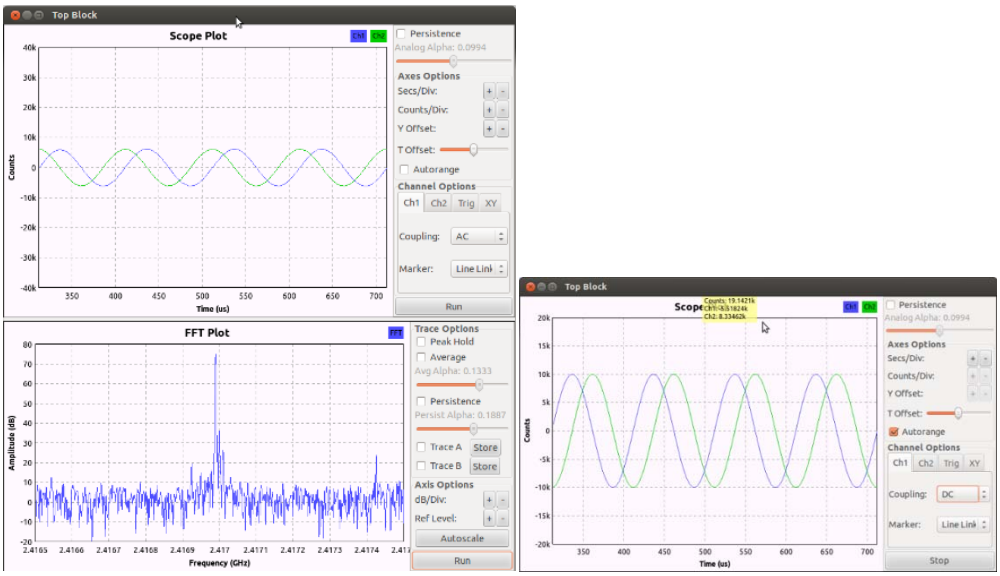
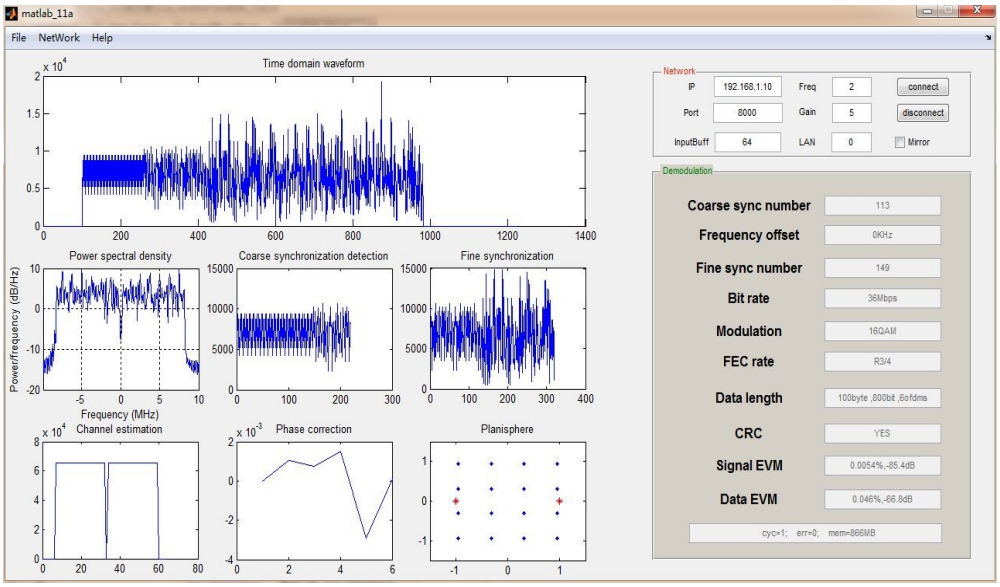
SNOWLeo SDR ： An Open Source SDR Platform Base on ZYNQ SoC and MYRIAD

V3 SNOWLeo SDR is a low-cost open source software defined radio platform based on Xilinx ZYNQ SoC and MYRIAD RF module. It include Giga Ethernet, USB OTG, HDMI, SDIO and USB-UART. SNOWLeo SDR is equipped an MYRIAD module that support 300MHz~3.8GHz, 28MHz BW application, such as WiFi, LTE or WiMax.

SDR application can be developed on ZYNQ SoC (FPGA+ARM architecture) or x86 processor V3 technology will provide free firmware that support SNOWLeo SDR to connect Matlab or GNU Radio on PC.





Key Features

Baseband Part:

Xilinx Zynq-7010/7020 EPP in the CLG400 package

Dual ARM® Cortex™-A9 MPCore with CoreSight and NEON™ running at up to 677 MHz

Artix-7 28 nm FPGA fabric as programmable user logic

512MB DDR3 SDRAM and 4Gb NAND FLASH Memory

Gigabit Ethernet

USB-UART

USB 2.0 OTG support USB Strorage

HDMI support 1080p Display

Micro TF Card Connector support up to 8G card

2 switches and 2 LEDs

Single 5V supply or USB power

Mode select switches

RF Part:

Single chip transceiver covering 0.3-3.8GHz frequency range

Digital interface to baseband with integrated 12 bit D/A and A/D converters

Fully differential baseband signals

Programmable modulation bandwidth: 1.5, 1.75, 2.5, 2.75, 3, 3.84, 5, 5.5, 6, 7,

8.75, 10, 12, 14, 20 and 28MHz

Supports both TDD and FDD operation modes

What's Included

- SNOWLeo SDR Board featuring the XC7Z010CLG400 AP SoC
- Reference Designs, Design Examples, and Demos
- Board Design Files, including schematic files
- Antenna support 433MHz ISM Band
- Power supply module
- SD card pre-installed firmware support Matlab and GNU Radio

Targeted Applications

- Software Defined Radio
- Femtocell and Picocell base stations
- Broadband wireless communication devices for TV WhiteSpace/WCDMA/LTE/ GSM/ CDMA2000/WiFi
- Research and Education on wireless