

A

B

C

D

A

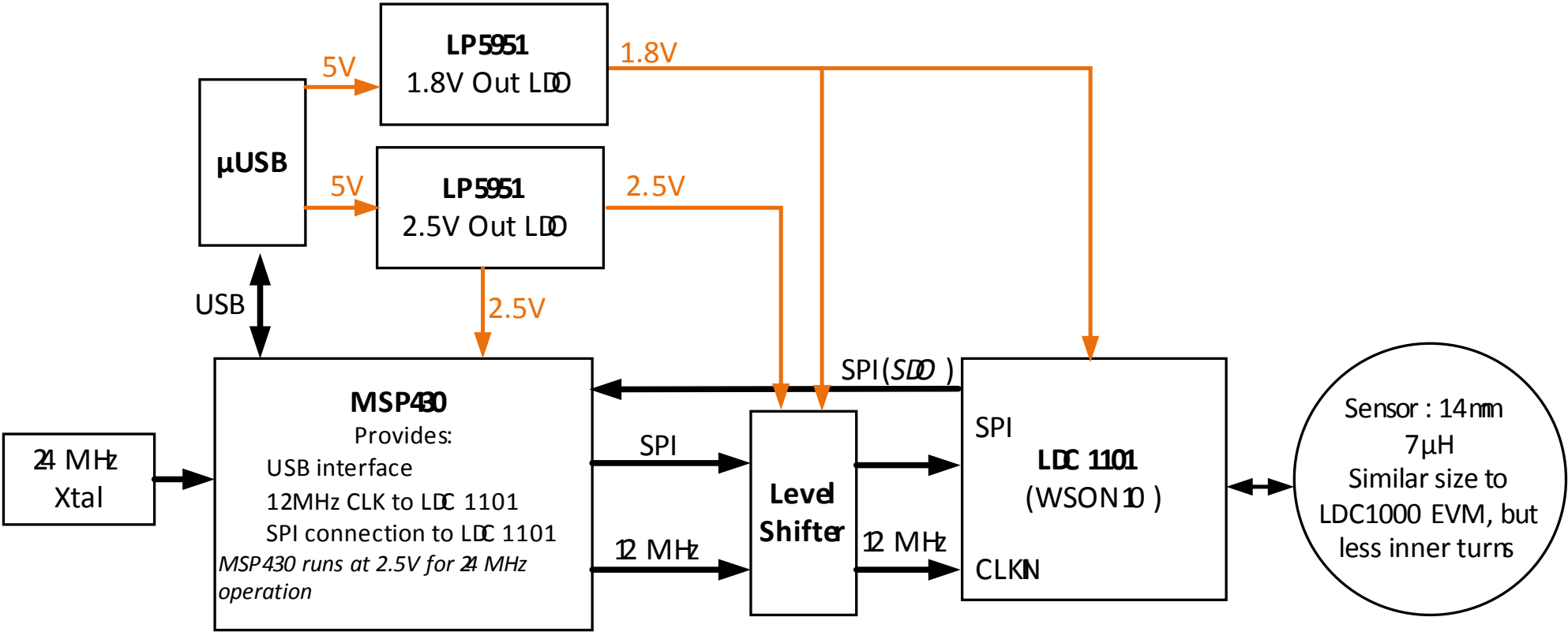
B

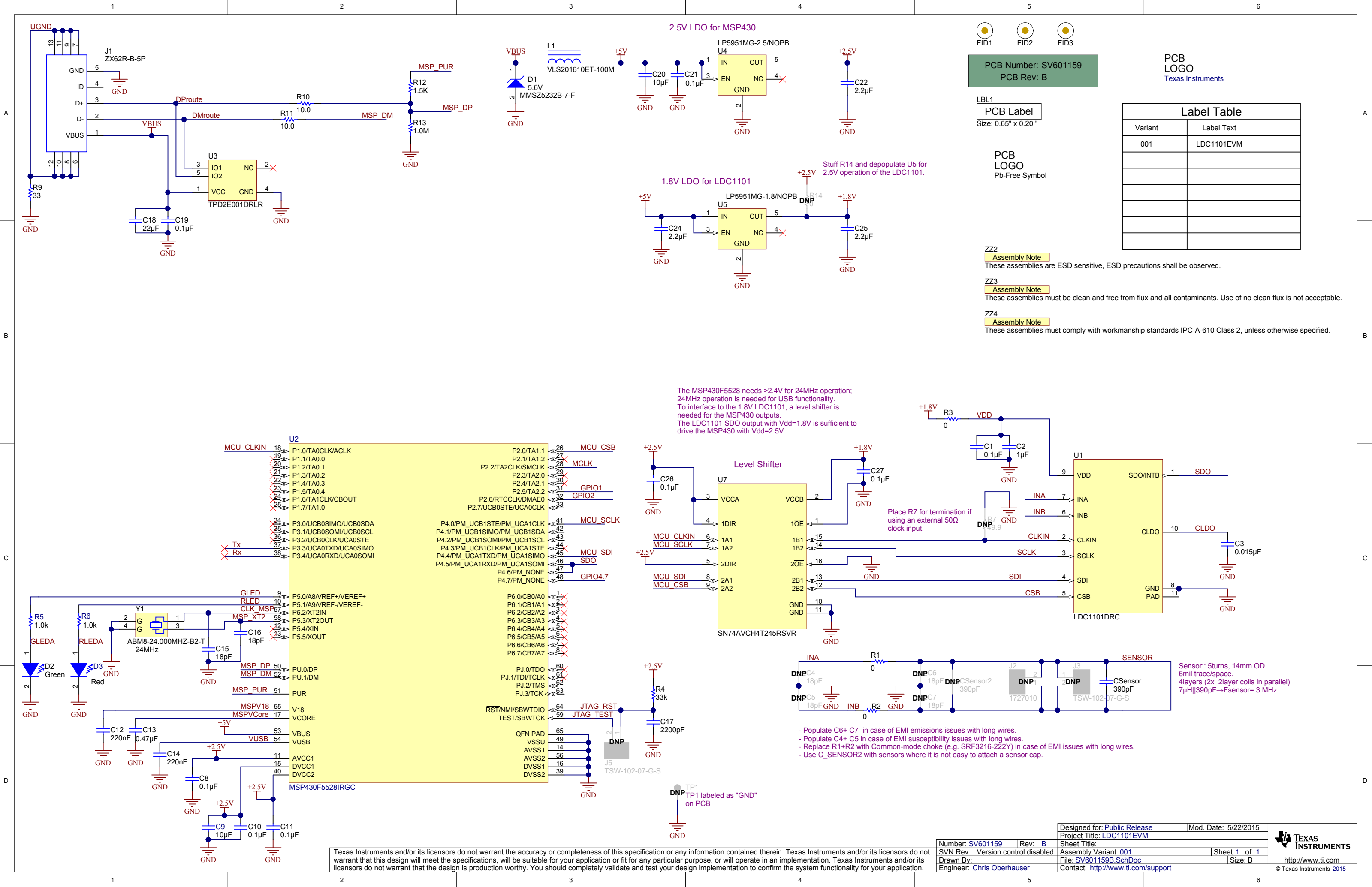
C

D

Revision History	
Revision	Notes

LDC1101 EVM Block Diagram





FID1

FID2

FID3

PCB Number: SV601159
PCB Rev: B

PCB
LOGO
Texas Instruments

LBL1

PCB Label

Size: 0.65" x 0.20 "

PCB
LOGO
Pb-Free Symbol

Label Table	
Variant	Label Text
001	LDC1101EVM

- 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.

The MSP430F5528 needs >2.4V for 24MHz operation; 24MHz operation is needed for USB functionality. To interface to the 1.8V LDC1101, a level shifter is needed for the MSP430 outputs. The LDC1101 SDO output with Vdd=1.8V is sufficient to drive the MSP430 with Vdd=2.5V.

Level Shifter

Place R7 for termination if using an external 50Ω clock input.

Sensor: 15turns, 14mm OD 6mil trace/space. 4layers (2x 2layer coils in parallel) 7μH|390pF→Fsensor= 3 MHz

- Populate C6+ C7 in case of EMI emissions issues with long wires.
- Populate C4+ C5 in case of EMI susceptibility issues with long wires.
- Replace R1+R2 with Common-mode choke (e.g. SRF3216-222Y) in case of EMI issues with long wires.
- Use C_SENSOR2 with sensors where it is not easy to attach a sensor cap.