

The schematic diagram illustrates a microphone amplifier circuit. Key components include:

- MAX9814:** A microphone amplifier IC with pins for MIC_CAR, MIC_BIAS, MIC_GAIN, MIC_OUT, and GND.
- UBA155A:** An operational amplifier used for signal processing, with pins for MIC_IN, MIC_OUT, and GND.
- Passive Components:** Resistors (R13, R14, R15, R16, R17, R18, R19, R20, R21, R22, R23, R24, R25, R26, R27, R28, R29, R30, R31, R32, R33, R34, R35, R36, R37, R38, R39, R40, R41, R42, R43, R44, R45, R46, R47, R48, R49, R50, R51, R52, R53, R54, R55, R56, R57, R58, R59, R60, R61, R62, R63, R64, R65, R66, R67, R68, R69, R70, R71, R72, R73, R74, R75, R76, R77, R78, R79, R80, R81, R82, R83, R84, R85, R86, R87, R88, R89, R90, R91, R92, R93, R94, R95, R96, R97, R98, R99, R100) and capacitors (C13, C14, C15, C16, C17, C18, C19, C20, C21, C22, C23, C24, C25, C26, C27, C28, C29, C30, C31, C32, C33, C34, C35, C36, C37, C38, C39, C40, C41, C42, C43, C44, C45, C46, C47, C48, C49, C50, C51, C52, C53, C54, C55, C56, C57, C58, C59, C60, C61, C62, C63, C64, C65, C66, C67, C68, C69, C70, C71, C72, C73, C74, C75, C76, C77, C78, C79, C80, C81, C82, C83, C84, C85, C86, C87, C88, C89, C90, C91, C92, C93, C94, C95, C96, C97, C98, C99, C100).
- Power Supply:** +3.3V and GND connections.
- Inputs/Outputs:** MIC_AMP_IN, MIC_GAIN, MIC_BIAS, MIC_CAR, MIC_OUT, MIC_IN, MIC_EST_PIT, MIC_OUT, MIC_IN, MIC_OUT, MIC_IN.
- Other Components:** J1, J2, J3, J4, J5, J6, J7, J8, J9, J10, J11, J12, J13, J14, J15, J16, J17, J18, J19, J20, J21, J22, J23, J24, J25, J26, J27, J28, J29, J30, J31, J32, J33, J34, J35, J36, J37, J38, J39, J40, J41, J42, J43, J44, J45, J46, J47, J48, J49, J50, J51, J52, J53, J54, J55, J56, J57, J58, J59, J60, J61, J62, J63, J64, J65, J66, J67, J68, J69, J70, J71, J72, J73, J74, J75, J76, J77, J78, J79, J80, J81, J82, J83, J84, J85, J86, J87, J88, J89, J90, J91, J92, J93, J94, J95, J96, J97, J98, J99, J100).

[illegible]

CONTROL

GPIO_02 TX2
GPIO_04 RX2
GPIO_12 TX1
GPIO_13 RX1
GPIO_14 P1T1
GPIO_15 P1T2
GPIO_18 A0/D0/QM1
GPIO_19 A1/D1/QM2
GPIO_21 A2/D2/QM3
GPIO_22 S0
GPIO_23 S1
GPIO_30 -SLEEP

3.3V
C12 100n
VCC
GND
PCA9554APW
SCL 10 TX2
SDA 11 RX2
SCL 14 P1T1
SDA 15 P1T2
SCL 18 A0/D0/QM1
SDA 19 A1/D1/QM2
SCL 21 A2/D2/QM3
SDA 22 S0
SCL 23 S1
SDA 24 SLEEP4

ANALOG BIDIRECTIONAL SWITCHES

The diagram illustrates an analog bidirectional switch circuit. It consists of three 74VHC125 inverters (U1B, U1A, U1C) and three 74VHC125 buffers (U1B, U1A, U1C). The input signal is connected to the inputs of all three inverters. The outputs of the inverters are connected to the inputs of the three 74VHC125 buffers. The outputs of the buffers are connected to the output of the switch. The output of the switch is connected to the input of the first 74VHC125 inverter. The output of the switch is also connected to the input of the second 74VHC125 inverter. The output of the switch is also connected to the input of the third 74VHC125 inverter. The output of the switch is also connected to the input of the first 74VHC125 buffer. The output of the switch is also connected to the input of the second 74VHC125 buffer. The output of the switch is also connected to the input of the third 74VHC125 buffer.

https://www.ti.com/products/Analog-Switches-Multiplexers_818A.html

MISCELANIOUS

The diagram shows four FID sensors labeled H1, H2, H3, and H4. Each sensor is represented by a red circle with a black dot in the center, connected by a green line to a red triangle at the bottom. To the right of the sensors, there are four red circles, each with a black dot in the center, labeled FID1, FID2, FID3, and FID4. The labels H1, H2, H3, and H4 are positioned above their respective sensors, and the labels FID1, FID2, FID3, and FID4 are positioned to the right of their respective circles.

AUDIO IO

Diagram illustrating the AUDIO IO connections for the J1 connector:

- Pin 6: MIC-AMP_IN
- Pin 5: MIC_EST_PTT
- Pin 3: EXT_SPEAKER+ (connected to AMPLIFIED_AUDIO_OUT)
- Pin 2: EXT_SPEAKER-
- Pin 1: +3V3