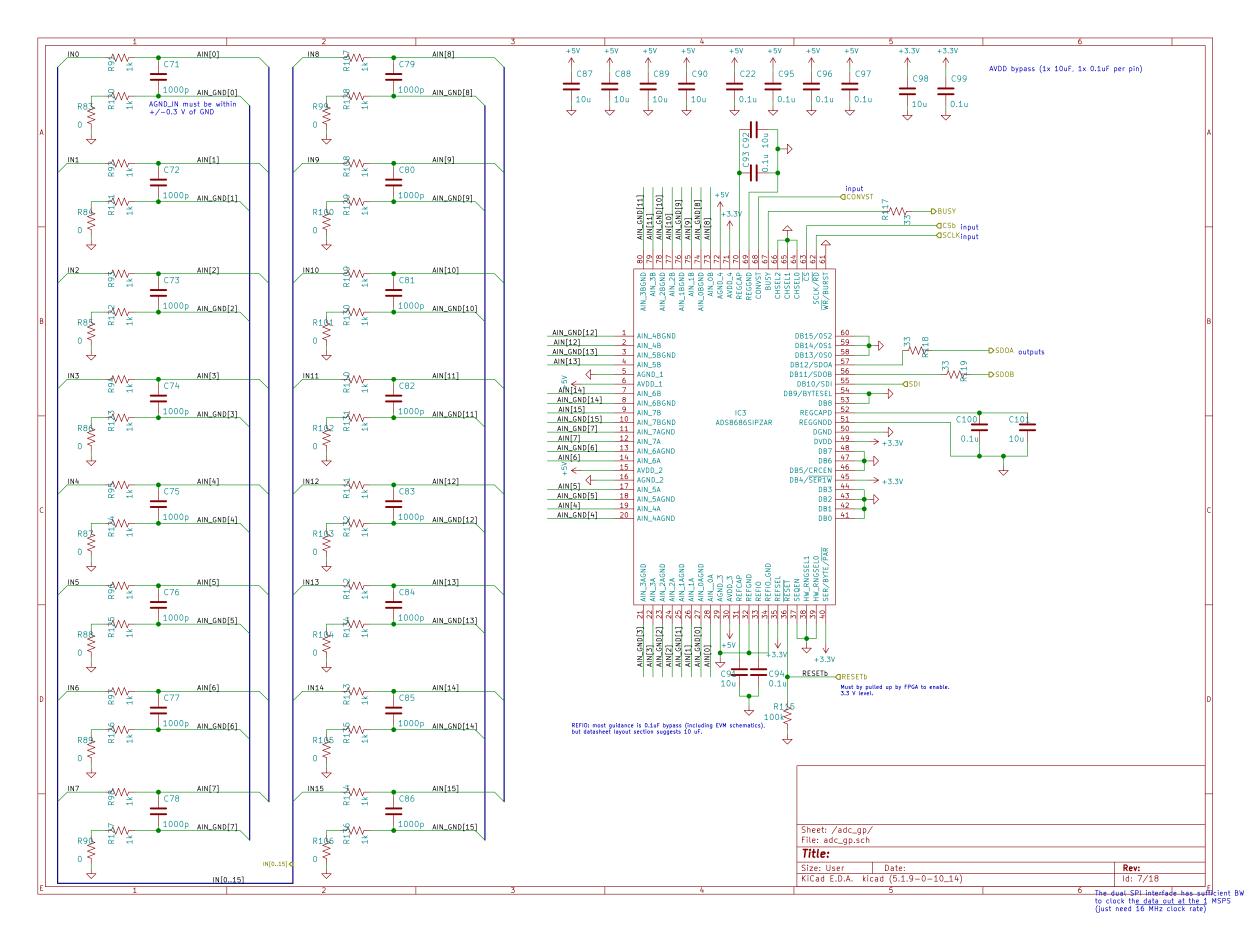


Use internal buffer (x2) with 2.048V ref.
"External reference of 2.048 V applied to the REFIN pin (high impedance input). The on-chip buffer gains this by 2 and drives the REF pin with 4.096 V"
EN3=X, EN2=0, EN1=0, EN0=1 (28 MHz BW)
EN3=X, EN2=1, EN1=0, EN0=1 (9 MHz BW, use this BW only when the throughput is 2 MSPS or lower) VDD2 and VIO can come from the same supply. But route and decouple separately. +1V8 U22 C16 AD7960BCPZ-RL7 10u EPAD HTAB 0.1u 0.1u IN_P_LP Conn_01x04_Male VDD1_2 GND C24 23 Alternative signal connection or ground the inputs 2 3 4 5 6 7 VDD2_2 IN+ 22 (2V048_REF) REFIN IN-100p 21 0.1u A_ENOD ENO VCM → +5V VCM 20 (A_EN1) EN1 VDD1 C12 19 A_EN2 <u>IN_N_</u>LP EN2 VDD1_3 M_NID 18 EN3 VDD2_3 **→** +1V8 8 CNV_ND-CNV-CLK+ +57 0.1u DNI **₹**31 5.1 kOhm output impedance Must buffer -DVCM_OUT CNV_PD-0.1u 000 C17 -DNI Sheet: /adc1/ File: adc.sch Title: Size: A Date: Rev: KiCad E.D.A. kicad (5.1.9-0-10_14) ld: 6/18



Use internal buffer (x2) with 2.048V ref. "External reference of 2.048 V applied to the REFIN pin (high impedance input). The on-chip buffer gains this by 2 and drives the REF pin with 4.096 V"
EN3=X, EN2=0, EN1=0, EN0=1 (28 MHz BW)
EN3=X, EN2=1, EN1=0, EN0=1 (9 MHz BW, use this BW only when the throughput is 2 MSPS or lower) VDD2 and VIO can come from the same supply. But route and decouple separately. +1V8 U29 AD7960BCPZ-RL7 10u EPAD HTAB 0.1u 0.1u IN_P_LP Conn_01x04_Male VDD1_2 GND C58 23 22 Alternative signal connection 2 3 4 5 6 7 VDD2_2 IN+ or ground the inputs (2V048_REF) REFIN IN-100p 21 0.1u A_ENOD ENO VCM → +5V VCM 20 (A_EN1) EN1 VDD1 C39 19 A_EN2 EN2 VDD1_3 IN_N_LP M_NID 18 EN3 VDD2_3 → +1V8 8 CNV_ND-CNV-CLK+ +5V 0.1u DNI 100 R116 5.1 kOhm output impedance Must buffer -DVCM_OUT CNV_PD-0.1u 000 C59 C50 -DNI Sheet: /adc0/ File: adc.sch Title: Size: A Date: Rev: KiCad E.D.A. kicad (5.1.9-0-10_14) ld: 8/18

Use internal buffer (x2) with 2.048V ref. "External reference of 2.048 V applied to the REFIN pin (high impedance input). The on-chip buffer gains this by 2 and drives the REF pin with 4.096 V"
EN3=X, EN2=0, EN1=0, EN0=1 (28 MHz BW)
EN3=X, EN2=1, EN1=0, EN0=1 (9 MHz BW, use this BW only when the throughput is 2 MSPS or lower) VDD2 and VIO can come from the same supply. But route and decouple separately. +1V8 U31 C63 AD7960BCPZ-RL7 10u EPAD HTAB 0.1u 0.1u IN_P_LP Conn_01x04_Male VDD1_2 GND C69 23 2 3 4 5 6 7 Alternative signal connection VDD2_2 IN+ 22 or ground the inputs (2V048_REF) REFIN IN-100p 21 0.1u A_ENOD ENO VCM → +5V VCM 20 (A_EN1) EN1 VDD1 C61 19 A_EN2 EN2 VDD1_3 IN_N_LP M_NID 18 EN3 VDD2_3 → +1V8 8 CNV_ND-CNV-CLK+ +50 0.1u DNI 5.1 kOhm output impedance Must buffer -DVCM_OUT CNV_PD-0.1u 000 C102 0.1u C64 -DNI Sheet: /adc2/ File: adc.sch Title: Size: A Date: Rev: KiCad E.D.A. kicad (5.1.9-0-10_14) ld: 9/18

Use internal buffer (x2) with 2.048V ref. "External reference of 2.048 V applied to the REFIN pin (high impedance input). The on-chip buffer gains this by 2 and drives the REF pin with 4.096 V"
EN3=X, EN2=0, EN1=0, EN0=1 (28 MHz BW)
EN3=X, EN2=1, EN1=0, EN0=1 (9 MHz BW, use this BW only when the throughput is 2 MSPS or lower) VDD2 and VIO can come from the same supply. But route and decouple separately. +1V8 U33 C106 AD7960BCPZ-RL7 10u EPAD HTAB G44D 0.1u 0.1u IN_P_LP Conn_01x04_Male VDD1_2 GND C112 23 2 3 4 5 6 7 Alternative signal connection VDD2_2 IN+ 22 or ground the inputs (2V048_REF) REFIN IN-100p 21 0.1u A_ENOD ENO VCM → +5V VCM 20 (A_EN1) EN1 VDD1 C104 19 A_EN2 EN2 VDD1_3 IN_N_LP M_NID 18 EN3 VDD2_3 **→** +1V8 8 CNV_ND-CNV-CLK+ +50 0.1u DNI 5.1 kOhm output impedance Must buffer -DVCM_OUT CNV_PD-0.1u 000 C113 0.1u C107-DNI Sheet: /adc3/ File: adc.sch Title: Size: A Date: Rev: KiCad E.D.A. kicad (5.1.9-0-10_14) ld: 10/18

