

## 1.77 Inch 128x160 Resolution TFT LCD Display with MPU 8 Bit Interface Small TFT LCD Module

### Basic Information



### Product Specification

- Interface: Mpu 8 Bit
- Operating Voltage: 2.6V To 3.3V, Typical Value 2.8V.
- Outline Size: 33.9×44.05×2.5mm
- Panel Type: IPS
- Storage Temperature: -20°C To 70°C
- Displaysize: 1.77 Inches
- Backlight Type: LED
- Screen Type: LCD TFT
- Highlight: 1.77 inch TFT LCD display , 128x160 resolution LCD module, 8 bit interface TFT screen



## Product Description

### 1.77 Inch TFT LCD Display MPU 8 Bit 128x160 Small TFT LCD Module

#### Product Specifications

<b>Product:</b>	1.77 Inch TFT Display	<b>Touch Screen:</b>	Optional
<b>Resolution:</b>	128x160	<b>Cover Glass Dimension:</b>	Customizable
<b>Viewing Direction:</b>	12:00	<b>Interface:</b>	MPU 8 Bit
<b>Pin Number:</b>	20 Pins	<b>Connection:</b>	Soldering
<b>Surface Luminance:</b>	250 Cd/m <sup>2</sup>	<b>LED Lifetime:</b>	40,000 Hours
<b>Operating Temp.:</b>	-20°C to +70°C	<b>Compliance:</b>	REACH & RoHS Compliant

#### Product Introduction

This 1.77-inch TFT liquid crystal module is a compact color display device with a resolution of 128×160 (QQVGA). It adopts an 8-bit MPU parallel interface (compatible with 8080 timing) and is equipped with an internal ST7735S or GC9106 driver IC. It can directly interface with single-chip microcontrollers such as STM32 and 51.

**Physical Specifications:** Dimensions approximately 33.90×44.05×2.5mm, effective display area 28.03×35.04mm, 20-pin FPC interface, either soldering or connector installation is possible.

**Display Performance:** TN transmissive panel, 262K colors (6bit), brightness 200-500cd/m<sup>2</sup>, contrast 250:1-500:1, response time approximately 30ms, typical viewing angle 12 o'clock direction.

**Electrical Characteristics:** Operating voltage 2.8V (IO port 1.8-3.3V), built-in 2 white LED backlights, low power consumption design, suitable for battery-powered devices.

**Environmental Adaptability:** Industrial-grade temperature range -20 to 70 , complies with RoHS environmental standards.

#### Applications

This module boasts core advantages of small size, low cost and easy driving, and is widely applied in various embedded and portable devices:

**Industrial Control:** Instruments and meters, temperature controllers, data collectors, human-machine interfaces (HMI)

**Consumer Electronics:** Smart wristbands, electronic cigarettes, razors, beauty devices, power banks, MP3/MP4 players

**Medical Equipment:** Fetal heart monitors, blood glucose meters, portable health monitoring devices

**Smart Home:** Coffee machines, water dispensers, remote controls, small household appliance control panels

**Vehicle and Security:** Rearview camera auxiliary screens, access card readers, small monitoring displays

**Education and Development:** Single-chip microcomputer development boards, Arduino/STM32 learning kits, experimental demonstration screens

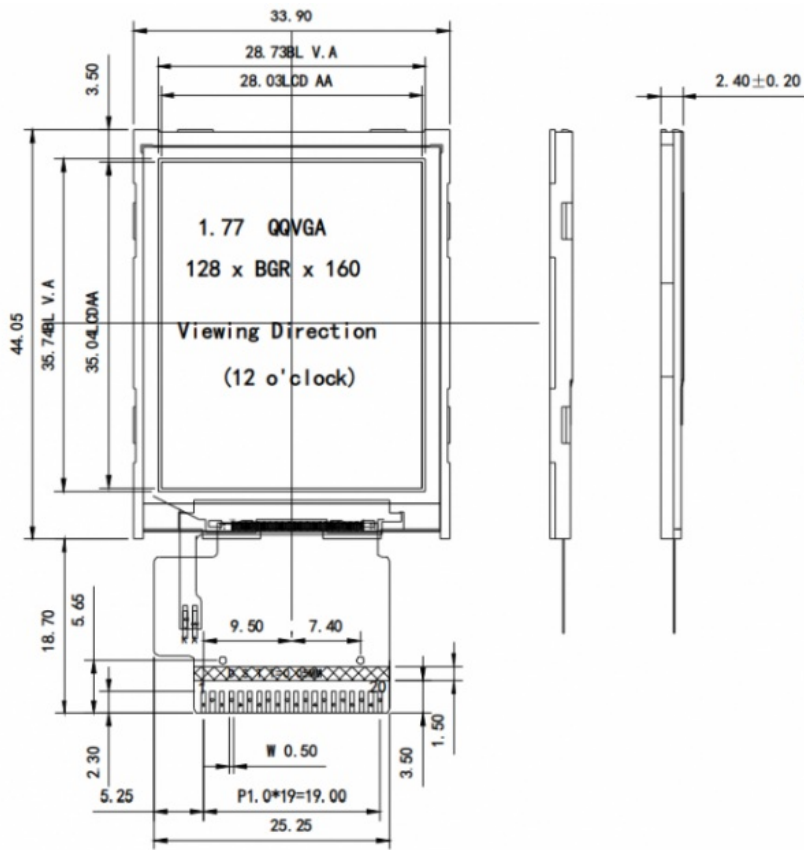
#### Core Advantages

**Universal Interface:** 8-bit MPU parallel port, no need for complex SPI configuration, can be stably driven by low-speed MCU

**High Integration:** The driver IC and backlight circuit are built-in, the peripheral is extremely simple, shortening the development cycle

**Cost-Friendly:** Mature for mass production, low price, suitable for large-scale low-cost projects

#### Technical Drawing



### Pin Description

NO.	PIN NAME	I/O	Description
1	LED-	O	LED Cathode
2	LED+	O	LED Anode
3	GND	I	Ground
4	VDD	I	Power Supply 2.8V Voltage
5	NC	-	LEAVE OPEN
6	NC	-	LEAVE OPEN
7	CS	I	Input pin for chip selection signal
8	RESET	I	LCM Reset input signal
9	RS	I	Register select signal
10	/WR	I	Write strobe signal input pin
11	/RD	I	Read strobe signal input pin
12-19	DB7-DB0	I/O	Display Data I/O
20	GND	I	Ground



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## Frequently Asked Questions

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### 1. I want the LCD display 8 digits and the outline size is 65x30x2.8mm?

No problem. Firstly, please kindly send us your specification/drawing paper. If you have not the specification, you can also provide your samples; we will recommend the suitable one if it is standard products. Or we can customize for you based on your own requirement.

### 2. This LCD is just what we want, but it is big size, do you have any smaller size? And the display content need to be changed a little.

For the segment type LCD module, if you need modify the outline size or display content, a new LCD glass module is need. We have to open new tooling for you.

### 3. This LCD display is HTN type, but I want STN type, can you make?

That's all right. We can change for you as per you request.

### 4. I want customize a new LCD module. Can you do?

Yes, we can. Please send your drawing paper. If you have not, please advise me the outline size of the LCD display, display information (Glass thickness, Polarizer, Display Type, Connector mode, Storage Temp. Operating Temp. Supply Voltage, Viewing direction, drive condition), we can customize for you.

### 5. What is leading time for tooling?

General speaking, it will cost 15 to 25 days after drawing paper confirmation and tooling charge payment, we can report you the exact time when you confirm the drawing paper.

### 6. Can you send us samples for checking?

Yes. Samples order is available.

#### 7. What is the Leading Time?

If we have stock for the standard ones, the leading time is one day after payment. If it is the mass production for special ones, the leading time is about 15-30 days. Suppose we can finish earlier, we will report the information in advanced.



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