MCU 1 core and 2MB ext. RAM

J1
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
R6 5.1k
R7 5.1k
GND
VBUS
IO26 is the CS pin of PSRAM

PWR_FLAG
GND
U2
ESP32-S2-WROVER
USB_D-
USB_D+
IO21
IO26
IO33
IO34
IO35
IO36
IO37
IO38
IO39
IO40
IO41
IO42
TXD0
RXD0
IO45
IO46
IO18
IO17
IO16
IO15
IO14
IO13
IO12
IO11
IO10
IO09
IO08
IO07
IO06
IO05
IO04
IO03
IO02
IO01
IO00
EN
3V3
EP_CKH
EP_D0
EP_D1
EP_D2
EP_D3
EP_D4
EP_D5
EP_D6
EP_D7
EP_CKV
EP_STH
TX
RX
TPS_PWR_GOOD
BOOT_MODE
TPS_WAKEUP
IO17
TPS_PWRUP
EP_STV
EP_MODE
EP_OE
EP_LE
TPS_nINT
TPS_VCOM_CTRL
SDA
SCL
IO07
IO06
IO05
IO04
IO03
IO02
IO01

R8 10K
R12 10K
R10 2K2
R9 2K2
R11 10K
R1 10K
SW1 RESET
C13 0.1u
+3.3V

VIN to 3.3v LDO
U1
MCP1700-1202E_SOT23
VI
VO
GND
VIN
+3.3V
C15 C_Polarized

P1
CONN_02X13
+3.3V
IO01
IO02
IO03
IO04
IO05
SCL
SDA
TPS_PWR_GOOD
IO45
IO17
IO07
IO06
RX
TX

BOOT Mode

SW2
BOOT
BOOT_MODE
C14 0.1u
GND

Battery jack

J2
Jack-DC
BAT+
GND

Battery charging

U7
TPS2113APWR
VBUS
BAT+
IN1
IN2
VSNS
ILIM
OUT
STAT
EN_N
GND
VIN
C2 100nF
C3 100nF
R4 400

U11
TP4056
VCC
CE
PP
CHRG
STDBY
BAT
TEMP
PROG
GND
BAT+
C22 100nF
R5 6.8K
D8 GRE
D9 RED
R2 2K2
R3 2K2

EPD PMIC power lines

VIN
SW_VIN
EPD_VDD
C19 10uF
GND

U3
QFN50P700X700X100-49N
VREF
NINT
VNEG
VNEG_IN
WAKEUP
DGND
INT_LDO
AGND1
VNEG_DIS
VIN
NC
VCOM_CTRL
NC
VCOM_DIS
VCOM
VCOM_PWR
SCL
SDA
VPOS_DIS
NC
PWRUP
PBKG
PWR_GOOD
VIN_P
EPAD
AGND2
TS
V3P3
VIN3P3
VPOS
VPOS_IN
VB
PGND1
VB_SW
NC
NC
VDDH_IN
VDDH_DRV
VDDH_DIS
VDDH_D
VDDH_FB
PGND2
VEE_FB
VEE_D
VEE_DIS
VEE_DRV
VEE_IN
VN
VN_SW
VNEG_IN
TPS_nINT
TPS_WAKEUP
TPS_VCOM_CTRL
EP_VCOM
SCL
SDA
15V
TPS_PWRUP
TPS_PWR_GOOD
+3.3V
+22V
-15V
-20V
C11 4.7uF
C8 4.7uF
C1 4.7uF
C4 4.7uF
C9 10uF
C6 22uF
C7 4.7uF
C5 4.7uF
C10 22uF
C12 10uF
R18 43k
TH1 10k/3380K
C31 4.7uF
TP33estPoint
C26 4.7uF
C28 4.7uF
C32 10uF
D4
L2 2.2uH
SW_VIN
D5
D6
R23 1M
C33 2.2uF
PWR_FLAG
C25 10nF
C29 100nF
C30 100nF
R24 47.5k
C20 10nF
D2
L1 4.7uH
D1
C24 4.7uF
R19 1M
R20 52.3k
C27 2.2uF
PWR_FLAG

U6
ED060XC5
VNEG
VEE
VSS
NC
NC
VDD
VSS
XCL
VSS
XLE
XOE
XSTL
D0
D1
D2
D3
D4
D5
D6
D7
VCOM
NC
NC
NC
NC
VSS
MODE1
CKV
SPV
NC
BORDER
VSS
VPOS
VGG
EPD_VDD
EP_CKH
EP_LE
EP_OE
EP_STH
EP_D0
EP_D1
EP_D2
EP_D3
EP_D4
EP_D5
EP_D6
EP_D7
EP_VCOM
EP_MODE
EP_CKV
EP_STV
15V
+22V
-15V
-20V

TP1 +22V R26 47k C34 1uF/50V
TP3 -20V R28 47k C36 1uF/50V
TP2 -15V R27 47k C35 1uF/25V
TP4 +15V 15V R29 47k C37 1uF/25V
TP5 VCOM EP_VCOM R30 100k C38 1uF/25V
Close to EPD connector

H1 MountingHole
H2 MountingHole
H3 MountingHole
H4 MountingHole