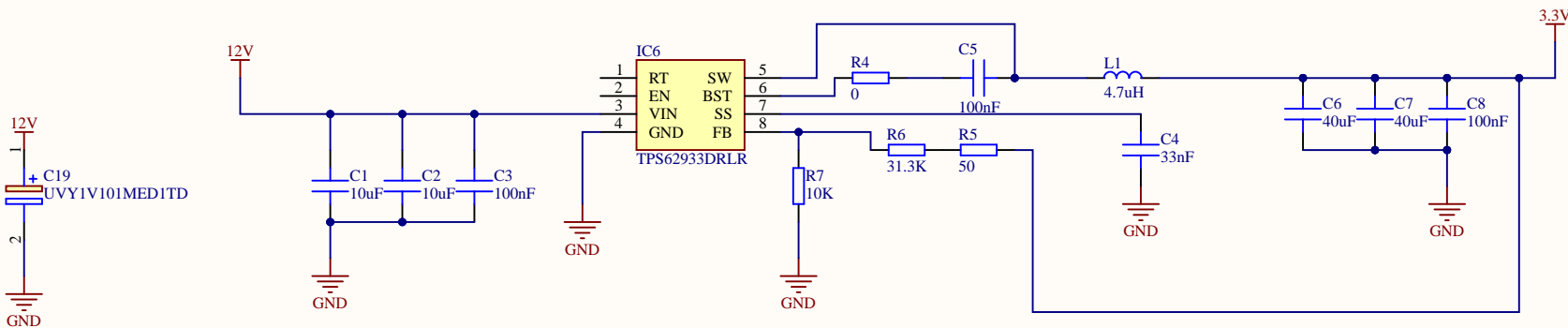
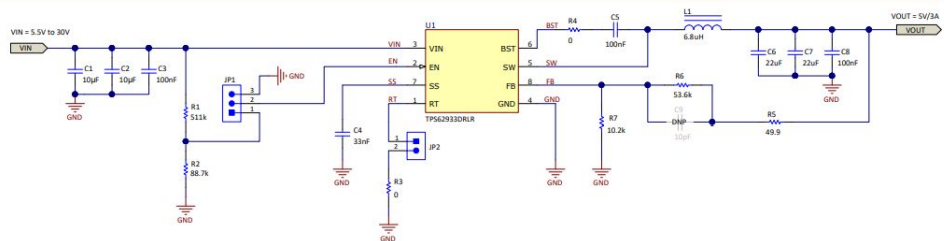


Figure 9-1. Typical Connections

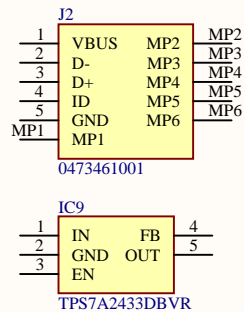
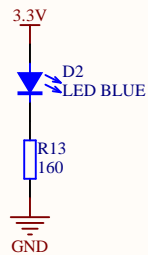
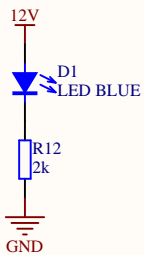
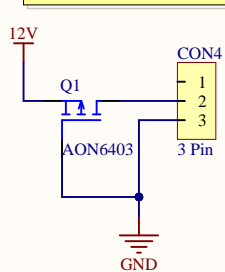
| | | |
|-------|--------------------------------------|----------|
| Title | | |
| Size | Number | Revision |
| A4 | | |
| Date: | 11.03.2024 | Sheet of |
| File: | C:\ALTIUM_PROJECTS\DC_DRIVERS\SubBy: | |

Table 10-2. Recommended LC Combination for TPS62933

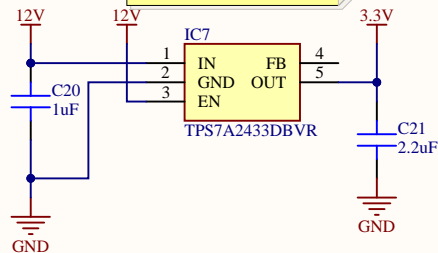
| V _{OUT} (V) | f _{sw} (kHz) | R _{TOP} (kΩ) | R _{DOWN} (kΩ) | Typical Inductor L (μH) | Typical Effective C _{OUT} (μF) | Minimum Effective C _{OUT} (μF) |
|----------------------|-----------------------|-----------------------|------------------------|-------------------------|---|---|
| 3.3 | 500 | 31.3 | 10.0 | 4.7 | 40 | 15 |
| | 1200 | | | 2.2 | 30 | 10 |
| 5 | 500 | 52.5 | 10.0 | 6.8 | 20 | 10 |
| | 1200 | | | 3.3 | 20 | 10 |
| 12 | 500 | 140.0 | 10.0 | 12 | 15 | 10 |



Δ Zabezpieczenie przed odwrotnym podłączeniem



Δ Plan B jak przetwornica impulsowa nie zadziała



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Size

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Date: 11.03.2024

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Drawn By:

| Comment | Description | Designator | Footprint | LibRef | Quantity |
|------------------------|-----------------------------------|---------------------------------|----------------------------|------------------------|----------|
| LSM6DSOXTR | Accelerometer | AC1 | LGA-14_1 | LSM6DSOXTR | 1 |
| 10uF | MLCC Capacitor | C1, C2 | C 0603 | Capacitor | 2 |
| 100nF | MLCC Capacitor | C3, C5, C8, C9, C12 | C 0603 | Capacitor | 5 |
| 33nF | MLCC Capacitor | C4 | C 0603 | Capacitor | 1 |
| 40uF | MLCC Capacitor | C6, C7 | C 0603 | Capacitor | 2 |
| 1uF | MLCC Capacitor | C10, C11, C20 | C 0603 | Capacitor | 3 |
| 0.1uF | MLCC Capacitor | C13, C15, C17, C22 | C 0603 | Capacitor | 4 |
| 47uF | MLCC Capacitor | C14, C16, C18, C23 | C 0805 | Capacitor | 4 |
| UVY1V101MED1TD | Capacitor Polarised | C19 | CAPPRD250W50D655 H1250 | UVY1V101MED1TD | 1 |
| 2.2uF | MLCC Capacitor | C21 | C 0603 | Capacitor | 1 |
| 1 Pin | | CON1, CON3, CON5, CON6 | SMD PAD | 1 Pin | 4 |
| 3 Pin | | CON2, CON4, CON7, CON8, CON9 | BM03B-SRSS-TB | 3 Pin | 5 |
| LED BLUE | | D1, D2 | LED 0603 BLUE | LED BLUE | 2 |
| ESP32-WROOM-32E-H4 | Integrated Circuit | IC1 | ESP32WROOM32EH4 | ESP32-WROOM-32E-H4 | 1 |
| HDC1080DMBR | Integrated Circuit | IC2 | SON100P300X300X80- 7N-D | HDC1080DMBR | 1 |
| ESP32-S3-WROOM-1-N16R8 | Integrated Circuit | IC3 | ESP32S3WROOM1N1 6R8 | ESP32-S3-WROOM-1-N16R8 | 1 |
| DRV8251DDAR | Integrated Circuit | IC4, IC5, IC8, IC10 | SOIC127P600X170-9N | DRV8251DDAR | 4 |
| TPS62933DRLR | Integrated Circuit | IC6 | SOTFL50P160X60-8N | TPS62933DRLR | 1 |
| TPS7A2433DBVR | Integrated Circuit | IC7, IC9 | SOT95P280X145-5N | TPS7A2433DBVR | 2 |
| 09185066324 | Connector | J1 | 09185066324 | 09185066324 | 1 |
| 0473461001 | Connector | J2 | 0473461001 | 0473461001 | 1 |
| 4.7uH | General pourpouse inductor | L1 | HPI0630 | Inductor | 1 |
| AON6403 | P-Mosfet 30V 67A Rds(on) 3.1mR | Q1 | DFN 5x6 | AON6403 | 1 |
| 10k | General pourpouse resistor | R1, R2, R3, R7, R8 | R 0402 | Resistor | 5 |
| 0 | General pourpouse resistor | R4 | R 0402 | Resistor | 1 |
| 50 | General pourpouse resistor | R5 | R 0402 | Resistor | 1 |
| 31.3K | General pourpouse resistor | R6 | R 0402 | Resistor | 1 |
| 0.2 | General pourpouse resistor | R9, R10, R11, R14 | R 1206 | Resistor | 4 |
| 2k | General pourpouse resistor | R12 | R 0402 | Resistor | 1 |
| 160 | General pourpouse resistor | R13 | R 0402 | Resistor | 1 |
| ECS-327MVATX-2-CN-TR3 | Crystal or Oscillator | Y1 | ECS327MVATX2CNTR 3 | ECS-327MVATX-2-CN-TR3 | 1 |