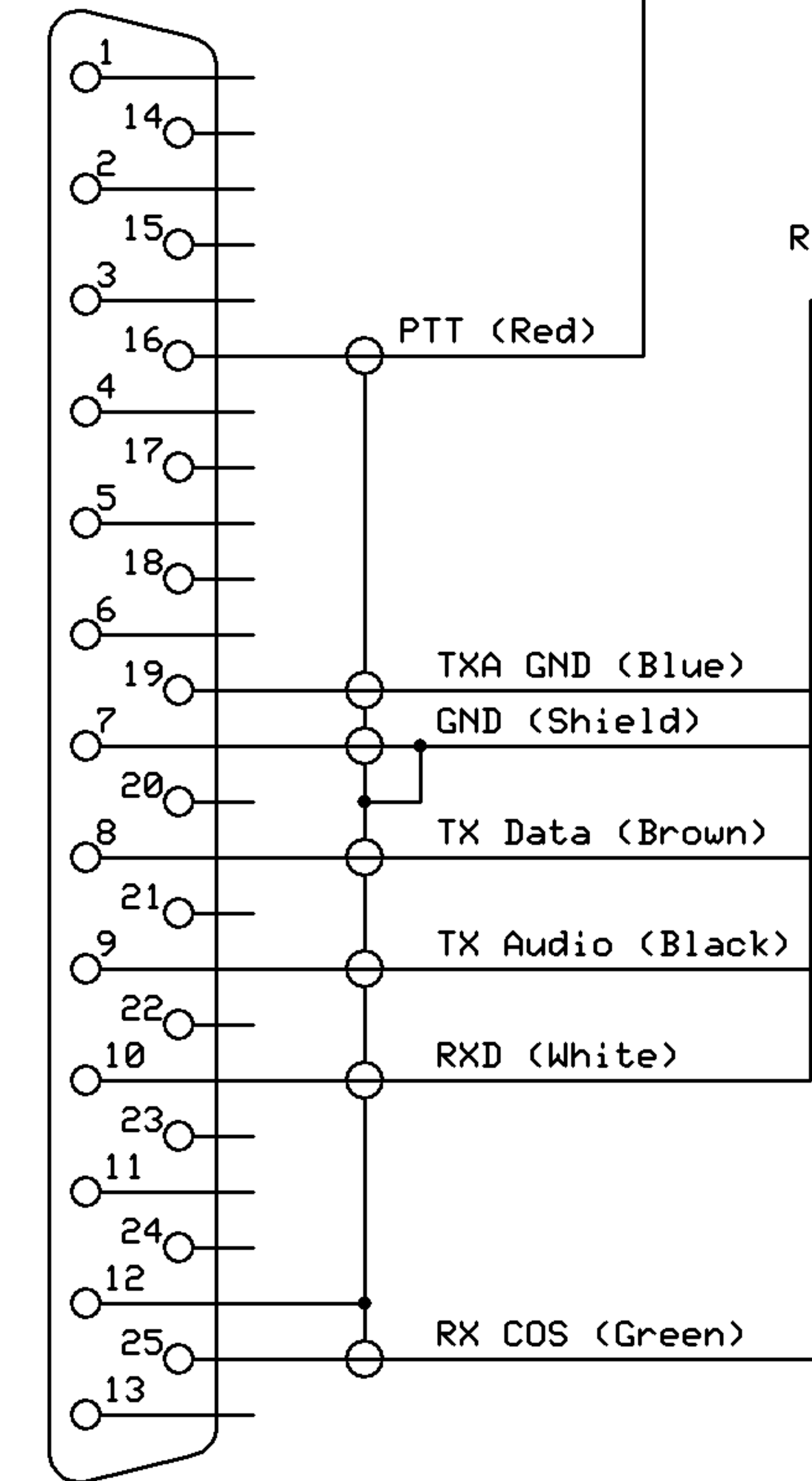


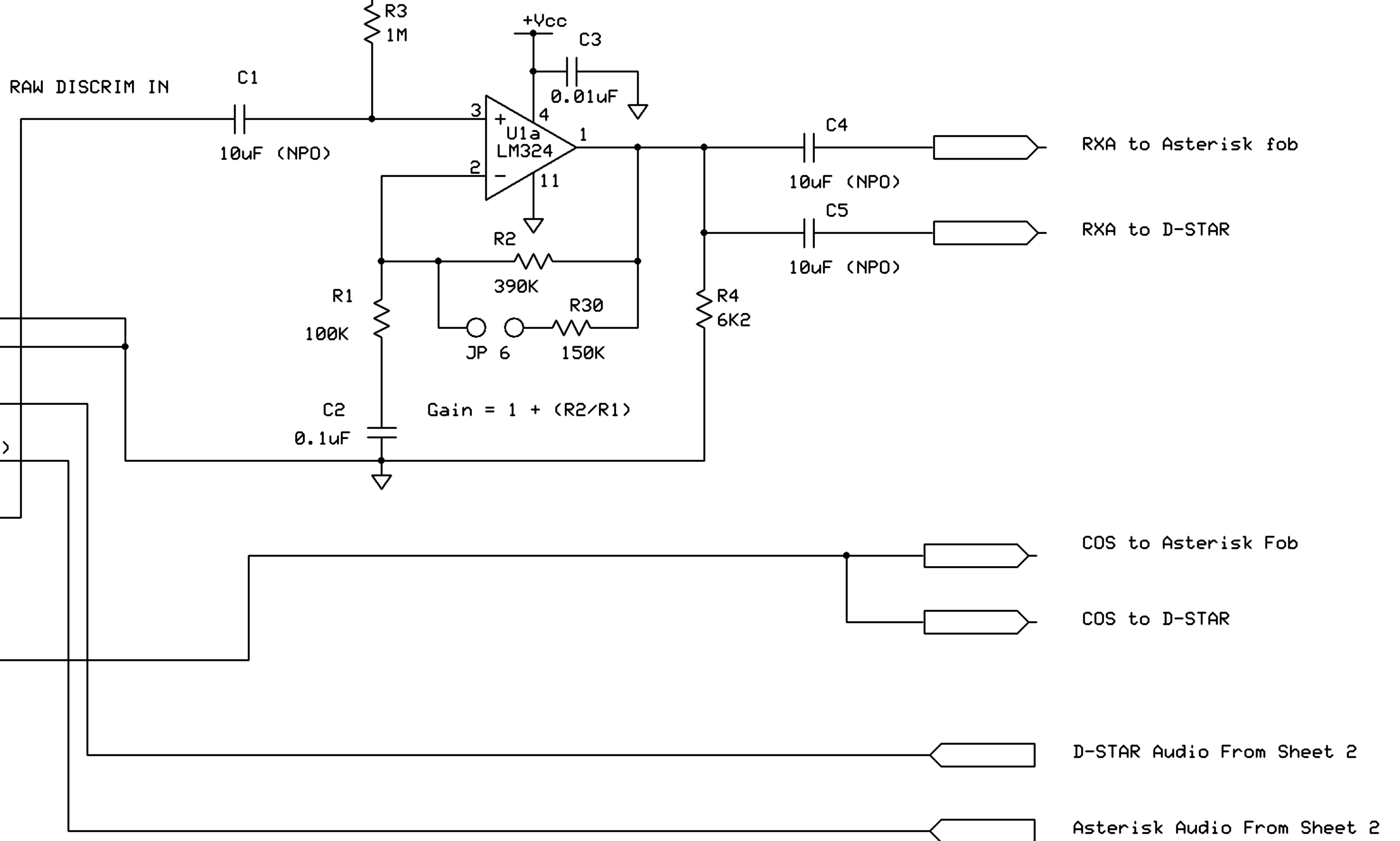
To KENWOOD TKR-750 / 850 Repeater
(See Sheet 3 for DB25 Info)

J1
DB25-M



RAW DISCRIM IN

V offset



PTT From Sheet 2

RXA to Asterisk fob

RXA to D-STAR

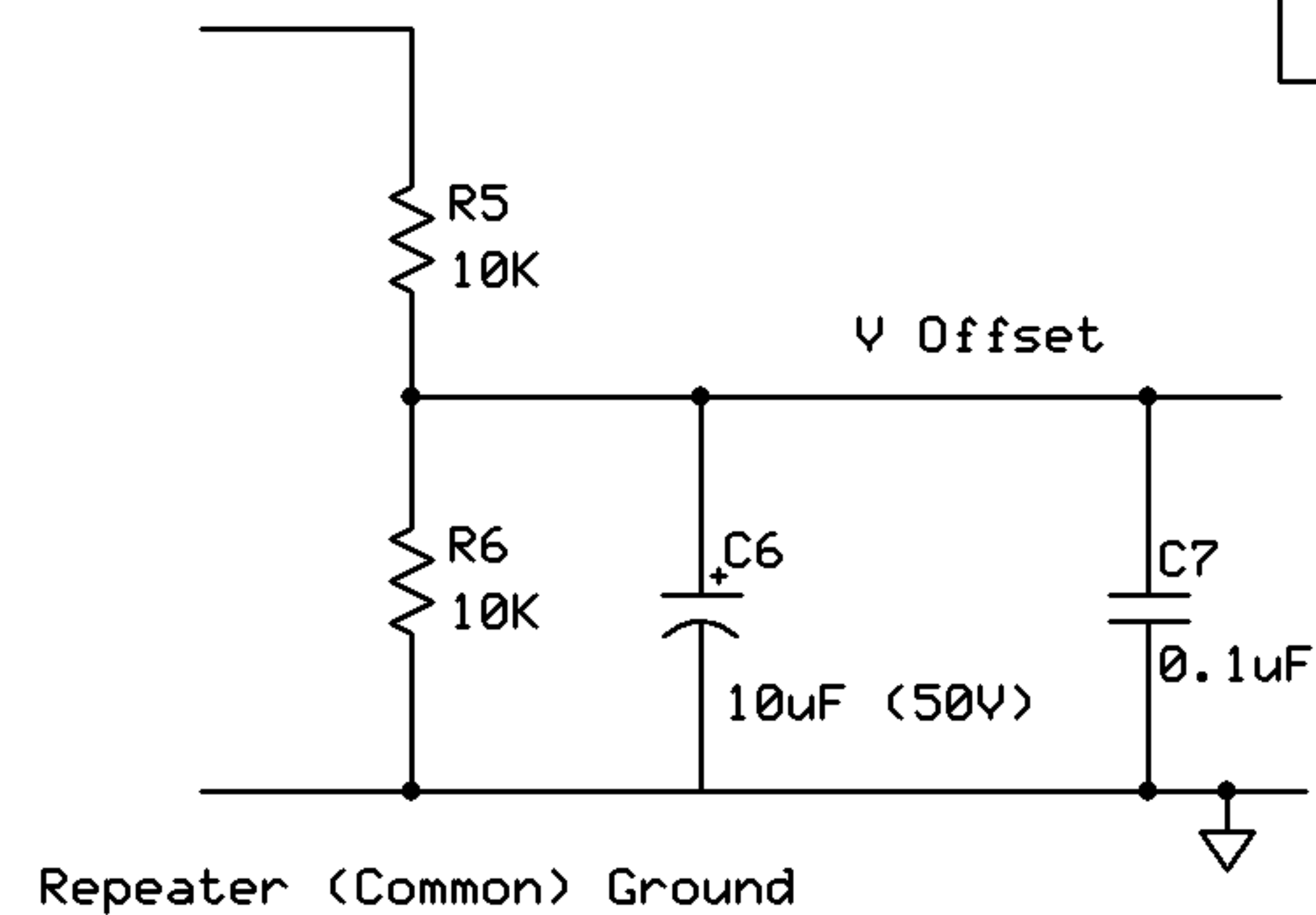
COS to Asterisk Fob

COS to D-STAR

D-STAR Audio From Sheet 2

Asterisk Audio From Sheet 2

Repeater Power +Vcc



Repeater (Common) Ground

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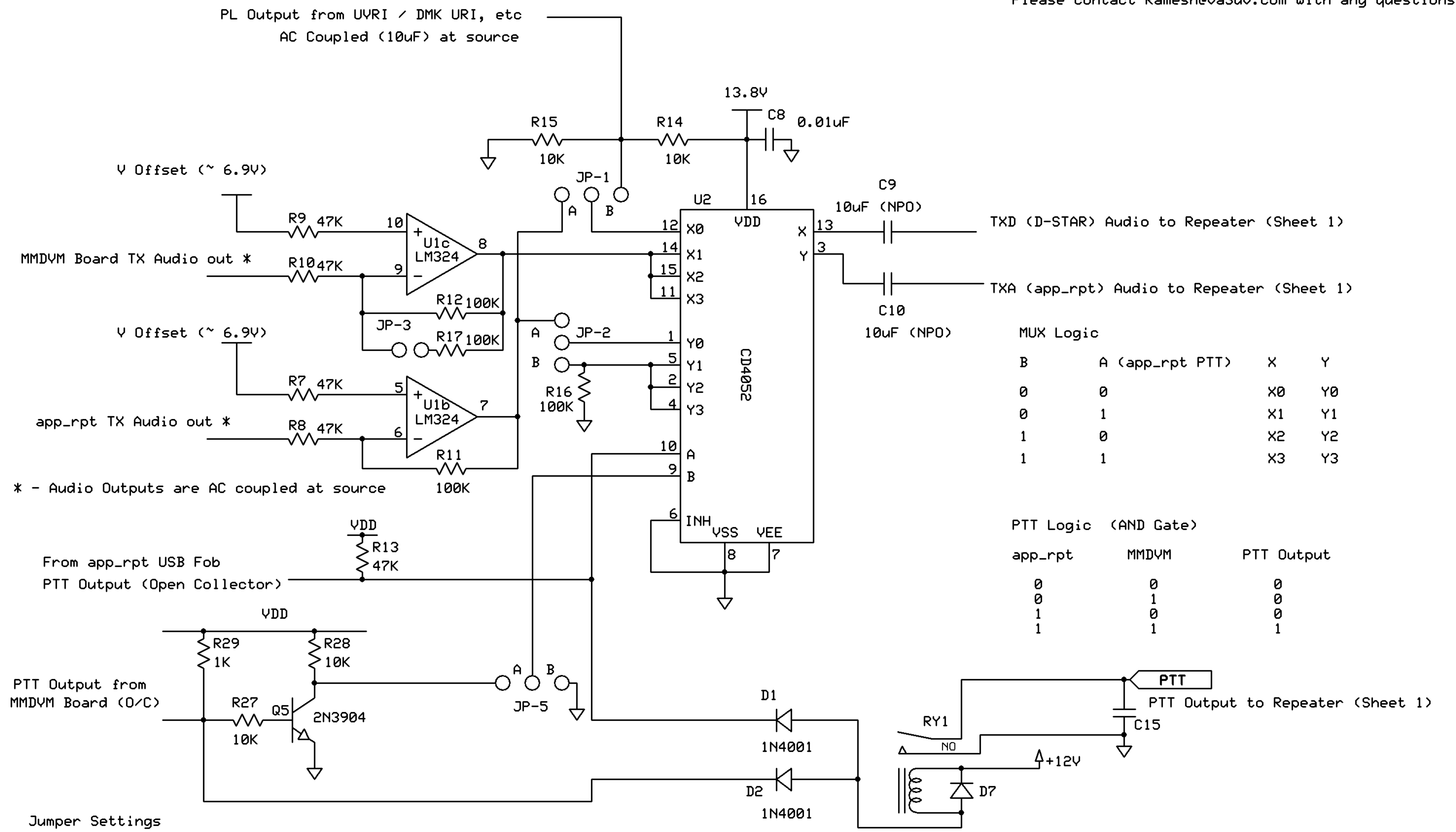
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Please contact Ramesh@va3uv.com with any questions

JP 6 - Out for Gain of 4.9 (Suitable for low level receiver output)

In for Gain of 1.3 Suitable for receivers with higher output signal)

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DUAL Mode DV / FM MUX		
VA3UV / VA3RQ	Rev 3.4	Page 1 of 3
	2024-07-25	



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Dual Mode DV / FM MUX		
VA3UV / VA3RQ	Rev 3.8 2024.07.29	Page 2 of 3

DB25 Pin Assignment (Kenwood TKR-750 / 850 Repeater)

- 7 - Ground
- 8 - TXD (Not filtered, Not Limited)
- 9 - TXA (Filtered below 300Hz, and Limited at ~ 4kHz)
- 10 - RXD
- 12 - RX Audio Ground
- 16 - TX PTT (Active Low)
- 19 - TX Audio Ground
- 20 - AIO #1 (Ground to Disable Pre-Emphasis)
- 25 - RX COS (Active Low)

Recommended Configuration for Kenwood TKR-750/850 v2 Repeaters (for optimal FM Audio)
(TD Input is not limited; use of TD input creates some background noise on FM audio)
(TA Input is limited at ~ 4kHz allowing full use of the available envelope
and thus optimal audio quality)

Set AUX IO #1 to Disable TA Pre-Emphasis (Active LOW)

Ground Pin 20 of DB25 (AIO #1)

This will disable pre-emphasis and provide a flat frequency response
from 300Hz to Approx 3kHz

At 0.28V pk-pk, typical frequency response of TA Input (with Pre-Emphasis Disabled):

- 250Hz -> 1.3 kHz Deviation
- 300Hz -> 3.13kHz Deviation
- 500Hz -> 3.13 kHz Deviation
- 1kHz -> 3.13 kHz Deviation
- 2kHz -> 3.13 kHz Deviation
- 3kHz -> 2.94 kHz Deviation
- 3.25kHz -> 2.55 kHz Deviation
- 3.5kHz -> 1.59 kHz Deviation

Allstar usbradioconf settings

txboost = 0
txprelim = yes
txlimonly = no
txtotype = notone
txmixa = voice
txmixb = tone

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VA3UV / VA3RQ	Rev 3.1	Page 3 of 3
	2024-05-31	