Main Circuit And Support

Y1
25MHz crystal 12pF ±10ppm
1 — OSC_IN
3 — OSC_OUT
GND — GND

C9 100nF 50V X7R — NRST / GND

C10 2.2µF 16V X5R — VCAP1 / GND

C11 15pF 50V C0G — OSC_IN / GND

Main Circuit And Support

C12 15pF 50V C0G — OSC_OUT / GND

R1 5.1k ohm 1% — CC1 / GND

R2 5.1k ohm 1% — CC2 / GND

R5 10k ohm 1% — GND / BOOT0

Main Circuit And Support

C3 10µF 10V X5R — 3V3 / GND

C4 100nF 50V X7R — 3V3 / GND

C5 100nF 50V X7R — 3V3 / GND

C6 100nF 50V X7R — 3V3 / GND

Main Circuit And Support

C7 100nF 50V X7R — 3V3 / GND

C8 100nF 50V X7R — 3V3 / GND

R3 1k ohm 1% — 3V3 / D1_A

R4 10k ohm 1% — 3V3 / NRST

Main Circuit And Support

R8 4.7k ohm 1% — 3V3 / SDA

R9 4.7k ohm 1% — 3V3 / SCL

SW1
Tactile switch 5.1x5.1mm SMD
1 — BOOT0
2 — 3V3

SW2
Tactile switch 5.1x5.1mm SMD
1 — NRST
2 — GND

DESIGN NOTES

Matching net labels identify connected signals.

Assembly and DNP details are stored with each component.

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PROJECT / DOCUMENT			STATUS
Stm32F411 Usbc Devboard			DESIGN REVIEW
DRAWN BY	CHECKED BY	DATE	REVISION
ElectroTrical	-	2026-11-12	A
DOCUMENT NUMBER		FORMAT	SHEET
ET-M11-SCH-001		A3 / LANDSCAPE	1 of 3

Power And Indicators

U1

STM32F411CEU6 Cortex-M4F 100MHz, 512KB flash, 128KB RAM

3V3	24 VDD	PA6	PA6
3V3	36 VDD	PA7	PA7
3V3	48 VDD	PA9	PA9
BOOT0	BOOT0	PB0	PB0
GND	EP	PB1	PB1
NRST	NRST	PB10	PB10
PA0	PA0	PB6 (I2..	SCL
PA1	PA1	PB7 (I2..	SDA
PA10	PA10	PB8	PB8
D-	PA11 (U..	PC13	LED
D+	PA12 (U..	PH0 (OS..	OSC_IN
PA13	PA13	PH1 (OS..	OSC_OUT
PA14	PA14	VBAT	3V3
PA2	PA2	VCAP1	VCAP1
PA3	PA3	VDDA	3V3
PA4	PA4	VSS	GND
PA5	PA5		

U2

AP2112K-3.3 LDO 600mA

1 VIN	VBUS
2 GND	GND
3 EN	VBUS
4 NC	NC_U2
5 VOUT	3V3

VBUS — **C1** — 10µF 10V X5R — GND

D1_A — **D1** — Red LED — GND

Power And Indicators

LED2_A — **D2** — Red LED — GND

LED — **R6** — 1k ohm 1% — LED2_A

3V3 — **C2** — 10µF 10V X5R — GND

DESIGN NOTES

Matching net labels identify connected signals.

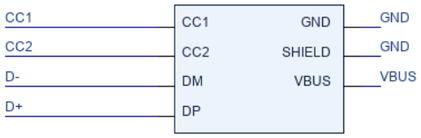
Assembly and DNP details are stored with each component.

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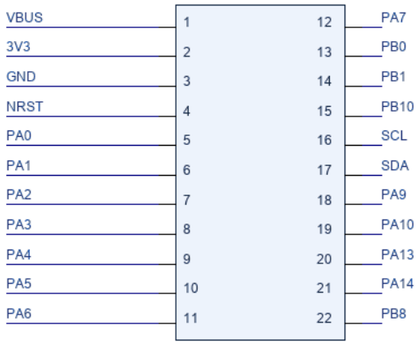
PROJECT / DOCUMENT: Stm32F411 Usbc Devboard			STATUS: DESIGN REVIEW
DRAWN BY: ElectroTrical	CHECKED BY: -	DATE: 2026-11-12	REVISION: A
DOCUMENT NUMBER: ET-M11-SCH-002		FORMAT: A3 / LANDSCAPE	SHEET: 2 of 3

Connectors

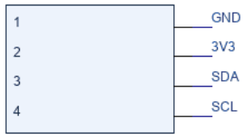
J1
USB-C 16P receptacle (USB 2.0)



J3 DNP
2.54mm male pin header (ship loose)



J4
JST SH 4P R/A (Qwiic/STEMMA QT)



DESIGN NOTES

Matching net labels identify connected signals.

Assembly and DNP details are stored with each component.

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Stm32F411 Usbc Devboard			DESIGN REVIEW
DRAWN BY	CHECKED BY	DATE	REVISION
ElectroTrical	-	2026-11-12	A
DOCUMENT NUMBER		FORMAT	SHEET
ET-M11-SCH-003		A3 / LANDSCAPE	3 of 3