Notes:

1. RX and TX audio interfacing is done via 3.5mm AUX audio cables. Stereo jacks + Stereo AUX cables (TRS) are fine to use.

2. CAT control is done via a separate USB cable for uBitx. NOTE: Use PC and Radio controls to adjust audio levels.

3. I have an isolated "Bourns LM-NP-1001-B1L audio transformers" powered design too but it is not needed.

4. We recommend building this circuit in a progressive manner on a breadboard first. It works fine when built on a Zero PCB (perfboard).

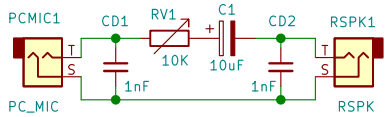
5. For debugging and quick TX testing purposes, Sound Card Output can be shorted with Radio Mic Input. 50 DX QRP QSOs in a single day (including US) were also made this way :)

6. For fine line-level control, RV1 can be a *single-turn* 20k preset (RM-065). Note: use two pins only. Note: Make this pot external for best usability.

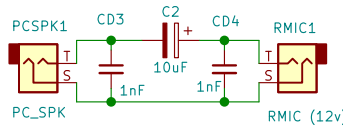
7. Note: The Sleeve ("S") is connected to Ground on both sides.

8. This digital interface works great with "Quantum USB Sound Card QHM 623" and similar reasonably priced clones.

9. This simplified design (v2) has been tested in LTspice, on air personally, and on air by multiple folks.



[Quick RX path] Audio flows in right to left (R2L) direction



[Quick TX path] Audio flows in left to right (L2R) direction

v1.0 - Checked with 50 FT8 QSOs on air (on a single day)
05-January-2021
Authors: Dhiru (VU3CER), Kevin Loughin, Gordon Gibby

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Title: LiDi (Light-Intuitive-Digital-Interface) v2 for uBitx

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