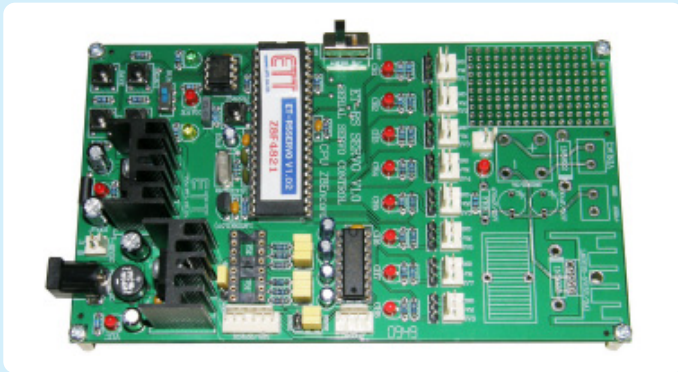


**ET-RS SERVO V1 (P-ET-A-00167)**

It is processed controller board to control SERVO easily, be able to develop robotic system quickly and be able to connect with ETT's controller boards or COMPUTER PC through PORT RS232.



- BE ABLE TO CONTROL 8-CH. SERVO MOTOR PER 1 BOARD
- SEND/RECEIVE DATA THROUGH PORT RS232, RS422, RS485 SPEED 9600 OR BE ABLE TO ORDER THROUGH MANUAL SW ON BOARD
- MCU Z8ENCORE NO.Z8F4801
- DISPLAY LCD AND POSITION OF ROTATION THROUGH PORT RS232
- BE ABLE TO ORDER SERVO AS STEP OF ROTATION 1 STEP PER 10°s AND BE ABLE TO SET AS 50-250 STEP
- BE ABLE TO SAVE VALUE OF MIN AND MAX OF SERVO IN EACH CHANNEL ON BOARD
- BE ABLE TO SAVE STEP OF ROTATION AND DELAY TIME INTO EEPROM IN EACH CHANNEL ON BOARD AUTOMATICALLY AND RUN INDEPENDENTLY
- BE ABLE TO FIND CENTER POSITION OF SERVO, CALIBRATE TO FIND MIN AND MAX SERVO
- BE ABLE TO SET ID OF BOARD WITH RS485 AND BE ABLE TO USE 16 ET-RS SERVO V1 BOARDS IN THE SAME TIME
- ET-RSS V1.0, PROCESSED PROGRAM FOR CONTROL THROUGH COMPUTER PC

- SWITCHING LM2576 5V3A POWER SUPPLY ON BOARD (OPTION)
- PCB SIZE 15.3 x 9 CM., DC JACK SUPPLY INPUT 9-12V AC/DC
- **ET-RS SERVO V1 INCLUDES;**

1. ET-RS SERVO V1 BOARD
2. ET-RS232 DB 9 PIN CABLE
3. 4 PIN RS232 CABLE
4. CD-ROM



- CPU MCS51 ATMAEL T89C51RD2 PLCC 68 PIN RUN 36.864 MHZ WITH MONITOR V1.0 ET-REMOTE I/O PROGRAM
- 4-CH.I2C BUS EEPROM NO.24XX (OPTION)
- I2C BUS RTC NO. DS1307 OR PCF8583 (OPTION)
- 14 PIN LCD BUS ETT BE ABLE TO CONNECT CHARACTER LCD
- RS232 ON BOARD, RS485 (IC 75176, MAX3088 OPTION)
- PCB SIZE 12.7 x 12.7 CM.
- **ET-REMOTE I/O V1 INCLUDES;**

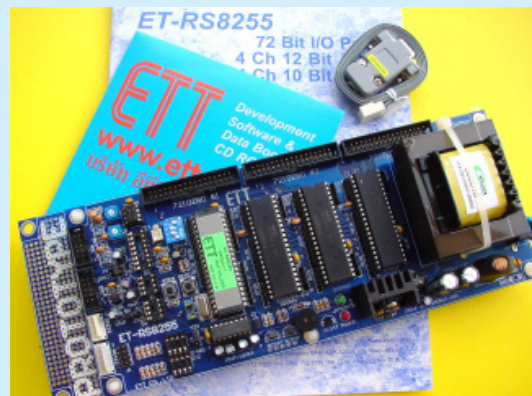
1. ET-REMOTE I/O BOARD
2. USER MANUAL
3. CD-ROM
4. ET-RS232 DB 9 PIN CABLE



**ET-RS8255 (P-ET-A-00089)**

**72 BIT I/O PORT, A/D 4CH 12 BIT, D/A 4CH 10 BIT**

It is controller board run on Computer PC through RS232 or RS422, users put right instructions into program and board will be run automatically. It is suitable for users who know less Microcontroller but can write program on PC. Users who can write program with C, C++, Pascal, QBasic, Visual Basic, Delphi Language can use them and it is controlled through Terminal Procomm Plus, Hyper Terminal Program without writing program. So, users need to understand user manual well because program will be run automatically through Computer PC. For example, 72 Bit Input / Output TTL, be able to read 12 Bit A TO D Input as 4 channel (4096 level) and 10 Bit D TO A Output as 4 channel (1024 level). User can adapt with other project work such as save data into computer PC or control ON/OFF of computer PC by connecting with ETT's 34 PIN ET BUS I/O board; 8-CH.RELAY (ET-REL8) or 8-CH.220 VAC (ET-SSRAC).



**SPECIFICATIONS**

- CPU :** MCS51 with Program Monitor (AT89S8252 RUN 18.432 Mhz)
- Digital Input/Output :** 72 Bit Input / Output TTL (PORT IC 8255 X 3)
- Analog Input :** 4 Channel 12 Bit ADC IC #ADS7841 (Option)
- Analog Output :** 4 Channel 10 Bit DAC IC #LTC1661 (Option)
- User memory eeprom data :** 256 Byte EEPROM In CPU
- Communication :** RS232 หรือ RS422 Baud rate 9600 หรือ 19200
- Command Set :** 11 คำสั่ง ASCII COMMAND
- Output Bit :** 1 Mini Speaker , 1 Led Operate
- Connector :** 34 Pin x 3 ET BUS I/O: 10 Pin x 1 A/D: 10 Pin x 1 D/A 5 Pin x 1 RS232 : 6 Pin RS422/485
- Supply Voltage :** 220V AC Transformer+ Regulate 5VDC On Board
- Dimensions :** 98 X 260 X 44 mm.

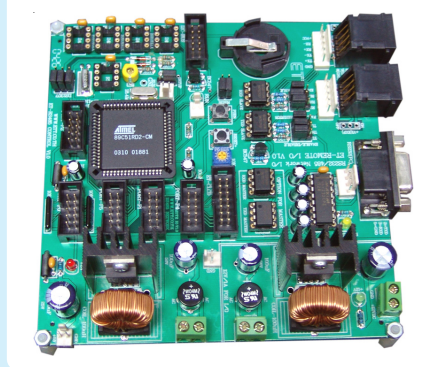
**Method** to writing controller program: Users may write program with high language that has instructions of Input/Output with Port RS232 or using Components that is able to use RS232. Programs in ET-RS8255's CD-ROM are written with Delphi 3.0 Language, run on Windows95 and use Component "ComPort". Both example and component in CD-ROM are easy for user in case of known in other language such as QBASIC, C, Pascal.

**ET-RS8255 INCLUDES;**

1. ET-RS8255 BOARD
2. USER MANUAL
3. CD-ROM
4. ET-DOWNLOAD STAMP/RD2 CABLE
5. AC LINE 220VAC WIRE



**ET-REMOTE I/O V1 (P-ET-A-00173)**



It is Input/Output board in RS232/RS485 System, especially Monitor Program support instructions to use. Users send instruction code in ASCII COMMAND into board, be able to develop Input/Output in Network well.

- BE ABLE TO CONNECT IN REMOTE I/O THROUGH PORT RS232 WITH INSTRUCTIONS ASCII COMMAND AND THERE'S 10 SET OF THEM IN VERSION 1 SUCH AS IN, OUT, BIOSCOPE, AND ETC.
- BE ABLE TO CONNECT IN REMOTE NETWORK I/O THROUGH PORT RS485 (OPTION 3-CH.IC 75176 OR MAX3088) AND BE ABLE CONECT FOR 32 POINT TO 256 POINT NETWORK WITH 1 INSTRUCTIONS AND BE ABLE TO SET FOR 256 POSITION OF SUB-NETWORK
- 2-CH.POWER SUPPLY; 5V/1AMP AND 12V/1AMP FOR I/O, POWER SUPPLY 5V AND 12V FOR SWITCHING
- 40 BIT I/O INPUT/OUTPUT CONNECTING VIA 5-CH. 10 PIN ET-BUS AND BE ABLE TO CONNECT WITH I/O OF ETT THAT HAS 10 PIN ET-BUS PORT SUCH AS ET-OPTO ACIN4, ET-OPTO RELAY4

Continue ...