ST200 Radar Evaluation Kit
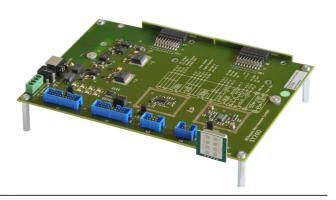
Features

- Supports Doppler, FMCW, FSK, Monopulse
- USB Interface to Host Computer
- Onboard Low Noise Power Supplies
- Connectors for Different Radar Devices
- Amplifiers for Native Doppler Transceivers
- High Performance 16Bit Data Processing
- 250kSamples/s ADC and DAC
- Compact and Rugged Construction
- Powerful Signal Explorer PC Software
- NI LabVIEW ® DAQmx USB Interface

Applications

- Evaluation of Advanced Shortrange Radar Applications
- Development of Own Data Processing Algorithms
- Signal Analysis and Logging
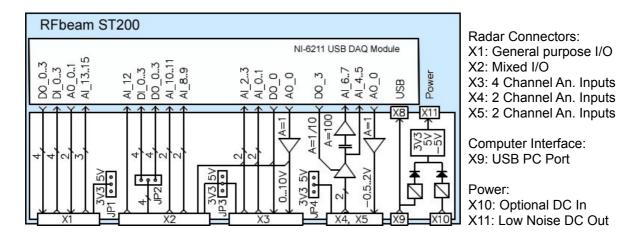- Learning and Exploring Radar Basics

Description

ST200 is a 16Bit data acquisition and processing system with a total 250k/s sampling rate. It contains all hardware necessary for acquiring Radar signals of RFbeam Transceivers.

ST200 contains a motherboard with power supply, amplifiers and I/O connectors. Data acquisition is performed by a NI-USB-6211 16Bit multifunction DAQ module from National Instruments mounted on the backside.
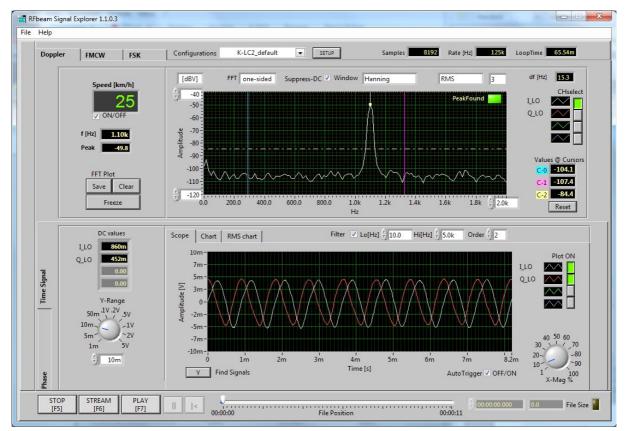
The easy to handle RFbeam Signal Explorer software features many basic Radar functions including an exciting FSK (Frequency Shift Keying) operation mode for high resolution distance measurements of moving objects.

ST200 Block Diagram

Radar Connectors:
X1: General purpose I/O
X2: Mixed I/O
X3: 4 Channel An. Inputs
X4: 2 Channel An. Inputs
X5: 2 Channel An. Inputs

Computer Interface:
X9: USB PC Port

Power:
X10: Optional DC In
X11: Low Noise DC Out

Signal Explorer Software

Connect an RFbeam transceiver to ST200, start RFbeam Signal Explorer software and GO!
This software allows easy and intuitive exploring of basic shortrange Radar techniques.

Features

- General Features
  - Support of all RFbeam transceivers
  - Individual predefined and customer defined configuration settings
- Doppler Mode
  - Time domain and FFT graphs
  - Scope and chart readouts
  - Phase (angle) charts for I/Q and monopulse radar transceivers
- FMCW Mode
  - Multiple parallel graphical readouts of analog inputs and VCO output
  - Extensive Individual Settings
  - VCO linearization tool
- FSK Mode
  - Distance measurements even with lowest cost single channel transceivers

Ordering Information

Part #: RFbeam ST200 Evaluation Kit.
Includes Hardware, Signal Explorer software, K-MC1, K-LC1a and K-LC2 transceivers, optional power supply.