



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

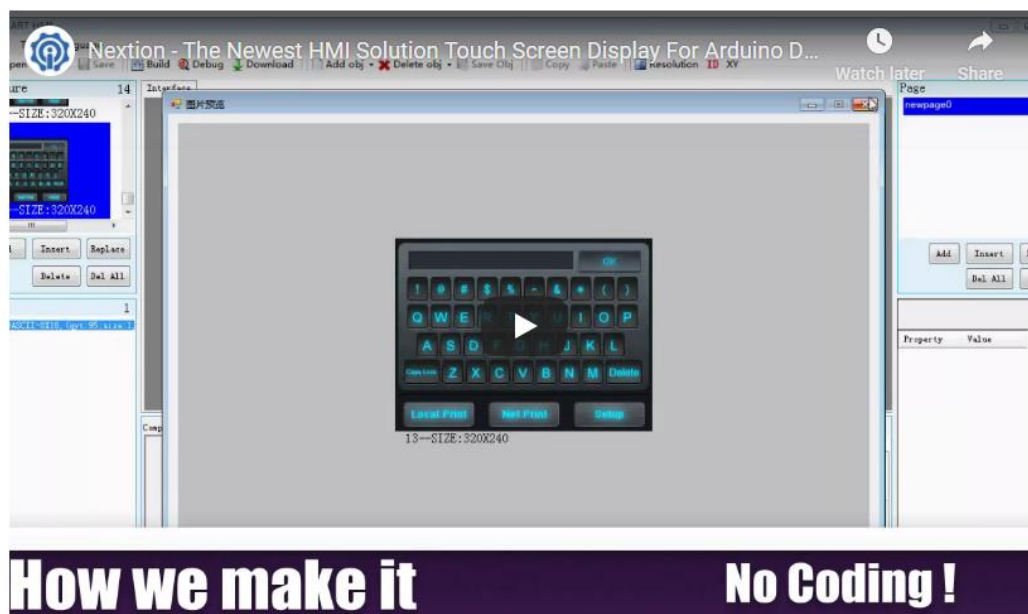
- Nextion IPS resistive touch display
- 7.0" with 800*480 resolution
- Providing HMI function for external device like Arduino board or Raspberry Pi
- Including GUI development software and many API commands for GUI development

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.



<https://youtu.be/FMWQ1dXZr2I>

Caution:

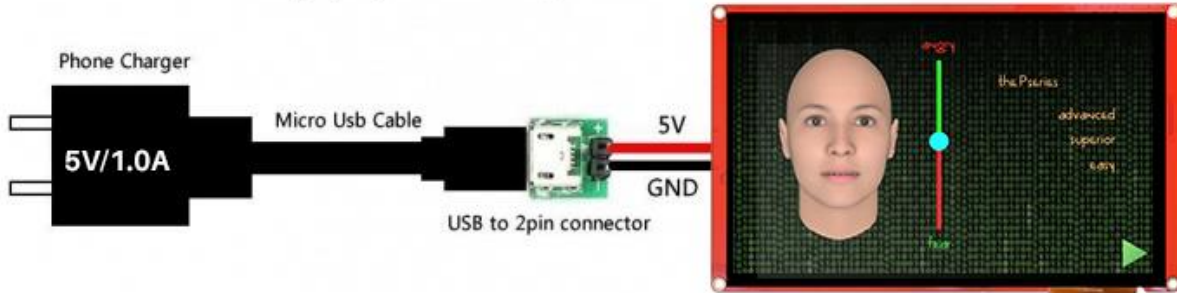
Working under insufficient power supply condition will damage the Nextion model easily.



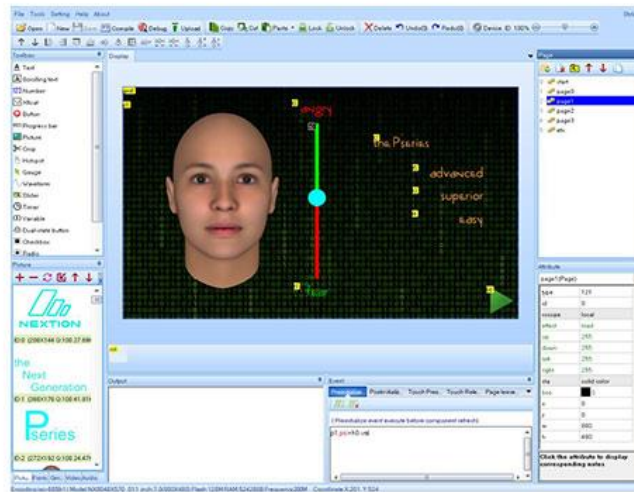
Blurred screen? Flashing? You may be suffering from power shortages. Power off at the first possible moment. No more repeated attempts to damage your Nextion model.

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



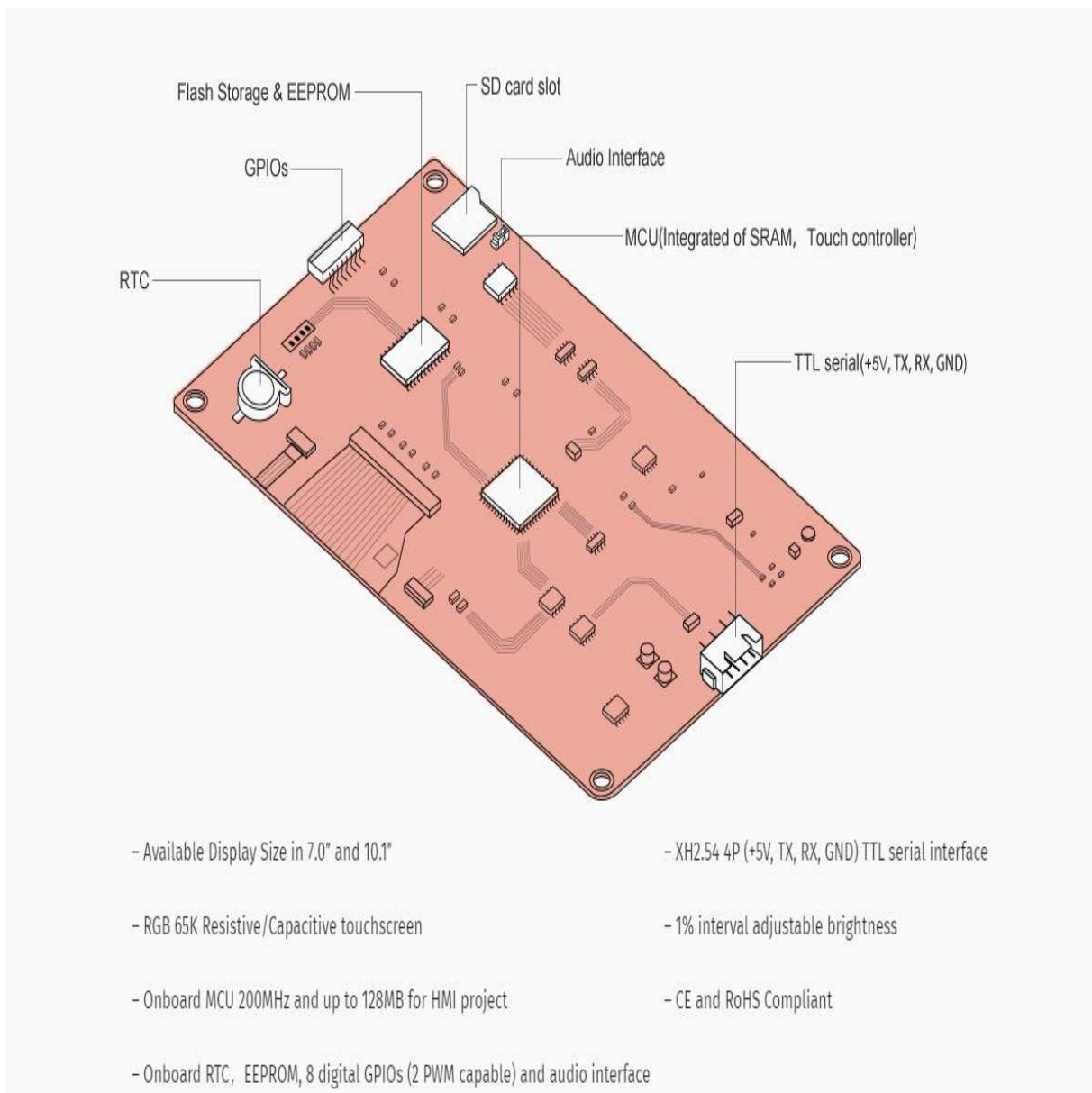
Built-in debugger for
HMI project simulation



User Event Code pane for GUI
interaction and peripheral MCU
communication

- Support Audio Resource
- Support Video Resource
- Support Animation Resource
- 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"
Resolution	320*240	400*240	480*320	480*272	800*480	1024*600
Touch panel	RTP	RTP	RTP	RTP	RTP	CTP
Flash	4MB	4MB	16MB	16MB	128MB	128MB
RAM	3584Byte	3584Byte	3584Byte	3584Byte	512KB	512KB
MCU Frequency	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

