elSoM-SDR

System on Module for Software Defined Radio

Features

RF Transciever	RF Transciever from Analog Devices Inc. ▪ 70MHz to 6GHz ▪ TDD and FDD support ▪ Tunable channel Bandwidth: 200 KHz to 56 Mhz
Transmitter	TX Output Power: 0-5 dBm ▪ Harmonic rejection: > 40 dBc ▪ Spurious rejection: > 50dBc ▪ Frequency stability: < 1 ppm ▪ RF output connector: SMA ▪ P1 dB compression point: 5dBm ▪ Local Oscillator(Internal): 225 - 430MHz
Receiver	▪ Sensitivity: -90 dBm @ 10dB SNR ▪ NF: < 5 dB ▪ Max RF input Power: 0 dBm ▪ RSSI level indication: -100 dBm to 0 dBm ▪ RF input connector: SMA ▪ Local Oscillator(Internal): 225-430MHz ▪ Step size of local oscillator: min 5Hz
Baseband processor	FPGA from Xilinx Inc. ▪ 5850 logic slices, each with 6 input LUTs and 8 Flip-flops ▪ 4860 Kbits of Fast Block RAM ▪ 240 DSP Slices, 6 Clock Management tiles, each with PLL
Application processor	ADSP from Analog Devices Inc. ▪ Core performance of up to 600Mhz ▪ External Bus performance of up to 130M Hz ▪ 1MB internal Flash

Memory	1xSDRAM 256Mb, 1xSRAM 16Mb
Storage	8MB SPI Flash (for ADSP-BF538F)
Serial Ports	2xRS232, 1xUSB
Communication Port	Ethernet – 10/100/1000 Mbps RGMII mode
Expansion Connector	50 pin Board Expansion connector
PA connector	20 pin Board Expansion connector with control and data signals
Other Interfaces	SPORT, PPI, GPIOs, UART, NMI, RESET, SPI,
Debugging	JTAG
Power supply	5 VDC
Operating temperature	-40 to +85 C
Dimensions	90mm x 95mm
Firmware	No OS

Highlights:

- Integrated with Wide band RF Transceiver including configurable high speed ADCs and DACs
- Supports time division duplex (TDD) and frequency division duplex (FDD) operation.
- The receive (Rx) subsystem includes independent automatic gain control (AGC)Independent and Manual Gain control (MGC).
- Compact RF and Baseband processing module for portable and battery operated applications
- Easy to configure and generate customized waveforms based on end application.
- FPGA has rich resources to implement waveform generation and signal processing

Area of application

Software Defined Radio (SDR)

Satellite communication

Telecom Base station applications

RADAR Application

Avionics

Data links

eldaas
Design for future

www.eldaas.com

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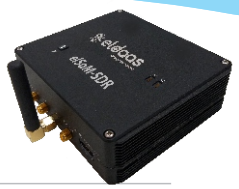

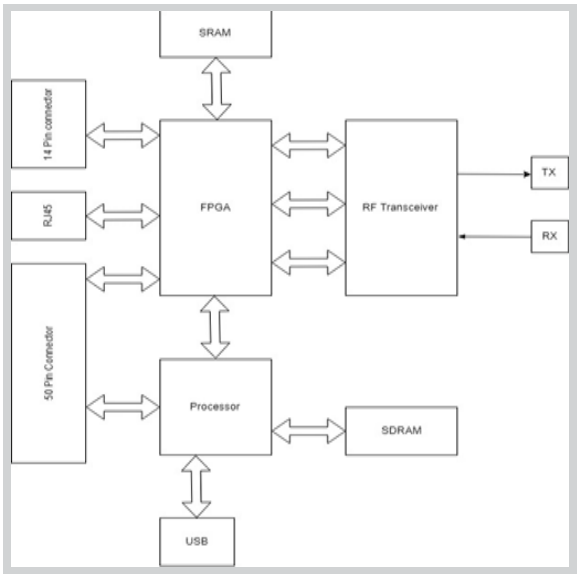

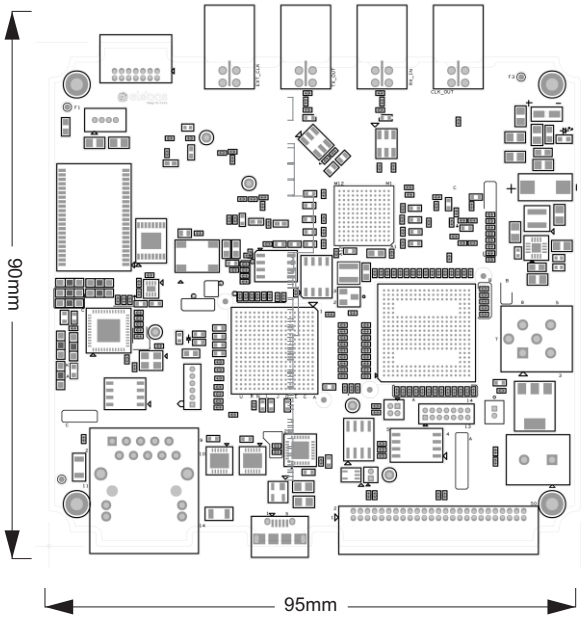

Ordering Information

System On Module	Description
elSoM-SDR	1 x 1 RF Transceiver,70MHz - 6GHz Frequency of operation

Accessories

1. Micro USB cable - 1
2. Ethernet cable - 1
3. Power cable - 1