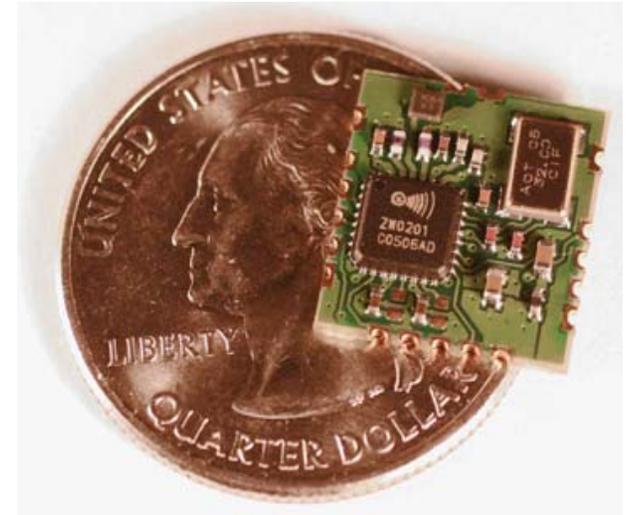
MEMS Accelerometers

- 2 and 3-axis models
- Selectable ranges
1.5 – 10 g



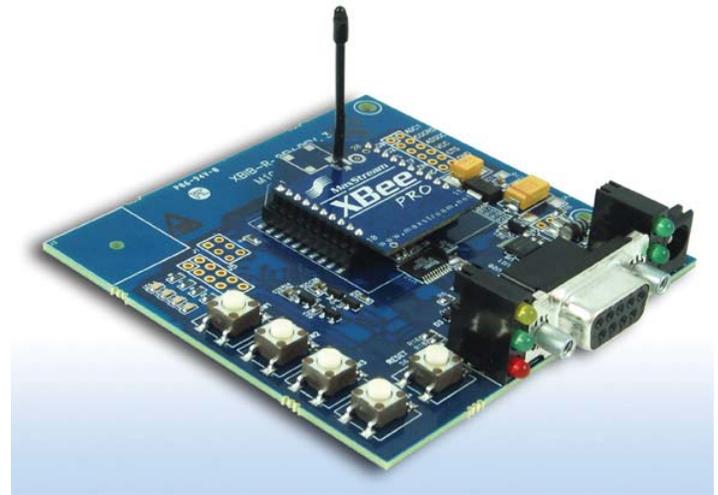
Wireless Mesh Network

- RF transmitter, 8051 microcontroller, Flash, SRAM, triac, Z-Wave protocol
- Developers kit available



ZigBee Development Kits

- Kits include 5 RF modules with RS-232 or serial connectivity
- Uses Xbee or Xbee PRO modules



Tiny, yet Linux Capable

- 16 Mb SDRAM, 1 – 4 Mb Flash - \$199
- 64 Mhz Coldfire MCU
- Ethernet, 3 serial, CAN, LCD, Kbd ports
- 64 I/O pins



ZigBee Wireless Network Module

- Small form factor - 37.75 x 20.45mm
- I²C, SPI, and serial interfaces
- AT command set
- Low power
- Development kit available



Adapter Displays Text and Graphics

- USB to VGA graphics adapter
- Up to 640 by 480 resolution
- \$139



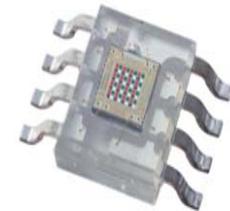
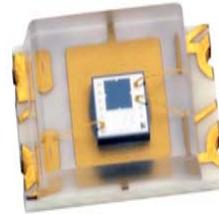
Instant Hot Stop

- Makes a Wi-Fi connection from an existing ethernet
- \$80



Opto-sensors

- Light to digital
- Light to frequency
- Light to voltage
- Color sensors
- Sensor arrays



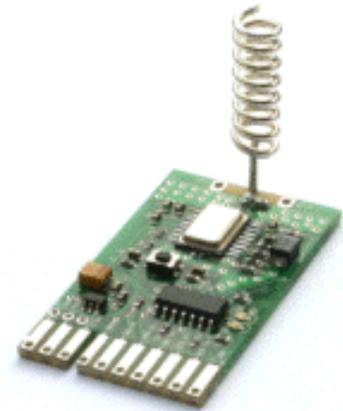
QBX Stackable Bus

- Wireless measurement platform
- 4 by 4 cm boards
- SPI inter-board interface
- ARM7 processor, 3 – 68 Mhz
- 256 Kb RAM, 2 Mb Flash
- Li-ion battery on bottom stack
- Supported by LabVIEW



Wireless Mesh Module

- 433.92 or 916.5 Mhz
- 4.8 Kbps channel data rate
- Serial input
- A/D convertor
- 1 digital input, 1 digital output
- miniMESH™ network protocol



Tmote Wireless Sensor System

- Programming and data collection via USB
- Light, temperature, acceleration, and sound sensors
- Speaker, LEDs, and user input buttons
- Integrated antenna with 50m range indoors / 125m range outdoors
- TinyOS open-source operating system



Wireless Dynamics Sensor System

- 3-axis accelerometer, force sensor, and altimeter
- Wireless or Bluetooth communication
- Use as a data logger - \$249
- Designed for educational use only

