ESP32 Pin Header (for flashing)

J3
Conn_01x04_Male
1 VBUS
2 ESP32_Rx
3 ESP32_Tx
4
GND

Analogue Power Filtering

+3.3VA

C9 10uF EEEFN1A100R
C10 0.1uF
C11 10uF
C12 0.1uF
C13 0.1uF
C14 1uF
GND

ESP32

+3V3
C22 10uF
C23 0.1uF
GND

GPIO12
R1 2k
D1_PWR
D1 LED_R
GND

PCM_BCK
GPIO0
PCM_LRCK
PCM_DIN

U2
ESP32-WROVER-EM213EH2864PH3Q0

2 3V3
14 IO12
16 IO13
13 IO14
23 IO15
31 IO19
37 IO23
30 IO18
29 IO5
25 IO0
26 IO4
8 IO32
9 IO33
10 IO25
11 IO26
12 IO27
24 IO2
33 IO21
36 IO22

SENSOR_VP 4
SENSOR_VN 5
IO34 6
IO35 7
EN 3 RESET
RXD0 34 ESP32_Rx
TXD0 35 ESP32_Tx
NC 22
NC 21
NC 20
NC 19
NC 18
NC 17
NC 27
NC 28
NC 32
GND 15
GND 38
GND 1

GND 47 46 45 44 43 42 41 40 39

GPIO0
GND
S2 TS07
GPIO0

+3V3
R10 100kΩ
C19 1uF
GND
RESET
S1 TS07
GND
RESET

PCM5122 DAC & Analogue Stage Line Out

+3V3

C5 10uF
C6 0.1uF
+3.3VA
+3.3VA
GND

U1 PCM5122PW

20 SCK
21 BCK   PCM_BCK
23 LRCK   PCM_LRCK
22 DIN   PCM_DIN
12 SCL/MC/ATT1
11 SDA/MOSI/ATT2
24 ADR1/MISO/FMT
16 ADR2/GPIO2/DOUT
17 MODE1
18 MODE2/MS
25 XSMT

CPVDD 1
DVDD 28
AVDD 8
OUTL 6
OUTR 7
GPIO3/AGNS 15
GPIO4/MAST 14
GPIO5/ATT0 13
GPIO6/FLT 19
VCOM/DEMP
DEMP 10
CAPP 2
CAPM 4
LDOO 26
VNEG 5

CPGND 3
DGND 27
AGND 9

GND
+3V3
R7 1kΩ XSMT
GND

OUTL
OUTR
R4 470Ω
R5 470Ω
JACKL
JACKR

C1 2.2nF GND
C2 2.2nF GND

R6 10Ω
GND
C3 2.2uF
C4 2.2uF

S2
J2 SJ1-3533NS
SHIELD
GND

C7 10uF
C8 0.1uF
GND

USB Power, Filtering & LDOs

D3 BAT165AX
VBUS_RP
FB1 120R
VBUS_FILT
U3 MCP1825S
+3V3

VBUS
RV1 CG0603MLU-05E
C20 0.1uF
C21 0.1uF
C15 1uF
1 VI VO 3
GND 2
C16 1uF
R8 2k
D2_PWR
D2 LED_R
GND

R2 5k1 CC1
R3 5k1 CC2
PWR_FLAG
VBUS
PWR_FLAG

J1
A5 CC1
B5 CC2
A9 V-BUS
B12 GND
S1 SHIELD

GND

PWR_FLAG
VBUS_FILT
U4 MCP1825S
+3.3VA
C17 1uF
1 VI VO 3
GND 2
C18 1uF
GND

Notes
- First iteration of ESP32-based DAC
- No ESD protection on header pins
- No ESD protection on analogue line out
- PCM5122 DAC connected in 'hardwired' mode (no I2C controls)
- One shared Digital / Analogue GND pane
- Mini-jack shield is connected to Digital / Analogue GND (no chassis GND available)
- USB shield not connected - left floating

M2 Mounting Holes

H1 MountingHole
H3 MountingHole
H2 MountingHole
H4 MountingHole