



**Sciencetech 2651B Understanding LCD Television** is a comprehensive training platform to learn the operation of LCD Television receiver. It is demonstrator cum training system specifically designed for the comprehensive practical study on LCD TV engineering for the beginners with a basic knowledge of the various electronic building blocks and fundamentals of communication system.

This didactic product develops the sense of investigation within the student and familiarises him with repair/design techniques. One of the main features of this training system is fault simulation to educate on actual fault finding, by simulating faults on this platform. The complete block diagram of LCD TV system is printed on the mimic. Finally this equipment allows us to do experiments and to observe waveforms/signals/voltages of different sections, which are guided thoroughly by theory and product tutorials to gain in-depth knowledge of the system.

### Features

- Superior quality 19-inch HD LCD Color Television/ PC Monitor
- Manual and Remote control operation
- Composite video input/VGA input
- Complete block diagram of a LCD TV system on-board
- PAL/ NTSC video formats
- Easy identification of different parts and components of the system at a glance
- Easy measurement of voltages and observation of waveforms on test points
- Soldering free fault creation and troubleshooting
- Online Product Tutorial

### Scope of Learning

#### Study the :

- Specifications of HD LCD Television
- Block diagram and operating principle of LCD TV
- Functions of front panel controls/ keys of LCD TV
- Functions of controls on Remote
- Circuit description and functions of different sections
- Observation of waveforms/signals of different sections
- Measurement of voltages of different sections
- Switch faults and troubleshooting in different sections

### Technical Specifications

#### Display

Display Type	:	LCD, HD
Screen Size	:	19 Inch
Display Resolution	:	1280 (H) X 1024 (V) pixels resolution
Contrast Ratio	:	Dynamic Contrast Ratio (1000:1)
Brightness	:	400 cd/m <sup>2</sup> brightness
Viewing Angle	:	160(H) X 160(V)
Refresh Rate	:	60 Hz

#### Video Interface

#### Audio Interface

#### Audio Output Power

#### Receiving System

#### Channel Coverage

#### Antenna Impedance

#### Application

#### Connectivity

USB	:	1 X USB 2.0 (MPEG, JPEG, MP3)
HDMI	:	Yes (1 X HDMI)
Other Connectivity	:	AV In, VGA In, VGA Audio In, AV Out

#### Composite A/V

#### Component Video

#### Analog Audio

#### Test Points

#### Switched Faults

#### Remote Battery

#### Mains Supply

#### Power Consumption

#### Weight

#### Dimension

#### Product Tutorial

#### Included Accessories

Video Interface	:	Video Input/ VGA input
Audio Interface	:	RCA L & R
Audio Output Power	:	5W X 2
Receiving System	:	PAL BG/I/DK and NTSC
Channel Coverage	:	VHF-2-12; UHF21-69; CATV (X~Z+2, S11S41)
Antenna Impedance	:	75Ω Unbalanced
Application	:	Color Television/ PC Monitor
Connectivity	:	
Composite A/V	:	Yes
Component Video	:	Yes
Analog Audio	:	Yes
Test Points	:	50 nos
Switched Faults	:	50 nos
Remote Battery	:	UM-4, "AAA" 1.5V (2 nos)
Mains Supply	:	110-260V AC ± 10%, 50/60Hz
Power Consumption	:	65W
Weight	:	11 Kg (approximately)
Dimension	:	W430 X D252 X H82
Product Tutorial	:	Online (on <a href="http://www.SciencetechLearning.com">www.SciencetechLearning.com</a> )
Included Accessories	:	Remote, Mains cord , 34 Pin FRC cable, 15 Pin D type cable, 4 Pin High voltage Cable each -1no. (each)