

ASIC TRAINER

MDA-ASIC2



■ FEATURE

An ASIC or Application Specific Integrated Circuit is a semiconductor chip which is produced for a specific application for a specific customer

- Exchangeable top board.(Xilinx, Lattice, Altera, Atmel, etc)
- Select FPGA or CPLD
- ASICs are designed using a suit of computer aided software programs (CAD), Verilog-HDL, and VHDL
- Download method by PC's parallel port
- EEPROM writer for FPGA.(Auto selected by PC's parallel port)
- Various I/O experiments
- Select output devices Experiment with a switch
- User can design the circuit Experiment on the Bread board
- Simply extend a circuit Experiment with 2 extended connectors.
- Experiment items

gate	Flip flop	Logic
Hexadecimal counter	Full adder/subtractor	Register
Code converter	Johnson counter	3-state buffer
Shift register	4-bit comparator	Stepping motor control
4-bit adder and subtractor	DC motor speed control	38 decoder
Encoder	Stop Watch	LCD display
Multiplexer	Digital clock	Data selector
Electronic dice	D/A and A/D converter	Data communication IC
Dot matrix display	Arithmetic and logic operation	

- Support the continuous pulse for the digital circuit : Pulse selector : single, 1Hz~50MHz
- +5V, +12V, -12V SMPS(Free Voltage) Power
- Metal case

■ Technical Specification

PC Interface	Parallel port
FPGA/CPLD TOP Board	Select one and Assembler : Standard XC2S150
	- XC2S150(150,000 : Xilinx) Basic included
	- XCS30(10,000 : Xilinx) option
	- XC9572(CPLD : Xilinx) option
	- EP1K100(200,000 : Altera) option
	- EPF10K10(25,000 : Altera) option
Pulse Generator	Clock 1 : single, 1Hz, 10Hz, 100Hz, 1KHz, 10KHz, 100KHz, 1MHz, 5MHz, 10MHz, 25MHz, 50MHz
	Clock 2 : 153.6KHz, 307.2KHz, 614.4KHz, 2.5MHz
Input Device	Toggle Switch × 8
	Push Switch × 2
	Hexadecimal input (2-digit)
	ADC0809 (8-channel AD converter)
	Volume resistor : 10 kΩ × 1
	Sensor : Optical(CDS), Hygrometer
Output Device	LED(10Φ) × 8
	7-segment : 6digits
	Dice LED : 2(3Φ LED × 14)
	D.C Motor :12V (Include Rotary Encoder)
	STEP Motor : 1.8°
	DOT Matrix LED (32×16) × 1 (3 color : Red, Green, Amber)
	AD7305 (4-channel D/A converter)
	Level meter Experiment
	LCD (16×4 Lines) × 1
	RS-232C
Bread Board	(40×22 holes) × 1
Power	Input : A.C 85~264V, Output : D.C +5V(2A), +12V(1A), -12V(500mA)
Case Size	470(H) × 100(D) × 280(W) mm
Weight	11.5kg

