

Unit Encoder

SKU:U135



Description

Unit Encoder is a **rotary encoder** expansion unit with I2C interface, integrated with 30-bit pulse encoding knob (with button function) + 2 x SK6812 programmable RGB LEDs. The built-in STM32F030 flashed with the encoder pulse acquisition firmware, allowing users to obtain the encoded value directly via I2C. Suitable for scale value control/volume adjustment and other control scenarios.

Product Features

- 30-bit pulse encoding knob (30 pulses per rotation)
- 2x SK6812 programmable RGB LEDs
- 1x Button input

Include

- 1x Unit Encoder
- 1x HY2.0-4P cable (20cm)

Application

- Human Machine Interaction (HMI)

- Volume knob

Specification

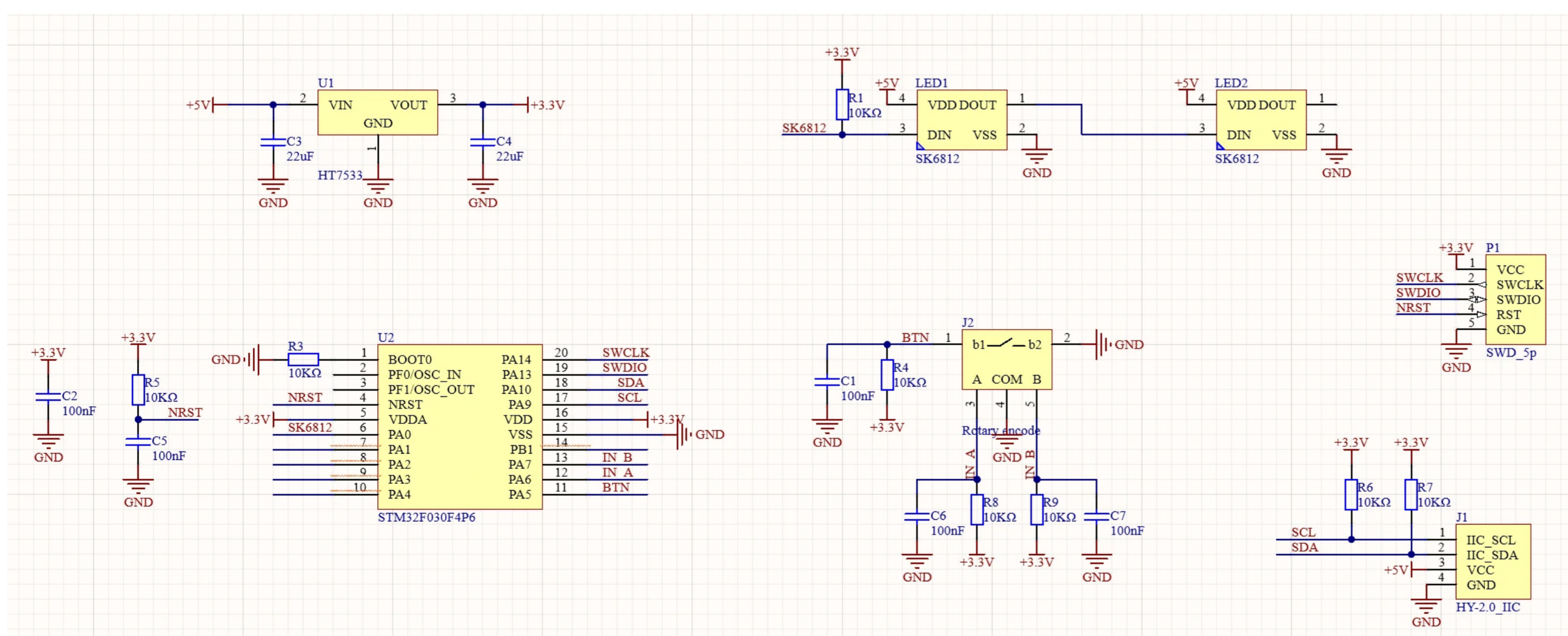
Specifications	Parameters
Pulse encoder knob	30-bit pulse encoder knob (with key input)
Programmable RGB LED	2x SK6812
Working current	Encoder working (DC-5V@17mA)
Net weight	7.4g
Gross weight	12.3g
Product size	32 * 24 * 22mm
Packing size	93 * 138mm

PinMap

- Unit Encoder

M5Core(PORT A)	GPIO22	GPIO21	5V	GND
Unit Encoder	SCL	SDA	5V	GND

Schematic



Protocol

- Protocol type I2C
- I2C Address: **0x40**

ENCODER_REG 0x10

REG	len	description	values	R/W
0x10	2	Read encoder value	[0] VALUE_L [1] VALUE_H	R

BUTTON_REG 0x20

REG	len	description	values	R/W
0x20	2	Read Button status	[0] BTN STATUS	R

RGB_LED_REG 0x30

REG	len	description	values	R/W
0x30	4	Control RGB LED Color	[0]LED Index (1/2) [1] RED [2] GREEN [2] BLUE	W

Example

Arduino

- [Unit Encoder Library](#)

- [Unit Encoder Test With M5StickC](#)

| Video

- Read Encoder Value