

Digital Circuit Trainer 16 Bit (MI-D01A) is an advanced learning platform which comes with extremely useful components & resources to understand and grab the knowledge about basic, linear & digital electronics. This is a multi-purpose mini lab which is featured by built-in Fixed DC Power Supplies, Variable DC Power Supplies, Clock Generator, Logic Level Generator, Logic Level Indicator & etc.

Features

- Easy to Operate.
- On-board Function Generator & Clock Generator.
- On-board dual range Digital Panel Meter.
- Built-in Fixed & Variable DC Power Supply Source.
- Built-in Analog Digital Circuit (ADC).
- On-board Module Mounting Place/ Workspace.
- All the component and circuits are fitted inside the trainer board.
- Built-in Logic Level Input Switches & Logic Level Output Indicators.

Learning's

On Board Study

- Study of BCD to 7 Segment Converter
- Study of Analog to Digital Conversion 8 Bit for DC Signal


Addon (optional study board)

- Study of Logic gates
- Study of Universal Gates
- Study of Flip Flop

...And many more


NAND Gate 

NOR Gate 

NOT Gate 

AND Gate 

OR Gate 

XOR Gate 

Technical Specifications

Inbuilt Fixed DC Power Supply Source	: + 5V/500mA. - 5V/500mA. + 15V/200mA. -15V/200mA.
Inbuilt Variable DC Power Supply Source:	0 to + 30V/200mA. -2Nos
Short Circuit Protection	: On-board short-circuit protection for all fixed and variable DC power supplies.
Built-in ADC	: 8 Bit
Function Generator	
Operating Modes	: Sine, Square and Triangular.
Frequency Range	: 1Hz-200KHz in six steps, variable in each step.
Accuracy	: upto 200KHz
Sine Wave Distortion	: max 5%
Triangular Wave Non Linearity	: max 5%
Square Wave overshoot	: < 5%.
Amplitude	: Upto 20Vpp, (Accuracy \pm 5%).
DC Offset	: \pm 2.5V.
TTL Output	: Synchronous TTL output.
TTL Clock	: 1Hz, 10Hz, 100Hz, 1KHz, 10KHz, 100KHz, 1MHz with \pm 0.5%accuracy and Manual Mode Debounce Switch.
Frequency Counter	: upto 999KHz TTL input.(Accuracy \pm 1%).
BCD Display	: Seven Segment BCD Display (2Nos).
Logic Data Input	: 16Nos.Push Switches provide for Logic Level Input with dual color indication LED.
Logic Probe	: 16Nos.
Logic Level Output Indicator with High, Low and Hi-Z indication using LED.	
Dual Range Digital Panel Meter	: 4Nos.
	Meter1:20V/200V
	Meter2:20mA/200mA
	Meter3:2V/20V
	Meter4:200mA/2A.
On-board Variable Resistor Bank	: 6Nos. (Potentiometers)
Breadboard	: 172.5mmX128.5mm.
Electrical/Mechanical Specifications	
Power ON switch with indicator and fuse for protection.	
Input Line Voltage	: 230V AC \pm 10%, 50Hz,
Dimensions (in mm) (Approx.).	: 340 (L) x 250 (W) x 62 (H)
Weight .	: 3.5Kg.(Approx.)

Package Contents



Power Cable (1no.)

Patch Cords
(Banana to Banana)



Fly Lead
(Male to Male)

Patch Cords
(Banana to Fly Lead Male)



User Manual (1no.)

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