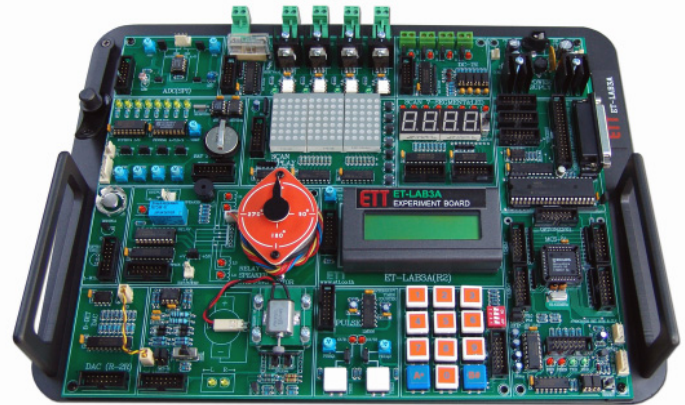
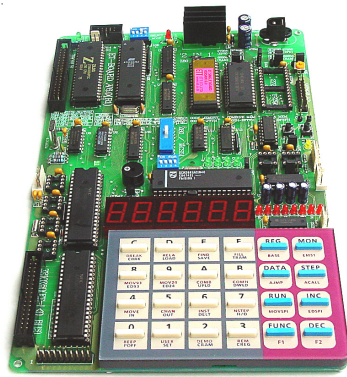


ET-BOARD V6.0

ET-LAB3A V6.0

ET-LAB3A



SPECIFICATIONS ET-BOARD V6.0	
FEATURE	SINGLE BOARD
CPU	8 BIT Z-80 MCS-51 No.AT89S8253
3 MODE	Z80 SINGLE BOARD MODE MCS-51 SINGLE BOARD MODE MCS BASIC-52 MODE
DISPLAY	6-DIGIT 7-SEGMENT DISPLAY WITH LED DISPLAY 8 POINT FLAG, 4 POINT LED USER, 2 POINT LED INTERRUPT AND 1 POINT LED HALT
EPROM	128 KBYTE FLASH MONITOR PROGRAM
RAM	32 KBYTE WITH BATTERY BACKUP
CLOCK	Z80 RUN 4MHz MCS-51 RUN 11.0592 MHz
KEYBOARD	24 RUBBER KEY SWITCH
SWITCH	SWITCH RESET & SWITCH INTERRUPT
DIP-SWITCH	4 POINT FOR SYSTEM, 4 POINT FOR USER
CONNECTOR	40 PIN-HEADER STRIP FOR Z80 BUS 34 PIN-HEADER STRIO FOR 8255 I/O PORT 20 PIN-HEADER STRIP FOR LCD (BOTH CHARACTER AND GRAPHIC LCD) 20 PIN-HEADER STRIP FOR PRINTER 6 PIN CONNECTOR FOR RS422/485 2-CH.4 PIN CONNECTOR FOR RS232 5 PIN CONNECTOR FOR A/D
USER PORT	40 BIT I/O PORT
SERIAL PORT	2-CH.SCN2681 2-CH.RS232 1-CH.RS422/485 (OPTION)
EXPANSION SOCKET	32 KBYTE MEMORY EXPANSION BY SELECT RAM No.62256 OR EPROM No.27256 (OPTION) EEPROM No.93C46 OR 93C56 OR 93C88 (OPTION) EEPROM No.24C01-24C256 TYPE 12C (OPTION) RTC DS1307 (OPTION) A-TO-D SIZE 2-CH.12 BIT No.LTC1298 (OPTION)
WATCH DOG/POWER ON	MAX 691
SPEAKER	0.5"
BATTERY	3 VOLT FOR BACKUP RAM & RTC
POWER SUPPLY	10 VDC 850 mA
PCB SIZE	6" x 9.75"
SOFTWARE	Z-80 MODE 32 FUNCTION (USE REMOTE 120 SUBROUTINES SYSTEM CALL WITH COMPUTER PC THROUGH PORT RS232) MCS-51 MODE 22 FUNCTION (USE REMOTE 112 SUBROUTINES SYSTEM CALL WITH COMPUTER PC THROUGH PORT RS232 AND EMULATOR51 MODE) MSC BASIC/52 (RUN BASIC52 LANGUAGE WITH COMPUTER PCTHROUGH PORT RS232)

SPECIFICATIONS ET-LAB3A	
TEST STEEPING MOTOR WITH INDICATOR	
2-CH.OPTO INPUT SENSOR FOR TEST DIRECTION AND SPEED OF DC MOTOR	
8 POINTS TEST LED DISPLAY	
4 DIGIT 7-SEGMENT TEST LED	
4 POINTS TEST DIP SWITCH	
15 x 7 DOT TEST DORT MATRIX	
4 x 3 KEYS TEST KEYBOARD	
2-CH.8 BIT No.ADC0832 TEST A/D CONVERTER WITH;	
-1-CH.LDR	
-1-CH.THERMISTER	
8 BIT R-2R TEST D/A CONVERTER	
TEST OPTO ISOLATOR DC INPUT, IT IS 4-CH.OPTO ISOLATION INPUT AND CAN SELECT 5 VDC OR 24 VDC INPUT	
TEST TEMPERATURE SENSOR, 3 PIN 1-WIRE DS1820	
TEST RELAY 4 CHANNELS, IT USES SOLID STATE RELAY AS SEMICONDUCTOR TO CONTROL ALTERNATING CURRENT AND ZERO CROSSING OPTO ISOLATION TO RUN WITH TRIAC	
MACHANIC RELAY FOR TEST RELAY 1 CHANNEL	
TEST LCD DISPLAY 16 CHARACTERS 2 LINES	
TEST SOUND SPEAKER	
12C BUS SYSTEM TEST WITH	
- 2 KBYTE IC 24C16 FOR MEMORY OF EEPROM	
- IC DS1307 RTC (REAL TIME CLOCK) WITH BATTERY BACKUP	
- 1°C INPUT PORT AND OUTPUT PORT, 8 BIT IC PCF8574	
- 1°C 4-CH.A-TO-D AND 1-CH.D-TO-A, IC PCF8591	
TEST 1-WIRE CONNECTING OR IBUTTON, IT IS CONNECTING ONLY ONE WIRE WITH OTHER	
- DS1990A CONTROLS SERIAL NUMBER	
CLOCK, IT IS TESTED SYSTEM OF INTERRUPT, TIMER, COUNTER IN CPU MCS-51 WITH TEST SWITCH	
ADAPTER from 34 PIN ET-BUS IC 8255 TO CONNECT WITH PRINTER PORT OF COMPUTER BE ABLE TO USE WITH ET-LAB3A WITH 34 PIN ET-BUS TO CONNECT WITH ET-BOARD V6.0	
LOCKED CONNECTOR AS TEST PAIR CABLE	
CPU MCS-51 No.P89V51RD2 WITH 64 KBYTE FLASH MEMORY BE ABLE TO DOWNLOAD TO COMPUTER PC FROM RS232 PORT INTO CPU P89V51RD2 DIRECTLY,ALTHOUGH IT IS WRITTEN WITH ASSEMBLY LANGUAGE OR C LANGUAGE	
INTERFACE WITH COMPUTER PC THROUGH PRINTER PORT OF COMPUTER PC TO ET-LAB3A BOARD. IT IS CONTROLLED TO IC PORT 8255 WHICH IS 3-CH.8 BIT INPUT/OUTPUT PORT IS ON BORAD WITH WRITTEN HIGH LEVEL LANGUAGE "DELPHI LANGUAGE"TO CONTROL TEST.	
CONNECTING WITH ET-BOARD V6.0, IT TAKES Z-80 CPU AND MCS-51 CPU IN ET-BOARD V6.0 CONTROL ALL ACCESSARIES ON ET-LAB3A BOARD THROUGH 8255 PORT.	