

Overview

Nextion is a Human Machine Interface (HMI) solution combining an onboard processor and memory touch display with Nextion Editor software for HMI GUI project development. Using the NEXTION Editor software, you can quickly develop the HMI GUI by drag-and-drop components (graphics, text, button, slider, etc.) and ASCII text-based instructions for coding how components interact at the display side. Nextion HMI display connects to peripheral MCU via TTL Serial (5V, TX, RX, GND) to provide event notifications that peripheral MCU can act on, the peripheral MCU can easily update progress, and status back to Nextion display utilizing simple ASCII text-based instructions. Comparing with Basic Series, the Discovery Series has a better MCU performance, the same functionalities as Basic, and Lower Price. That's Nextion Discovery Series Products.

Package include: Nextion NX3224F024 HMI Display*1, XH2.54 4P wire*1, power supply test board*1.

Note: the small power supply test board and connecting wire inside the package allow you to test if the electrical supply is enough or not. See the image below on how to use it.

Caution:

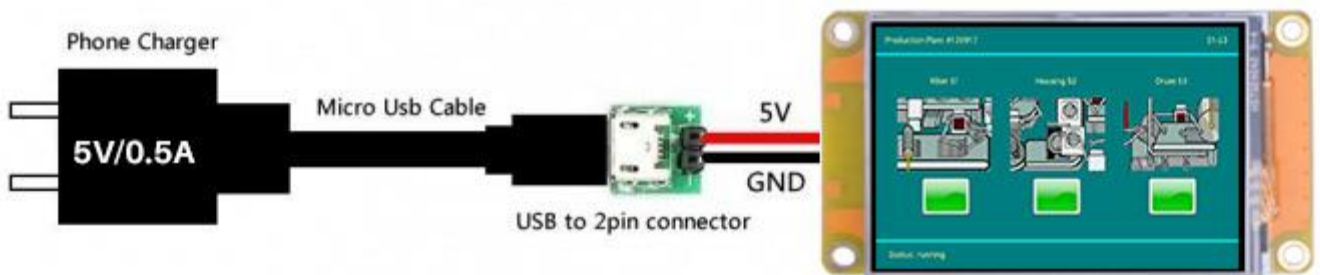
Working under insufficient power supply condition will damage the Nextion model easily.



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 Models

Nextion Type	Basic Series
Nextion Models	NX3224F024

Specifications

	Data	Description
Color	64K 65536 colors	16 bit 565, 5R-6G-5B
Layout size	74.4 (L)×42.9 (W)×5.8 (H)	NX3224F024
Visual Area (V.A.)	48.96mm(L)×36.72mm(W)	
Resolution	320×240 pixel	Also can be set as 240×320
Touch type	Resistive	
Touches	> 1 million	

Backlight	LED	
Backlight lifetime (Average)	>30,000 Hours	
Brightness	300nit	0% to 100%, the interval of adjustment is 1%
Weight	21.3g	

Electronic Characteristics

	Test Conditions	Min	Typical	Max	Unit
Operating Voltage		4.5	5.0	6.0	V
Operating Current	VCC=+5V, Brightness is 100%	–	90	–	mA
	Normal SLEEP Mode (lowpower=0)	–	4.5	–	mA
	Deep SLEEP Mode (lowpower=1)	–	0.25	–	mA

1. Power supply recommend : **5V, 500mA, DC.**

2. In deep sleep mode, the wake-up time will be longer, the data will be probably lost when the serial port receive is receiving the wake-up command. Therefore, it is recommended to send a void command and delay 50ms before operating.

Working Environment & Reliability Parameter

	Test Conditions	Min	Typical	Max	Unit
Working	5V, Humidity	-20	25	70	°C

Temperature	60%				
Storage Temperature		-30	25	80	°C
Working Humidity	25°C	10%	60%	90%	RH

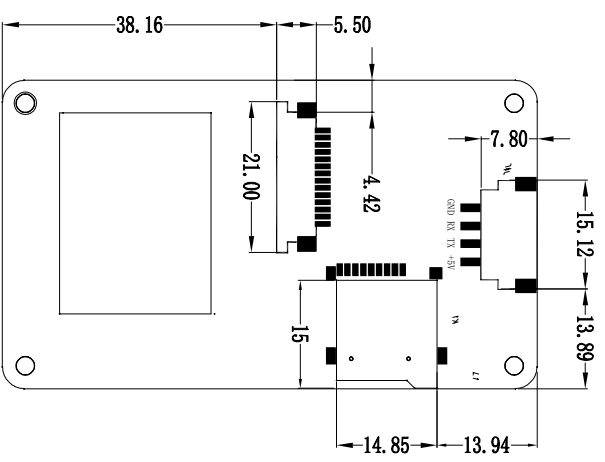
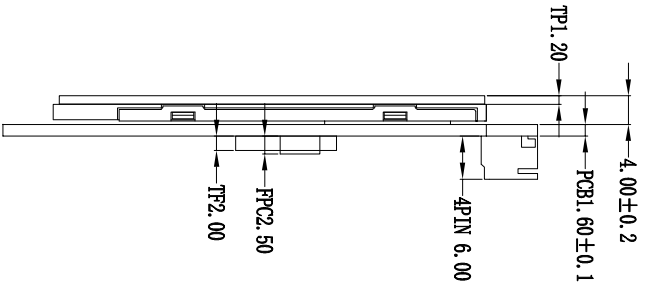
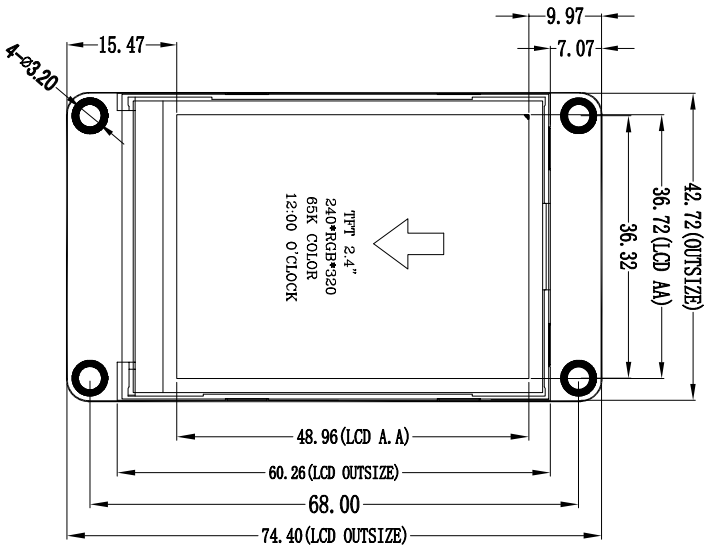
Interfaces Performance

	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	3.3V/5.0V TTL				
Serial Port	4Pin_2.54mm				
USB interface	NO				
SD card socket	Yes (FAT32 format), support maximum 32G Micro SD Card * microSD card socket is exclusively used to upgrade Nextion firmware /HMI design				

Memory Features

Memory Type	Test Conditions	Min	Typical	Max	Unit
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FLASH Memory	Store fonts and images			4	MB
RAM Memory	Store variables			3584	BYTE
Instruction Buffer				1024	BYTE



NEXTION

PRODUCT NO.

NX3224F024

DWN

CHK

APP

UNIT: mm



TOLERANCES: ± 0.2mm

REVISION: 2.0

1	2	3	4	5	6	7
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