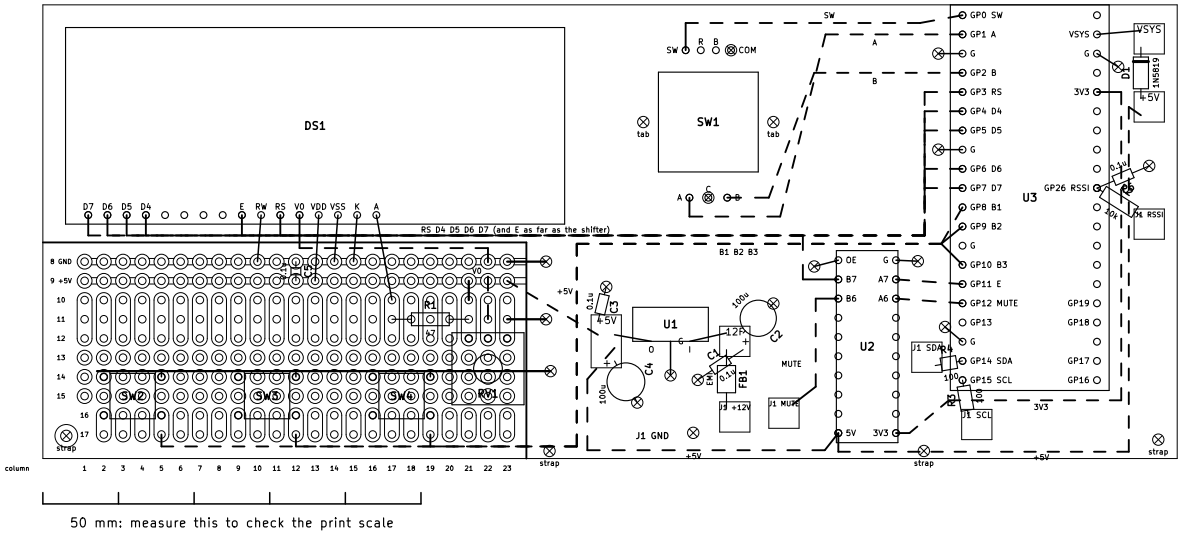
LCD on M3 spacers (end notches 12 mm down from its top edge). Check the LCD pin order on its silkscreen before wiring.

Airband RX bridge rev B, perfboard corner — pad map, print at 100%. Pads 4 x 4 mm unless shown. X = solder to ground (on a part leg: solder that leg to the copper). Dashed = insulated wire.



50 mm: measure this to check the print scale

Bottom edge = hinge to the radio. Harness J1: SCL, SDA, RSSI from radio J3: MUTE to Q2: +12V from SW1: GND plus 3–4 solder-wick straps (wires along the edge pass under them).

Pico (flat, USB end flush with the top edge): SW GP0, A GP1, B GP2, LCD RS GP3, D4–D7 GP4–GP7, buttons GP8–GP10, E GP11, MUTE GP12, I2C1 SDA GP14 / SCL GP15, RSSI GP26.

RS and D4–D7 go straight from the Pico to the LCD: code must only pull them low or release them, never drive them high. E and MUTE go through the shifter.

Perfboard corner: 64 x 29 mm (rows 8–17, columns 1–23), pads up on foam tape, left and bottom edges flush. Row 8 = ground rail, row 9 = +5 V rail. Solid lines on it = bare wire.

Buttons: top legs to the bare ground wire, bottom right leg = signal. RV1: 3 pins in a row, body toward the bottom edge, ground wire runs under it. 7805: printed face to the top edge (legs O G I).

Left strap: solder it first, where the perfboard's corner hole will sit. Encoder: solder its side tabs and the COM and C legs to the copper. Knob LEDs (not drawn): R5 330R leg R to GP19, R6 100R leg B to GP18.