

# NX8048K070

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## Overview

Nextion is a Seamless Human Machine Interface (HMI) solution that provides a control and visualisation interface between a human and a process, machine, application or appliance. Nextion is mainly applied to IoT or consumer electronics field. It is the best solution to replace the traditional LCD and LED Nixie tube. With the software - Nextion Editor (Official Download (<http://nextion.itead.cc/download.html>)), users are able to create and design their own interfaces for Nextion display.

The **Nextion Enhanced** versions are more powerful. Compare to the basic Nextion displays, the new ones have added some new functions: support built-in RTC, support save data to Flash, support GPIO, larger flash capacity and larger CPU clock. The enhanced Nextion series has 7 size covers from generic 2.4 to 7.0.

Nextion Enhanced NX8048K070 is a powerful 7.0" HMI TFT display, with 32MB Flash data storage space, 1024 byte EEPROM, 8192 byte RAM, and GPIO supported.

Go shopping Nextion Enhanced 7.0" Resistive Display without enclosure(SKU:IM160511008) (<https://www.itead.cc/nextion-nx8048k070.html>)



Go shopping Nextion Enhanced 7.0" Capacitive & Resistive Display with enclosure(SKU:IM170502001)  
(<https://www.itead.cc/nextion-nx8048k070-011r-011c.html>)

## Nextion Models

Nextion_Type	Enhanced
Nextion Models	NX8048K070_011N (N: No touch)
	NX8048K070 (Resistive touch screen without enclosure)
	NX8048K070_011R (Resistive touch screen with enclosure)
	NX8048K070_011C (Capacitive multi-touch screen with enclosure)

**Note:** For NX8048K070, there's a small power supply test board and a wire inside the package for you to test if the electricity supply is enough or not. Please see below image on how to use it.

### Caution:

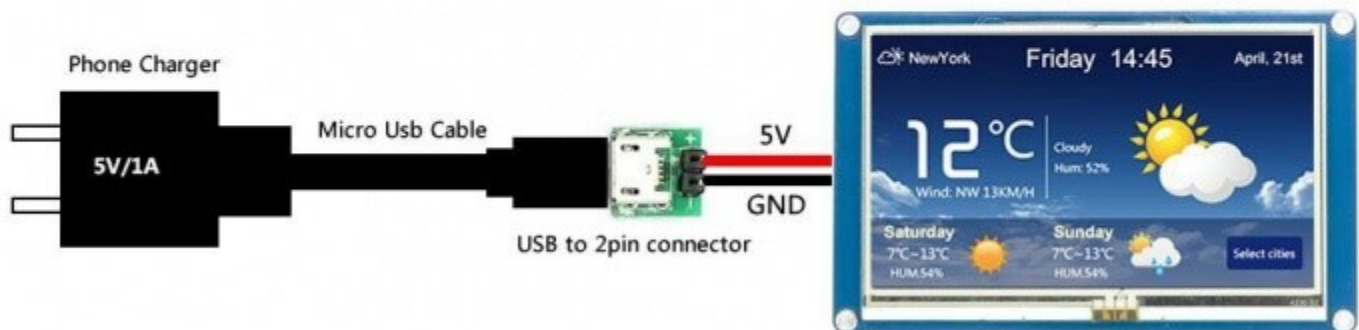
Working under insufficient power supply condition will damage the Nextion model easily.



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 User Manual: <http://goo.gl/LbvAJ5>

## Specification

	Data	Description
Color	65K (65536) colors	16 bit, 5R6G5B
Layout size	181(L)×108(W)×7.7(H)	NX8048K070_011N
	181(L)×108(W)×9.3(H)	NX8048K070
	181(L)×108(W)×9.3(H)	NX8048K070_011R
	181(L)×108(W)×9.3(H)	NX8048K070_011C
Active Area (A.A.)	164.90mm(L)×100.00mm(W)	-
Visual Area (V.A.)	154.08mm(L)×85.92mm(W)	-
Resolution	800×480 pixel	Also can be set as 480×800 pixel
Touch type	Resistive	-
Touches	> 1 million	-
Backlight	LED	-
Backlight lifetime (Average)	>30,000 Hours	-
Brightness	250nit (NX8048K070_011N)	0% to 100%, the interval of adjustment is 1%
	230 nit (NX8048K070_011R)	0% to 100%, the interval of adjustment is 1%
Weight	216g (NX8048K070_011N)	-
	268g (NX8048K070)	-
	598g (NX8048K070_011R)	-
	598g (NX8048K070_011C)	-

## Electronic Characteristics

	Test Conditions	Min	Typical	Max	Unit
Operating Voltage		4.75	5	7	V
Operating Current	VCC=+5V, Brightness is 100%	-	510	-	mA
	SLEEP Mode	-	15	-	mA
Recommended Power Supply : 5V, 2A, DC					

## Working Environment & Reliability Parameter

	Test Conditions	Min	Typical	Max	Unit
Working Temperature	5V, Humidity 60%	-20	25	70	°C
Storage Temperature	-	-30	25	85	°C
Working Humidity	25°C	10%	60%	90%	RH

## Interfaces Performance

	Test Conditions	Min	Typical	Max	Unit
Serial Port Baudrate	Standard	2400	9600	115200	bps
Output High Voltage	IOH=-1mA	3.0	3.2	-	V
Output Low Voltage	IOL=1mA	-	0.1	0.2	V
Input High Voltage	-	2.0	3.3	5.0	V
Input Low Voltage	-	-0.7	0.0	1.3	V
Serial Port Mode	TTL				
Serial Port	4Pin_2.54mm				
USB interface	NO				
SD card socket	Yes (FAT32 format), support maximum 32G Micro SD Card				
Extended IO	8 extended IO				
	I00-I07 support input, output and component binding event;				
	I04-I07 support PWM				
RTC	Support built-in RTC (Battery type: CR1220)				

## Memory Features

Memory Type	Test Conditions	Min	Typical	Max	Unit
FLASH Memory	Store fonts and images	-	-	32	MB
User Storage	EEPROM	-	1024	-	byte
RAM Memory	Store variables	-	8192	-	Byte
Instruction Buffer	Instruction Buffer		1024		Byte

## Product Dimension

7.0 *Nextion Dimension*

## Download

File:Enhanced\_Nextion\_5.0-7.0\_Demo.zip

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