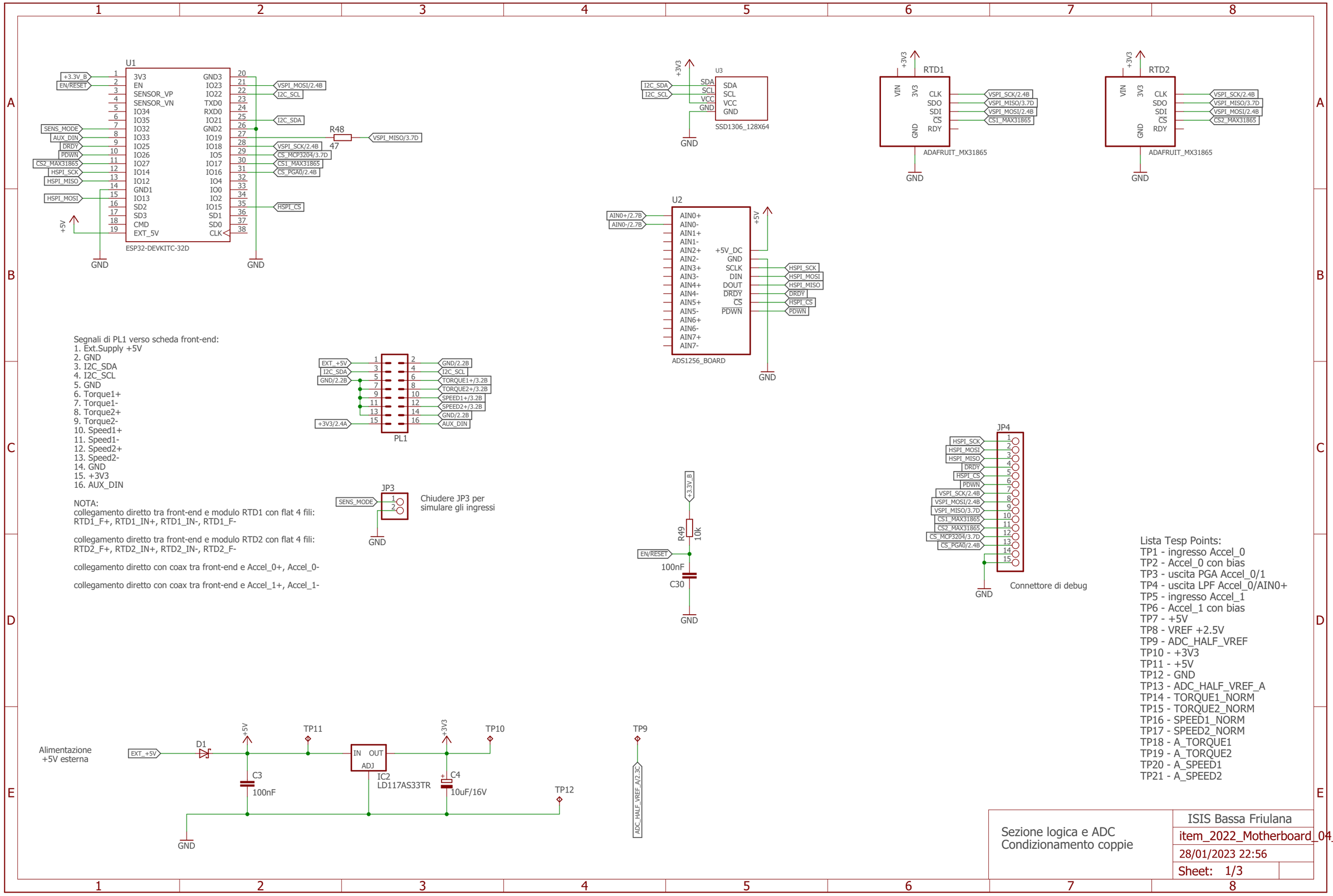
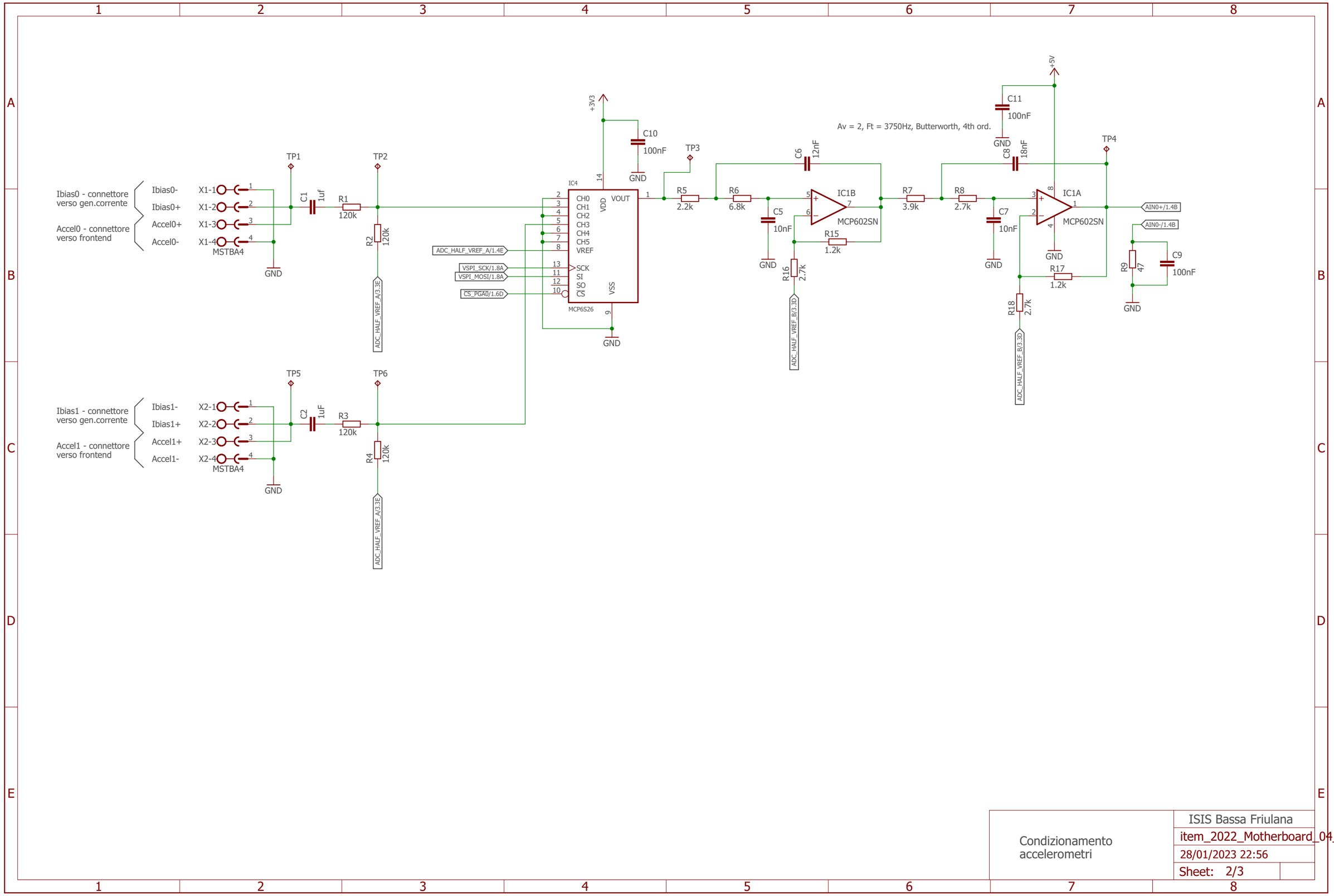

U1
ESP32-DEVKITC-32D
+3.3V_B
EN/RESET
SENS_MODE
AUX_DIN
DRDY
PDWN
CS2_MAX31865
HSPI_SCK
HSPI_MISO
HSPI_MOSI
+5V
GND
3V3
EN
SENSOR_VP
SENSOR_VN
IO34
IO35
IO32
IO33
IO25
IO26
IO27
IO14
IO12
GND1
IO13
SD2
SD3
CMD
EXT_5V
GND3
IO23
IO22
TXD0
RXD0
IO21
GND2
IO19
IO18
IO5
IO17
IO16
IO4
IO0
IO2
IO15
SD1
SD0
CLK
VSPI_MOSI/2.4B
I2C_SCL
I2C_SDA
R48
47
VSPI_MISO/3.7D
VSPI_SCK/2.4B
CS_MCP3204/3.7D
CS1_MAX31865
CS_PGA0/2.4B
HSPI_CS
U3
SSD1306_128X64
SDA
SCL
VCC
GND
RTD1
RTD2
ADAFRUIT_MX31865
VIN
3V3
CLK
SDO
SDI
CS
RDY
VSPI_SCK/2.4B
VSPI_MISO/3.7D
VSPI_MOSI/2.4B
CS1_MAX31865
CS2_MAX31865
U2
ADS1256_BOARD
AIN0+/2.7B
AIN0-/2.7B
AIN0+
AIN0-
AIN1+
AIN1-
AIN2+
AIN2-
AIN3+
AIN3-
AIN4+
AIN4-
AIN5+
AIN5-
AIN6+
AIN6-
AIN7+
AIN7-
+5V_DC
SCLK
DIN
DOUT
DRDY
PDWN
HSPI_SCK
HSPI_MOSI
HSPI_MISO
DRDY
HSPI_CS
PDWN
Segnali di PL1 verso scheda front-end:
1. Ext.Supply +5V
2. GND
3. I2C_SDA
4. I2C_SCL
5. GND
6. Torque1+
7. Torque1-
8. Torque2+
9. Torque2-
10. Speed1+
11. Speed1-
12. Speed2+
13. Speed2-
14. GND
15. +3V3
16. AUX_DIN
NOTA:
collegamento diretto tra front-end e modulo RTD1 con flat 4 fili:
RTD1_F+, RTD1_IN+, RTD1_IN-, RTD1_F-
collegamento diretto tra front-end e modulo RTD2 con flat 4 fili:
RTD2_F+, RTD2_IN+, RTD2_IN-, RTD2_F-
collegamento diretto con coax tra front-end e Accel_0+, Accel_0-
collegamento diretto con coax tra front-end e Accel_1+, Accel_1-
PL1
EXT_+5V
I2C_SDA
GND/2.2B
+3V3/2.4A
I2C_SCL
TORQUE1+/3.2B
TORQUE2+/3.2B
SPEED1+/3.2B
SPEED2+/3.2B
AUX_DIN
JP3
SENS_MODE
Chiudere JP3 per
simulare gli ingressi
R49
10k
100nF
C30
JP4
Connettore di debug
Lista Tesp Points:
TP1 - ingresso Accel_0
TP2 - Accel_0 con bias
TP3 - uscita PGA Accel_0/1
TP4 - uscita LPF Accel_0/AIN0+
TP5 - ingresso Accel_1
TP6 - Accel_1 con bias
TP7 - +5V
TP8 - VREF +2.5V
TP9 - ADC_HALF_VREF
TP10 - +3V3
TP11 - +5V
TP12 - GND
TP13 - ADC_HALF_VREF_A
TP14 - TORQUE1_NORM
TP15 - TORQUE2_NORM
TP16 - SPEED1_NORM
TP17 - SPEED2_NORM
TP18 - A_TORQUE1
TP19 - A_TORQUE2
TP20 - A_SPEED1
TP21 - A_SPEED2
Alimentazione
+5V esterna
D1
C3
100nF
IN
OUT
ADJ
IC2
LD117AS33TR
C4
10uF/16V
TP11
TP10
TP12
TP9
ADC_HALF_VREF_A/2.3C
Sezione logica e ADC
Condizionamento coppie
ISIS Bassa Friulana
item_2022_Motherboard_04_V8
28/01/2023 22:56
Sheet: 1/3



Condizionamento accelerometri	ISIS Bassa Friulana
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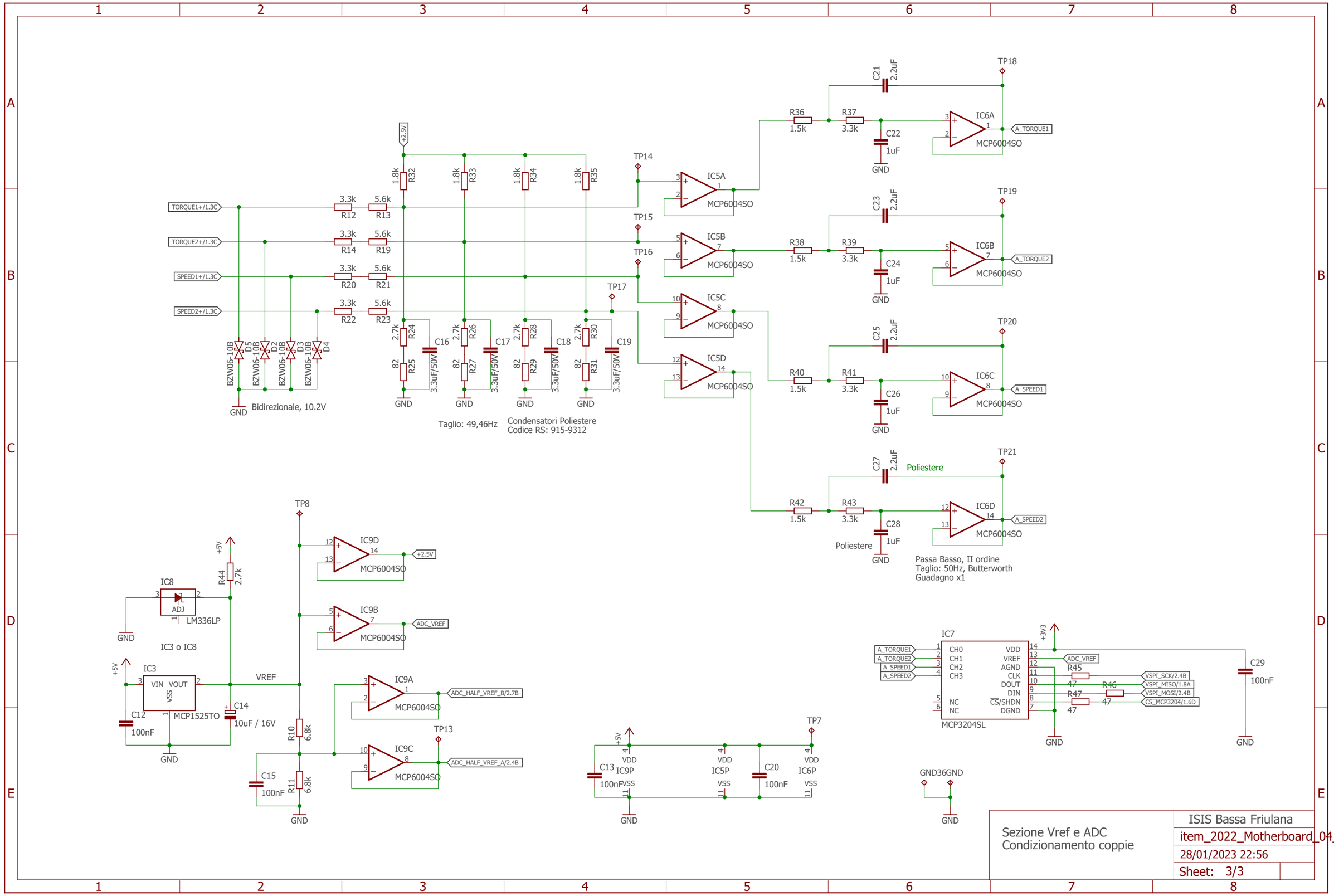

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