

NetDCU-Startintf4

Hardware

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Only for Rev. 1.00

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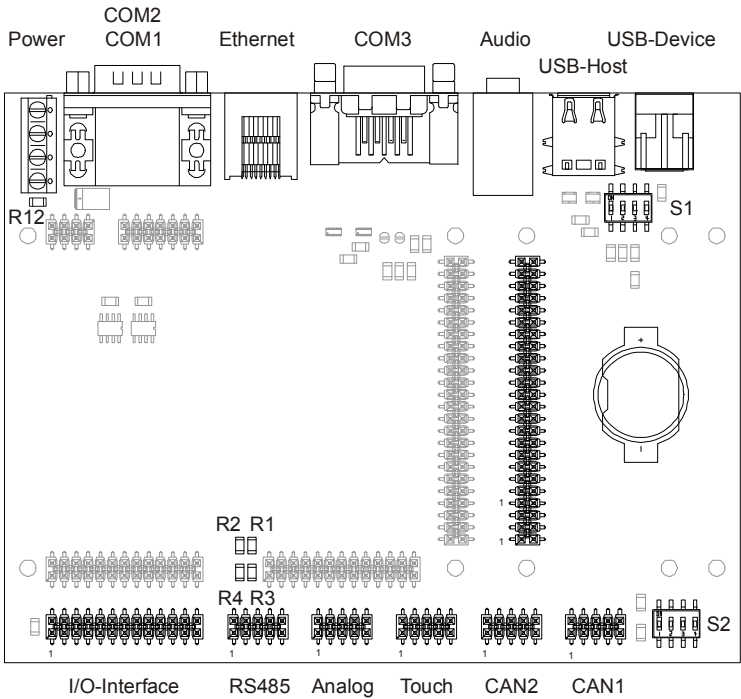
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1 Arrangement of Connectors

Figure 1.1: Top View



2 Connectors

2.1 Counting of the connector pins

All connections prepared for two-row connectors on the Net-DCU-Startintf4 are treated as follows.

Pin 1 is marked by an arrow.

The row with pin 1 contains all odd-numbered pins (1, 3, 5, 7, etc.), and, corresponding to this, the row without pin 1 contains all even-numbered pins (2, 4, 6, 8, etc.).

2.2 J1A Power Supply

J1A Power Supply			
Pin	Signal	Pin on NetDCU J1 (4 Pin)	Pin on NetDCU J1 (8 Pin)
1	GND	4	7, 8
2	+5V $\pm 5\%$ DC Input	2	3, 4
3	V _{BAT} Input for RTC (+3V...+3,6V DC) (only if jumper R12 set)	3	5
4	V _{CFL} Input	1	1

Warning: Do not set jumper R12 when using the battery on the starterkit. The battery can be damaged when applying a voltage to V_{BAT} if S1/4 is set to ON.

2.3 J1B RS485

J1B RS485		
Pin	Signal	Pin on NetDCU J1 (8 Pin)
1	-	
2	+5V	3, 4
3	-	
4	-	
5	RS485+	2
6	RS485-	6
7	-	
8	-	
9	GND	7, 8
10		

2.4 J2A-B COM1 RS232

J2A-B COM1		
Pin	Signal	Pin on NetDCU J5
1	-	
2	RxD	12
3	TxD	14
4	-	
5	GND	16
6	-	
7	-	
8	-	
9	-	

2.5 J2A-A COM2 RS232

J2A-A COM2		
Pin	Signal	Pin on NetDCU J2
1	-	
2	RxD	3
3	TxD	5
4	-	
5	GND	9
6	-	
7	RTS	4
8	CTS	6
9	-	

2.6 J2B Ethernet Interface

J2B Ethernet Interface		
Pin	Signal	Pin on NetDCU J2
1	TxD	8
2	TxD	7
3	RxD	2
4	-	
5	-	
6	RxD	1
7	-	
8	-	

2.7 J2C CAN1

J7A COM3		
Pin	Signal	
1	-	
2	GND	
3	CAN-L	connected to PCA82C250
4	CAN-H	connected to PCA82C250
5	GND	
6	-	
7	-	
8	-	
9	-	
10	-	

A 120R termination resistor can be connected to the CAN lines with switch S2/2

2.8 J2D CAN2

J7A COM3		
Pin	Signal	
1	-	
2	GND	
3	CAN-L	connected to PCA82C250
4	CAN-H	connected to PCA82C250
5	GND	
6	-	
7	-	
8	-	
9	-	
10	-	

A 120R termination resistor can be connected to the CAN lines with switch S2/1

2.9 J3A Display Interface

All pins of the display connector are connected to the respective pins of the NetDCU. See NetDCU documentation for pin functions.

2.10 J5B I/O Interface

J5B I/O Interface		
Pin	Signal	Pin on NetDCU J5
1	IO8	1
2	IO7	2
3	IO6	3
4	IO5	4
5	IO4	5
6	IO3	6
7	IO2	7
8	IO1	8
9	IO0	9
10	IO9	10
11	IO10	11
12	-	-
13	IO11	13
14	-	-
15	IO12	15
16	GND	16
17	I7	17

J5B I/O Interface		
Pin	Signal	Pin on NetDCU J5
18	I6	18
19	I5	19
20	I4	20
21	I3	21
22	I2	22
23	I1	23
24	I0	24
25	V50	25
26	V33	26

2.11 J7A COM3 RS232

J7A COM3		
Pin	Signal	Pin on NetDCU J7
1	-	
2	RxD	9 (if R2 set)
3	TxD	10 (if R1 set)
4	-	
5	GND	14
6	-	
7	-	
8	-	
9	-	

2.12 J7B Touch

J5B Touch		
Pin	Signal	Pin on NetDCU J7
1	V50	13
2	GND	14
3	X+	15
4	Y+	16
5	X-	17
6	Y-	18
7	V33	19
8	GND	20
9	-	
10	-	

2.13 J7C Analog In

J7C Analog In		
Pin	Signal	Pin on NetDCU J7
1	V50	13
2	GND	14
3	AD0	11
4	AD1	12
5	AD2	9 (if R4 set)
6	AD3	10 (if R3 set)
7	V33	19
8	GND	20
9	-	
10	-	

2.14 J7D Audio Interface

J7D Audio Interface	
Header	Signal
Blue	Line Out
Green	Line In
Pink	Microphone In

2.15 J7G USB Host

J7G USB-Host			
Pin	Signal	Pin on NetDCU J7	
		USB2 (lower)	USB1 (upper)
1	USB-Power	25	26
2	USB-	21	23
3	USB+	22	24
4	GND	20	20

The USB2 connector is shared with the USB-Device connector. Do not use both connectors at the same time!

2.16 J7H USB Device

J7H USB Device		
Pin	Signal	Pin on NetDCU J7
1	-	
2	USB-	21
3	USB+	22
4	GND	20

The USB Device connector is shared with the USB2 connector. Do not use both connectors at the same time!

3 Switch Settings

3.1 Switch 1

Switch 1				
Function	S1/1	S1/2	S1/3	S1/4
USB-Host	ON	ON	OFF	-
USB-Device	OFF	OFF	ON	-
V _{BAT} from Battery	-	-	-	ON/OFF

3.2 Switch 2

Switch 2				
Function	S2/1	S2/2	S2/3	S2/4
CAN1 Termination	-	ON/OFF	-	-
CAN2 Termination	ON/OFF	-	-	-

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