

ET-TFT43-EVE (P-ET-A-00504)

TFT LCD 4.3 INCH WQVGA / 480 x 272 PIXEL 262K COLOR / RESISTIVE TOUCH / LED BACKLIGHT CHIP FT800 # GRAPHIC CONTROL, AUDIO PROCESSING & RESISTIVE TOUCH CONTROLLER



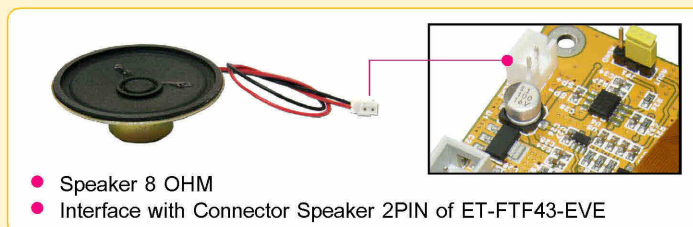
ET-TFT43-EVE is Board TFT LCD 4.3 Inch that works with CHIP FT800, it is easy to use TFT LCD. It is SPI Interface and supports both 3.3V I/O and 5V I/O. It can interface with both 3.3V MCU and 5V MCU, but, the Power Supply of board must be 5V only.

FT800 is an intermediate IC between user and TFT LCD in order to control the operation. It includes the functions of DISPLAY LCD, AUDIO and TOUCH together in the single CHIP of FT800, including GRAPHIC CONTROLLER; so, user does not need to write or create anything by self.

Specifications of Board ET-TFT43-EVE

- Use TFT LCD Display with 4.3 inch WQVGA + RESISTIVE TOUCH SCREEN, DISPLAY SIZE W x H x D = 105.60 x 67.3 x 4.0 mm., Screen Definition = 480 x 272 PIXEL, 262K COLOR, 18 BIT COLOR INTERFACE, LED BACKLIGHT
- Use SINGLE CHIP to control LCD No. FT800 that includes FUNCTIONS of GRAPHIC CONTROL, AUDIO PROCESSING and RESISTIVE TOUCH CONTROLLER together in the single CHIP. So, user can use and command the operation by the created and provided COMMANDS.
- Support 2 AUDIO SOURCES to play audio file as follows;
 1. From SOUND SYNTHESIZER: There is 58 SOUND EFFECTS that have already created in the FT800 and provided for users such as BELL
 2. From AUDIO PLAYBACK: It plays MONO AUDIO FILE in the format of 8-BIT PCM, 8-BIT ULAW or 4-BIT IMA-ADPCM. It has to send FILE from MCU and stores in the MEMORY RAM of FT800 first.
- Control and adjust VOLUME by program through REGISTER
- Can adjust the brightness of LED BACKLIGHT by program through REGISTER
- Can INTERFACE with external MCU in the format of SPI (4-Wire), it supports both 3.3V TTL and 5V TTL with the maximum CLOCK Speed of 30MHz
- Have SOCKET to insert MICRO SD CARD to use with FILES by using external MCU to control the operation
- Have POWER AMP 1W ON BOARD with Connector Speaker 2PIN (2.50mm.) (OPTION: It is used with Speaker 8 OHM, it is "ET-SP TYPE B (P-ET-A-00505)
- Use Connector 10PIN HEADER ETT for using Board ET—TFT43 EVE and it uses POWER SUPPLY +5VDC from this Connector 10PIN ET
- Board Size: 8.40 x 13.00 cm.
- **ET-TFT43-EVE ...** includes...
 1. Board
 2. CD-ROM User's Manual and Example Programs

ET-SP TYPE B (P-ET-A-00505)



- Speaker 8 OHM
- Interface with Connector Speaker 2PIN of ET-TFT43-EVE

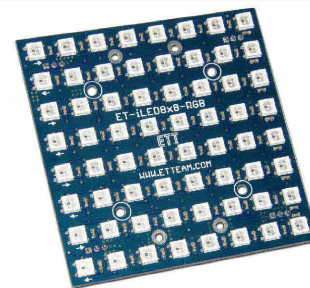
TFT 128160-1.8 (A-LC-G-00025)



- TFT LCD ขนาดหน้าจอ 1.8 นิ้ว, 128 x 160 DOT, 18 BIT (262,144) เฉดสี
- ใช้ชิพประมวลผล ST7735 ในการควบคุมบอร์ด
- ใช้การต่อควบคุมจอ LCD แบบ SPI ทำให้ง่ายในการต่อใช้งาน
- ใช้ไฟเลี้ยงจอ 3.3V-5.5V
- มีส่วน SD CARD SOCKET พร้อมขั้วต่อใช้งาน

- 8 PIN HEADER ต่อใช้งานส่วน LCD และ 4 PIN PCB ต่อใช้งานด้าน SD CARD SOCKET
- เชื่อมต่อสัญญาณโดยตรงกับไมโครคอนโทรลเลอร์ระบบไฟ 3.3V (ในกรณีที่ไม่ใช่ไมโครคอนโทรลเลอร์ ที่เป็นระบบ 5V ต้องต่อผ่านวงจรปรับระดับแรงดัน เช่น ET-MINI LOGIC LEVEL)
- มีส่วน LED เป็น BACKLIGHT ให้กับ LCD 3.3V-5V กระแส 30-50 mA.
- ขนาด PCB 3.45 x 5.8 cm.
- **TFT 128160-1.8 ...** ประกอบด้วย
 1. จอ TFT 128160-1.8
 2. CD-ROM คู่มือ และตัวอย่างโปรแกรม

ET-iLED 8x8-RGB (P-ET-A-00510)



WS2812B LED RGB 24 BIT COLOR (16,777,216 COLOR)



ET-iLED 8x8-RGB is RGB LED Display Board that includes 64 DOT(8x8) of RGB LED by using 64 DOT of IC LED No.WS2812B as CASCADE Connection. Each LED can display high resolution of RGB up to 24 BIT COLOR or 16 million colors and light of this LED is highly bright.

Specifications of ET-iLED 8x8-RGB

- Use 5VDC to supply circuit (use 3.84A Current at the maximum)
- Only use single Cable CONTROL or 1 BIT for SERIAL NZR Communication to control Display Circuit of all 64 LED; the CASCADE Connection is more convenient to connect and control the operation.
- INPUT can be connected with TTL 5V or 3.3V by using IC 74LVC1G17 as SCHMITT-TRIGGER BUFFER
- Use IC LED No.WS2812B 5.0 x 5.0mm. 4 PIN; this IC LED includes DRIVE Circuit, LED RGB Controlling Circuit, ELECTRIC RESET Circuit, POWER LOSE RESET Circuit
- This WS2812B includes 3-color RGB LED, it can display color resolution as 24 BIT COLOR (16,777,216 colors) with 256 shades of brightness, and scanning frequency not less than 400 Hz/S
- Can connect a maximum of 16 Boards ET-iLED 8x8-RGB together (NOTE: It requires high speed CPU such as AVR, ARM, and etc. For CPU MCS51 and general PIC, it cannot be used with this Board ET-iLED 8x8-RGB)
- Light of this LED is highly consistent and it remain in the state of LATE until there is incoming DATA.
- It can connect with Board of Arduino with example program
- PCB size: 8.15 x 8.15cm. (3200 x 3200 mil.)
- Use 4 of 3-PIN PIN HEADER 2.54 mm. under PCB
- **ET-iLED 8x8-RGB** includes...
 1. Board ET-iLED 8x8-RGB
 2. CD-ROM Manual and Example Program

ET-iLED-RGB (P-ET-A-00509)

Its specification is the same as ET-iLED 8x8-RGB but this product has only one LED WS2812B.



- Use 5VDC to supply circuit (use 60mA Current at the maximum)
- Use TTL 5V INPUT
- Can connect Boards ET-iLED-RGB together not greater than 1024 Boards

- PCB size: 1.75 x 1.75cm. (700 x 700 mil.)
- Use 2 of 3-PIN PIN HEADER 2.54 mm. under PCB
- **ET-iLED-RGB** includes ...
 1. Board ET-iLED-RGB
 2. Paper and circuit (can download Manual and Example Program from website: www.etteam.com)

