Specifications

Microwave Transceiver

- Type : Integrated transmitter and receiver with dual 4 patch antenna
- Operating frequency : 24GHz (K-Band)
- Single balanced mixer : 50MHz bandwidth
- EIRP output power : 15dBm
- Beam aperture : 80 / 34
- 16bit radar data acquisition System

Software

- Graphically configurable frequency and peak detection
- Time domain display(scope) with trigger and filter functions
- Real time capture and display of signal at background along with current acquired signal
- Speed display : Display in km/Hr, m/s, KHz
- Volts/div : 20mV/div ~ 3V/div
- Display : Peak to peak level display
- Time Base : 0.5mS/div ~ 10ms/div(real time)
- Trigger : Manual
- Storage mode : Streaming to standard save files
- FFT : Real time with cursor measurement
- FFT Power spectrum display from 5Hz ~ 20 KHz

Experiments

- Introduction to Doppler Radar
- Study of Doppler Shift and How it is being used in various applications
- To find out the time period and frequency of pendulum
- To measure the speed of fan in RPM
- To measure the frequency of peizo electric buzzer
- To find out the accuracy of the radar using tuning fork
- To detect the transformer HUM and its frequency

Note: Specifications are subject to change.