PHYADD=1
+3V3
R1
10K
+3V3
R8
1.5K
IO27_RMII_EMAC_CRS_DV
IO18_RMII_MDIO
IO19_RMII_EMAC_TXD0
IO22_RMII_EMAC_TXD1
IO21_RMII_EMAC_TX_EN
IO25_RMII_EMAC_RXD0
IO26_RMII_EMAC_RXD1
R6 33R
R7 33R
R9 33R
IO23_RMII_MDC
nRST
CLK50M
IO0_RMII_EMAC_REF_CLK
CLK50M
OSCIN
R14 33R
R15 33R
FB1 120R/1A
+3V3
VDDA
C1 10uF
C2 0.1uF
C3 10uF
C4 0.1uF
C5 10uF
C6 0.1uF
C7 1uF
C8 470pF
GND
VDDCR
VDDIO
VDDCR
VDD1A
VDD2A
TXD0
TXD1
TXEN
RXD0/MODE0
RXD1/MODE1
RXER/PHYAD0
CRS_DV/MODE2
MDIO
MDC
RMII
RST
INT/REFCLKO
XTAL1/CLKIN
XTAL2
VSS
TXP
TXN
RXP
RXN
RBIAS
LED1/REGOFF
LED2/INTSEL
R2 49.9K 1%
R3 49.9K 1%
R4 49.9K 1%
R5 49.9K 1%
R10 12.1K 1%
R12 1K
R13 1K
ETH2X_TXP
ETH2X_TXN
ETH2X_RXP
ETH2X_RXN
ETH2X_LED_LINK
ETH2X_LED_ACT
U4
LAN8720A
GND
+3V3
C9 22uF
C10 0.1uF
C11 470uF
GND
ESP32 decoupling
+3V3
U2
ESP32-WROOM-32U
ESP_EN
EN
VDD
SENSOR_VP
SENSOR_VN
SDO/SD0
SDI/SD1
SHD/SD2
SWP/SD3
SCK/CLK
SCS/CMD
IO0
TXD0/IO1
IO2
RXD0/IO3
IO4
IO5
IO12
IO13
IO14
IO15
IO16
IO17
IO18
IO19
IO21
IO22
IO23
IO25
IO26
IO27
IO32
IO33
IO34
IO35
GND
R28 10K
ESP_IO00
IO0_RMII_EMAC_REF_CLK
TXD0
RXD0
ESP_IO02
ESP_IO04
ESP_IO05
MTDI
MTCK
MTMS
MTDO
IO16_OSC_EN
IO18_RMII_MDIO
ESP_IO17
IO19_RMII_EMAC_TXD0
IO21_RMII_EMAC_TX_EN
IO22_RMII_EMAC_TXD1
IO23_RMII_MDC
IO25_RMII_EMAC_RXD0
IO26_RMII_EMAC_RXD1
IO27_RMII_EMAC_CRS_DV
ESP_IO32
ESP_IO33
ESP_IO34
ESP_IO35
34,35 – In only
U1
AMS1117-5.0
VIN
VI
VO
GND
+5V
C12 10uF
C13 0.1uF
C14 10uF
C15 0.1uF
U3
AMS1117-3.3
C16 10uF
C17 0.1uF
C18 10uF
C19 0.1uF
D1
LED
R11 1K
J1
Conn_02x01
VIN
GND
J2
Conn_02x07_Odd_Even
ESP_IO02
ESP_IO05
ESP_IO32
ESP_IO34
TXD0
ESP_IO04
ESP_IO17
ESP_IO33
ESP_IO35
RXD0
+5V
GND
J3
Conn_02x03_Odd_Even
ESP_EN
TXD0
RXD0
ESP_IO0
+3V3
GND
J4
Conn_02x05_Odd_Even
MTMS
MTCK
MTDO
MTDI
+3V3
GND
IO0_RMII_EMAC_REF_CLK
ESP_IO0
USB
+3V3
C21 0.1uF
GND
C20 0.1uF
U5
USBLC6-2P6
DATA_P
DATA_N
+5V
GND
R16 1K
R17 1K
RXD0
TXD0
UD+
UD-
TNOW
V3
VCC
TXD
RXD
CTS
RTS
GND
R18 4K7
JP1
JP2
ESP_EN
ESP_IO0
U6
CH340E
GND
Boot & Enable
SW1
SW2
ESP_EN
ESP_IO0
470R
R19
R21
10K
R20
R22
C22 1nF
C23 1nF
+3V3
GND
Ethernet
VDDA
J5
RJ45_Amphenol_RJMG1BD3B8K1ANR
ETH2X_TXP
ETH2X_TXN
ETH2X_RXP
ETH2X_RXN
TD+
TCT
TD-
RD+
RCT
RD-
XMIT
RCV
C1
C2
C3
C4
C5
C6
C7
C8
1000pF
L1
L2
L3
L4
ETH2X_LED_LINK
ETH2X_LED_ACT
SH
R8
GNDPWR
C24
22nF
GND
R23 1M
C25 1nF/2KV
GNDPWR
+3V3
R26 10K
nRST
C26 0.1uF
GND
IO16_OSC_EN
R29 10K
OE
GND
Vcc
OUT
CLK50M
X1
SG-210SCD
GND
J6
USB_C_Receptacle_USB2.0
VBUS
CC1
CC2
D-
D-
D+
D+
SHIELD
GND
SBU1
SBU2
S1
A1
A4
A5
B5
A7
B7
A6
B6
A8
B8
D2
SS14
+5V
R24 5K1
R25 5K1
R27 1M
GND
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Size: A3
Date:
Rev:
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