

OMEGA TYPE LTB-810 Computer Logic Laboratory is a combined board for all the experiments covered under OMEGA TYPE LTB-806, LTB-807, LTB-808 and LTB-809 Logicoms. This laboratory has been designed specifically for the use of students in digital electronic lab. The students can build-up various logic functions and understand their working of different types logic circuits. The board is absolutely self contained and requires no other apparatus.

Practical experience on this board carries great educative value for Science and Engineering Students.

OBJECT

To study and verify the following:

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| 01 AND/NAND function. | 02 OR function. |
| 03 Function $F=A.(B+C)$ | 04 Exclusive OR function. |
| 05 Coincidence circuit. | 06 Full Adder. |
| 07 Half Adder. | 08 Majority logic. |
| 09 Minority logic. | 10 Even parity check. |
| 11 Odd parity check. | 12 Binary storage elements. |
| 13 Set-Reset Flip-Flop. | 14 Type D Flip-Flop. |
| 15 J-K Flip-Flop | 16 Master Slave J-K Flip-Flop. |
| 17 Type T Flip-Flop. | 18 OR/NOR function. |
| 19 UP-Counter. | 20 DOWN Counter. |
| 21 Decimal Counter. | |
| 22 Error detecting codes and Parity Check. | |

FEATURES

The logic laboratory consists of the following :

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| 01 Logicom-I OMEGA TYPE LTB-806 consists of: | 04 Logicom-IV OMEGA TYPE LTB-809 consists of: |
| 1.1 + 5V D.C. at 200mA, IC Regulated Power Supply internally connected. | 4.1 + 5V D.C. at 1Amp, IC Regulated Power Supply internally connected. |
| 1.2 Nine, 3-input AND gates each followed by an inverter to give 3-input NAND gates. | 4.2 Nine J-K Flip-Flop. |
| 1.3 A clock generator with a repetition frequency of 500 Hz. | 4.3 A clock generator with a repetition frequency of 500 Hz. |
| 1.4 Two LED driver circuits each of which individually drives a LED. | 4.4 Two LED driver circuits each of which individually drives a LED and is connected to the binary output of the Flip-Flop. |
| 02 Logicom-II OMEGA TYPE LTB-807 consists of: | 4.5 Two pulser switches. |
| 2.1 + 5V D.C. at 500mA, IC Regulated Power Supply internally connected. | 05 Switches for logic selection. |
| 2.2 Twelve, 2-input OR gates each followed by an inverter to give 2-input NOR gates. | 06 LEDs for visual indication of status. |
| 2.3 A clock generator with a repetition frequency of 500 Hz. | 07 Adequate no. of other Electronic Components. |
| 2.4 Two LED driver circuits each of which individually drives a LED. | 08 Mains ON/OFF switch, Fuse and Jewel light. |
| 03 Logicom-III OMEGA TYPE LTB-808 consists of: | 09 The unit is operative on 230V $\pm 10\%$ at 50Hz A.C. Mains. |
| 3.1 +5V D.C. at 500mA, IC Regulated Power Supply internally connected. | 10 Adequate no. of patch cords stackable from rear both ends 4mm spring loaded plug length 50cm. |
| 3.2 Six Inverters. | 11 Good Quality, reliable terminal/sockets are provided at appropriate places on panel for connections /observation of waveforms. |
| 3.3 Four, 2-input AND gates. | 12 Strongly supported by detailed Operating Instructions, giving details of Object, Theory, Design procedures, Report Suggestions and Book References. |
| 3.4 Four, 2-input OR gates. | 13 Weight : 15 Kg. (Approx.) |
| 3.5 A clock generator with a repetition frequency of 500 Hz. | 14 Dimension : W 610 x H 660 x D 203 |
| 3.6 Two LED driver circuits each of which individually drives a LED. | |



We are committed to the continuous development of our products, and therefore reserve the right to amend specifications without prior notice.

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