

<https://e2e.ti.com/support/data-converters-group/data-converters/f/data-converters-forum/1215281/afe4490-led-supply-query-and-schematic-feedback>

Have customers used/applied the similar hardware settings/configurations from this schematic onto the EVM to do some experiments&tests&data collection&analysis to get some ideas&understandings how the signals look like?

For schematic review, I usually introduce some marker/notation legend first-

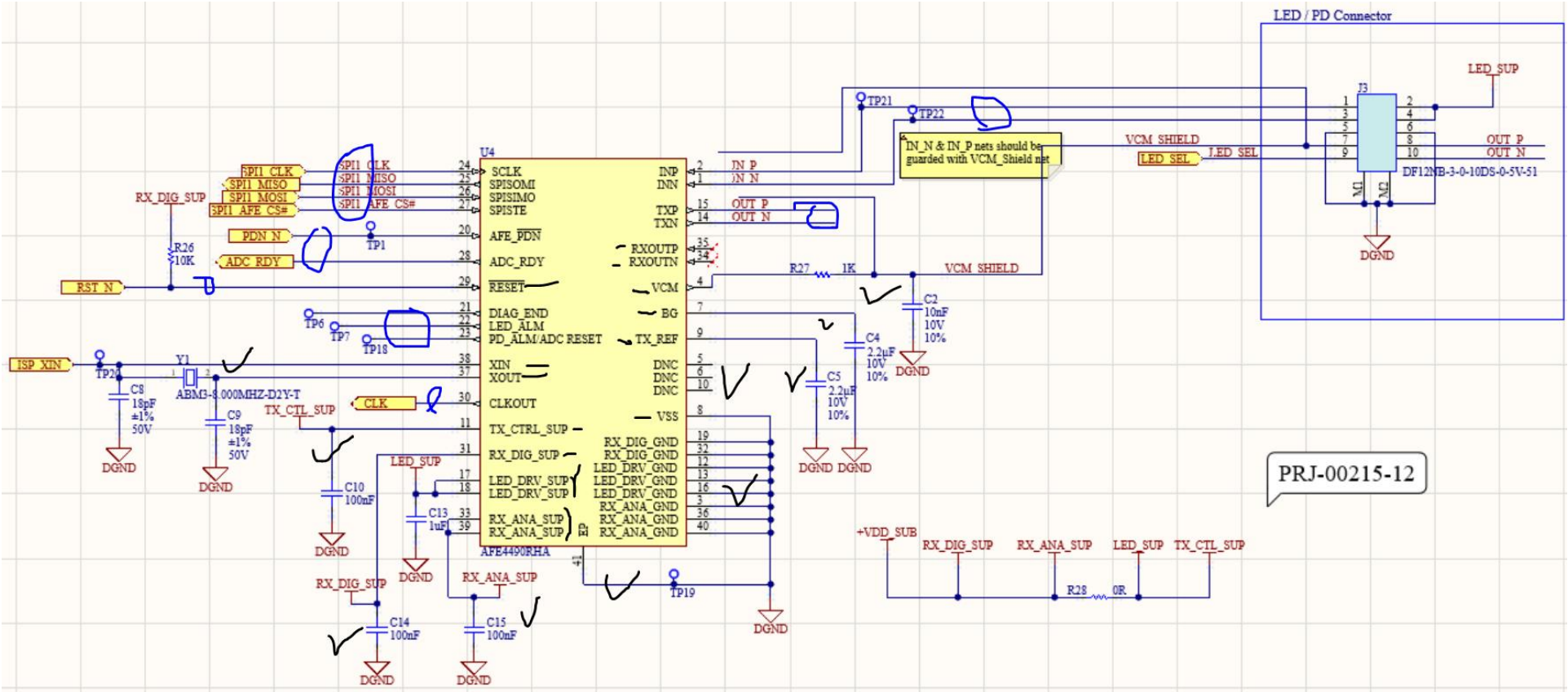
Left(or Upper) Side – Customer; Right(or lower) Side – EVM Schematic

Red line/marker - significantly different from the EVM schematic, may cause issues/problems. Please reconsider and change/improve.

Blue line/marker - different from the EVM schematic, could be okay as long as customer understands the intention and what they are trying to achieve. And, their designs have the flexibility/option to allow them make change/configure easily.

Black or No line/marker - same or similar with EVM schematic, checked no big concern.

1. Does customer have only DGND as universal GND=ANGD? I think it's ok.
2. TP21,22 consider putting 0 ohm resistors for debugging/troubleshooting if this is prototype board
3. TCP, TXN consider putting 0 ohm resistors for debugging/troubleshooting if this is prototype board
4. Suggest to put TP or 0 ohm resistors along SPI signal lines for debugging/troubleshooting if this is prototype board
5. For CLKOUT, RST_N and PDN_N, EVM has 10 ohm resistor in series, customer may put 10 or 0 ohm for now if this is prototype board



PRJ-00215-12

AFE44x0

The following signals need to be considered as two sets of differential pairs and routed as adjacent signals within each pair.
 1. TXM and TXP
 2. INM and INP

INM and INP must be guarded with VCM_SHIELD signal.
 Run the VCM_SHIELD signal to the DB9 connector and back to the device.

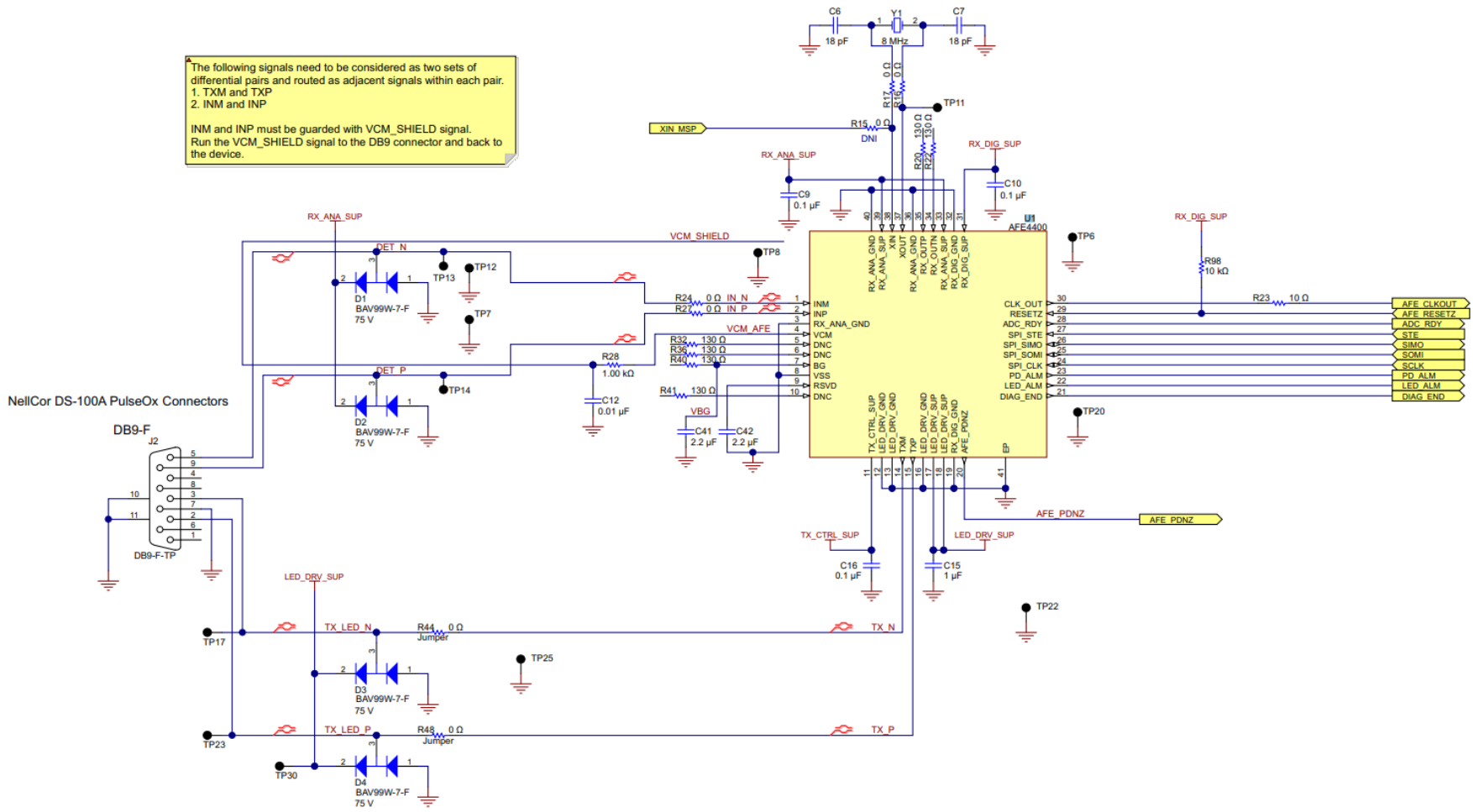


Figure 69. AFE44x0SPO2EVM: AFE44x0 Schematic (1 of 4)