

SMART DISPLAY MODULE SPECIFICATION

1.3 Inch Smart Knob Display with Wi-Fi /BLE	
Model:	UEDX24240013-MD50E
Version:	V3.0
Date:	2024-07-30

Customer Confirmation 客户确认

Approved by	Notes

TABLE of CONTENTS

1. INTRODUCTION	4
1.1 Features	4
1.2 Appearance picture	5
2. PRODUCT INFORMATION	6
2.1 Interface Description	6
2.2 Display Information	6
2.3 Voltage & Current	6
2.4 Reliability Test	7
2.5 Related software	7
3. MECHANICAL DRAWING	8
4. SCHEMATIC	8
5. RELATED DOWNLOADS	10
5.1 Arduino relevant information	10
5.2 IDF relevant information	10

1. Introduction

1.1 Features

Brief Info:

- 1) Outline Dimension: ϕ 50 Round
- 2) Interaction Method: Rotate and Press
- 3) Shell Color: Black/White/Silver/Customized
- 4) Power: DC 5V, 100mA

System

- 1) OS: RTOS
- 2) CPU: ESP32-C3 160Mhz
- 3) RAM: 400KB
- 4) Flash: 4MB
- 5) Interface: UART/USB
- 6) Support 2.4GHz Wi-Fi、 BLE 5、 BLE Mesh

Display

- 1) Size: 1.3 Inch
- 2) Resolution: 240*240
- 3) Mode: IPS
- 4) Brightness: 300 cd/m²
- 5) Touch: without

Other

- 1) Operation Temperature: -20~70°C
- 2) Storage Temperature: -30~80°C

1.2 Appearance picture



2. Product information

2.1 Interface Description

Pin NO.	Symbol	Description	Voltage Range	Remarks
1	VCC	Power 5V	5V	
2	ADC	GPIO3, ADC IO	0-3.3V	
3	GND	Grounds	0V	
4	NC	NC	-	
5	NC	NC	-	
6	RX	UART Receive	0-3.3V	
7	TX	UART Transmit	0-3.3V	
8	RST	Reset signal, do not connect if not in use	0-3.3V	
9	D+	USB D+	3.3V	
10	D-	USB D-	3.3V	

The connector specifications is 10PIN 0.5mm pitch

2.2 Display Information

Item	Parameter	Description
Color	65K colors	R5G6B5 16bits
AA	32.40(W)*32.40(H)	1.3 inch
Resolution	240*240	Round
Backlight	LED	30000Hour Min
Brightness	300 cd/m ²	

2.3 Voltage & Current

Item	Conditions	Min	Typ	Max	Unit
------	------------	-----	-----	-----	------

Power Voltage	DC	4.0	5.0	5.5	V
Operation Current	VCC= +5V, Maximum backlight current	50	100	150	mA
	VCC= +5V,backlight off	-	50	-	mA
Recommended power supply:5V 1A DC					

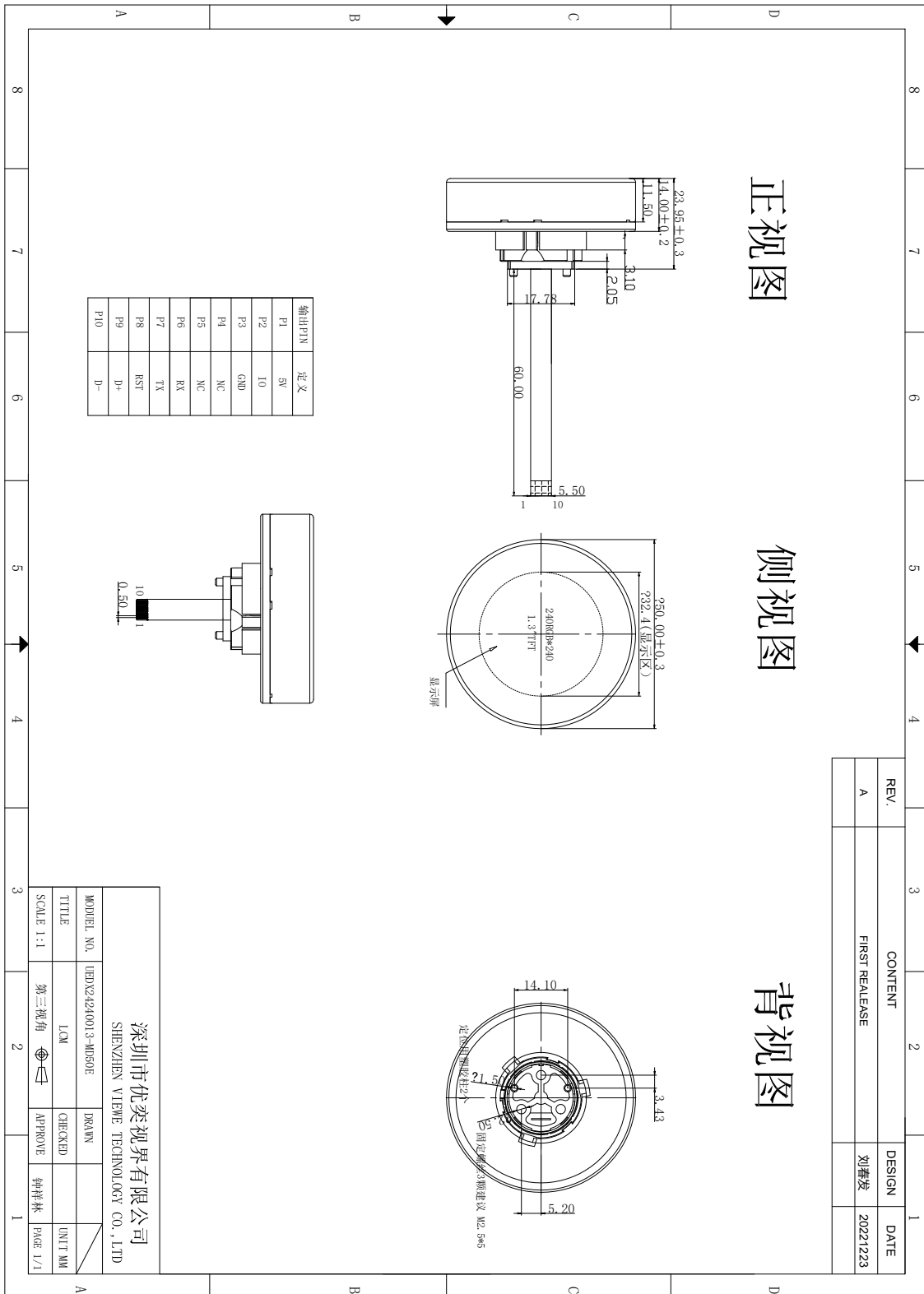
2.4 Reliability Test

Item	Conditions	Min	Typ	Max	Unit
Working Temperature	60%RH at 5V voltage	-20	25	70	C
Storage Temperature	---	-30	25	85	C
Working Humidity	25°C	10%	60%	90%	RH
ESD	---	Contact: ±4KV Air: ±8KV			KV

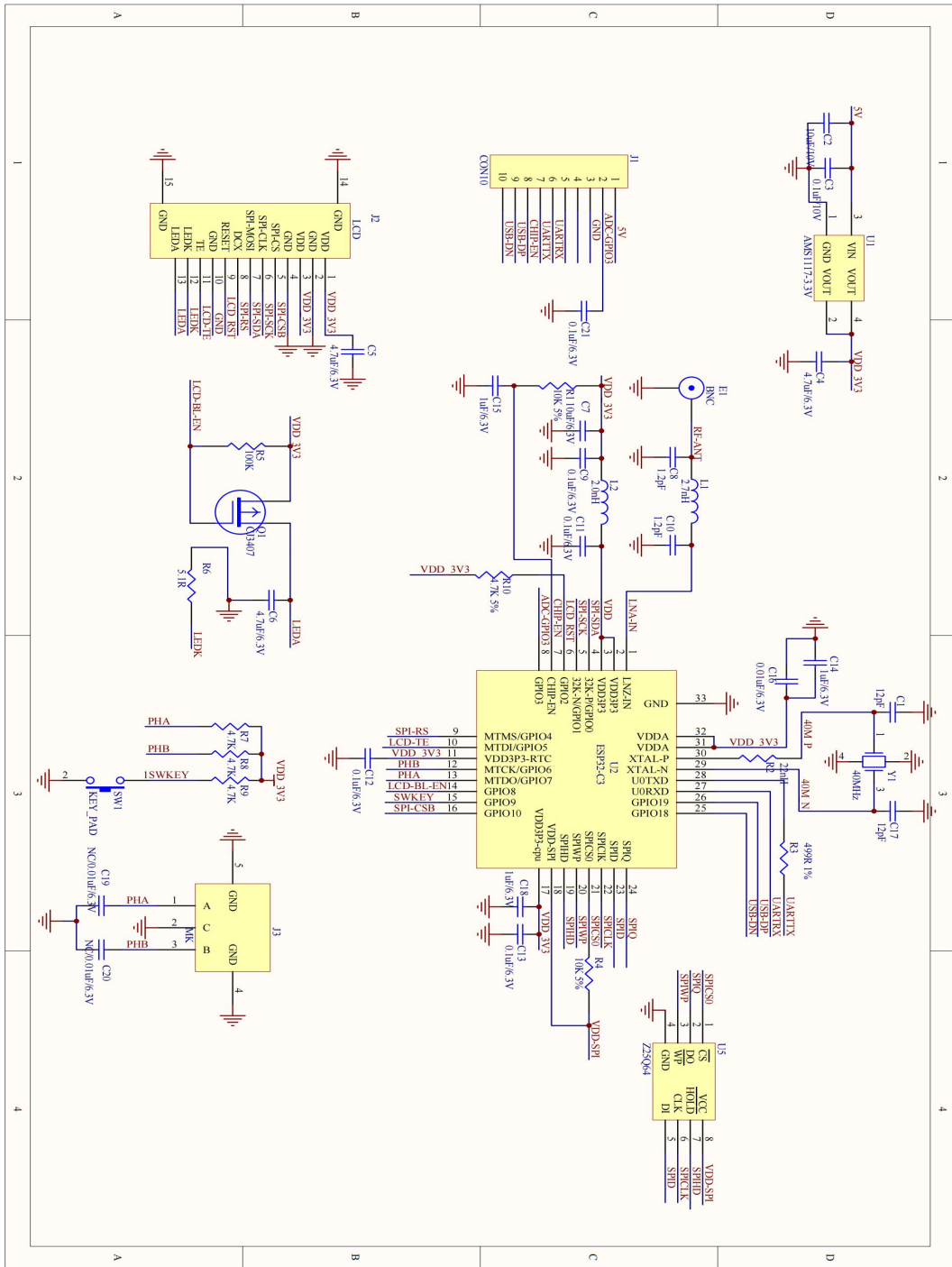
2.5 Related software

Software name	Version	Software associated configuration	Development environment configuration link
Arduino IDE	2.0.17 (esp32)	<ol style="list-style-type: none"> Board: ESP32C3 Dev Module CPU Frequency: 160MHz (WiFi) Flash Frequency: 80MHz Flash Mode: QIO 80MHz Flash Size: 4MB (32Mb) Partition Scheme: Default 4MB with spiffs (1.2MB APP/1.5MB SPIFFS) PSRAM:NO Programmer: Esptool 	ESP32-Arduino config (github.com)
ESP-IDF	5.1.1 5.2.2	Once configured, no configuration is required (If you have any problem with the configuration, please contact us, we will help you)	ESP-IDF config (github.com)

3. MECHANICAL DRAWING



4. Schematic



5. Related downloads

5.1 Arduino relevant information

[ESP32-Arduino/examples/UEDX24240013-MD50E-Arduino-SDK at main • VIEWESMART/ESP32-Arduino \(github.com\)](#)

5.2 IDF relevant information

[ESP32-IDF/examples/UEDX24240013-MD50E-SDK-en at main • VIEWESMART/ESP32-IDF \(github.com\)](#)