

The schematic diagram illustrates the electrical connections between the EZFET module and the EZFET board. Key components and connections include:

- Connectors:** J102 (EZFET module) and J101 (EZFET board) are connected via a ribbon cable. Pins 1-6 of J102 connect to pins 1-6 of J101.
- Power and Grounding:**
 - EZFET_SHIELD:** Connected to pins 7 and 8 of J102.
 - EZFET_DP:** Connected to pin 3 of J102.
 - EZFET_DM:** Connected to pin 2 of J102.
 - EZFET_VBUS:** Connected to pin 1 of J102.
 - EZFET_GND:** Connected to pins 4 and 5 of J102.
- IC102 (TPD4E004DRYR):** A 4-channel buffer IC.
 - Pin 1 (IO1) is connected to EZFET_DP.
 - Pin 2 (IO2) is connected to EZFET_DM.
 - Pin 3 (IO3) is connected to EZFET_VBUS.
 - Pin 4 (IO4) is connected to EZFET_GND.
 - Pin 5 (VCC) is connected to EZFET_VBUS.
 - Pin 6 (GND) is connected to EZFET_GND.
- IC101 (TLV70033DSET):** A 3.3V voltage regulator.
 - Pin 1 (IN) is connected to EZFET_VBUS.
 - Pin 2 (EN) is connected to EZFET_GND.
 - Pin 3 (OUT) is connected to EZFET_VCC.
 - Pin 4 (NC) is connected to EZFET_GND.
 - Pin 5 (NC) is connected to EZFET_GND.
 - Pin 6 (GND) is connected to EZFET_GND.
- Capacitors and Resistors:**
 - C108 (1μF):** Input filter capacitor for IC101.
 - C105 (0.1μF):** Output filter capacitor for IC101.
 - C126 (0.22μF):** Filter capacitor for EZFET_DP.
 - C110 (10pF), C111 (10pF):** Timing capacitors for IC102.
 - R104 (27Ω), R103 (27Ω):** Pull-down resistors for EZFET_DP and EZFET_DM.
 - R105 (1.40k):** Pull-down resistor for EZFET_VBUS.
 - R106 (1.0M):** Pull-down resistor for EZFET_VCC.
 - R123 (33k):** Pull-down resistor for EZFET_GND.

Change IC101 to adjust target voltage from 2.8V to 3.6V TLV7033:3.3V

[illegible]

Energy measurement method protected under U.S. Patent Application 13/329,073 and subsequent patent applications

ISP102

P1.0/TA0CLK/ACLK/A0/CA0
P1.1/TA0.0/A1/CA1
P1.2/TA0.1/A2/CA2
P1.3/ADC10CLK/CAOUT/A3/VREF-/VEREF-/CA3
P1.4/SMCLK/TA0.2/A4/VREF+/VEREF+/CA4/TCK
P1.5/TA0.3/SCLK/A5/CA5/TMS
P1.6/TA0.1/SD0/SCL/A6/CA6/TDI/CLK
P1.7/CAOUT/SDI/SDA/A7/CA7/TDO/TDI

RST/NMI/SBWTDIO
TEST/SBWTK

AVCC
DVCC

ISP430G2452IRSA16R

QFN PAD 17
AVSS 13
DVSS 14

P2.6/XIN/TA0.1
P2.7/XOUT

12 EZFET DCD
11 EZFET DCD

EE-TRONICS

P1.0/TA0CLK/ACLK/A0/CA0
 P1.1/TA0.0/A1/CA1
 P1.2/TA0.1/A2/CA2
 P1.3/ADC10CLK/CAOUT/A3/VREF-/VEREF-/CA3
 P1.4/SMCLK/TA0.2/A4/VREF+/VEREF+/CA4/TCK
 P1.5/TA0.0/SCLK/A5/CA5/TMS
 P1.6/TA0.1/SD0/SCL/A6/CA6/TDI/TCLK
 P1.7/CAOUT/SDI/SDA/A7/CA7/TDO/TDI
 P2.6/XIN/TA0.1
 P2.7/XOUT

12 EZFET DCD
 11 EZFET DCD

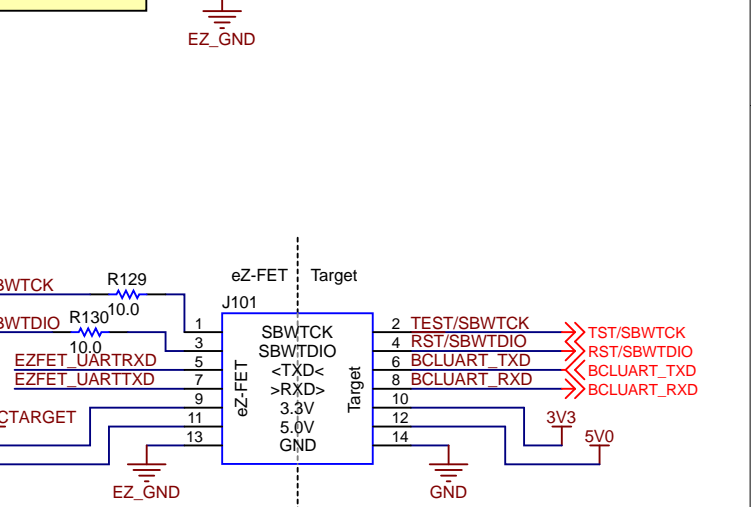
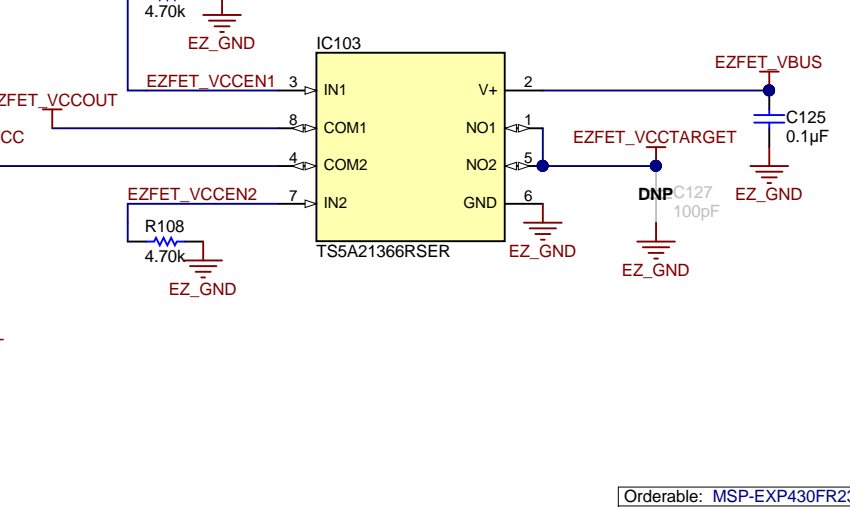
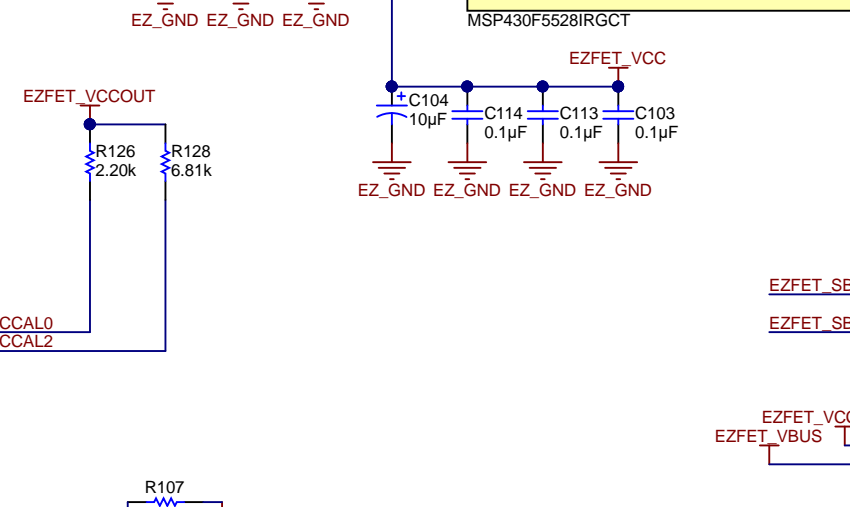
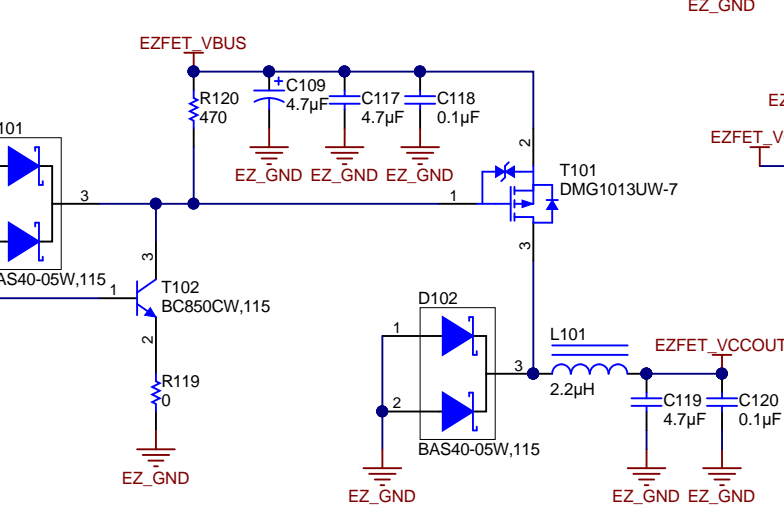
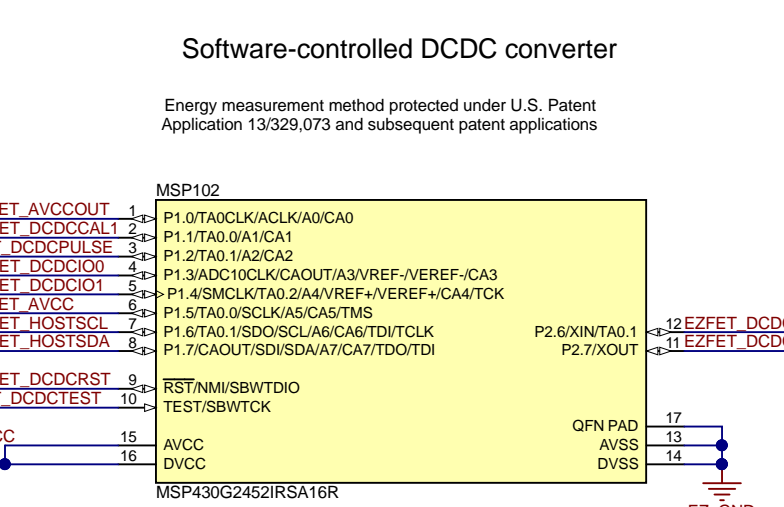
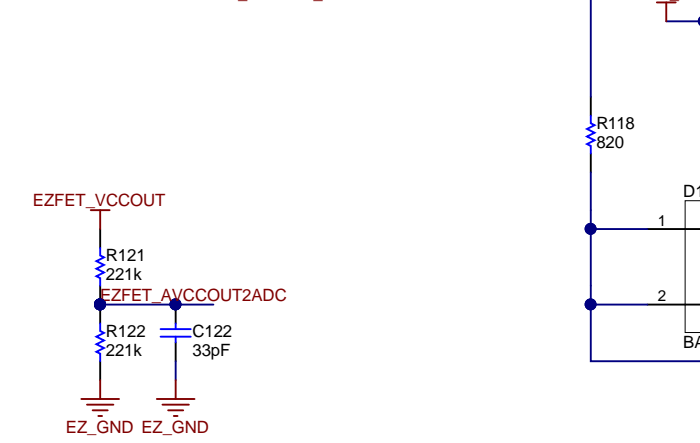
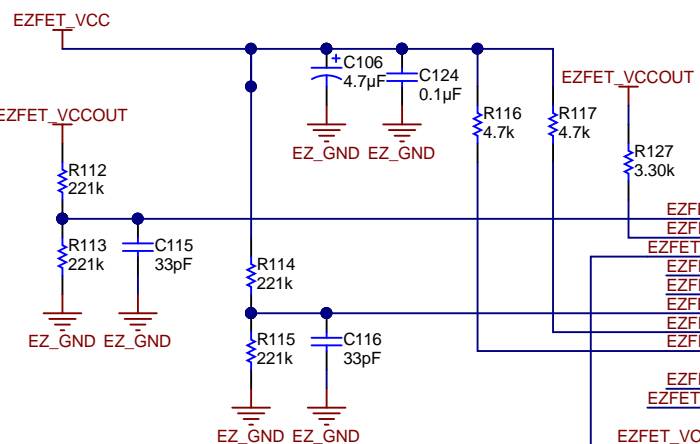
RST/NMI/SBWTDIO
 TEST/SBWTK

AVCC
 DVCC

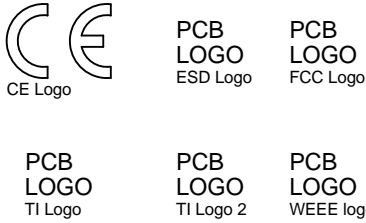
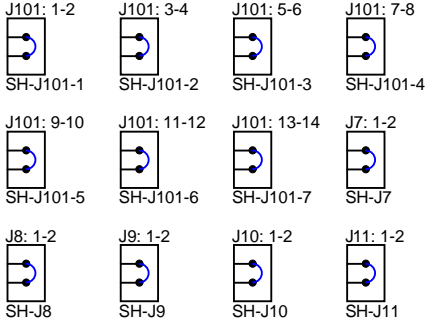
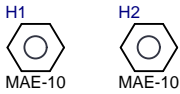
QFN PAD
 AVSS
 DVSS

MSP430G2452IRSA16R

5V







PCB Number: MCU036

PCB Rev: A

USB1

MECH

AK67421-0.3

ZZ2

Assembly Note

These assemblies are ESD sensitive, ESD precautions shall be observed.

ZZ3

Assembly Note

These assemblies must be clean and free from flux and all contaminants. Use of no clean flux is not acceptable.

ZZ4

Assembly Note

These assemblies must comply with workmanship standards IPC-A-610 Class 2, unless otherwise specified.

ZZ5

Assembly Note

Place a click-in Standoff (MAE-10, KangYang) in hole MH1/MH2