Experiment 3

Vector Network Analyzer

Aim: To study Vector Network Analyzer and measure the S-parameters of any port(s) network. Requirements: Vector Network Analyzer/Internet, any-port network prototype (For. eg: Antenna (1 pot), MIMO antenna(2-port), Bandpass Filter etc.). **Theory:** What is vector network analyzer and why is it required?

Block diagram of VNA (To be drawn)

Fig.1 Block diagram of VNA

Observations:

Sr. No	Parameters	Results
1	Ports for which VNA Calibration was done	
2	VNA Support Frequency	
3	Type of network(s)	
4	Operating Bandwidth	

Conclusion:		

Post Experiment Exercise

Questions

- 1. List the different kinds of terminations available?
- 2. Write the input impedance of a transmission line for
 - a. Short circuit termination and b. Open circuit termination
- 3. Explain with a diagram how microwave power is measured using a Bolometer.
- 4. Explain with the help of block diagrams different methods to measure impedance
- 5. Describe the methods to measure high and low VSWR.