![STM32-base logo] STM32-base													☰

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Diymore STM32F4

STM32F407VGT6

📄 Board

Name	Diymore STM32F4
Part	STM32-407
Brand	Diymore
Origin	China

🔲 Microcontroller

Part	STM32F407VGT6
Manufacturer	ST-Microelectronics
Core	Arm Cortex-M4
Max. Clock Speed	168MHz
Package	LQFP 100 pins

🖳 Internal memories

FLASH	1024KiB
SRAM	192KiB
Backup SRAM	4KiB

⎍ Oscillators

HSI	16MHz
LSI	32kHz
HSE	8MHz
LSE	32.768kHz
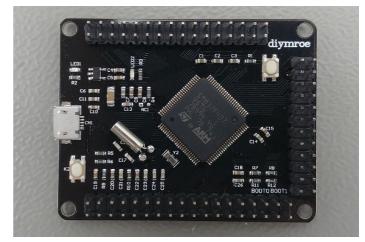
⚡ Power

Sources	Any +3.3V pin (+3.3V)
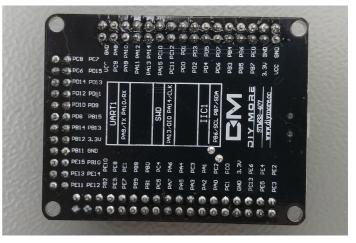
🖼 Pictures

Diymore STM32F4: Perspective view

Diymore STM32F4: Top view

	Any +5V pin (+5V)
	USB connector (+5V)
V$_{DDA}$ **pin**	No
V$_{SSA}$ **pin**	No
V$_{REF-}$ **pin**	No
V$_{REF+}$ **pin**	No
Backup battery	None

Diymore STM32F4: Bottom view

📄 Resources

🖾 Perspective view
🖾 Top view
🖾 Bottom view

⤬ Regulator

Manufacturer	Shanghai TX Electronics Sci-Tech Co., Ltd
Part	TX6211B (DE=A1D)
Package	SOT23-5 5 pins
Input	+3.6V to +5.5V
Output	+3.3V @ 300mA
Datasheet	TX6211B.pdf

■ PCB

Color	Black
Size (w x l)	45mm x 60mm
Mounting	4x mounting hole (M3)

❗ Remarks

- **Warning:** The +5V pins on this board are directly connected to the +5V pin of the USB connector. There is no protection in place. Do not power this board through USB and an external power supply at the same time.

↓ Inputs

↻ Reset button
✳ BOOT0 jumper
✳ BOOT1 jumper
👤 User button

↑ Outputs

⏻ Power LED
👤 User LED

▦ Connectors

⇄ Header 1
⇄ Header 2
⇄ Header 3
⛘ USB connector

▯ Devices

None

Inputs & outputs

↻ Reset button

Name	-
Reference	-
Type	Button
Connected to	NRST
Mode	Active low

⏻ Power LED

Name	-
Reference	LED1
Type	LED
Connected to	+3.3V rail
Mode	N.A.

✳ BOOT0 jumper

Name	BOOT0
Reference	-
Type	1-way jumper
Connected to	BOOT0
Mode	Active low

👤 User LED

Name	-
Reference	LED2
Type	LED
Connected to	PE0
Mode	Sink

✳ BOOT1 jumper

Name	BOOT1
Reference	-
Type	1-way jumper
Connected to	PB2
Mode	Active low

👤 User button

Name	-
Reference	K2
Type	Button
Connected to	PD15
Mode	Active low

Connectors & headers

⇄ Header 1 properties

Name	Unknown
Reference	None

⇄ Header 1 pins

#	Name	Function	Connected to
1	GND	-	Ground plane

Type	Pin header (2.54mm, 16x2, male)

#	Name	Function	Connected to
2	VCC	-	+5V rail
3	GND	-	Ground plane
4	3.3V	-	+3.3V rail
5	PE0	-	PE0
6	PB7	-	PB7
7	PB6	-	PB6
8	PB5	-	PB5
9	PB4	-	PB4
10	PB3	-	PB3
11	PD7	-	PD7
12	PD6	-	PD6
13	PD5	-	PD5
14	PD4	-	PD4
15	PD3	-	PD3
16	PD2	-	PD2
17	PD1	-	PD1
18	PD0	-	PD0
19	PC12	-	PC12
20	PC11	-	PC11
21	PC10	-	PC10
22	PA15	-	PA15
23	PA14	-	PA14
24	PA13	-	PA13
25	PA12	-	PA12
26	PA11	-	PA11
27	PA10	-	PA10
28	PA9	-	PA9
29	PA8	-	PA8
30	PC9	-	PC9
31	GND	-	Ground plane
32	VCC	-	+5V rail

⇄ Header 2 properties

Name	Unknown

⇄ Header 2 pins

#	Name	Function	Connected to

Reference	None
Type	Pin header (2.54mm, 18x2, male)

1	PE2	-	PE2
2	PE3	-	PE3
3	PE4	-	PE4
4	PE5	-	PE5
5	PE6	-	PE6
6	PC13	-	PC13
7	3.3V	-	+3.3V rail
8	GND	-	Ground plane
9	PC0	-	PC0
10	PC1	-	PC1
11	PC2	-	PC2
12	PA0	-	PA0
13	PA1	-	PA1
14	PA2	-	PA2
15	PC3	-	PC3
16	PA3	-	PA3
17	PA4	-	PA4
18	PA5	-	PA5
19	PA6	-	PA6
20	PA7	-	PA7
21	PC4	-	PC4
22	PC5	-	PC5
23	PB0	-	PB0
24	PB1	-	PB1
25	PB8	-	PB8
26	PB9	-	PB9
27	PE1	-	PE1
28	PE7	-	PE7
29	PE8	-	PE8
30	PE9	-	PE9
31	PE10	-	PE10
32	PB2	-	PB2
33	BOOT0	-	BOOT0
34	-	-	Ground plane
35	BOOT1	-	PB2

| 36 | - | - | Ground plane |

⇄ Header 3 properties

Name	Unknown
Reference	None
Type	Pin header (2.54mm, 12x2, male)

⇄ Header 3 pins

#	Name	Function	Connected to
1	PC8	-	PC8
2	PC7	-	PC7
3	PC6	-	PC6
4	PD15	-	PD15
5	PD14	-	PD14
6	PD13	-	PD13
7	PD12	-	PD12
8	PD11	-	PD11
9	PD10	-	PD10
10	PD9	-	PD9
11	PD8	-	PD8
12	PB15	-	PB15
13	PB14	-	PB14
14	PB13	-	PB13
15	PB12	-	PB12
16	3.3V	-	+3.3V rail
17	PB11	-	PB11
18	GND	-	Ground plane
19	PE15	-	PE15
20	PB10	-	PB10
21	PE13	-	PE13
22	PE14	-	PE14
23	PE11	-	PE11
24	PE12	-	PE12

⭤ USB connector properties

Name	Unknown
Reference	None
Type	USB Micro

⭤ USB connector pins

#	Name	Function	Connected to
1	-	VCC	+5V rail
2	-	D-	PA11
3	-	D+	PA12

4	-	ID	N.C.
5	-	GND	Ground plane

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