Proposal of pin assignment for the bias voltages in the interface connector between the module and the power/DAT cable

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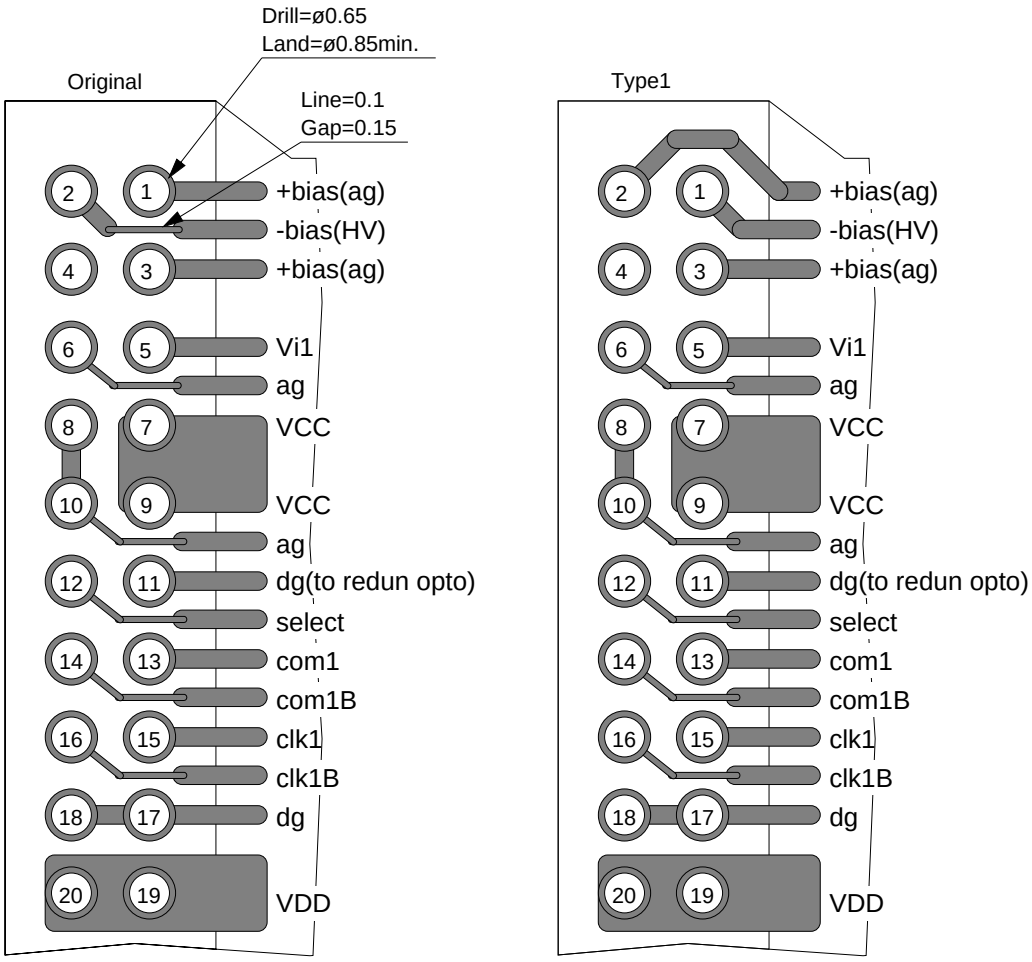
The ATLAS SCT barrel module has a pig-tail Kapton cable from the hybrid in order to interface with the power and data transmission (DAT) cables. The pin assignment of the interface connector has been proposed, see e.g., C.Haber at SCT workshop at Santa Cruz, July 97, and “Original” in the attached drawing.

In the original assignment , the negative bias high voltage was assigned to Pin#2. The positive bias (analog ground level) being assigned to Pins#1 and #3, and in case when the negative bias shall go in the same layer, it must go through the gap of Pins#1 and #3. This might be too tight for the high voltage such as 500 volts. The situation is true as long as we use the through-hole-pin type connector even if the negative bias line is in the different layer.

The proposed new pin assignment is the "Type1" in the drawing. The assignment of voltage to the Pin#1 and #2 is swapped and this swapping is only internal in the connector; no swapping in the traces.



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