

Shunt Resistor Layout Considerations

TI Precision Labs – Current Sense Amplifiers

Quiz

Shunt resistor layout considerations – quiz

1. Which is **not** a shunt resistor layout rule of thumb?
 - a) Follow resistor maker's guidelines
 - b) Be close to the current sense amplifier
 - c) Use Kelvin connections
 - d) Use unbalanced traces

2. When Kelvin connections are used for R_{shunt} layout, high current _____:
 - a) Flows through the PCB traces into the amplifier pins
 - b) Creates a large error voltage due to PCB trace impedance
 - c) Flows mainly through R_{shunt} and the large load current traces
 - d) Flows into the amplifier power supply pin

Shunt resistor layout considerations – quiz

3. Large error voltages due to bad layout can develop when _____:
- a) Kelvin connections are used
 - b) R_{shunt} is placed close to the current sense amplifier
 - c) A current sense amplifier input pin is in the high-current path
 - d) The amplifier has a low input offset voltage
4. Specialty resistors often have specific recommendations for PCB layout.
- a) True
 - b) False

Answers

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