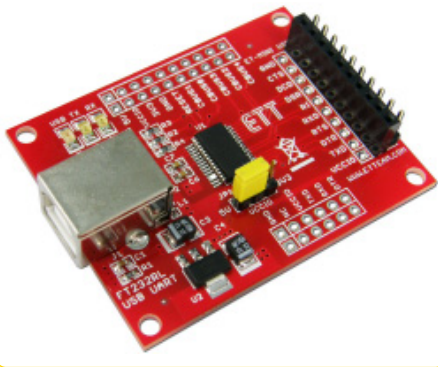## ET-MINI USB-TTL (P-ET-A-00465)

It is Board that converts signal from PORT USB of computer to be UART Serial in the format of Signal TTL; so,

it is suitable for directly interfacing with Board Microcontrollers.

- Use IC No.FT232RL of FUTURE TECHNOLOGY DEVICES
- Has all Connectors UART completely; TX, RX, DTR, DSR, CTS, RTS, DCD, RI
- Use Power Supply from the connected PORT USB directly
- Has Circuit REGULATOR 3.3V 800mA ON BOARD
- Has 3 LEDs to display the operating status of RX, TX, USB
- Has JUMPER to choose the signal levels to be either 3.3V or 5V
- DRIVER supports the operation under WIN 98 SE/ ME/ 2000/ XP/ 7, LINUX, MAC OSX
- Has Connector PORT USB TYPE B
- Use Connector INPOUT/OUTPUT 10PIN to be PIN HEADER 2.54mm. MALE and FEMALE
- PCB Size is 4.4 x 5.6 mm.
- Board ET-MINI USB-TTL consists of …
1. Board ET-MINI USB-TTL
2. CD-ROM; User's Manual and DRIVER

ET-MINI ISD2548   (P-ET-A-00473)
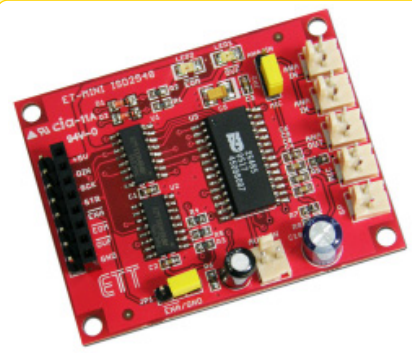
ET-MINI ISD2548 is MINI Board that records sound and playback; it is suitable for recording sound that is not longer than 48 seconds. It controls record and playback by interfacing with MCU in the format of SERIAL DATA (SPI) through IC 74HC595 to reduce amount of Pin I/O of the connected MCU.

Specifications of ET-MINI ISD2548
- Use IC VOICE REC/PLAY 48 SEC No.ISD2548 28-SOIC
- INPUT SAMPLE RATE 5.3KHz, FILTER PASS BAND 2.3KHz (ON CHIP CLOCK SOURCE)
- Use Microcontroller to control the operation
- Has 320 MESSAGE ADDRESS; 1 ADRESS can record sound for 150 ms (0.15 seconds)
- Sound recording is not erased when POWER OFF, so it is unnecessary to have BATTERY for BACKUP
- 100,000 times recordable and it last for 100 years.
- 5 of Connector 2 PIN 2.54mm. MALE to interface SP, MIC, ANA OUT, ANA IN(2)
- Connector PIN HEADER 1x8 MALE and FEMALE with 2.54mm Pitch to interface with MCU at Signal 5V
- Use 5VDC Power Supply
- Board size is 4.4 x 5.6 cm.
- Provide example program to use with Board ET-BASE AVR ATMEGA128, CP-JR51RE2 V1, ET-BASE PIC8722(ICD2)
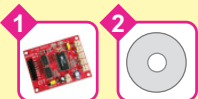
ET-INOUT24 V2.0   (P-ET-A-00368)
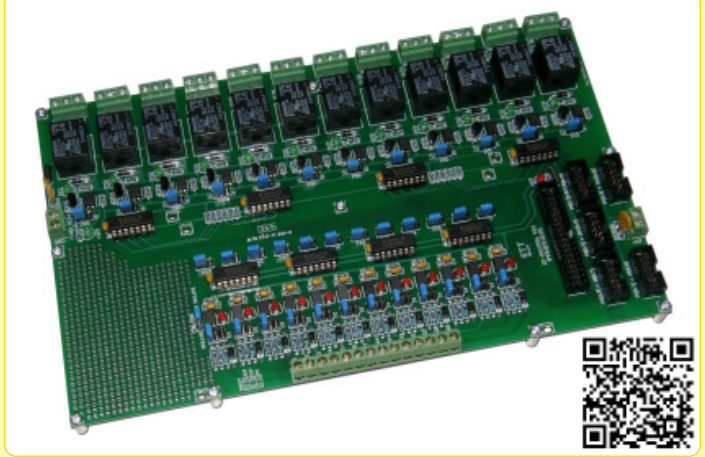
It is the new Board INPUT/OUTPUT Expansion that the replaces ET-INOUT24. It change the Relay size to 10A to use with the higher current; increase the applications of INPUT OPTO for using with INPUT 5V, 12V and 24V; moreover, It increase LOGIC INPUT that is both OUTPUT RELAY and INPUT OPTO, so user can select LOGIC to run either as LOGIC LOW or as LOGIC HI.
- 12 OUTPTU RELAY 12VDC 10 AMP that has 3PIN SCREW TERMINAL BLOCK Connectors; OUTPUT, NO, NC, COM. It uses OPTO ISOLATE Circuit to separate RELAY from 5V POWER SUPPLY.
- OUTPUT RELAY can set signals for RELAY operation; it in this case, LOGIC INPUT can be run in either LOGIC LOW or LOGIC HI.
- 12 INPUT OPTO ISOLATE can set Signal INPUT Levels; 5V 12V or 24V; independently separate SCREW TERMINAL BLOCK Connector; and can select Signals for INPUT operation to RUN at LOGIC INPUT either as LOGIC LOW or as LOGIC HI.
- PHOTO AREA PCB Size: 7.00 x 5.00 cm. to expand circuit.
- 1 of 34PIN I/O ET BUS Connector and 5 of 10PIN I/O ET BUS Connector.
- Board uses 12VDC Power Supply to feed RELAY and 5VDC for Board.
- Board size: 25.30 x 15.20 cm.
- ET-INOUT 24 V2.0 consists of ... Board and User's Manaul.
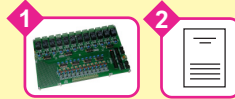
ET-10PIN REL4   (P-ET-A-00112)
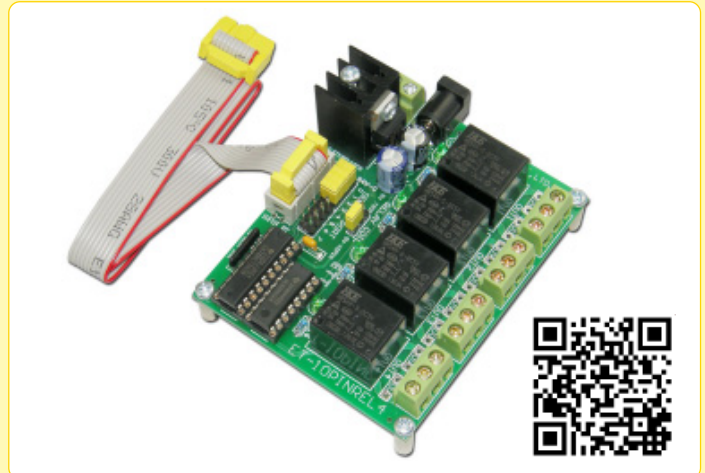
ET-10 PIN REL 4 which is 4-CH.RELAY OUTPUT is designed to connect with ETT's 10 PIN ET (or connecting with 34 PIN ET be able to use CONVER ET-CONV 34 PIN to 10 PIN).
- 4-CH.OUTPUT RELAY WITH COM, NO,NC PORT
- RELAY COIL 5 VDC, CURRENT CONTCT USES 5A/250V OR 10A/24VDC
- BE ABLE TO SELECT 4 BIT LO PORT OR 4 BIT HI WITH JUMPER FOR CONNECTING, SO BE ABLE TO CONNECT 2 ET-10PIN REL 4 PER 1-CH.10 PIN ET PORT
- +5V POWER SUPPLY OF 10PIN ET OR POWER 9-12 VDC FORM EXTERNAL TO REL4 OF BOARD BECAUSE THERE'S 7805 ON BOARD
- PCB SIZE 6.8 x 8.4 CM. WITH 10PIN WIRE CONNECTOR HEADER