SCIENTICO INDIA
Manufacturer & Exporter · Ambala, Haryana, India

PRODUCT DATA SHEET
Catalogue reference for product evaluation

Phone: +91 7015865225 **Email:** info@scienticoindia.com **Web:** scienticoindia.com **Address:** #71, Industrial Area, Ambala Cantt, Haryana, India

Digital Trainer Board | SC-DTB 0844

Category: TVET Equipments · **Order Code:** DTB 0844 · **Country of Origin:** India

Product Overview

The Digital Trainer Board – SC-DTB 0844 is an A4 front-panel board for digital technology fundamentals. It includes a built-in 5 V, 5 A supply, a TTL clock generator (0–10 kHz with divide-by-2, 4, 8 and 16 outputs), and eight bounce-free toggle inputs. Logic gates, JK flip-flops, a 4-bit adder, counters, a monostable up to 10 s, and a 3-digit 7-segment display are included. Three powered plug-in positions and a +5 V / 0 V bus bar support expansion. The 2 mm sockets sit on a 7.5 mm grid. Connectors, wires, and two sets of English manuals are supplied. It complies with IEC/EN 61010.

View this product online: https://scienticoindia.com/product/digital-trainer-board-sc-dtb-0844/



Request a model-specific quotation
Include quantity and delivery country.

Technical Specifications

Digital Trainer Board – SC-DTB 0844: Technical Specifications

Category	Specification
Form Factor	A4 front panel; bench-standing or rack-mounted
Power Supply	Built-in 5 V DC, 5 A; stabilised; short-circuit proof
Mains Input	110–240 V AC, 50/60 Hz
Clock Generator	TTL output; approximately 0–10 kHz; dividers by 2, 4, 8, 16
Toggle Inputs	8 bounce-free L/H toggle switches
Additional Inputs	1 toggle switch and 1 pushbutton (not debounced)
Logic Gates	4 x 2-input AND/NAND; 4 x 4-input AND/NAND; 4 x 2-input OR/NOR; 4 x 4-input OR/NOR; 8 x 2-input EX-OR; 4 inverters
Flip-Flops	10 JK master-slave
Arithmetic	4-bit full adder
Counters	Decimal counter with indicators; up/down 4-bit binary counter
Buffers	2 x 2-bit buffers with enable
Timer	Monostable up to 10 s
Display	3-digit 7-segment with decoder; hex/decimal switchable
Indicators	8 buffered LEDs

Category	Specification
Plug-In Positions	3 powered positions for modules or IC sockets
Bus Bar	+5 V / 0 V
Terminals	2 mm sockets on 7.5 mm grid
Protection	Short-circuit proof 5 V supply, current limited; enclosed mains section
Compliance	IEC/EN 61010

Key Features

Key Features

- **Built-In Power Supply:** stabilised 5 V DC, 5 A with short-circuit protection
- **Clock Generator:** approximately 0–10 kHz with divide-by-2, 4, 8 and 16 outputs
- **Bounce-Free Inputs:** 8 L/H toggle switches for clean logic input
- **Full Gate Set:** AND, NAND, OR, NOR, EX-OR and inverter gates
- **Sequential Logic:** JK flip-flops, counters, adder and buffers
- **Timing Element:** monostable adjustable up to 10 s
- **Numeric Display:** 3-digit 7-segment with hex and decimal modes
- **Status LEDs:** 8 buffered indicators
- **Expansion Positions:** 3 powered slots for modules or IC sockets
- **Power Bus:** +5 V / 0 V bus bar for easy wiring

Experiments

- Truth tables for AND, NAND, OR, NOR, EX-OR and inverter gates
- Building combinational logic circuits from basic gates
- Half adder and full adder operation using the 4-bit full adder
- JK flip-flop operation in toggle, set, reset and hold modes
- Binary counter operation in up and down counting modes
- Decimal counter operation with indicator display
- Clock divider observation at 2, 4, 8 and 16 divisions
- Monostable timing using the up to 10 s timer
- Buffer operation with enable control
- Binary to 7-segment decoding and display in hex and decimal

Construction and Design

The Digital Trainer Board – SC-DTB 0844 is an A4 front panel with terminals on a 7.5 mm grid. Terminals are 2 mm sockets. The board holds the clock generator, toggle and pushbutton inputs, logic gates, flip-flops, counters, a 7-segment display, and LEDs on one panel. Three powered plug-in positions and a +5 V / 0 V bus bar are included. The mains section is enclosed.

Scope of Delivery

- Digital trainer board
- Connectors and wires for all exercises
- Two sets of English manuals for trainers and students (media and print)

Ordering & Delivery

- Send the product name, quantity, delivery country and destination with your enquiry.
- Production schedule, freight, payment terms and export documents are confirmed in the written quotation.

Frequently Asked Questions

Q: Where can the board be used?
A: The Digital Trainer Board – SC-DTB 0844 stands on the bench or hangs in a rack.

Q: Are all inputs debounced?
A: The eight L/H toggle switches are bounce-free. The additional toggle switch and pushbutton are not debounced.

Q: What clock frequencies are available?
A: The TTL clock generator runs at approximately 0–10 kHz and provides divider outputs of 2, 4, 8 and 16.

Q: Is the board powered internally?
A: Yes. It has a built-in stabilised 5 V DC, 5 A supply with short-circuit protection, operating from 110–240 V AC, 50/60 Hz mains.

Q: What connectors are used?
A: Terminals are 2 mm sockets on a 7.5 mm grid, compatible with the leads and jumpers supplied with the board.

SCIENTICO INDIA
Manufacturer & Exporter · Ambala, Haryana, India
#71, Industrial Area, Ambala Cantt, Haryana, India

+91 7015865225 · info@scienticoindia.com
scienticoindia.com
Product reference: DTB 0844