DIGITAL LOGIC LAB TRAINER – 16 BITS

Model Number : GOTT-DLT-3016A

DESCRIPTION

Digital Logic Lab Trainer is an ideal training kit for high schools, technical institution, and universities. It consists of Solderless Breadboard, Power Supply, Pulse Generator, Pulse Switches, Mode Selector Switch, Seven Segment Display, 16-Bit LED Display, 16-Bit Data Switches & Digital Probe. It allows the users to perform most digital experiment without the use of additional equipment.

PRODUCT SPECIFICATION

POWER SUPPLY

- Adjustable DC Power Supply
  a. Voltage Range : +3V ~ +15V / -3V ~ -15V
  b. Maximum Current output : 0.5A
  c. Output overload protection
- Fixed DC Power Supply
  a. Voltage Range : +5V, 1.5A; -5A, 0.3A
  b. Output overload protection

PULSE GENERATOR

All signal generators have independent & simultaneous TTL & CMOS level output terminal. CMOS level output range from ±1.5V to ±15V & is controlled from the voltage adjustment knob of the Adjustable DC Power Supply.

Pulse generator :
  a. Frequencies : 1 Hz ~ 10 Hz, 10 Hz ~ 100 Hz, 100 Hz ~ 1 kHz ;
     1 kHz ~ 10 kHz, 10 kHz ~ 100 kHz, 100 kHz ~ 1 MHz
  b. Fanout : 10 TTL load

DATA SWITCH

- 16 sets of data switches

PULSE SWITCH

- 2 sets of independence control output
- Each set with Q, Q̅ output, pulse width > 5ms
- Each set of switch with DEBOUNCE circuit
- Fanout : 10 TTL load

DISPLAY LOGIC INDICATOR

- 16 sets of independent LED indicates high and low logic state
- Input impedance < 100kΩ

DIGITAL DISPLAY

- 2 sets of independent 7-segment LED display
- With BCD, 7-segment decoder/driver
- Input with 8-4-2-1 code

TESTING DEVICES

i) LOGIC PROBE
- TTL and CMOS level
- 5mm LED Display
- "LO" and "HI" LED displays low and high logic state respectively

ii) BREADBOARD MODULE
- 1680 Tie point breadboard on top panel that can be easily put into & taken off

GENERAL SPECIFICATION

Operating Temperature 0 ~ 50°C, < 90% or Less (R.H.)
Input Power AC 240V, 50/60Hz 1-Phase

ACCESSORIES :
- Connecting Lead
- Comprehensive experiment instructor & user’s manual
- Detail solutions for the simulated faults should be included in the manual
- Fuse
- AC Cord

EXPERIMENT TOPICS :

- Basic Logic Gates
- Boolean Algebra
- NAND & NOR Gates
- Multiplexer
- Comparator
- LED Sequencer
- Demultiplexer
- Decoder
- Encoder
- Exclusive OR and Exclusive NOR Gates
- AND-OR-Inverter (A-O-I) Gate
- Voltage Controlled Oscillator
- 4-bit Binary Up/Down Counter
- Parity Error Checking System
- Clocked R-S Flip-Flop
- D-Type Flip-Flop
- T-Type Flip-Flop
- J-K Master Flip – Flop
- Preset Left/Right Shift Register
- RS Flip-Flop (Latch)
- Input with 8 segment decoder/driver
- 16 sets of independence control output
- Input with 8-4-2-1 code

Manuals :
(1) All manuals are written in English
(2) Model Answer
(3) Teaching Manuals

General Terms :
(1) Accessories will be provided where applicable.
(2) Manual & Training will be provided where applicable.
(3) Design & specifications are subject to change without notice.
(4) We reserve the right to discontinue the manufacturing of any product.

Warranty :
2 Years

ORDERING INFORMATION :

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<th>ITEM</th>
<th>MODEL NUMBER</th>
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<td>GOTT-DLT-3016A</td>
<td>199-915</td>
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* Proposed design only, subject to changes without any notice.