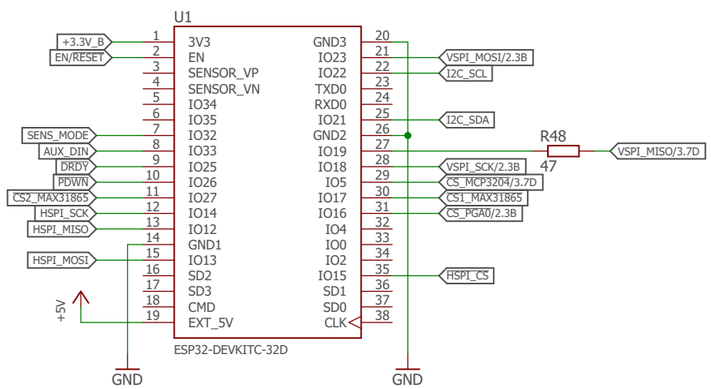
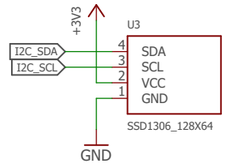
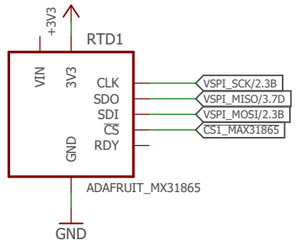
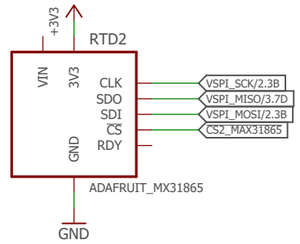
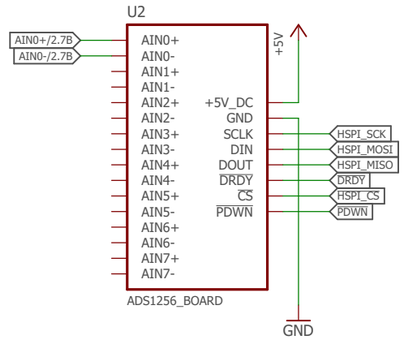










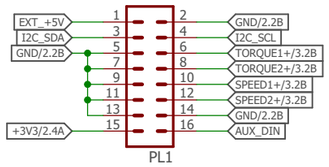
Segnali di PL1 verso scheda front-end:
1. Ext.Supply +5V
2. GND
3. I2C_SDA
4. I2C_SCL
5. GND
6. Torque1+
7. Torque1-
8. Torque2+
9. Torque2-
10. Speed1+
11. Speed1-
12. Speed2+
13. Speed2-
14. GND
15. +3V3
16. AUX_DIN

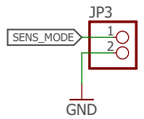
NOTA:
collegamento diretto tra front-end e modulo RTD1 con flat 4 fili:
RTD1_F+, RTD1_IN+, RTD1_IN-, RTD1_F-

collegamento diretto tra front-end e modulo RTD2 con flat 4 fili:
RTD2_F+, RTD2_IN+, RTD2_IN-, RTD2_F-

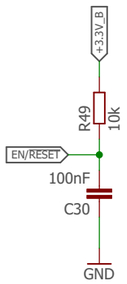
collegamento diretto con coax tra front-end e Accel_0+, Accel_0-

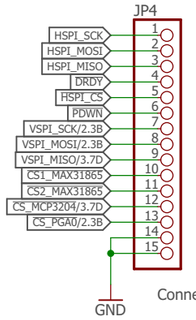
collegamento diretto con coax tra front-end e Accel_1+, Accel_1-





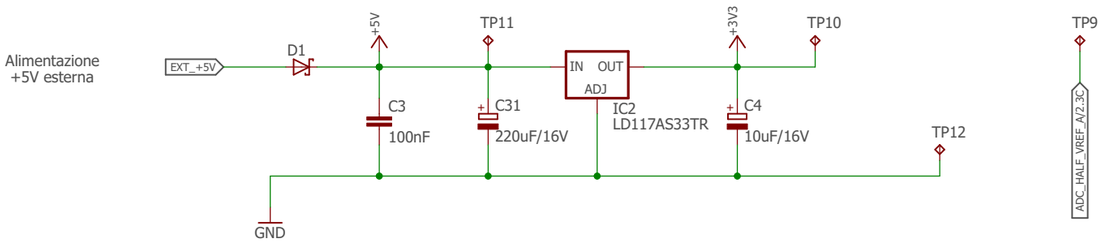
Chiudere JP3 per simulare gli ingressi





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



Sezione logica e ADC
Condizionamento coppie

ISIS Bassa Friulana
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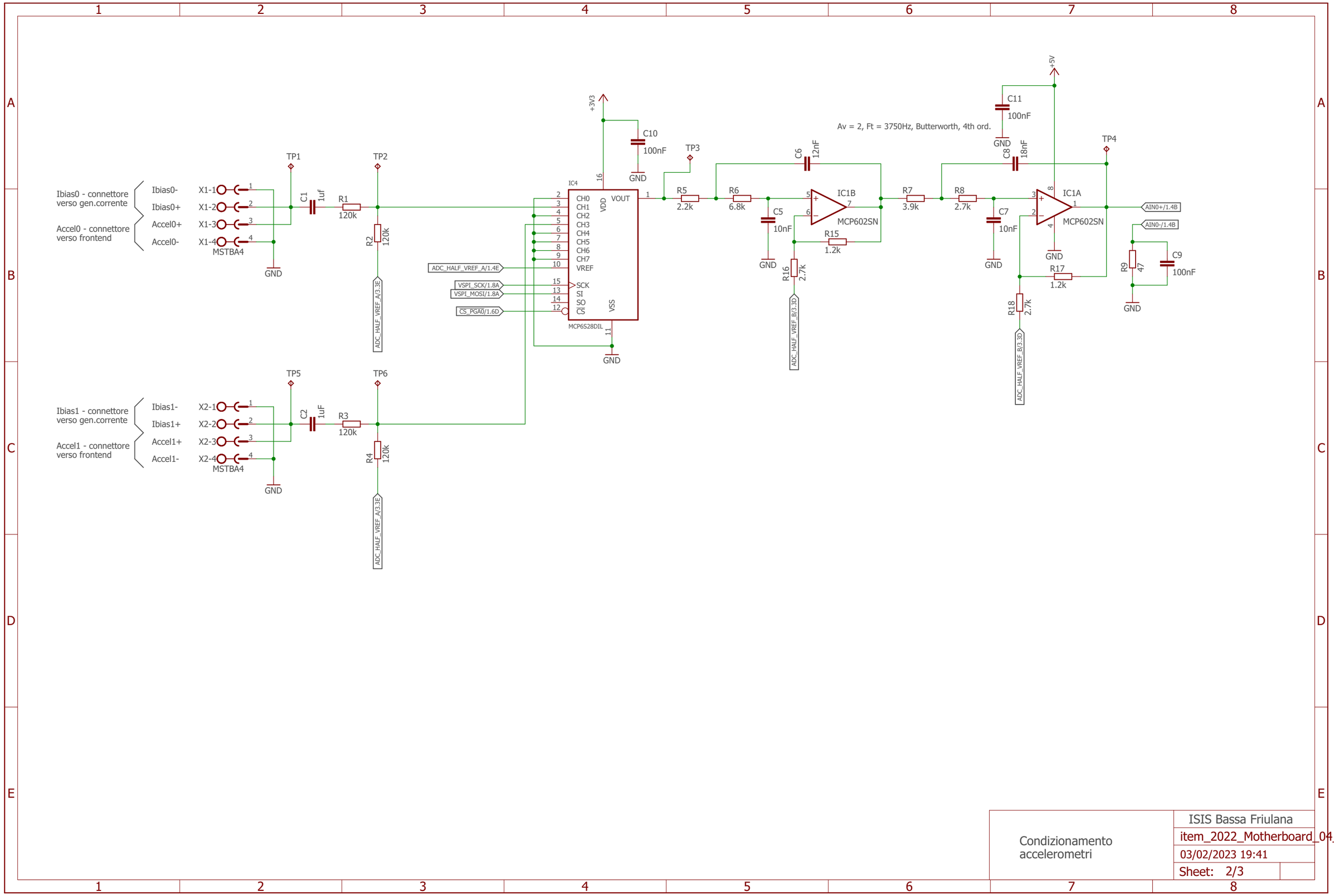
Sheet: 1/3



Condizionamento accelerometri

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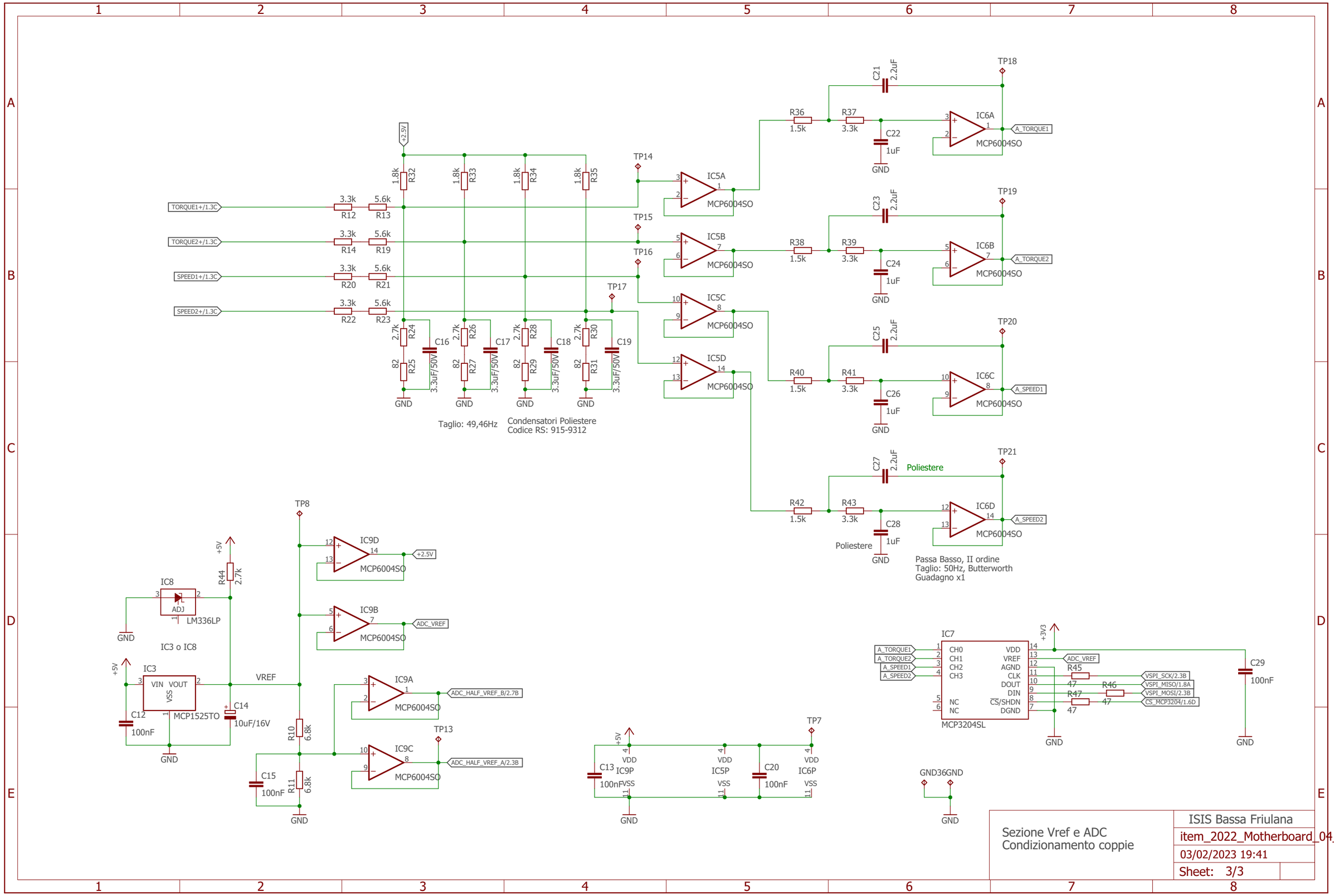
TORQUE1+/1.3C
TORQUE2+/1.3C
SPEED1+/1.3C
SPEED2+/1.3C
3.3k R12 5.6k R13
3.3k R14 5.6k R19
3.3k R20 5.6k R21
3.3k R22 5.6k R23
+2.5V
1.8k R32 1.8k R33 1.8k R34 1.8k R35
2.7k R24 82 R25 C16 3.3uF/50V
2.7k R26 82 R27 C17 3.3uF/50V
2.7k R28 82 R29 C18 3.3uF/50V
2.7k R30 82 R31 C19 3.3uF/50V
GND
TP14
TP15
TP16
TP17
IC5A
IC5B
IC5C
IC5D
MCP6004SO
Taglio: 49,46Hz
Condensatori Poliestere
Codice RS: 915-9312
R36 1.5k R37 3.3k C21 2.2uF C22 1uF
R38 1.5k R39 3.3k C23 2.2uF C24 1uF
R40 1.5k R41 3.3k C25 2.2uF C26 1uF
R42 1.5k R43 3.3k C27 2.2uF Poliestere C28 1uF Poliestere
TP18
TP19
TP20
TP21
IC6A
IC6B
IC6C
IC6D
A_TORQUE1
A_TORQUE2
A_SPEED1
A_SPEED2
Passa Basso, II ordine
Taglio: 50Hz, Butterworth
Guadagno x1
TP8
IC9D
IC9B
IC9A
IC9C
ADC_VREF
ADC_HALF_VREF_B/2.7B
ADC_HALF_VREF_A/2.3B
TP13
+5V
R44 2.7k
IC8
ADJ
LM336LP
IC3 o IC8
IC3
VIN VOUT
VSS
MCP1525TO
C12 100nF
C14 10uF/16V
VREF
R10 6.8k
R11 6.8k
C15 100nF
IC7
CH0 CH1 CH2 CH3
NC NC
VDD VREF AGND CLK DOUT DIN CS/SHDN DGND
MCP3204SL
+3V3
R45 47
R46 47
R47 47
VSPI_SCK/2.3B
VSPI_MISO/1.8A
VSPI_MOSI/2.3B
CS_MCP3204/1.6D
C29 100nF
IC9P
IC5P
IC6P
C13 100nF
C20 100nF
TP7
GND36GND
Sezione Vref e ADC
Condizionamento coppie
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item_2022_Motherboard_04_V8
03/02/2023 19:41
Sheet: 3/3