

developer toolbox - Podrška #19922

elektronika: arduino hardware, jeelabs, linuxstamp, smartcards, plugcomputer.org

13.03.2010 15:16 - Ernad Husremović

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Povezani tiketi:			
korelira sa developer toolbox - Podrška #19938: pic gsm hardware, citizen pri...			Odbačeno 16.03.2010

Historija

#1 - 13.03.2010 15:17 - Ernad Husremović

resursi <http://dev.emcelettronica.com/>

našao i ovu super knjigu sa nizom projekata primjera. odlično izgleda

#2 - 13.03.2010 15:40 - Ernad Husremović

odličan sajt <http://chiphacker.com/>

#3 - 13.03.2010 15:43 - Ernad Husremović

<http://www.freeduino.org/>

#4 - 13.03.2010 15:46 - Ernad Husremović

<http://www.moderndevice.com/pages/shipping-options>

#5 - 13.03.2010 15:55 - Ernad Husremović

<http://news.jeelabs.org/>

#6 - 13.03.2010 15:57 - Ernad Husremović

<http://news.jeelabs.org/docs/jeemon.html>

#7 - 13.03.2010 16:00 - Ernad Husremović

<http://news.jeelabs.org/docs/jn4.html>

The JeeNode is a low-cost combination of radio and microcontroller board:

DSC_0767.jpg

Think of the JeeNode as an Arduino + Xbee shield + Xbee, but smaller and less feature-full than the XBee.

The JeeNode is based on an Atmel ATmega 328 - the same as an Arduino - and was inspired by Modern Device's Really Bare Bones Board, which is like a minimal implementation of an Arduino. The USB communication interface has been removed and any USB-to-TTLSerial based on the FTDI232R chip is guaranteed to work as connection. Being compatible with Arduino boards such as the Duemilanove means that you can use the IDE to upload a sketch using any PC running Windows, Mac OS X, or Linux.

The radio is a HopeRF wireless module, which is available for the 433, 868, or 915 MHz frequency bands.

#8 - 13.03.2010 16:08 - Ernad Husremović

<http://news.jeelabs.org/docs/jl2.html>

The JeeLink is a small module in the shape of a USB stick, with an Atmel ATmega processor and a HopeRF wireless radio.

#9 - 13.03.2010 16:09 - Ernad Husremović

The JeeLink is a fully assembled and ready-to-use USB-type "stick" which plugs directly into a PC or USB hub. It contains Atmel's ATmega328p AVR

microprocessor and **HopeRF's RFM12B wireless radio module**. The processor chip is pre-flashed with the Arduino boot loader and the RF12demo sketch. See the JeeNode description for more details.

Unlike JeeNodes, JeeLinks do not have any external ports to connect plugs and other components to. The JeeLink comes in a clear plastic case and is intended as interface between other JeeNodes and JeeLinks (via wireless) and an attached PC or Mac (via USB).

The JeeLink also has **1 Mbyte of flash memory**, which can be used to collect data. An on-board accurate 10 ppm crystal helps keep track of time, even when the attached computer is off.

The on-board wireless radio is the same as on JeeNodes. JeeLinks are shipped with the ISM-band 868 MHz radio module as used in Europe. See the Modern Device shop for 915 MHz JeeLinks and US\$ prices.

The documentation and full design details are freely available.

Note: the older JeeLink (v1) has been superceded by the JeeNode USB.

#10 - 13.03.2010 16:14 - Ernad Husremović

http://www.hoperf.com/rf_fsk/rfm12b.htm

wireless FSK transceiver module RFM12B

wireless FSK transceiver module RFM12B

Hope's RF12B is a single chip, low power, multi-channel FSK transceiver designed for use in applications requiring FCC or ETSI conformance for **unlicensed use in the 433, 868 and 915 MHz bands**. The RF12B transceiver produces a flexible, low cost, and highly integrated solution that does not require production alignments. The chip is a complete analog RF and baseband transceiver including a multi-band PLL synthesizer with PA, LNA, I/Q down converter mixers, baseband filters and amplifiers, and an I/Q demodulator. All required RF functions are integrated. Only an external crystal and bypass filtering are needed for operation.

The RF12B features a completely integrated PLL for easy RF design, and its rapid settling time allows for fast frequency-hopping, bypassing multi-path fading and interference to achieve robust wireless links. The PLL's high resolution allows the usage of multiple channels in any of the bands. The receiver baseband bandwidth (BW) is programmable to accommodate various deviation, data rate and crystal tolerance requirements. The transceiver employs the Zero-IF approach with I/Q demodulation. Consequently, no external components (except crystal and decoupling) are needed in most applications. The RF12B dramatically reduces the load on the microcontroller with the integrated digital data processing features: data filtering, clock recovery, data pattern recognition, integrated FIFO and TX data register. The automatic frequency control (AFC) feature allows the use of a low accuracy (low cost) crystal. To minimize the system cost, the RF12B can provide a clock signal for the microcontroller, avoiding the need for two crystals.

For low power applications, the RF12B supports low duty cycle operation based on the internal wake-up timer.

Click here to view the datasheet of RFM12B

Features

- Fully integrated (low BOM, easy design-in)
- No alignment required in production
- Fast-settling, programmable, high-resolution PLL synthesizer
- Fast frequency-hopping capability
- High bit rate (up to 115.2 kbps in digital mode)
- Direct differential antenna input/output
- Integrated power amplifier
- Programmable TX frequency deviation (15 to 240 kHz)
- Programmable RX baseband bandwidth (67 to 400 kHz)
- Analog and digital RSSI outputs
- Automatic frequency control (AFC)
- Data quality detection (DQD)
- Internal data filtering and clock recovery
- RX synchron pattern recognition
- SPI compatible serial control interface
- Clock and reset signals for microcontroller
- 16 bit RX Data FIFO
- Two 8 bit TX data registers
- Low power duty cycle mode
- Standard 10 MHz crystal reference
- Wake-up timer
- 2.2 to 3.8 V supply voltage
- Low power consumption
- Low standby current (0.3µA)
- Supports very short packets (down to 3 bytes)
- Excellent temperature stability of the RF parameters

#11 - 13.03.2010 16:31 - Ernad Husremović

http://www.opencircuits.com/Main_Page

#12 - 13.03.2010 16:34 - Ernad Husremović

linuxstamp

<http://www.thelinuxstamp.com>

The Linuxstamp II 9260 is a power embedded Linux platform. It is based on AT91SAM9260 processor from atmel. Features include: -32MB SDRAM -256MB NAND Flash -8MB SPI Dataflash -1x 10/100 Ethernet -1x USB host port -1x micro-SD card slot -Serial debug port 5-pin header -JTAG port

#13 - 13.03.2010 16:36 - Ernad Husremović

NAND Flash is a special form of Flash memory. Flash memory is a memory technology that keeps data even when the power supply is cut off; this is known as a non-volatile memory type. Flash memory can be read pretty fast, but writing to Flash memory is pretty slow compared to many other volatile memory technologies such as SRAM or DRAM. Flash also has a limited number of write-cycles; manufacturers typically specify something in the area of 10,000 writes for the lifetime of the part.

NAND Flash is faster than regular Flash, although the general characteristics still hold.

Flash memory is widely used in digital cameras, portable MP3 players, USB (Flash) sticks, and many other devices.

More details as ever on Wikipedia: http://en.wikipedia.org/wiki/NAND_flash

#14 - 13.03.2010 16:39 - Ernad Husremović

<http://en.wikipedia.org/wiki/DataFlash>

DataFlash is a low pin-count serial interface for flash memory. It is an Atmel proprietary interface, compatible with the SPI standard.

Information is written and read from a DataFlash chip using any microcontroller, such as the Atmel AVR, the Microchip PIC or the ARM.

The AT26 series DataFlash chips are software-incompatible with the original AT45 series chips. They use a simpler command set, supported by other vendors of serial flash but omitting SRAM buffers and other features that make AT45 chips simpler to support. On this page, only the original AT45 series chips will be called DataFlash; in this case, brand-oriented marketing creates needless technical confusion.

#15 - 13.03.2010 16:42 - Ernad Husremović

Comparison between DataFlash, EEPROM and MMC/SD

Both DataFlash and EEPROM chips can be accessed from a microcontroller, using a **4-wire SPI bus**. Both are available in small 8 pin packages. The protocol interfaces are very similar; in both cases, bytes are written or read, via SPI, one or more bytes at a time.

DataFlash usually had higher capacities than EEPROM in the early days, and it still provides faster access times. DataFlash capacities in small packages range from 128 kB to 8 MB, while SPI EEPROM capacities in similar packages range from 1 kB to 8 MB. Flash chips are tuned for **page access**, rather than the byte access used with EEPROM. However, AT45 series chips have commands that let their drivers act more like EEPROM drivers. Leveraging the SRAM buffers exposed by AT45 chips to do more than support EEPROM-like access requires specialized software.

DataFlash cards are more expensive than the consumer oriented MMC or SD cards, and have lower capacities, but have an extremely simple programming interface compared to MMC/SD. All these cards can be used in SPI mode.

In summary, DataFlash enables use of more data storage and faster access times than EEPROM. DataFlash chips can leverage the AT45 SRAM buffers. EEPROMs, AT26 series chips, or MMC/SD cards permit use of second sources for parts.

For cards used in field upgrades, DataFlash cards permit simple software support and compatibility with on-board flash chips; MMC/SD costs less.

The programming code required to interface EEPROM to the DataFlash chip is simpler.

#16 - 13.03.2010 16:42 - Ernad Husremović

- Naslov promijenjeno iz elektronika: arduino hardware u elektronika: arduino hardware, jeelabs, linuxstamp

#17 - 13.03.2010 16:45 - Ernad Husremović

<http://mightyohm.com/blog/2008/10/building-a-wifi-radio-part-1-introduction/>

#18 - 13.03.2010 16:51 - Ernad Husremović

<http://groups.google.com/group/linuxstamp>

#19 - 13.03.2010 16:54 - Ernad Husremović

<http://wiki.emqbit.com/free-ecb-at91>

#20 - 13.03.2010 16:56 - Ernad Husremović

<http://wiki.emqbit.com/products>

#21 - 13.03.2010 16:59 - Ernad Husremović

<http://www.emqbit.com/hardware.html>

em-GATEWAY:

- * 4 band GSM/GPRS modem
- * Ethernet 10/100
- * Embedded Linux
- * ARM 9 Processor
- * 32MB RAM Memory
- * 1GB Non-volatile memory
- * 3 USB ports
- * Bluetooth support
- * Wifi support

#22 - 13.03.2010 17:08 - Ernad Husremović

bifferos

<http://bifferos.bizhat.com/buy/000001.html>

- 150MHz CPU, Intel 486SX instruction set, MMU.
- 1 watt power consumption (200mA @5v)
- Weight 28g
- **32MB SDRAM/ 8MB Flash**
- OHCI/EHCI USB 2.0
- 10/100 ethernet
- Serial console 115200 baud (can be used as 2 GPIO)
- 4-pin JTAG (can be used as GPIO), 1 LED, 1 button
- Linux 2.6.30.5

- State-of-the-art bootloader developed from scratch for the Bifferboard with no legacy bloat.
- Boots image from on-board flash
- Boots image via BOOTP/TFTP
- Boots image directly from MMC card connected to GPIO pins
- Boots Linux 2.6 kernels (of course!)
- Boots Coreboot payloads in ELF/Multiboot format, e.g.: Filo, OFW.
- ubiformat utility formats a ubifs partition directly from the BIOS
- Dynamic flash map: Have your kernel as large or small as you want, configurable in the BIOS.
- Supports an NV-ram area directly writable from Linux using the 'biffconfig' module: Easily update the kernel command-line or other Biffboot config options from within Linux.
- Flash image via serial console cable
- Flash remotely over the network without console access using a unique 'break-in' technique (can be disabled for insecure networks).
- 'no-chatter' console mode for applications needing to use the console port for communication with peripherals.
- Unix-like shell with command-completion and history mechanism
- Simple logic analyser for GPIO experiments
- GPIO 'proxy' mode to read/write GPIO pins over the network.

#23 - 13.03.2010 17:49 - Ernad Husremović

- Naslov promijenjeno iz elektronika: arduino hardware, jeelabs, linuxstamp u elektronika: arduino hardware, jeelabs, linuxstamp, smartcard readers

smartcard cardreader-s

<http://pcslite.alieth.debian.org/supported.html>

#24 - 13.03.2010 17:52 - Ernad Husremović

http://www.synchrotech.com/product-sc/card-rw_03.html

Synchrotech's USB Full Speed to PC/SC Smart Card Read/Writer is a compact, cost effective reader. It supports all MCU-based smart cards with T=0 or T=1 protocols as well as popular memory cards. The reader is ISO 7816-1/2/3 compliant, EMV and Microsoft PC/SC certified, and supports all major PC platforms. The device supports 1.8V, 3V and 5V MCU cards with short circuit protection. The reader is a inexpensive solution for e-commerce, information security, access control, identification, and other smart card applications.

#25 - 13.03.2010 17:54 - Ernad Husremović

- Naslov promijenjeno iz elektronika: arduino hardware, jeelabs, linuxstamp, smartcard readers u elektronika: arduino hardware, jeelabs, linuxstamp, smartcards

<http://www.ecebs.com/high-capacity-smartcards-a212>

HCC Product Features

- High security, high performance, secureAVR™ 8/16-bit RISC microcontroller
- Powerful cryptoprocessing capability with Private/Public Key (3DES, RSA, ECC, etc) encryption capability
- 144K EEPROM
- 1M / 4M / 8M / 16M fully reloadable Secure FLASH memory
- Communication using ISO 7816 protocol T=1
- Operating voltage range 3V ± 10%
- Operating temperature range -25°C to 85°C
- The HCC's are supported by Ecebs' Ccommon Ccriteria EAL4+ certified card operating system Mfos
- Available with Ecebs Multefile™ software products for Ultra Rapid smartcard application development and management

#26 - 13.03.2010 18:00 - Ernad Husremović

secure usb drives

http://www.computerworld.com/s/article/9062527/Review_7_secure_USB_drives

#27 - 13.03.2010 18:01 - Ernad Husremović

<http://emcken.dk/weblog/archives/164-encrypted-usb-drive-in-ubuntu.html>

#28 - 13.03.2010 18:05 - Ernad Husremović

usb bus pirate

http://wiki.countercaster.com/The_Bus_Pirate_on_Linux:_From_/dev/ttyUSB?_to_/dev/bus_pirate

#29 - 13.03.2010 18:09 - Ernad Husremović

fiscal memory unit

<http://www.incotex.com/html/products/nfp.shtml>

#30 - 20.03.2010 21:38 - Ernad Husremović

- Naslov promijenjeno iz *elektronika: arduino hardware, jeelabs, linuxstamp, smartcards* u *elektronika: arduino hardware, jeelabs, linuxstamp, smartcards, plugcomputer.org*

OpenRD Platform

<http://www.plugcomputer.org/index.php/us/the-news/75-new-open-development-platform>

OpenRD is the perfect development platform available at a very low price and powered by the fastest ARM-architecture CPU developed by Marvell Semiconductors.

The development platform supports a wide range of industry interfaces and offers a comprehensive open software and hardware design. Linux software packages are available for both Fedora and Debian distributions and the board design package includes schematics, layout and bill of materials.

This open platform enables developers to evaluate and create solutions targeted at various market segments while customers and OEMs can build their products based on these open designs directly or with customizations.

#31 - 26.05.2010 14:11 - Ernad Husremović

- Status promijenjeno iz *Dodijeljeno u Zatvoreno*

Fajlovi

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