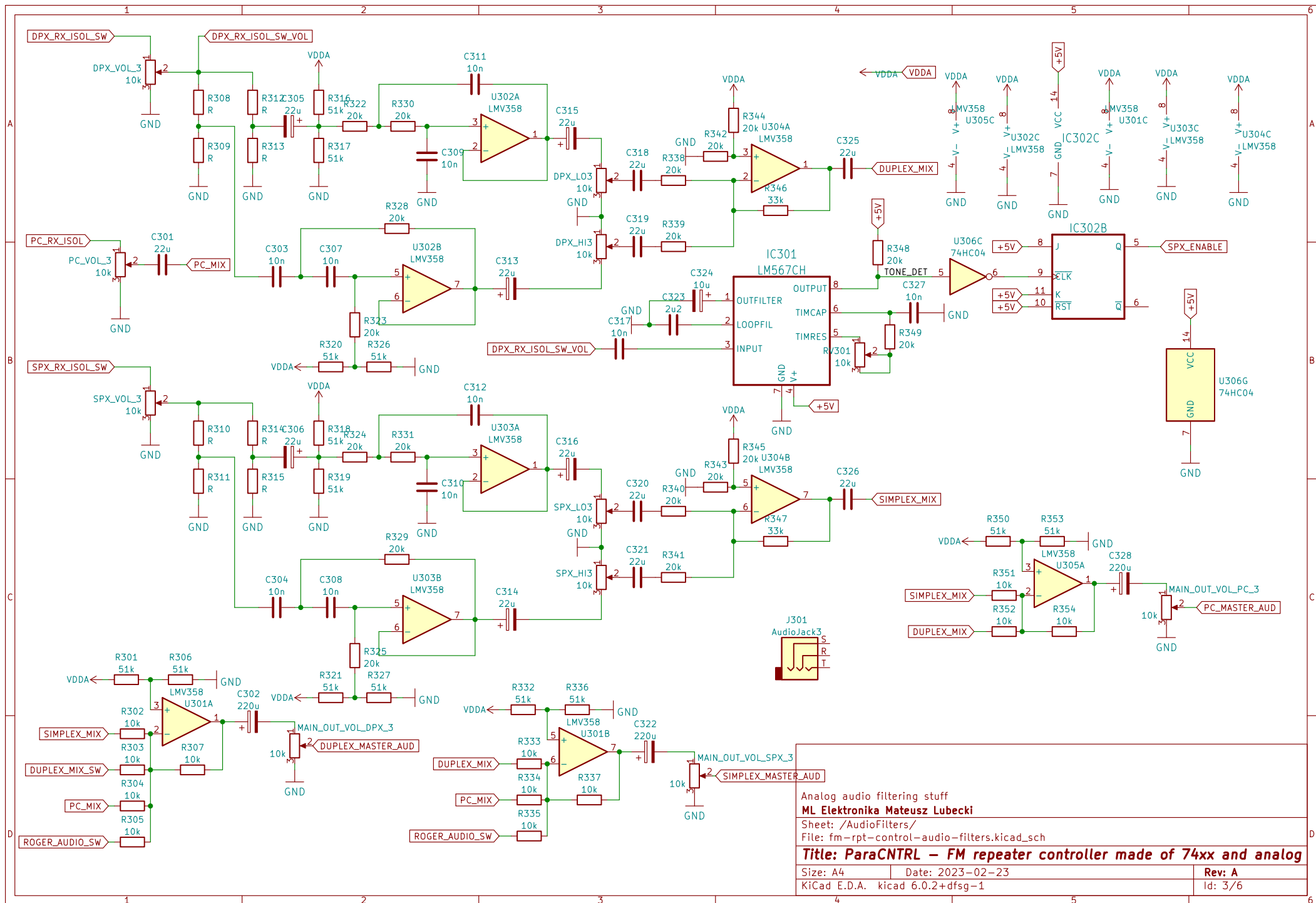


Id: 2/6



Analog audio filtering stuff

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Sheet: /AudioFilters/

File: fm-rpt-control-audio-filters.kicad_sch

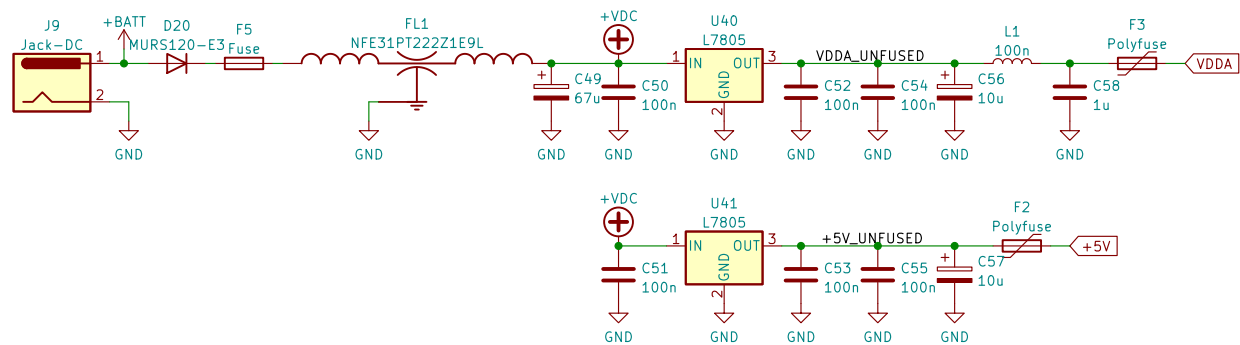
Title: ParaCNTRL – FM repeater controller made of 74xx and analog

Size: A4 Date: 2023-02-23

KiCad E.D.A. kicad 6.0.2+dfsg-1

Rev: A

Id: 3/6



Power supply

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Sheet: /Power/

File: fm-rpt-control-power.kicad_sch

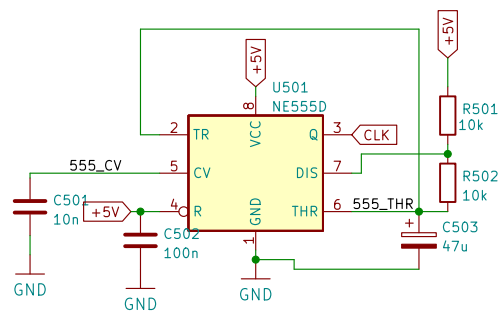
Title: ParaCNTRL – FM repeater controller made of 74xx and analog

Size: A4 Date: 2023-02-23

KiCad E.D.A. kicad 6.0.2+dfsg-1

Rev: A

Id: 4/6



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Sheet: /555Timer/

File: fm-rpt-control-555.kicad_sch

Title: ParaCNTRL – FM repeater controller made of 74xx and analog

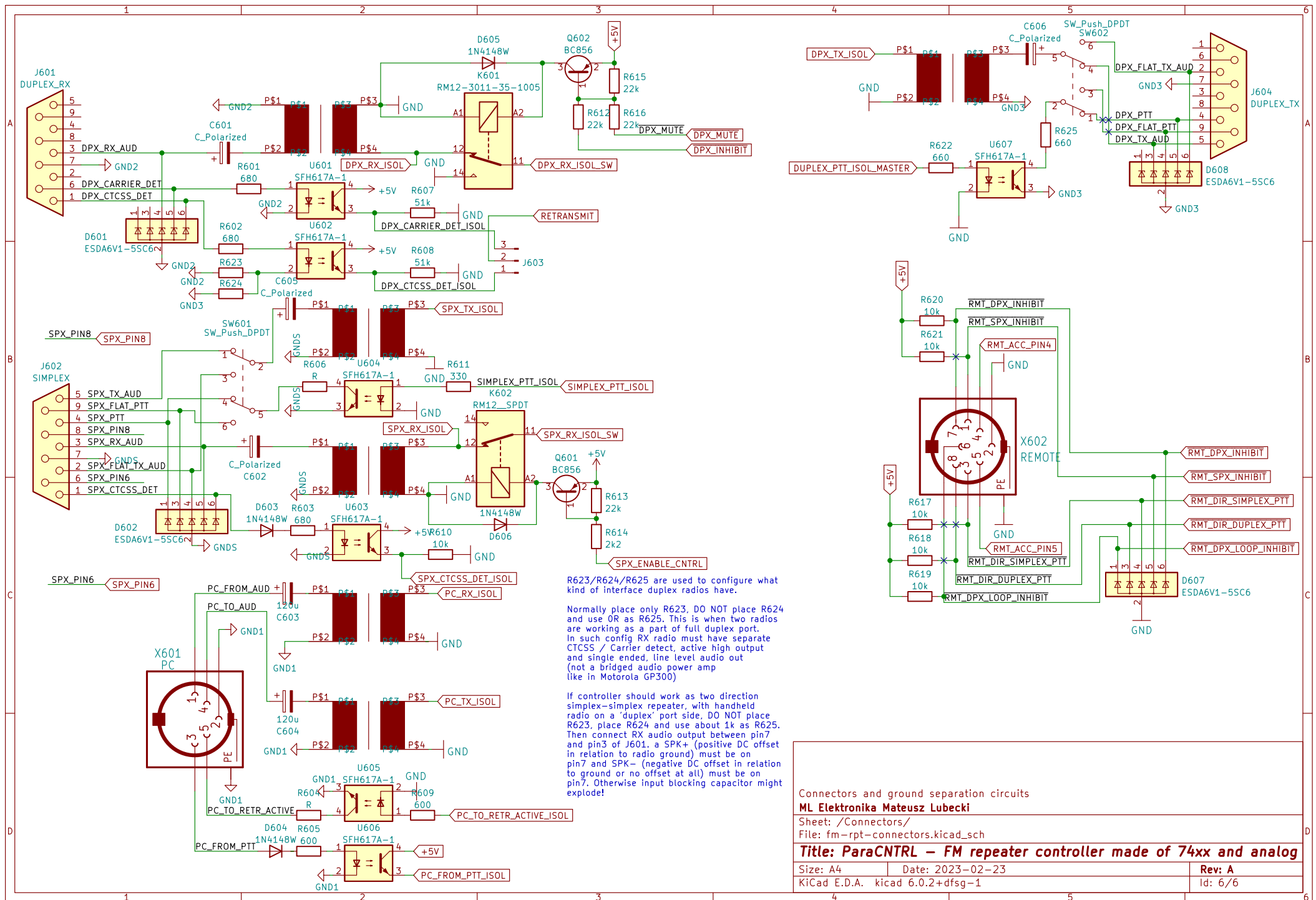
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Date: 2023-02-23

Rev: A

KiCad E.D.A. kicad 6.0.2+dfsg-1

Id: 5/6



R623/R624/R625 are used to configure what kind of interface duplex radios have.

Normally place only R623, DO NOT place R624 and use 0R as R625. This is when two radios are working as a part of full duplex port. In such config RX radio must have separate CTCSS / Carrier detect, active high output and single ended, line level audio out (not a bridged audio power amp like in Motorola GP300)

If controller should work as two direction simplex-simplex repeater, with handheld radio on a 'duplex' port side, DO NOT place R623, place R624 and use about 1k as R625. Then connect RX audio output between pin7 and pin3 of J601, a SPK+ (positive DC offset in relation to radio ground) must be on pin7 and SPK- (negative DC offset in relation to ground or no offset at all) must be on pin7. Otherwise input blocking capacitor might explode!