U_Connectors
Connectors.SchDoc

U_ST_LINK_V2-1
ST_LINK_V2-1.SCHDOC

PWR_ENn
NRST
MCO
STLK_RX
STLK_TX
SWO
TMS
TCK
NRST
BOOT0
PF[4..7]
PF[0..1]
PD8
PD2
PC[0..15]
PB[0..15]
PA[0..15]

U_MCU_64
MCU_64.SchDoc

NRST
MCO
USART_RX
USART_TX
SWO
TMS
TCK
NRST
BOOT0
PF[4..7]
PF[0..1]
PD8
PD2
PC[0..15]
PB[0..15]
PA[0..15]

VIN
C16
10uF(25V)

U3
LD1117S50TR
Vin
Vout
Tab

C17
10uF

D4
STPS2L30A

E5V

R28
4K7

U5V
T2
STS7PF30L
S
G
D

SB1
Default: open

JP5
1
2
3

+5V
R32
1K
LD3
RED

C21
1uF_X5R_0603

C20
100nF

U4
LD39050PU33R
EN
VI
GND
V0
GND
PG
NC

C18
1uF_X5R_0603

C19
100nF

SB2

+3V3

JP6

VDD

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AGND
SB60

VDD
SB45

VBAT/VLCD

C29
1uF_X5R_0603

C34
20pF[N/A]

C33
20pF[N/A]

X3
8MHz(16pF)[N/A]

R37
[N/A]

R35 [N/A]

MCO
SB50
Default open

F051/F030/F373:PF7
F051/F030:PF5

VDD
L1
BEAD

PF3 PF7
SB47 SB30
SB31
SB43

SB57

AVDD

VDD
C27 100nF
C24 100nF
C23 100nF
C28 100nF

AGND

AVDD
C30 100nF

MCU_LQFP64

PF0 /PD0/PH0 - OSC_IN
PF1 /PD1/PH1 - OSC_OUT
VBAT/VLCD
VDDA/VREF+
VDD/VUSB/VSA/PF7
VDD
VDD
VDD/PF5
VSS/VCAP1
VSS
VSS/PF4/PA3
NRST
BOOT0
VSSA
PD2

F373:SAR_VREF+
Default open
SB62,SB63

PF4..7
PF0..1
PD8
PD2
PC[0..15]
PB[0..15]
PA[0..15]

USART_TX
USART RX
SB61
PA2 SB63
PA3 SB62

TMS
TCK

AVDD

D1 D0
AVDD

MCU_LQFP64
U5A

PA0 A0
PA1 A1
PA2
PA3/SAR_VREF+ A2
PA4 A5
PA5 A4
PA6 D12
PA7 D11
PA8 D7
PA9 D8
PA10 D2
PA11
PA12
PA13
PA14
PA15 D9

PB0 A3
PB1/VREF+
PB2
PB3 D13
PB4 D5
PB5 D4
PB6 D10
PB7
PB8 D15
PB9 D14
PB10/PE8 D6
PB11/PE9
PB12/SD_VREF+
PB13/PB14
PB14/PB15
PB15/PD8

PC0 A5
PC1 A4
PC2
PC3
PC4
PC5
PC6
PC7
PC8
PC9
PC10
PC11
PC12
PC13
PC14 - OSC32_IN
PC15 - OSC32_OUT

SWO
PB1 AVDD
SB65
Default open

F373:PE8
F373:PB14
F373:PB15
F373:PD8

32768K[N/A]
R36 [N/A]
R34 [N/A]
X2
C32 10pF[N/A]
C31 10pF[N/A]

SB18
SB19
SB22
SB23
SB26
SB27
SB34
SB37

PB15 F302:D11
PB14 F302:D12
PB13 F302:D13
PB12 AVDD
SB17 PD8

C26 2.2uF
Ceramic capacitor (Low ESR)
F373:PE9 & F401:VCAP1
F373:SD_VREF+

B1
USER (Blue)
R29 100
R30 4K7
VDD
C15 100nF

SB59 PA3
SB58 PF4
SB55 D0
SB33
SB32

C22 2.2uF
C25 2.2uF
PD2

SB38

Ceramic capacitor (Low ESR)
F051/F030/F373:PF6 & F200/F429:VCAP2
F200/F429:VCAP1

F373:PA3 & F303:PF4

NRST
AGND

C14 100nF
B2
TD-0341 [RESET/Black]

R33 10K

BOOT0

NRST

PF6

Board Ident: PC13=0

STLK RX
STLK TX

USB ST-LINK

CN1
5075BMR-05-SM

VCC	1	U5V
D-	2	
D+	3	
ID	4	
GND	5	
SHELL	6	

R16 1K5
R18 0
R17 0
R15 100K

T1
9013

U2
STM32F103CBT6

SWD

SWDIO
SWCLK
SWD

PWR

U1 LD3985M33R

COM

LED STLINK

Jumpers ON --> NUCLEO Selected
Jumpers OFF --> ST-LINK Selected

DEFAULT

RESERVED

Wired on Solder Side

Not Fitted

Extension connectors

PA[0..15]
PB[0..15]
PC[0..15]
PD2
PD8
PF[0..1]
PF[4..7]
NRST
BOOT0

Morpho connector CN7

Header 19X2

PC10
PC12
BOOT0
PF6
PF7
PA13
PA14
PA15
PB7
PC13
PC14
PC15
SB48
SB55
SB54
VBAT/VLCD
PD0/PH0/PF0
PD1/PH1/PF1
SB49
PC2
PC3
VDD

PC11
PD2
NRST
+5V

PC1 SB56
PC0 SB51
SB46
SB52

SB46,SB52
Close only for I2C on A4/A5

Arduino Connector CN8
Header 8X1_Female

1 2 3 4 5 6 7 8

Arduino Connector CN6
Header 6X1_Female

A5 A4
PB0 A3
PA4 A2
PA1 A1
PA0 A0

PB8
PB9

VIN
+5V +3V3

MCU

LD2 Green
R31 510
SB21 CN5

PA5 SB42
PA6 SB41
PA7 SB40

SB20,SB24,SB29
Close only for F302

Arduino Connector CN5
Header 10X1_Female

1 2 3 4 5 6 7 8 9 10
D13 D12 D11

PB6 D13
PC7 D12
PA9 D11
PA8 D10
PB10/PE8 D9
PB4 D8
PB5
PB3
PA10
PA2
PA3

D13 D12 D11 D10 D9 D8
D7 D6 D5 D4 D3 D2 D1 D0

PB8 D15
PB9 D14
SB24 SB29
SB20

PB13
PB14
PB15

AVDD

Arduino Connector CN9
Header 8X1_Female

1 2 3 4 5 6 7 8

Morpho connector CN10
Header 19X2

PC8
PC6
PC5
PD8
PA12
PA11
PB12
PB11/PE9
PB2
PB1
PB15
PB14
PA7
PA6
SB39
SB28
SB36
SB25
SB44
SB35
AGND
PA5
PB13
PF4
PF5
PC4
U5V
PC9

SB25,SB28,SB35
Open only for F302

Title: Extension connectors
Project: NUCLEO-XXXXRX
Size: A4 **Reference:** MB1136 **Revision:** C.
Date: 1/28/2014
Sheet: 4 of 4

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