LINBUS INTERFACE

J1
1 VBAT
2 GND
3 LIN
LIN1

F1 250ma slow

MBR0540 D2

+12V

22uF 40V C4 C8 0.1uF 50V

D1 MBR0540

R1 10K

J2
1 VBAT
2 GND
3 LIN
LIN2

LIN MASTER

J4

C1 220pF

U1 ATA6631
VS
+5V 8
ENI 2
LIN 4
NRES 7
GND 3
RXO 5
TXI 6

+5V

C5 C9
10uF 0.1uF

LIN_RX
LIN_TX

MCU

U3 ATMEGA328

+5V

0.1uF C10

18 AVCC
4 VCC
6 VCC
20 AREF

16MHz X1
7 PB6(XTAL1/TOSC1)
8 PB7(XTAL2/TOSC2)

+5V
R4 10k
RESET
29 PC6(/RESET)

5 AGND
3 GND
21 GND

PC0(ADC0) 23 LIN_BREAK
PC1(ADC1) 24
PC2(ADC2) 25 LIN_TX
PC3(ADC3) 26 LIN_ISR
PC4(ADC4/SDA) 27
PC5(ADC5/SCL) 28
ADC6 19
ADC7 22

PD0(RXD) 30 SER_RX
PD1(TXD) 31 SER_TX
PD2(INT0) 32 LIN_RX
PD3(INT1) 1 LIN_TICK
PD4(XCK/T0) 2
PD5(T1) 9
PD6(AIN0) 10 GP_DEBUG
PD7(AIN1) 11

PB0(ICP) 12 FRAME_LED
PB1(OC1A) 13 ERROR_LED
PB2(SS/OC1B) 14
PB3(MOSI/OC2) 15 MOSI/LIN_ERR
PB4(MISO) 16 MISO/LIN_DATA
PB5(SCK) 17 SCK

USB/SERIAL

0.1uF C3

U2 FT232RL

MBR0540 D3 +12V
MBR0540 D4 +5V

VCC VCCIO
TXO 1 R2 10K SER_RX
RXI 5 R3 10K SER_TX
DTRO 2 RESET
0.1uF C7

J3
1 VBUS
2 D-
3 D+
4 ID
5 GND

16 D-
15 D+

26 TEST
TX_LED 23
RX_LED 22
3V3OUT 17

GND GND GND GND
7 18 21 25

C6 0.1uF

C2 10uF

ICSP

J5
MISO/LIN_DATA 1 2 MOSI/LIN_ERR
SCK 3 4
RESET 5 6

+5V

DIAGNOSTIC LEDS

FRAME_LED
ERROR_LED

+12V

R5 3.3K R6 3.3k R7 10K

D5 RED D6 GREEN D7 RED

TITLE: analyzer

Document Number:

REV:

Date: 2/19/14 10:46 PM

Sheet: 1/1