

Microwave and Antenna Design Laboratory

Kits available : Microwave Experimental Bench -Reflex Klystron, Microwave Experimental Bench -Gunn Diode.

Experiments using Kits :

1. Characteristic of the Reflex Klystron tube .
2. Characteristics of Gunn diode .
3. Characteristics of Multihole Directional Coupler .
4. Determination of Standing Wave Ratio and Reflection Coefficient.
5. Impedance and Frequency Measurement .
6. Study of Magic Tee .
7. Attenuation measurement .
8. Time Division Multiplexing .
9. Frequency Shift Keying.
10. Phase Shift Keying .
11. Differential Phase Shift Keying .
12. Ask Modulation & Demodulation.

Microwave Experimental set up with Bench -Gunn Diode & VSWR Meter



List of Experiments using CST Studio Suite, comprises the following modules:

Software used: CST Microwave Studio

CST MICROWAVE STUDIO® (CST MWS) is the leading edge tool for the fast and accurate 3D simulation of high frequency devices and market leader in Time Domain simulation. It enables the fast and accurate analysis of antennas, filters, couplers, planar and multi-layer structures and SI and EMC effects etc.

CST EM STUDIO® (CST EMS) is an easy-to-use tool for the design and analysis of static and low frequency EM applications such as motors, sensors, actuators, transformers, and shielding enclosures.

CST PARTICLE STUDIO® (CST PS) has been developed for the fully consistent simulation of free moving charged particles. Applications include electron guns, cathode ray tubes, magnetrons, and wake fields.

CST CABLE STUDIO® (CST CS) for the simulation of signal integrity and EMC/EMI analysis of cable harnesses.

CST PCB STUDIO® (CST PCBS) for the simulation of signal integrity and EMC/EMI EMI on printed circuit boards.

CST MPHYSICS® **STUDIO** (CST MPS) for thermal and mechanical stress analysis.

CST DESIGN STUDIO™ (CST DS) is a versatile tool that facilitates 3D EM/circuit co-simulation and synthesis.