Power

REGULATORS

CANV
PWR_FLAG
1N5819
D10
+24V
U1 MINI-360
IN+ OUT+
IN− OUT−
C1 10uF
C2 10uF
+5V
U2 AMS1117-3.3
VI GND VO
C5 10uF
C17 100uF
VCC
GND

POWER TEST
J6
POWER_TEST
GND VCC
+5V

ESP32 Microcontroller

VCC
C16 10uF
C3 100uF
GND
3V3
EN
SENSOR_VP
SENSOR_VN
34/35 input only
IO34
IO35
32/33 output only
IO32
IO33
SPEAKER
IO25
IO26
SW4
IO27
TOUCH5
IO14
IO12 strapping pin
IO12
GND
U3 ESP32-WROOM
IO23 SW1
IO22 BLINK
TXD0 TX
RXD0 RX
IO21 SW2
NC
IO19 BLUE
IO18 GREEN
IO5 CTX
IO17 RED
IO16 PIXELS
IO4 CRX
IO0 SW0
GND-PAD
GND
IO13 SD2 SD3 CMD CLK SD0 SD1 IO15 IO2
SW3 IR_RX IR_TX SDA SCL TOUCH3
IO2 strapping pin

Light Level
VCC
R1 100k
R4 100k
FLDR
LDR1 FLDR
LDR2 RLDR
RLDR
GND

Microphone
MAX4466 breakout
MIC_HEADER
VCC R2 4K
J2
R3 5K
VCC
VP
J1 MIC_JUMPER
GND

Onboard Switches
SW1 SW1
SW1
SW2 SW2
SW2
SW3 RESET
SW4 BOOT
EN
SW0
SW0

Pullup Resistors
VCC
R5 10k
SW0
R6 10k
SW1
R7 10k
SW2
R8 10k
SW3
R9 10k
SW4
R10 10k
EN
J3 SW0 GND

Speaker
SPEAKER
R11 100
+5V
Q1 MMBT918 (2N706 equiv)
LS1 Speaker
GND

Indicator LEDs
+5V
BLINK
D11 POWER
R14 470
R12 1K
D12 BLINK
GND GND

SHIELD MOUNT
GND MH1 MH3 GND
MH2 MH4
GND

Connectors

SENSOR
J9 SENSOR
VCC VP VN VCC
3V3
GND

TOUCH
J11 TOUCH
TOUCH5 VCC TOUCH3
GND

POWER RGB SHIELD
J15 RGB_SHIELD
+24V
RED
GREEN
BLUE
J16 RGB_SHIELD
+5V
J18
GND GND

ISP
+5V
J18
TX
RX
GND

SWITCHES
J21 SWITCHES
SW1 2
SW2
SW3
SW4
GND

3V3
J5 3V3
VCC
GND

5V
J10 5V
+5V
GND

24V
J12 24V
+24V
GND

I2C
GROVE/I2C
J17
SCL SDA
VCC
GND

CAP_RING
TOUCH5 TOUCH5
MH5 MH7
MH6 MH8
TOUCH5 TOUCH5

IR Tx/Rx
VCC
IR_RX
GND
IR_TX
+5V
R15 1K
R16 100
D13 IRLED
Vs OUT GND
U5 TSDP341xx
DEMOD
Q2 MMBT2222A (2N2222 equiv)
GND

CAN Bus
CAN_BOARD
J13
VCC
GND CTX CRX CANH CANL
VCC
C14 100nF
U6 SN65HVD230
CTX D
CRX R
Vref
Rs
VCC
CANH
CANL
GND
R18 120
J4 CANTERM
CANH
CANL
R17 10K
CANGND
GND

CANV
CANGND
CANH
CANL
J19 CAN_IN
SH
GND

CANV
CANGND
CANH
CANL
J20 CAN_OUT
SH

1: VCC
2: VCC
3: VCC
4: GND
5: GND
6: GND
7: CAN+
8: CAN−

LEDs
+5V
PIXELS
R13 470
D1 WS2812B
C6 100nF
D2 WS2812B
C8 100nF
D3 WS2812B
C10 100nF
D4 WS2812B
C12 100nF
D5 WS2812B
C14 100nF
DIN DOUT VDD VSS RGB
GND
C15 100nF
D15 WS2812B
C7 100nF
WS2812B
C9 100nF
WS2812B
C11 100nF
WS2812B
D6
+5V
DOUT DIN VDD VSS RGB
60mA peak (all three LEDs) per pixel (5x = 300mA peak)

Title block
JagDev
Sheet: /
File: domenode.sch
Title: DomeNode
Size: A4   Date:
KiCad E.D.A. kicad (5.0.0)
Rev:
Id: 1/1