STM32 PLC Pinouts

Innehållsförteckning

Pin definitions

- CAN = CAN bus channel at 250 kB/s baud rate
- IC = Input capture pulse measurement
- Encoder = Encoder pulse measurement
- DADC = Differential Analog to Digital Converter
- ADC = Analog to Digital Converter
- DAC = Digital to Analog Converter
- PWR = Power supply
- PWM = Pulse with modulation
- DI = Digital input

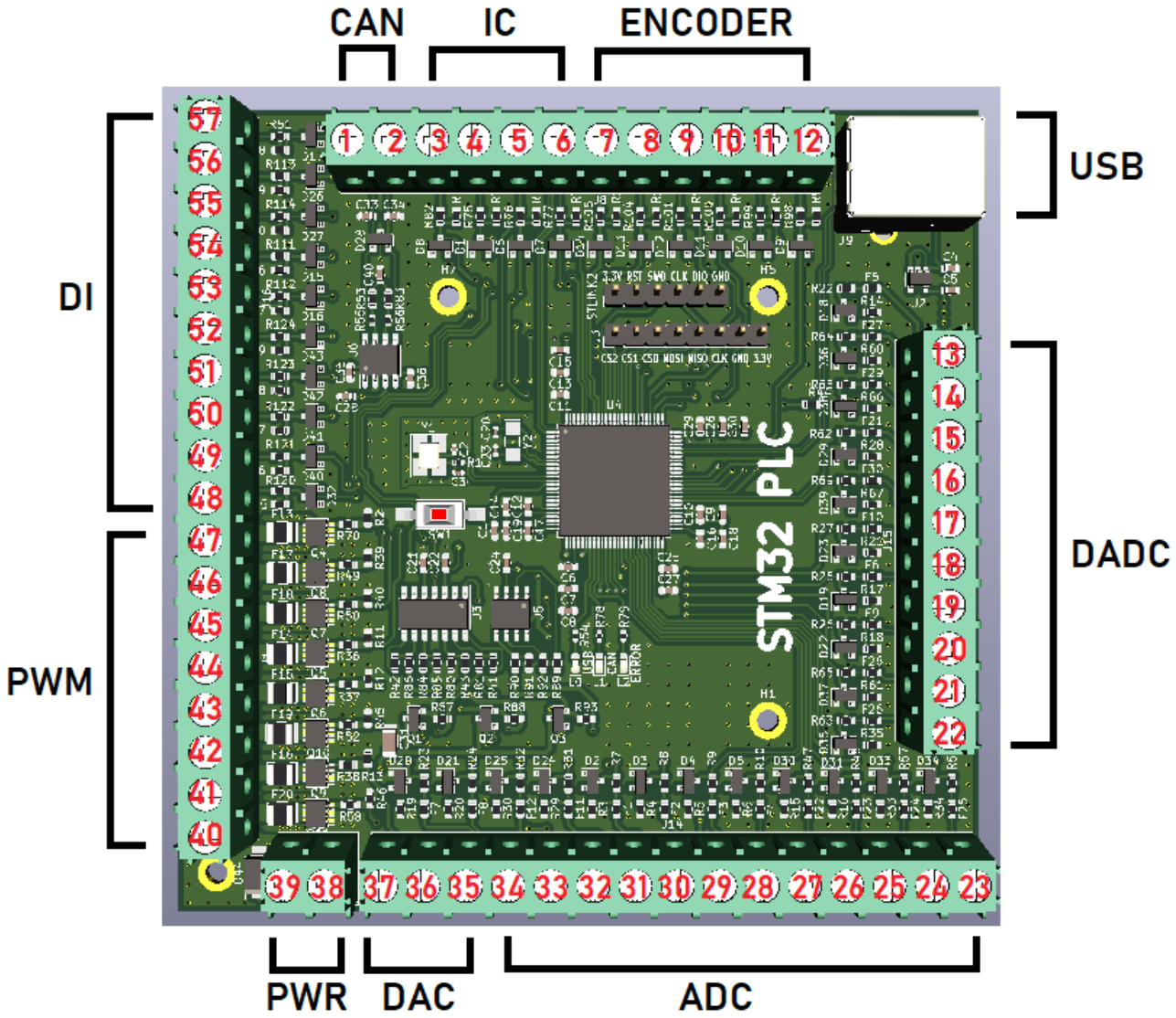
Pin number	**Iinput/ Output**	**Name**	**Max voltage**	**Min voltage**	**Comment**	**Purpose**
1	Both	CAN High	14V	-15V	TVS diodes for 30kV	CAN communication
2	Both	CAN Low	14V	-15V	TVS diodes for 30kV	CAN communication
3	Input	IC 0	30V	-1V	16 -bit resolution	Frequency 0 Hz to 10 kHz
4	Input	IC 1	30V	-1V	16 -bit resolution	Frequency 0 Hz to 10 kHz
5	Input	IC 2	30V	-1V	16 -bit resolution	Frequency 0 Hz to 10 kHz
6	Input	IC 3	30V	-1V	16 -bit resolution	Frequency 0 Hz to 10 kHz
7	Input	Encoder 0 +	30V	-1V	16 -bit	Counting

					resolution	-32768 to 32767
8	Input	Encoder 0 -	30V	-1V	16 -bit resolution	Counting -32768 to 32767
9	Input	Encoder 1 +	30V	-1V	16 -bit resolution	Counting -32768 to 32767
10	Input	Encoder 1 -	30V	-1V	16 -bit resolution	Counting -32768 to 32767
11	Input	Encoder 2 +	30V	-1V	16 -bit resolution	Counting -32768 to 32767
12	Input	Encoder 2 -	30V	-1V	16 -bit resolution	Counting -32768 to 32767
13	Input	DADC 4 -	30V	-1V	PTC 30mA protection	Measuring -32768 to 32767
14	Input	DADC 4 +	30V	-1V	PTC 30mA protection	Measuring -32768 to 32767
15	Input	DADC 3 -	30V	-1V	PTC 30mA protection	Measuring -32768 to 32767
16	Input	DADC 3 +	30V	-1V	PTC 30mA protection	Measuring -32768 to 32767
17	Input	DADC 2 -	30V	-1V	PTC 30mA protection	Measuring -32768 to 32767
18	Input	DADC 2 +	30V	-1V	PTC 30mA protection	Measuring -32768 to 32767
19	Input	DADC 1 -	30V	-1V	PTC 30mA protection	Measuring -32768 to 32767
20	Input	DADC 1 +	30V	-1V	PTC 30mA protection	Measuring -32768 to 32767
21	Input	DADC 0 -	30V	-1V	PTC 30mA protection	Measuring -32768 to 32767
22	Input	DADC 0 +	30V	-1V	PTC 30mA protection	Measuring -32768 to

						32767
23	Input	ADC 11	30V	-1V	PTC 30mA protection	Measuring 0 to 65535
24	Input	ADC 10	30V	-1V	PTC 30mA protection	Measuring 0 to 65535
25	Input	ADC 9	30V	-1V	PTC 30mA protection	Measuring 0 to 65535
26	Input	ADC 8	30V	-1V	PTC 30mA protection	Measuring 0 to 65535
27	Input	ADC 7	30V	-1V	PTC 30mA protection	Measuring 0 to 65535
28	Input	ADC 6	30V	-1V	PTC 30mA protection	Measuring 0 to 65535
29	Input	ADC 5	30V	-1V	PTC 30mA protection	Measuring 0 to 65535
30	Input	ADC 4	30V	-1V	PTC 30mA protection	Measuring 0 to 65535
31	Input	ADC 3	30V	-1V	PTC 30mA protection	Measuring 0 to 65535
32	Input	ADC 2	30V	-1V	PTC 30mA protection	Measuring 0 to 65535
33	Input	ADC 1	30V	-1V	PTC 30mA protection	Measuring 0 to 65535
34	Input	ADC 0	30V	-1V	PTC 30mA protection	Measuring 0 to 65535
35	Output	DAC 2	30V	-1V	12-bit resolution	0 to 20mA output
36	Output	DAC 1	30V	-1V	12-bit resolution	0 to 20mA output
37	Output	DAC 0	30V	-1V	12-bit resolution	0 to 20mA output
38	Input	VDC	32V	-1V		Power supply for the 0 to 20 mA output
39	Output	GND	0V	0V		Ground
40	Input(Open drain)	PWM 7	30V	-1V	Use protection diode if solenoid is applied	MOSFET N-Channel PWM open drain
41	Input(Open drain)	PWM 6	30V	-1V	Use protection diode if	MOSFET N-Channel PWM open

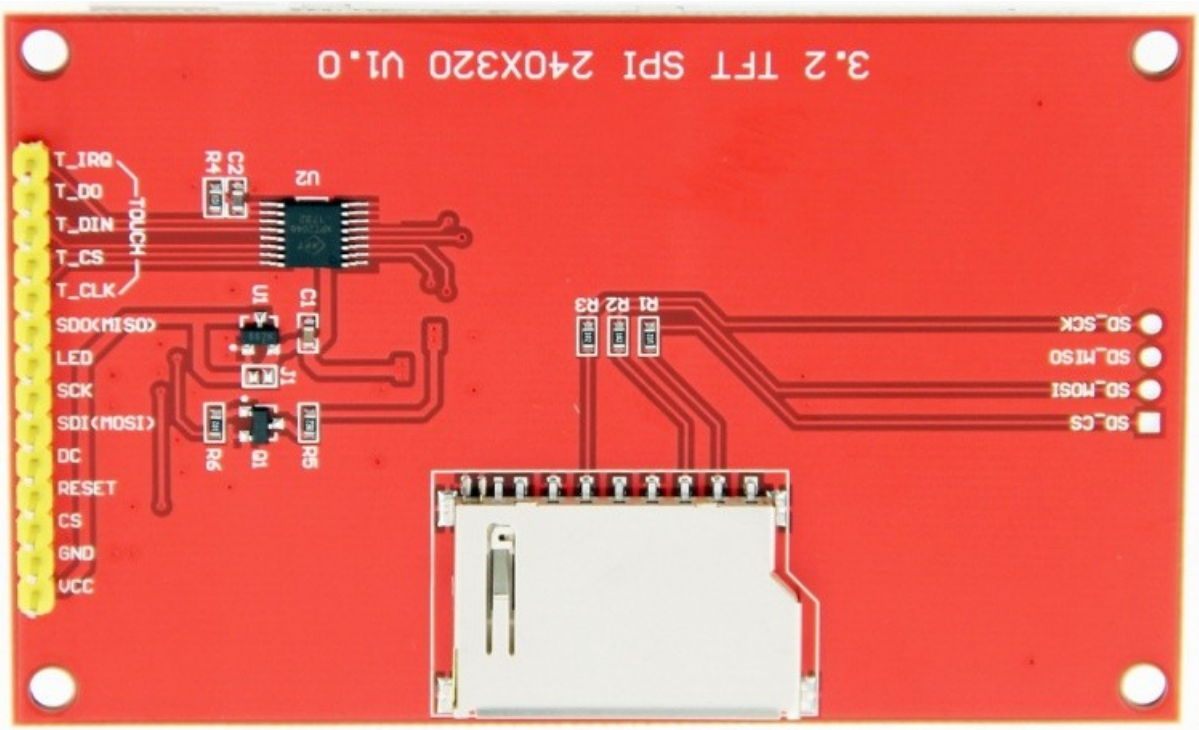
					solenoid is applied	drain
42	Input(Open drain)	PWM 5	30V	-1V	Use protection diode if solenoid is applied	MOSFET N-Channel PWM open drain
43	Input(Open drain)	PWM 4	30V	-1V	Use protection diode if solenoid is applied	MOSFET N-Channel PWM open drain
44	Input(Open drain)	PWM 3	30V	-1V	Use protection diode if solenoid is applied	MOSFET N-Channel PWM open drain
45	Input(Open drain)	PWM 2	30V	-1V	Use protection diode if solenoid is applied	MOSFET N-Channel PWM open drain
46	Input(Open drain)	PWM 1	30V	-1V	Use protection diode if solenoid is applied	MOSFET N-Channel PWM open drain
47	Input(Open drain)	PWM 0	30V	-1V	Use protection diode if solenoid is applied	MOSFET N-Channel PWM open drain
48	Input	DI 9	30V	-1V	Zener diode protection	Measuring 0 to 1
49	Input	DI 8	30V	-1V		Measuring 0 to 1
50	Input	DI 7	30V	-1V		Measuring 0 to 1
51	Input	DI 6	30V	-1V		Measuring 0 to 1
52	Input	DI 5	30V	-1V		Measuring 0 to 1
53	Input	DI 4	30V	-1V		Measuring 0 to 1
54	Input	DI 3	30V	-1V		Measuring 0 to 1

55	Input	DI 2	30V	-1V		Measuring 0 to 1
56	Input	DI 1	30V	-1V		Measuring 0 to 1
57	Input	DI 0	30V	-1V		Measuring 0 to 1



LCD ILI9341 with SPI bus

Notice that the CLK for the ST-LINK V2 and the other CLK pin is not the same! The other CLK pin is the SPI clock pin.



Connect	**To**	**Comment**
T_IRQ		Leave floating
T_DO	SDO<MISO>	On the LCD
D_DIN	SDI<MOSI>	On the LCD
T_CS	CS2	On the STM32 PLC
T_CLK	SCK	On the LCD
SDO<MISO>	MISO	On the STM32 PLC
LED	VCC	On the LCD
SCK	CLK	On the STM32 PLC
SDI<MOSI>	MOSI	On the STM32 PLC
DC	CS1	On the STM32 PLC
RESET	VCC	On the LCD
CS	CS0	On the STM32 PLC
GND	GND	On the STM32 PLC
VCC	3.3V	On the STM32 PLC