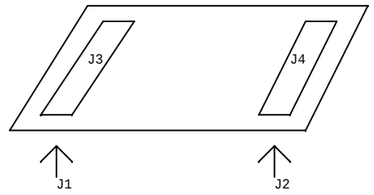
uC3B0-64pin Routing card

component placement prepared for uc3B1 and uc3A1

USB VCON and ID selected to PA26/27 (usart3 and TC ch 0)
alt was: PA03/04 (adc and gclk)

J3 and J4 mates up to the socket card, while J1 and J2 goes down to the mother board. J1 is physical placed below J3, and J2 below J4.



Close to J3, p13
C5 N.M
C3 N.M
GND

Close to J3, p12
C4 N.M
C6 N.M
R2 N.M
GND

Close to J3, pin 38
L2
C12 N.M
GND

Close to J3, pin 46
AREF0
C14 100n
GND

Close to J3, pin48
L4
C18 BLM21AG102SN1D 100n
GND
VTG

Close to J3, pin 50
C20 470p
C22 2.2u
GND
R4 0R
VDDCORE

Close to J3, pin 54
C24 100n
C26 4.7u
GND
0R R6
VTG

Close to J4, p1
C51 N.M
C53 N.M
R51 N.M
GND

Close to J4 p12
C52 N.M
C54 N.M
R52 N.M
GND

Close to J4 pin22
L52
C56 N.M
GND

Close to J4 p31
C55 N.M
GND

Close to J4 p51
C57 N.M
GND

Close to J4 p71
C59 N.M
GND

Close to J4 p42
C58 N.M
GND

Close to J4 p52
C60 N.M
GND

Close to J4 p72
C62 N.M
GND

J1
GND 1 2 VTG
PA0 3 4
PA2 5 6 PA3 PA3
PA4 PA4 7 8 PA5 PA5
PA6 9 10 PA7 PA7
GND 11 12 VTG
PA8 PB0 13 14 PB1 PA9
PA10 PB2 15 16 PB3 PA11
PA12 PB4 17 18 PB5 PA13
PA14 PB6 19 20 PB7 PA15
GND 21 22 VTG
PA16 PC0 23 24 PC1 PA17
PA18 PC2 25 26 PC3 PA19
PA20 PC4 27 28 PC5 PA21
PA22 PC6 29 30 PC7 PA23
GND 31 32 VTG
PA24 PD0 33 34 PD1 PA25
PA26 PD2 35 36 PD3 PA27
PA28 PD4 37 38 PD5 PA29
PA30 PD6 39 40 PD7 PA31
GND 41 42 VTG
PB0 PE0 43 44 PE1 PB1
PB2 PE2 45 46 PE3 PB3
PB4 PE4 47 48 PE5 PB5
PB6 PE6 49 50 PE7 PB7
GND 51 52 VTG
PB8 PF0 53 54 PF1 PB9
PB10 PF2 55 56 PF3 PB11
PF4 57 58 PF5
PF6 59 60 PF7
GND 61 62 VTG
PG0 63 64 PG1
PG2 65 66 PG3
PG4 67 68 PG5
PG6 69 70 PG7
GND 71 72 VTG
PH0 73 74 PH1
PH2 75 76 PH3
PH4 77 78 PH5
PH6 79 80 PH7
GND 81 82 VTG
PA18 XTAL1 83 84 AREF0
PA19 XTAL2 85 86
GND 87 88 MOSI PA14
PA11 TOSC1 89 90 MISO PA25
PA12 TOSC2 91 92 SCK PA15
RESET 93 94 TDI
GND 95 96 TDO
97 98 TMS
99 100 TCK
N.M

SPI0

VDDCORE
close to J3.29
BLM21AG102SN1D
L1
VDDCORE
VDDPLL
as close to J3 as possible
VBUS
DN 39R R1
DP 39R R3
Close to J3 p55
R5 N.M
as close to J3, p65 & p67 as possible
N.M R7
N.M R9
L3
N.M

J3
GND 1 2
VTG 3 4 GND
RESET 5 6 TCK
PA27 7 8 TDI
PA26 9 10 TDO
GND 11 12 GND
PA25 13 14 TMS
PA24 15 16 PB0
PB11 17 18 PB1
PB10 19 20 VDDCORE
GND 21 22 GND
PB9 23 24 PA3
PB8 25 26 PA4
27 28 PA5
29 30 PA6
GND 31 32 GND
VBUS 33 34 PA7
35 36 PA8
37 38 PA30
GND 39 40 PA31
41 42 GND
VTG 43 44 AREF0
PA23 45 46
PA22 47 48 VDDANA
PA21 49 50 VDDOUT
GND 51 52 GND
PA20 53 54 VDDIN
PB7 55 56 VDDCORE
PA29 57 58
PA28 59 60 PB2
GND 61 62 GND
PA19 63 64 PB3
PA18 65 66 PB4
PB6 67 68 PB5
PA17 69 70 PA9
GND 71 72 GND
PA16 73 74 PA10
PA15 75 76 PA11
PA14 77 78 PA12
PA13 79 80 VTG
N.M

L6
N.M
Close to J3.70

VDDPLL
VTG VDDCORE VTG
C1 100n
C7 100n
C9 100n
C11 100n
GND
Close to J3 p1
Close to J3 p21
Close to J3 p31
Close to J3 p41

VDDCORE VDDCORE VDDCORE
C2 N.M
C8 100n
C10 N.M
C28 100n
GND
Close to J3 p2
Close to J3 p22
Close to J3 p32
Close to J3 p58

C13 N.M
C15 N.M
C17 N.M
C19 N.M
GND
Close to J3 p51
Close to J3 p61
Close to J3 p71
Close to J3 p79

C32 N.M
C34 N.M
GND
Close to J3 p72
Close to J3 p80

J4
GND 1 2 GND
3 4
5 6
7 8
9 10
GND 11 12 GND
13 14
15 16
17 18
19 20
GND 21 22 GND
23 24
25 26
27 28
29 30
GND 31 32 GND
33 34
35 36
37 38
39 40
GND 41 42 GND
43 44
45 46
47 48
49 50
GND 51 52 GND
53 54
55 56
57 58
59 60
GND 61 62 GND
63 64
65 66
67 68
69 70
GND 71 72 GND
73 74
75 76 VCC
BOARD_ID0 77 78 BOARD_ID1
BOARD_ID4 79 80 BOARD_ID5
N.M

R100 0R
PA26
GND
PDATA0 PDATA2 PDATA4 PDATA6 PCTRL0 PCTRL2 PCTRL4 PCTRL6
BOARD_ID0 BOARD_ID2 BOARD_ID4

J2
GND 1 2 VTG
PJ0 3 4 PJ1
PJ2 5 6 PJ3
PJ4 7 8 PJ5
PJ6 9 10 PJ7
GND 11 12 VTG
PK0 13 14 PK1
PK2 15 16 PK3
PK4 17 18 PK5
PK6 19 20 PK7
GND 21 22 VTG
PL0 23 24 PL1
PL2 25 26 PL3
PL4 27 28 PL5
PL6 29 30 PL7
GND 31 32 VTG
PM0 33 34 PM1
PM2 35 36 PM3
PM4 37 38 PM5
PM6 39 40 PM7
GND 41 42 VTG
PN0 43 44 PN1
PN2 45 46 PN3
PN4 47 48 PN5
PN6 49 50 PN7
GND 51 52 VTG
PP0 53 54 PP1
PP2 55 56 PP3
PP4 57 58 PP5
PP6 59 60 PP7
GND 61 62 VTG
PQ0 63 64 PQ1
PQ2 65 66 PQ3
PQ4 67 68 PQ5
PQ6 69 70 PQ7
DP 71 72 VBUS
DN 73 74 UVCON R101 PA27
USB_ID 75 76 VCC
GND 77 78
79 80 PDATA1 0R
PDATA3
PDATA5
PDATA7
PCTRL1
PCTRL3
PCTRL5
PCTRL7
81 82
83 84
85 86
87 88
89 90
91 92
93 94
95 96 BOARD_ID1
97 98 BOARD_ID3
99 100 BOARD_ID5
N.M

Board id: 0x1f id2: /(A+B) id3: 1

U1
VCC
I0 I1 I2 GND VCC Y
NC7SZ57P6X
C111 100n
GND

U2
U3
C112 N.M
C113 N.M

PCB1
A0607.3.1221.A

E1 E2 E3 E4
GND
N.M

EXCLUDE FROM PASTE MASK
Osc1 socket
Place close to board left edge
J5 N.M
C100 N.M
C101 N.M
PA28 PA29

PA18: xin0
PA19: xout0
PA28: xin1
PA29: xout1
PA11: xin32
PA12: xout32

E5 E6 E7
N.M

ATMEL Norway AS
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Norway

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