Upstream: RJ-45 (prepped for cable direct to radio, check whether to use crossover or 1:1 here).
Dual 3.5mm mono or single 3.5mm stereo to run to the back of the radio?

Downstream:
RJ45 (same pinout as the radio, for running to an off-the-shelf handheld mic).

1/4" Jack (for PTT)
3.5mm mono (for microphone)
(3.5mm stereo pass-through?)

On-board:
audio mux, powered off the passthrough DC connector.

Default to handheld mic PTT, switch to headset input when PTT on 1/4" PTT engaged.

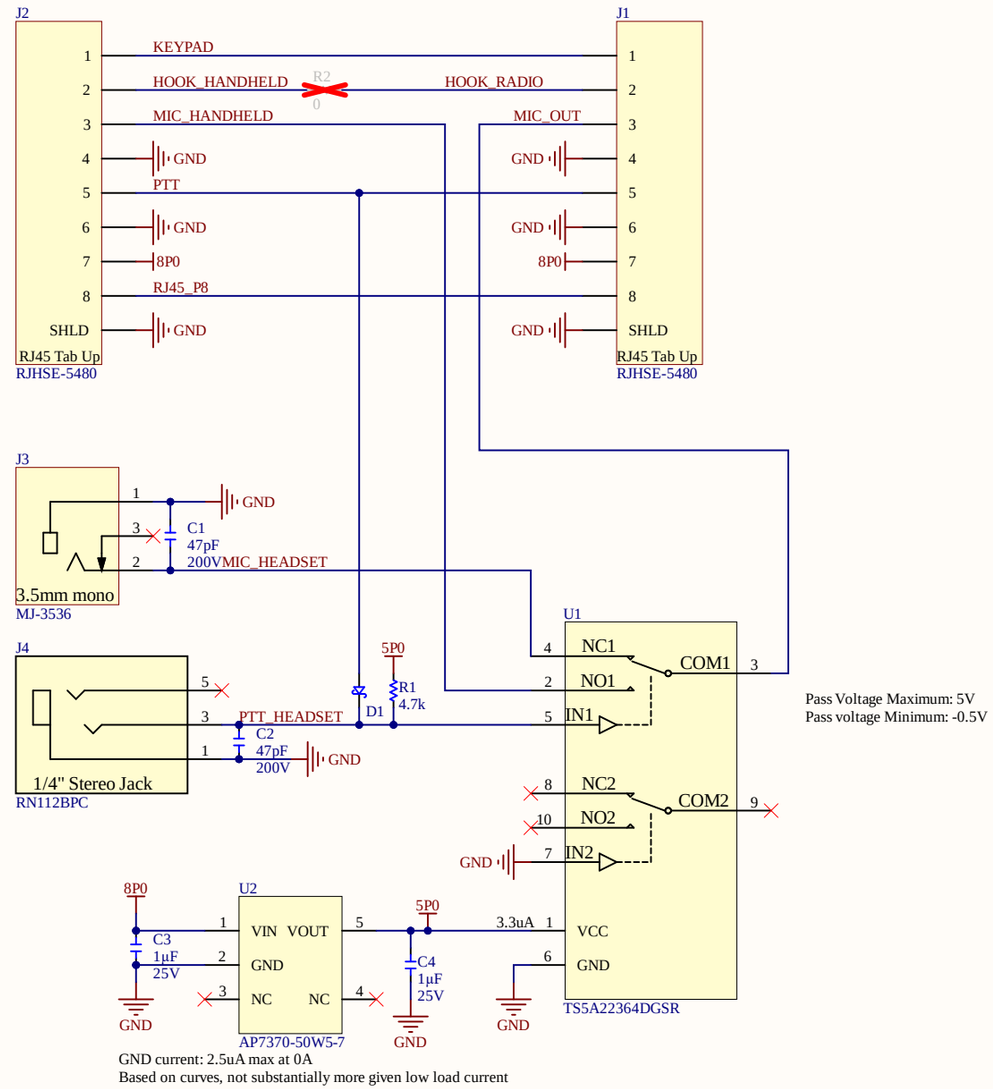
Hopefully, all good panel-mount connectors, decently shielded, and can go in a metal enclosure.

NOTE: Kenwood RJ45 pinout (1-8) is reversed from the Ethernet standard. Their cables are still 1:1 cables, but don't take good advantage of the built-in twisted pairs.

Standard Pin #	Kenwood Pin #	Function
1	8	Microphone Kepad
2	7	Hook (Tied to ground when on hanger)
3	6	MIC
4	5	MIC-E (Shield)
5	4	PTT
6	3	GND
7	2	SB (8V)
8	1	NC

Headset Audio

Headset PTT



If headset PTT is pulled low, it pulls the radio PTT low, and also pulls switch IN low (connecting the port labelled NC).
If handheld PTT is pulled low, it is also the radio PTT, but doesn't pull switch IN low (connecting the port labelled NO)

Author: Harry Johnson
AJ6ME Radios, aj6me.com