



# Nextion Intelligent NX8048P070-011R - Generic 7.0" HMI 800\*480 Touch Display for Arduino Raspberry Pi

**SKU** 104990606

Nextion is a Human Machine Interface (HMI) solution that provides a control and visualization interface between a human and a process, machine, application, or appliance. Nextion is not just a touch display, it has a hardware part and a software part which is well developed for HMI applications.

# **PRODUCT DETAILS**

# **Key Features**

- Nextion IPS resistive touch display
- 7.0" with 800\*480 resolution
- Providing HMI function for external device like Arduino board or Raspberry Pi
- Including GUI development software and many API commands for GUI development

### **Description**

Nextion is a Human Machine Interface(HMI) solution that provides a control and visualization interface between a human and a process, machine, application, or appliance. Nextion is not just a touch display, and it has a hardware part and a software part which is well developed for HMI applications.

Nextion(NX8048P070-011R) display is an IPS display with a resolution of 800\*480. The touch panel for this display is resistive touch. Nextion has only one serial(TTL) for power supply or connection with peripheral devices like Arduino board or Raspberry Pi. What 's more? Nextion display has an MCU, and its frequency is up to 200MHz. With the help of 120MB flash, 512KB RAM,1024 Byte EEPROM, and an SD card socket, this display is embedded with a rich storage for HMI programming. Different from the other type"T" Nextion displays, this type"P" Nextion has 8 extra GPIOs(two of which are PWM pins) for connecting peripheral equipment. And there is an RTC module on the display for controlling these devices in real-time.

As for the software part, Nextion has rich resources. Nextion Editor is a Windows software for GUI development. There are libraries for serial communication with Arduino boards and Raspberry Pi. Moreover, a mass of API is defined for users in The Nextion Instruction Set. With these resources, I believe you will have an easy experience with this display.



#### Caution:

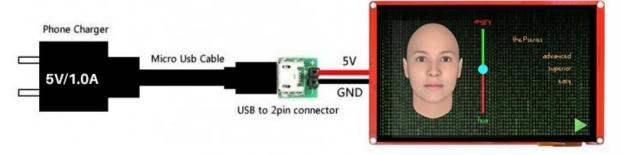
Working under insufficient power supply condition will damage the Nextion model easily.



Blurred screen? Flashing? You may be suffering from power shortages. Power off at the first possible moment. No more repeated attempts to damage your Nextion model.

A small connector is included in the package. Please try to power Nextion with your phone charger through the connector to check if Nextion works well.

A high quality usb cable is required.



#### **NEXTION EDITOR SOFTWARE**





Free and Easy-to-Use Nextion HMI software



ASCII text based instructions for display side coding



Assignable attribute value components at runtime



Drag-and-Drop components for GUI design and interaction



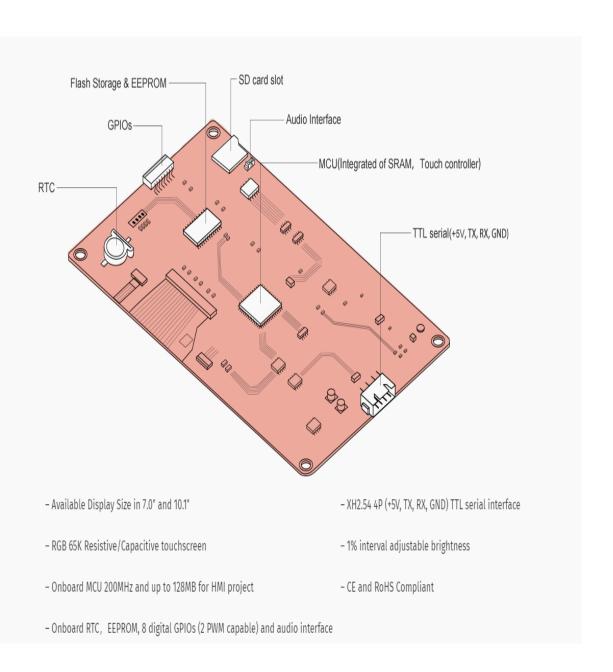
Built-in debugger for HMI project simulation



User Event Code pane for GUI interaction and peripheral MCU communication

- Support Audio Resource
- Support Video Resouce
- Support Animation Resouce
- Support PNG Picture Resource
- Component Transparency Attribute
- Component and Page Loading Effect
- Component Move and Drag in Runtime
- Anti-aliasing Gauge
- New Components (ComboBox, SLText, Gmov, Video, Switch, EXPicture)

#### **Hardware Overview**



Specification

Item	Value				
Color	64K 65536 colors				
Resolution	800x480 pixel				
Touch-type	Resistive				
Touches	> 1 million				
Backlight	LED				
Backlight lifetime (Average)	>30,000 Hours				
Operating Voltage	5V				
Operating Current	430mA Normal Mode, 170mA Sleeping Mode				
Power supply recommend	5V, 1.0A, DC				
Serial Port Baudrate	2400(Min), 9600(Typical),921600(Max)				
Serial Port Mode	TTL				
Serial Port	4Pin_2.54mm				

USB interface	NO				
SD card socket	Yes (FAT32 format), support maximum 32G Micro SD Card				
FLASH Memory	120 MB				
RAM Memory	512 KB				
EEPROM	1024 Byte				
Instruction Buffer	1024 Byte				
Extended IO	8 Digital extended GPIO, IO0-IO7 support input, output, and component binding event, IO6-IO7 support PWM				
RTC	built-in RTC support (Battery type: CR1220)				

# **Dimension**

NX8048P070-011R\_Dimension

# **Part List**

- Nextion NX 8048P070-011R HMI Display\*1
- XH2.54 4P wire\*1
- power supply test board\*1

# **Related Nextion Display**

Type of Display	NX3224T0 24	NX4024T0 32	NX4832T0 35	NX4827T0 43	NX8048P0 70-011R	NX1060P1 01-011C-I
Size	2.4"	3.2"	3.5"	4.3"	7.0"	10.1"
Resoluti	320*240	400*240	480*320	480*272	800*480	1024*600
Touch panel	RTP	RTP	RTP	RTP	RTP	СТР
Flash	4MB	4MB	16MB	16MB	128MB	128MB
RAM	3584Byte	3584Byte	3584Byte	3584Byte	512KB	512KB
MCU Frequen cy	48 MHz	48 MHz	48 MHz	48 MHz	200 MHz	200 MHz
EEPROM	-	-	-	-	1024Byte	1024Byte
GPIOS	-	-	-	-	8	8
RTC	-	-	-	-	Yes	Yes
Price	\$	\$	\$	\$	\$	\$

# **ECCN/HTS**

HSCODE 9013803010

UPC

# **LEARN AND DOCUMENTS**

**Documentations** 

**Software: Nextion Editor** 

Libraries for Arduino or Raspberry Pi

**Editor Guide** 

**The Nextion Instruction Set** 

**Datasheet** 



