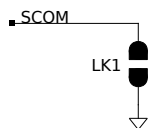
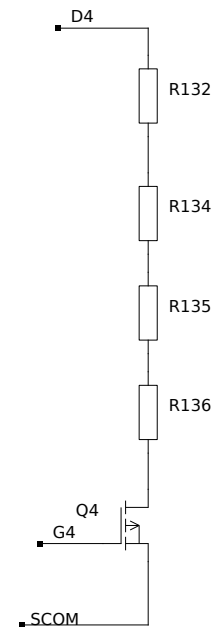
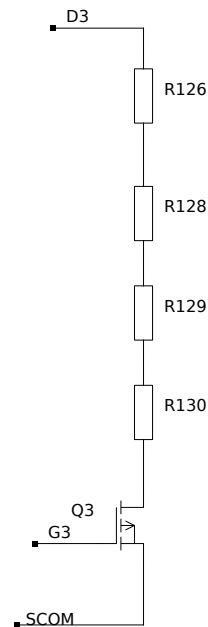
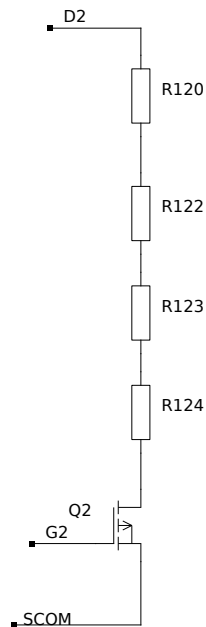
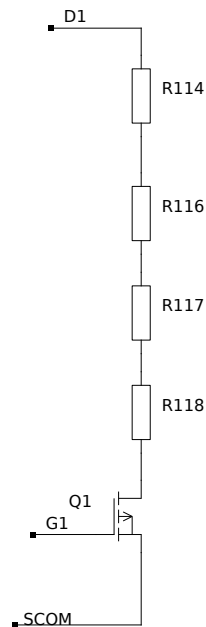
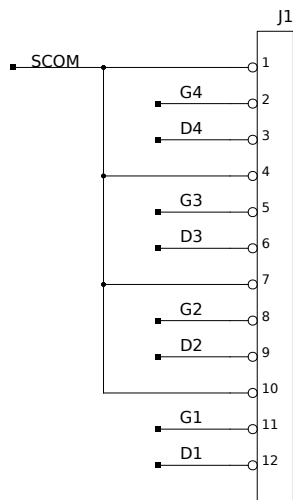


PMOS KNOWN GOOD TEST DEVICE / DRAIN SOURCE TEST RESISTANCE



LK1: Default is Closed.
(Add solder bridge)

It connects the noise shielding
ground plane to SCOM.

The PMOS transistor fitted will be ZVP3306F. This has a +/-20V VGS range and Vgs_th [-1.5, -3.5]V, Igss 20nA max, Rds_on 14R. Considering that a test current Ids of 100 nA is desirable then the Igss value appears quite large. However for a high side measurement it is Ids which is measured so Igss will not impact the measurement. If it is desired to only have a purely resistive test then the transistors need not be fitted and the drain - source of the footprint can be bridged by a 45 deg rotated 0603 resistor.

This board used the CDT8Ch GS CAL / KGD as a base. In this case a simple board that could work in all existing kits is desired to allow checking that a particular test system is generally ok (rather than a precise calibration). The least common denominator is testing 4 Channels which correspond to a single FFC connector.

The drain source resistance is made up of a number of series connected resistors which will allow adjusting each channel to a precise resistance. As the resistance chain is being populated the resistance can be measured with a precision instrument such as Keithley 2600. This allows each series chain to be configured to at least four significant figures. The known resistance value of this Known Good Device can be used to check any of the GS Kits that use this 12 way FFC connector.

A large value, low tempco resistor (2512 size) provides the main component which allows adjustment tuning to a precise value by the addition of several lower value SMD resistors (0805) from a resistor kit.

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