1110, Commercialization & Technomart Complex,
Pardis Technology Park, Tehran, Iran
Tel:+98 21 76250995
Fax:+98 21 76250998
Email: info@farateif.com

FTP-SDR-250MHz-1.0

Product Description

Due to the increasingly high number of wireless communication channels in the environment, the need for an efficient management of the spectrum is becoming more apparent day by day. The highly crowded spectrum should be monitored and analyzed in the first step for this purpose. FTP_SDR_250MHz_1.0 is a wireless communication receiver capable of demodulating a vast range of modulations. Wide range of bandwidth support, tunable equalizer coefficients, selectable bit mapping, arbitrary sync finder and signal recording are some features of this product.

Key Features

- 250 MHz IF sampling frequency
- Wide range of band width support
- Wide range of modulation support
- Data storage

Technical Specs

SDR Spec Sheet	
Sampling Frequency	250MHz
Band Width	1KHz – 125MHz
Symbol Rate	1KSPS – 120MSPS
Modulations	AM – FM – BPSK – QPSK – 8PSK – 16APSK – 32APSK – 16QAM – 64QAM – DBPSK – DQPSK – OQPSK – π/2DBPSK – π/4DQPSK – 2FSK – 4FSK – MSK – GMSK –
PC Connection	Ethernet – PCIe
Data Storage	Hard Decision – Soft Decision – IF Record
Other Specs	Arbitrary Bit Mapping Arbitrary input equalizer coefficients Arbitrary sync finder

1110, Commercialization & Technomart Complex,
Pardis Technology Park, Tehran, Iran
Tel:+98 21 76250995
Fax:+98 21 76250998
Email: info@farateif.com

FTP-SDR-250MHz-1.0

Product Details

FTP_SDR_250MHz_1.0 is a wireless communication receiver capable of demodulating a vast range of modulations. The signal is transferred to the FPGA through the AD9467 analog to digital converter daughter board. An input equalizer with arbitrary coefficients holds the responsibility to reduce the channel defects. A sharp filter then omits the out of band signals. Timing recovery, phase lock loop (PLL) and hard decision are some other blocks in the processing unit. For some modulations, a decision feedback equalizer is also included. Special circuitry is needed for FM and AM modulations.

The user interface software plots all the necessary signals. These include the input signal, the filtered signal, and the constellation signal. These data together with the other parameters are all transferred through the 1Gbps Ethernet network channel. As for the data storage, the PCIe connection is used, because faster data rates are needed.

Hardware Requirements

Processor	High-end Core-i7 or higher
Hard	SSD or M.2
RAM	16 GB at least
Network	1Gbps

Accessories

This product includes an FPGA board (Xilinx Virtex7) which is responsible for all the demodulation processes. The 250MHz ADC is an AD9467 daughter board connected to the main board via an FMC connector. A CD containing the user interface software is also included.