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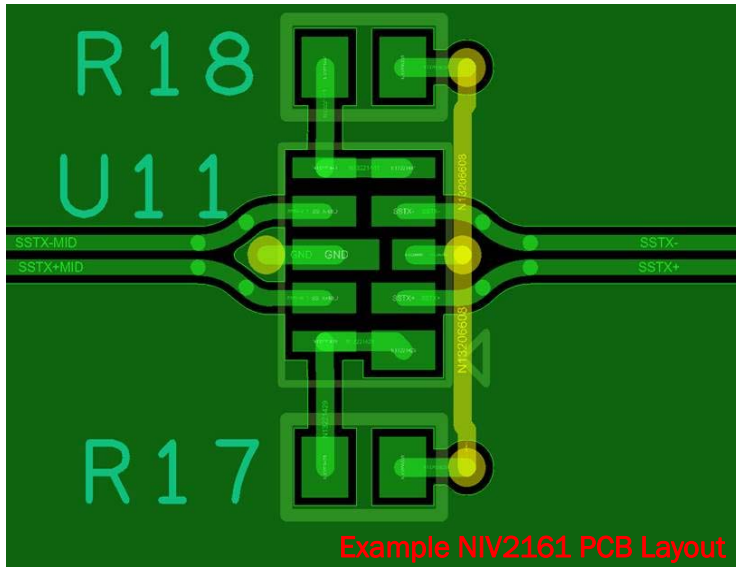
# NIVx161MTTAG PCB Layout Guidelines & EVB Details

Protection & Signal Division

Public Information



# NIVx161 PCB Layout Guidelines



## Example PCB Layout Specifications

- Conductor Height = 0.24mm
  - Dielectric thickness between diff pair and GND plane
- Differential Impedance = 90 Ohms
- Diff pair spacing = 0.127mm
- Trace width (diff pair) = 0.254mm
- Trace width (other) = 0.3mm
- Via diameter = 0.33mm
- Resistor package = 0603

## Guidelines (other general guidelines can be found on p.6 of datasheets)

Place the device as close as possible to the I/O connector to reduce the ESD path to GND and improve the protection performance.

The NIVx161 pins that connect directly to the ESD diodes should be placed facing the connector.

These pins are pins 4 & 6 on NIV1161 and pins 7 & 9 on NIV2161

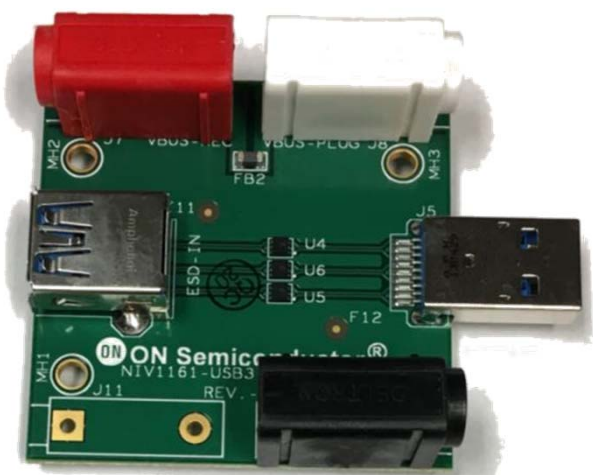
It is not necessary to route both source pins on NIV2161 (1–10 and 5–6) together with a top metal trace as both Source 1 and both Source 2 pins are internally connected respectively.

In the above example we tied the source pins together with an external trace in order to meet some Automotive PCB layout requirements that state any floating pins be tied to GND.

Public Information



# NIVx161 EVB Options

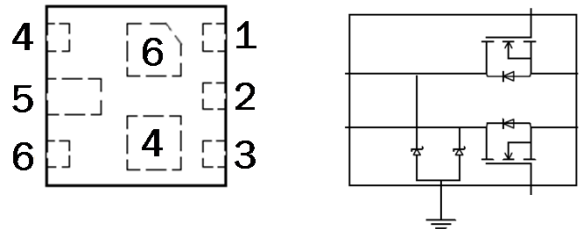


NIV1161 USB Interposer

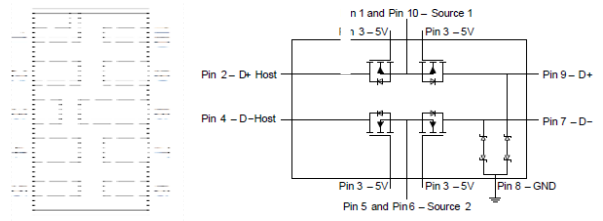


NIV2161 USB Interposer

Pinout and device orientation



Pinout and device orientation



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