| | 1 | 2 | 3 | 4 | 5 | 6 |

MICROCONTROLLER

DC POWER INPUTS

+5V

.1uF CL21B104KBFNNNE (C49678)

C2

U2

1 VCC

PA0/RESET/UPDI/AIN0/LUT0-IN0 10 UPDI/RST
PA1/AIN1/TXD(ALT)/MOSI/LUTO-IN1 11 ADC-BAT
PA2/EVOUT0/AIN2/RXD(ALT)/MISO/LUTO-IN2 12 POT-ADC
PA3/EXTCLK/AIN3/XCK(ALT)/SCK/WO3 13 FAN-SENSE
PA4/AIN4/XDIR(ALT)/SS/WO4/LUT-OUT0 2 GND-SWITCH
PA5/AIN5/OUT/WO5/WO 3 LED1
PA6/AIN6/AINNO0/MOSI(ALT) 4 LED2
PA7/AIN7/AINP0/MISO(ALT)/LUT1-OUT 5 LED3
PB3/RXD/WO0(ALT) 6 EXPANSIONRX
PB2/EVOUT1/TXD/WO2 7 EXPANSIONTX
PB1/AIN10/XCK/SDA/WO1 8 LED4
PB0/AIN11/XDIR/SCL/WO0 9 FAN-PWM

14 GND

ATTINYX04SOIC14

GND

4.7K 0805W8F4701T5E (C17673)
R3
UPDI   UPDI

+5V

UPDI
1
2 GND
3 +5V
NP

UPDI PROGRAMMING

GND

+12V

13.2V 1.8A (C700081)

F1

12V-F

BATT+
TE63952-1

1 PIN   PIN 2

BATT-
TE63952-1

1 PIN   PIN 2

BATTERY INPUT

AUX POWER INPUT

H1

GND-SWITCH
GND

GND

FAN POWER

+12V

SS34   D1

DC TO FAN BOX

+12V
FAN-SENSE   H4
FAN-GND

47R 0805W8F470JT5E (C17714)

FAN-PWM

R8

Q1
AO3400A (C20917)

R9

10K 0805W8F1002T5E (C17414)

GND

ON/OFF AND FAN SPEED

GND

+12V

POT-ADC

POT1

+5V

PWRON

LED5   R10

NCD0805R1 (C84256)

GND

PWR LED

P091S-FC20BR

1K2 0805W8F1201T5E (C17379)

5V DC LINEAR REGULATOR
ALTERNATE: AP7380-50W5-7

+12V

U1
1 VIN VOUT 5
PWRON
3 CE
CB 4
2 GND

C1   C4   C3

R11

10uF TAJA106K016RNJ (C7171)
1uF CL21B105KBFNNNE (C28323)

10K 0805W8F1002T5E (C17414)

+5V

LP2985-50DBVR (C74511)

GND

1uF CL21B105KBFNNNE (C28323)

EXPANSION

+12V

1X4-BIG
4
EXPANSIONRX 3
EXPANSIONTX 2
1
H3

GND

LED GRAPH

+5V

NCD0805R1 (C84256)
LED1   R4   LED1
330 0805W8F3300T5E (C17630)
LED2   R5   LED2
330 0805W8F3300T5E (C17630)
LED3   R6   LED3
330 0805W8F3300T5E (C17630)
LED4   R7   LED4
330 0805W8F3300T5E (C17630)

LP1
DIALIGHT_LIGHTPIPE

BATTERY VOLTAGE

+12V

R2

18K 0805W8F1802T5E (C17506)

ADC-BAT

R1

10K 0805W8F1002T5E (C17414)

GND

TITLE: Papra v0.3

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REV:

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v.2 changelog

— ATTINY
  — Removed FAN-TACH
  — Added GND-SWITCH to detect battery or external power
  — Removed NC to Jumper
  — Added FAN-SENSE to detect presence of fan power cable
— Removed JP1 — 3 pin fan header
— Added R11 pulldown on PWRON
— Added C4 power input CAP
— Components changed for JLC
  — LEDs changed to RED
  — MOSFET Fixed
  — Diode package change
  — Resistor values changed
  — R1 & R2 Battery voltage divider changed values (was 10K & 5K6, is 18K & 10K)
  — R8 FET gate resistor reduced (was 75R, is 47R)
  — 12V LED (was 1K1, is 1K2)

v.3
— Added 1A Resettable Fuse to 12V
— Moved FAN-PWM to WO0 (was WO3)
— Flipped Potentiometer 5V & GND