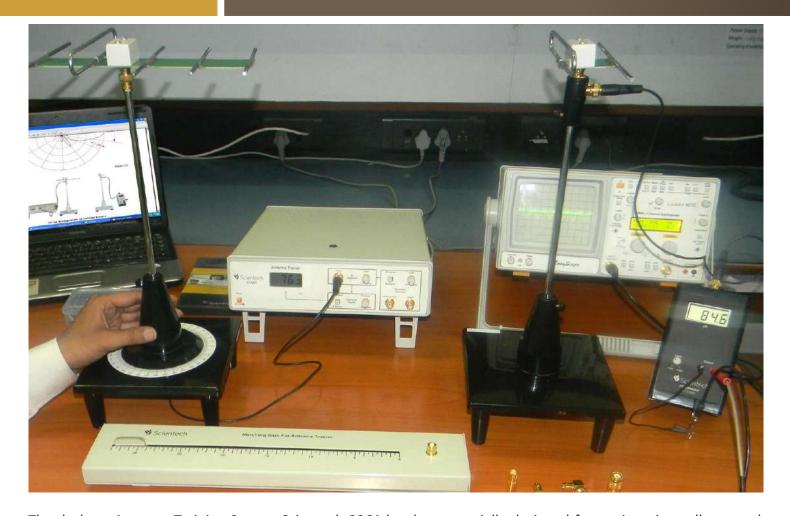The desktop Antenna Training System Scientech 2261 has been specially designed for engineering colleges and training centers. It is very useful for introducing practical verification of antenna operation to the students. The work book provides theoretical concepts and detail procedure of experiments with each type of antenna.

The training system includes set of modular mechanical elements forming various antennas, a transmitter unit and a detector unit. All the accessories are packed in a convenient carrying case.

The Antenna Training System also comes with Motorised Antenna Unit (Model Scientech 2261A) to automate the recording of the radiation pattern of the antennas. The Motorised Antenna Unit consists of a Microcontroller based system for Capturing, Displaying and Printing of Antenna radiation pattern. The system capture signal at an interval of 1° rotation using stepper motor and radiation pattern is displayed on PC . The Windows based Software is supplied in CD Rom. The PC Communication is via RS232 port. It used with Scientech 2261A.

Features

- Self Contained Simple and Student Friendly platform
- Hands on set-up for measuring and plotting radiation Patterns of 20 different Antennas
- On board RF & Tone Generators
- Antenna Matching Stub
- Characteristics and SWR Measurement
- Transmitting and Receiving levels observed On Built- in Meters
- Functional Block indicated On- board Mimics
- Fully Documented Operating Manual and Polar Charts
- "Antenna kit" for fabricating Special Antenna
- Compact Design
- Lightweight

Scope of Learning

- Polar plots & polarization

- Wave modulation & demodulation

- Antenna gain, Antenna beam width study

- Element current, Front-back ratio study

- Antenna matching

- Antenna radiation with distance

Technical Specifications

Waveforms	: Sine
RF Generator	: 750 MHz approximately (output adjustable)
Tone Generator	: 1 KHz approximately (output adjustable)
Directional Coupler	: Forward & Reverse (selectable)
Matching Stub	: Slider type
Antenna Rotation	: 0-360 deg. Resolution 1 deg.
Receiving Antenna	: Folded dipole with reflector
Detector Display	: Level adjustable meter
Interconnections	: 2 mm Banana sockets
Power Supply	: 230 V, ±10% 50/60 Hz
Power Consumption	: 3 VA approximately
Operating Conditions	: 0-40^{0}C, 80% RH
Weight	: 3 Kg approximately
Dimensions (mm)	: W 385 x D 75 x H 285
Product Tutorial	: Online

List of Accessories (Full Unit) : (in nos.)

I. Antennas	:	22
1.Simple Dipole λ/2	:	1
2.Simple Dipole λ/4	:	1
3.Simple Dipole 3 λ/2	:	1
4.Folded Dipole λ/2	:	1
5.Yagi-UDA Folded Dipole (3E)	:	1
6.Yagi-UDA Folded Dipole (5E)	:	1
7.Yagi-UDA Simple Dipole (5E)	:	1
8.Yagi-UDA Simple Dipole (7E)	:	1
9.Hertz Antenna	:	1
10.Zeppelin Antenna	:	1
11.λ/2 Phase Array	:	1
12.λ/4 Phase Array	:	1
13.Combined Co-linear Array	:	1
14.Broad Side Array	:	1
15.Log Periodic Antenna	:	1
16. Cut Paraboloid Antenna	:	1
17. Loop Antenna	:	1
18. Rhombus Antenna	:	1
19. Ground Plane	:	1
20. Slot Antenna λ/2	:	1
21. Helix Antenna	:	1
22. Detector Antenna	:	1
II. Rods for Ground Plane Antenna		
1.6.9cm	:	1
2.8.5cm	:	1
3.20.5cm	:	1
III. Current Probe	:	1
IV. Transmitting Mast	:	1
V. RF Detector	:	1
VI. Receiving Mast	:	1
VII. Accessories Kit:		
1.BNC –Tee	:	1
2.BNC - BNC Adapter (M)	:	1
3.BNC - BNC Adapter (F)	:	1
4.BNC (M) - BNC (F) Adapter (L-type)	:	1
5.BNC – BNC Cable 25"	:	2
6.BNC – BNC Cable 18"	:	1
7.Aligner 932	:	1
VIII.Polar Graphs (dBμA)	:	25
IX. Polar Graphs(for normalised reading)	:	25
X. Antenna Fabrication Kit		
1.Two PCB's	:	1
2.14 SWG wire roll 20"		
XI. Mains Cord	:	1
XII. VIP Suitcase	:	1
XIII.+7.5 - 9V DC Adaptor(500mA)	:	1

List of Accessories (10 Antenna) (in nos.)

I.	Antennas	:	10
	1. Simple Dipole λ/2	:	1
	2. Yagi-UDA Folded Dipole (3E)	:	1
	3. Yagi-UDA Folded Dipole (5E)	:	1
	4. Yagi-UDA Simple Dipole (5E)	:	1
	5. Yagi-UDA Simple Dipole (7E)	:	1
	6. Hertz Antenna	:	1
	7. Loop Antenna	:	1
	8. Log Periodic Antenna	:	1
	9. λ/2 Phase Array	:	1
	10. Detector Antenna	:	1
	11. Helix Antenna	:	1
II.	Current Probe	:	1
III.	Transmitting Mast	:	1
IV.	RF Detector	:	1
V.	Receiving Mast	:	1
VI.	Accessories Kit :		
	1. BNC-Tee	:	1
	2. BNC- BNC Adapter (M)	:	1
	3. BNC- BNC Adapter (F)	:	1
	4. BNC (M) - BNC (F) Adapter (L-type)	:	1
	5. BNC-BNC Cable 25"	:	2
	6. BNC-BNC Cable 18"	:	1
	7. Aligner 932	:	1
VII.	Polar Graphs (dBμA)	:	25
VIII.	Polar Graphs (for normalised reading)	:	25
IX.	Antenna Fabrication Kit		
	1. Two PCB's	:	1
	2. 14 SWG wire roll 20"		
X.	Mains Cord	:	1
XI.	+7.5- 9V DC Adaptor(500mA)	:	1

List of Accessories (Base Unit)

I.	Detector Antenna	:	1
II.	Current Probe	:	1
III.	Transmitting Mast	:	1
IV.	Receiving Mast	:	1
V.	RF Detector	:	1
VI.	**Accessories Kit :**		
	1. BNC-Tee	:	1
	2. BNC- BNC Adapter (M)	:	1
	3. BNC- BNC Adapter (F)	:	1
	4. BNC (M)-BNC (F) Adapter (L-type)	:	1
	5. BNC-BNC Cable 25"	:	2
	6. BNC-BNC Cable 18"	:	1
	7. Aligner 932	:	1
VII.	Polar Graphs (dBμA)	:	25
VIII.	Polar Graphs (for normalised reading)	:	25
IX.	Antenna Fabrication Kit		
	1. Two PCB's	:	1
	2. 14 SWG wire roll 20"		
X.	Mains Cord	:	1
XI.	+7.5-9V DC Adaptor(500mA)	:	1

Subject to Change