Hardware

Documentation

Version 1.00
(03.08.2012)

NetDCU-SINTF-14

History

Date	V	Platform	A,M,R	Chapter	Description	Au
03.08.2012	1.00	NetDCU-SINTF-14		*	New document	TM

V	Version
A,M,R	Added, Modified, Removed
Au	Author

Table of Contents

1 Introduction

This document does describe the mechanical and electrical informations for the F&S NetDCU-SINTF-14 Startinterface. Please also refer the design guide by using this module for your application.

2 Mechanical dimension

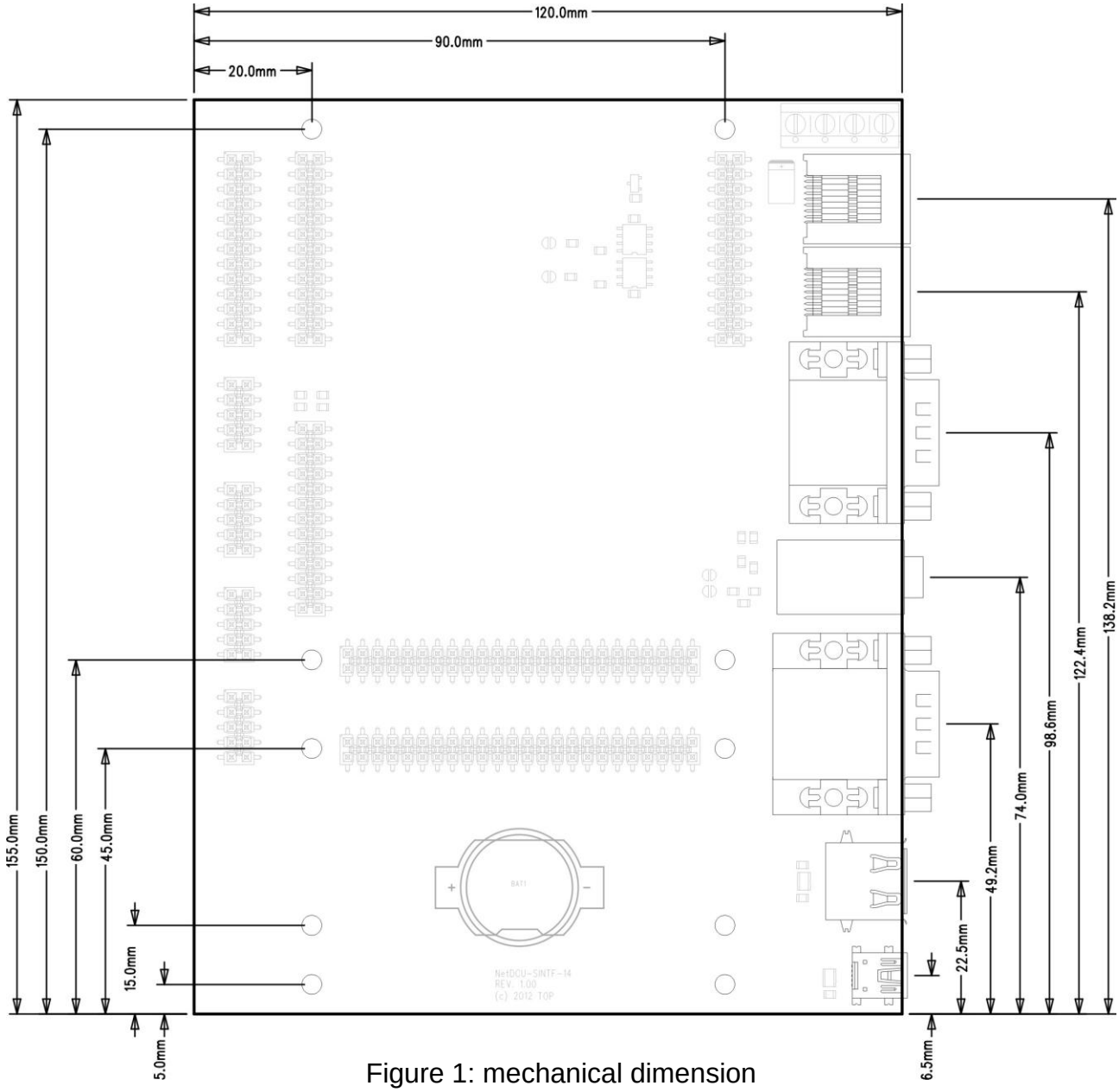
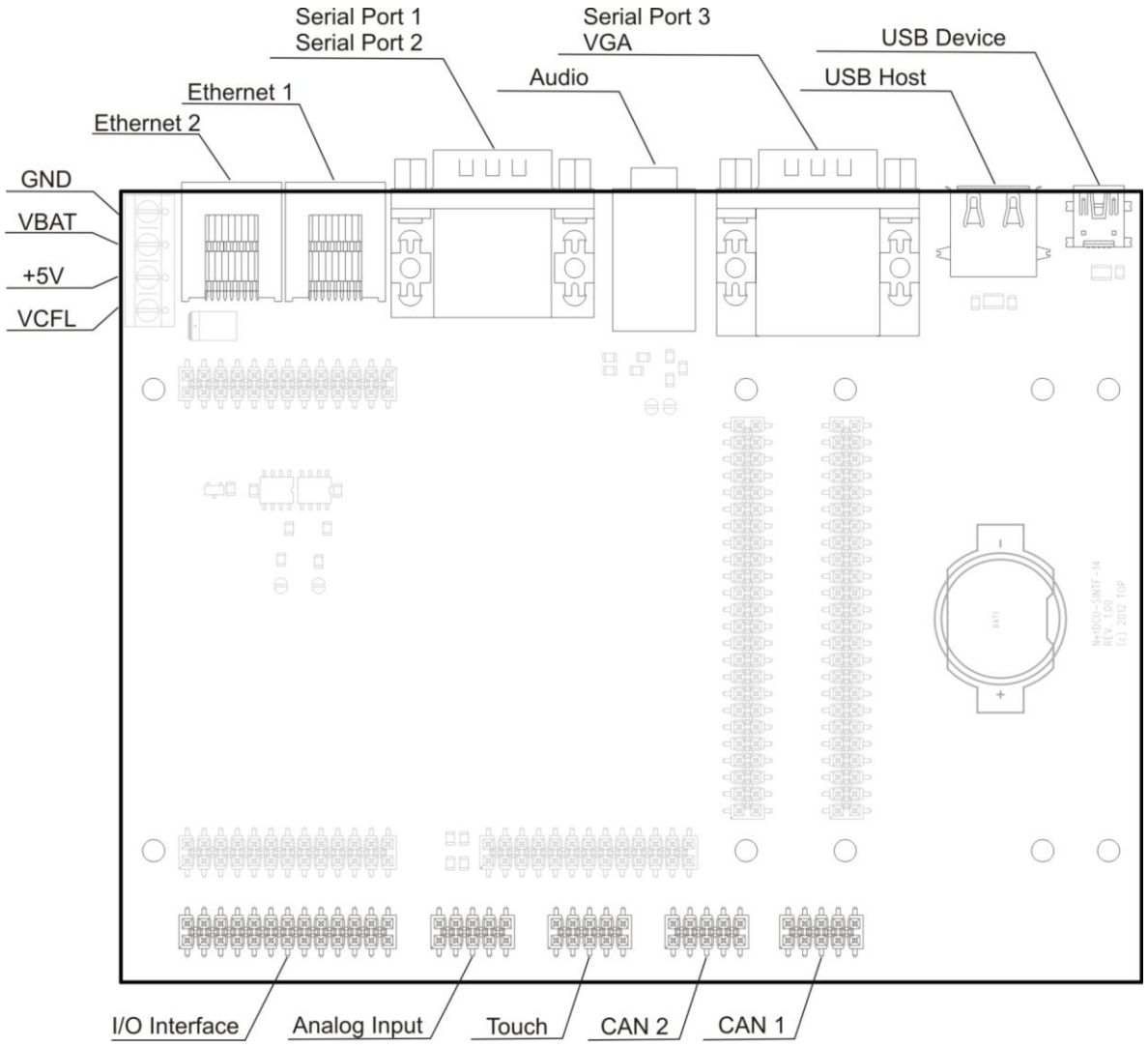


Figure 1: mechanical dimension

3 Connector layout



4 Interface and Signal description

4.1 (J1) Power Supply

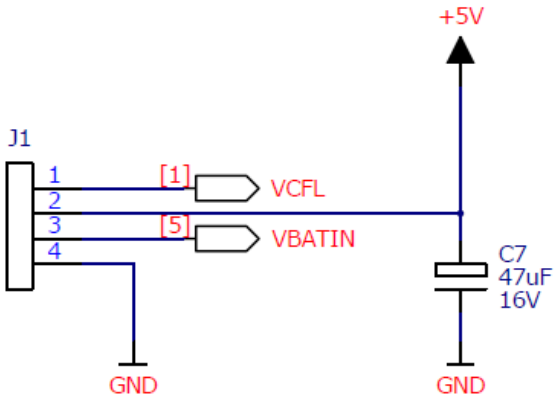


Figure 1: Power supply J1A

J1A Power Supply				
Pin	Signal	Pin on NetDCU J1 (4 Pin)	Pin on NetDCU J1 (8 Pin)	Pin on NetDCU J1 (26 Pin)
1	V_{CFL}	1	1	1
2	+5V ±5% DC power	2	3, 4	9, 21, 22
3	V_{BAT} Input for RTC (+3V...+3,6V DC)	3	5	23
4	GND	4	7, 8	10, 25, 26

4.2 Ethernet

4.2.1 LAN1

J1B LAN1			
Pin on RJ45	Signal	Pin on NetDCU9/10 J2 (14 Pin)	Pin on NetDCU14 J1 (26 Pin)
1	TX+ (Transmit Data)	8	7
2	TX- (Transmit Data)	7	8
3	RX+ (Received Data)	2	1
4	NC		
5	RX- (Received Data)	1	2
6	NC		
7	NC		
8	NC		

4.2.2 LAN2

J1C LAN2			
Pin on RJ45	Signal	Pin on NetDCU9/10 JX (XX Pin)	Pin on NetDCU14 J1 (26 Pin)
1	TX+ (Transmit Data)	-	17
2	TX- (Transmit Data)	-	18
3	RX+ (Received Data)	-	15
4	NC	-	
5	RX- (Received Data)	-	16
6	NC	-	
7	NC	-	
8	NC	-	

4.3 CAN Interface

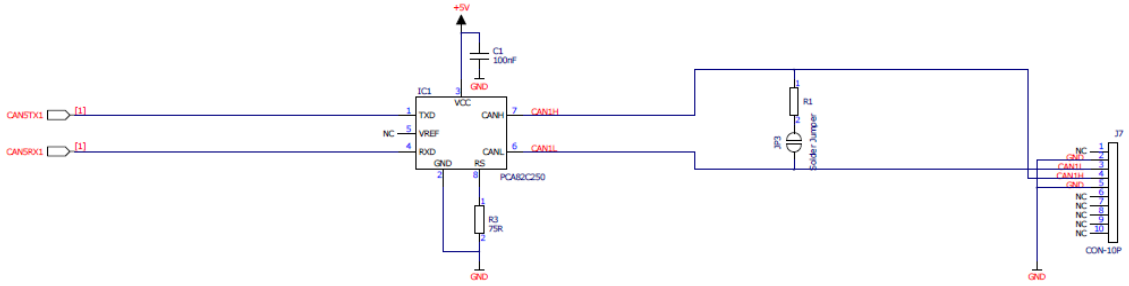


Figure 2: CAN transceiver

4.3.1 CAN1

J1D CAN1		
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 Jumper JP3.

4.3.1 CAN2

J1E CAN2		
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 Jumper JP4.

4.4 Serial port

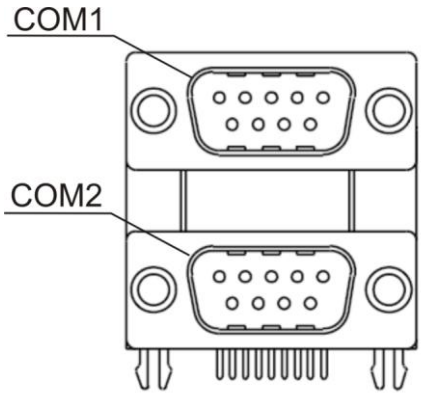


Figure 3: 2x 9Pol. SubD connector

4.4.1 COM1

J1F COM1			
Pin	Signal	Pin on NetDCU9/10 J2 (14 Pin)	Pin on NetDCU14 J1 (26 Pin)
1	-	-	-
2	RXD	3	4
3	TXD	5	6
4	-	-	-
5	GND	GND	GND
6	-	-	-
7	RTS	4	3
8	CTS	6	5
9	-	-	-

4.4.2 COM2

J1F COM2			
Pin	Signal	Pin on NetDCU J5 (16 Pin)	Pin on NetDCU J5 (26 Pin)
1	-	-	-
2	RXD	12	12
3	TXD	14	14
4	-	-	-
5	GND	GND	GND
6	-	-	-
7	-	-	-
8	-	-	-
9	-	-	-

4.4.3 COM3

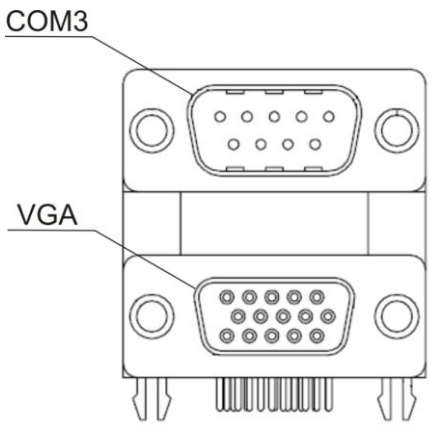


Figure 4: 1x 9Pol & 1x15Pol Connector

J8 COM3			
Pin	Signal	Pin on NetDCU9/10 J7 (26 Pin)	Pin on NetDCU14 J5 (26 Pin)
1	-	-	-
2	RXD	9*	12*
3	TXD	10*	14*
4	-	-	-
5	GND	GND	GND
6	-	-	-
7	-		-
8	-		-
9	-	-	-

*To use COM3 make sure that jumper R13 and R14 are mounted.
In this case jumper R5 and R6 are not mounted.
By default R13 and R14 are mounted.

4.5 Display Interface

4.5.1 TTL

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

4.5.1 VGA

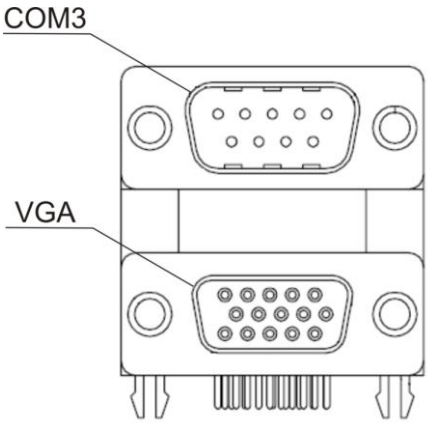
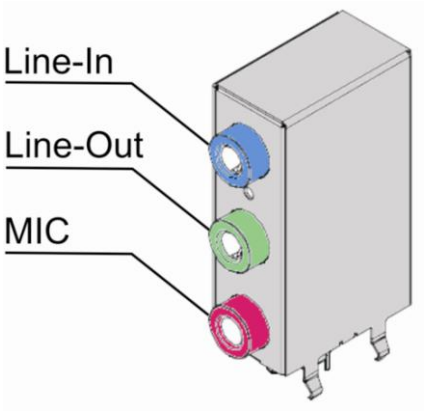


Figure 4: 1x 9Pol & 1x15Pol Connector

J8 VGA			
Pin	Signal	Pin on NetDCU9 J3 (34 Pin)	Pin on NetDCU14 J3 (48Pin)
1	ARED	43	43
2	AGREEN	44	44
3	ABLUE	45	45
4	NC		
5	GND	GND	GND
6	GND	GND	GND
7	GND	GND	GND
8	GND	GND	GND
9	NC		
10	GND	GND	GND
11	NC		
12	NC		
13	ARHSYNC	46	46
14	ARVSYNC	47	47
15	NC		

4.6 Audio Interface



5. Appendix

Important Notice

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