RGB LED STRIP DRIVER

MICROCONTROLLER CONNECTIONS

IC1
ESP32-C6-MINI-1-N4

Pin	Name		Name	Pin
1	GND_1		NC_4	32
2	GND_2		NC_5	33
3	3V3		NC_6	34
4	NC_1		NC_7	35
5	IO2		GND_5	36
6	IO3		GND_6	37
7	NC_2		GND_7	38
8	EN		GND_8	39
9	IO4		GND_9	40
10	IO5		GND_10	41
11	GND_3		GND_11	42
12	IO0		GND_12	43
13	IO1		GND_13	44
14	GND_4		GND_14	45
15	IO6		GND_15	46
16	IO7		GND_16	47
17	IO12		GND_17	48
18	IO13		GND_18	49
19	IO14		GND_19	50
20	IO15		GND_20	51
21	NC_3		GND_21	52
22	IO8		GND_22	53
23	IO9		GND_23	54
24	IO18		GND_24	55
25	IO19		GND_25	56
26	IO20		GND_26	57
27	IO21		GND_27	58
28	IO22		GND_28	59
29	IO23		GND_29	60
30	RXD0		GND_30	61
31	TXD0			

VDD — GND
R2 10kOhm
IO9
PWM_BLUE
PWM_GREEN
PWM_RED
RX
TX
GND

POWER REGULATION CIRCUIT

PWR_IN
DF04S-E3 PWR_FLAG U1 AMS1117CD-3.3 VDD
D1
C2 1uF
VI VO
GND
PWR_FLAG
C3 1uF
GND GND GND GND

BLUE CHANNEL

BLUE_OUT-
R4 10kOhm
PWM_BLUE
Q3 FDD8880
GND

RED CHANNEL

GREEN_OUT-
R3 10kOhm
PWM_GREEN
Q2 FDD8880
GND

PROG INTERFACE

VDD
R6 10kOhm
IO9
S2
Boot
GND

VDD
R5 10kOhm
EN
S1
Reset
C1 100nF
GND

J3
61300411121
GND TX RX VDD

LED STRIP CONNECTOR

PWR_IN	1	
RED_OUT-	2	J2
GREEN_OUT-	3	
BLUE_OUT-	4	

S4B-XH-A_LF_SN

POWER CONNECTOR

PJ-102A
J1
PWR_IN
GND

GREEN CHANNEL

RED_OUT-
R1 10kOhm
PWM_RED
Q1 FDD8880
GND