PA1, PA2, PA3, PA4, PC13 cannot be accessed

U1
STM32H523HEY6TR

A0	E9	PA0	
	D6	PA1	✗
	E7	PA2	✗
	D4	PA3	✗
	E5	PA4	✗
A5	E3	PA5	
A6	F4	PA6	
A7	F6	PA7	
A8	D2	PA8	
USB_DP	C1	PA11	
USB_DM	B2	PA12	
SWDIO	B4	PA13	
SWCLK	A1	PA14	
A15	A3	PA15	
B0	G7	PB0	
B1	G5	PB1	
B3	A5	PB3	
B4	A7	PB4	
SDA	C3	PB7	
SCL	C5	PB8	
B15	E1	PB15	

VSS B10
VSS F2
VSS F8
VSSA F10

PC13 C7
PC14-OSC32_IN C11   C14
PC15-OSC32_OUT C9   C15

PH0-OSC_IN D10
PH1-OSC_OUT D8

Y1
25MHz
GND
GND_1

C9 5.6p
C10 5.6p

NRST E11 NRST
BOOT0 B6 BOOT

VDD A11
VDD G1
VDD G9

+3V3

C5 4.7u
C6 0.1u
C7 0.1u
C8 0.1u

VDDA G11 +3.3VA +3V3

VBAT B8
C11 0.1u

VCAP A9
VCAP G3

C1 2.2u
C2 2.2u

+3V3 L1 27n +3.3VA
C12 1u
C13 0.1u

J1
Left Header
1 BOOT
2 USB_DM
3 USB_DP
4 A8
5 SDA
6 SCL
7 B15
8 A5
9 A6
10 A7
11 B1
12 B0
13 SWCLK
14 SWDIO

J2
Right Header
1
2
VBUS 3
4
5
+3V3 6
A0 7
NRST 8
+3.3VA 9
C15 10
C14 11
B4 12
B3 13
A15 14

No USB pullups required

FB1
100R
VBUS +5V

IC1
LD56100DPU33R
+3V3

6 EN VOUT_1 1
7 VIN_1 VOUT_2 2
8 VIN_2 LCON 3
9 GND_2 FB 4
GND_1 5

+5V
+3V3

C3 1u
C4 1u

J3
SWD
1 VBUS
2 SWDIO
3 SWCLK
4

VBUS can be disconnected
from ST-LINK as required

put solder jumper on carrier board to pull
BOOT high for DFU (program through USB)

BOOT
R1 10K

+3V3
D1 Green
R2 220R

A15
D2 Blue
R3 220R

NRST
C14 0.1u