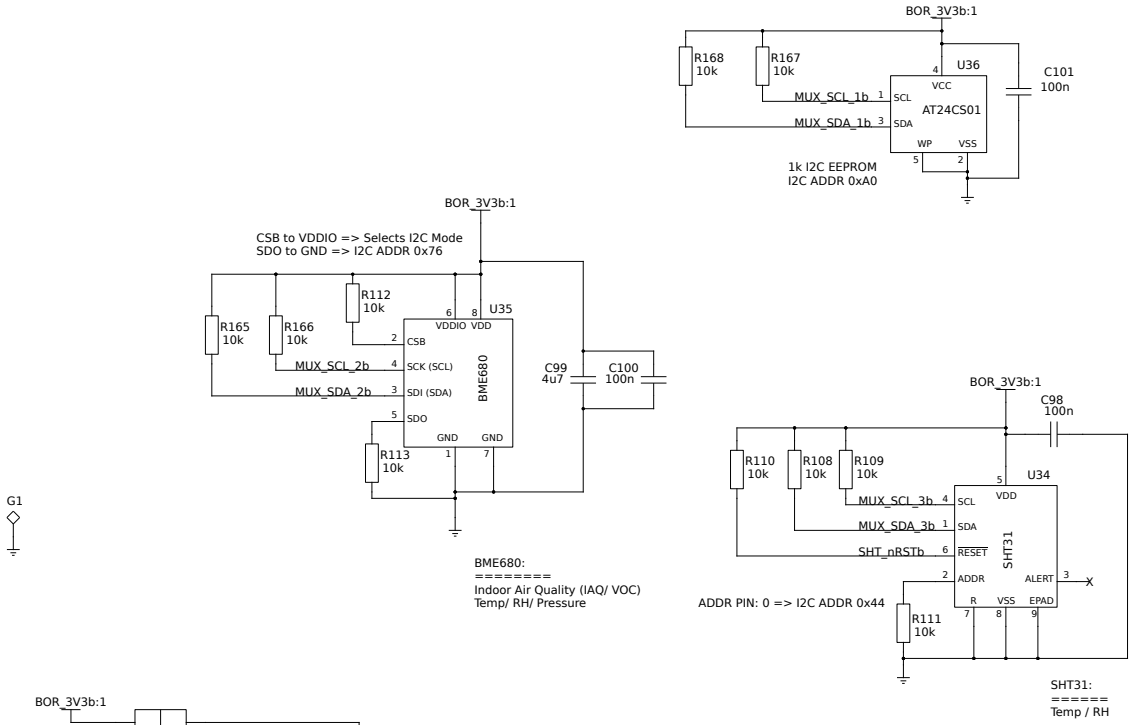
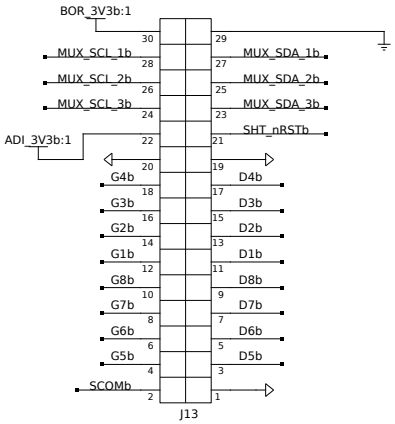
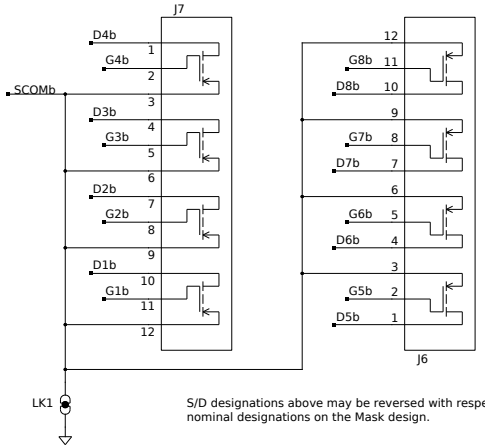
GAS SENSOR CARTRIDGE TYPE B





J13 is orientated to contraint of
where mounting holes are specified
in the 3D CAD drawings. This is the reason
that the pin1 position is reversed compared
to previous module connector pinouts.

FFC CONNECTORS



S/D designations above may be reversed with respect to the
nominal designations on the Mask design.

LK1 Default: High Side Current Measurement
(Drain current measurment), LK1 is bridged.
For low side measurment
(Common) source current measurement
cut shorting link to open LK1.

J7 mapping changed w.r.t previous module.
The reason was so that both connector latches
would face outward.

V0_0: First Prototype

V0_1: No electrical changes.
PCB Layout: Adjust position of J23.

V0_2: Fixed J6-1 Square Pad shorting to a track on an inner layer.
Making this a round pin is the only change.

Type A: For the PACE trial Jan 2020 the sensor module had widely seperated GS FET sensor
connecting traces. These all ran on one the top of the board far from the digital traces connecting
to the ICs. The chamber was created by the lid of a Hammond 1550P enclosure.
The edge connector was 2.54 mm pitch.
The Board silkscreen reads "Gas_Sensors_8CH_V0_0 Sensor Module 2019".
This will be retrospectively refered to as a Type A external cartridge design.

Type B: This is the external 3D printed design (MAY 2020) which requires a set of 3 interconnecting boards.
Because the chamber is vertical off the board the design and the connectors of the 3D design require
fine the traces that are not well seperated. The edge connector pitch has reduced from 2.54 mm to 0.8 mm.
There is a risk of reduced signal to noise and increased leakage currents. This will be evaluated once the
3D cartridges samples are available to determine if the offests and signal to noise are still within
acceptable limits.

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