NAKUJA N3 FLIGHT COMPUTER

ESP Chip Power Supply Circuit

EXT_5V
U3
GND VOUT
VOUT VIN
AMS1117-3.3
+3V3v2
DONE
R8 5.1k
U14 22uF
U15 22uF
LED2
BL-HUF35A-AV-TR8
GND

Switch Button

DONE
SW2 KSR223GLFG
C7 100nF
EN
SW1 KSR223GLFG
C1 100nF
IO0
GND

ESP32 Module

+3V3v2
GND
U16 22uF
C4 100nF
GND
U1
GND / GND
VDD33
EN
SENSOR_VP
SENSOR_VN
IO34 / IO35 / IO32 / IO33 / IO25 / IO26 / IO27 / IO14 / IO12 / GND / IO13 / SD2 / SD3 / CMD
IO23 / IO22 / TXD0 / RXD0 / SDA / NC / IO19 / IO18 / IO5 / IO17 / IO16 / IO4 / IO0 / IO2 / IO15 / SD1 / SD0 / CLK
SCL / TXgps / RXgps
DO / CLK / CS
DI
ESP32-WROOM-32(8MB)
+3V3v2
R4 10k
EN
Eject
GND

Micro USB and USB-UART

USB2 MICRO 6.4JB
VBUS
D-
D+
ID
GND
USB_DN
USB_DP
VBUS
D6 BAT760,115
EXT_5V
done
D1 LESD5D5.0CT1G
D2 LESD5D5.0CT1G
D3 LESD5D5.0CT1G
GND
+3V3v2 VDD
C3 4.7uF
C6 100nF
GND
U13 CP2102-GMR
DCD / RI / GND / D+ / D- / VDD / REGIN
DCD / RI / USB_DP / USB_DN / VDD
NC
VBUS
RST# / SUSPEND# / SUSPEND
R13 0
R14 0
TXD0
RXD0
RXD
TXD
done
R9 22.1k
R6 47.5k
+3V3v2
R7 1k
R1 10k
GND
DONEDONE

R2 10k
DTR
Q1 SS8050-G_C164885
EN
DONE
R3 10k
RTS
Q2 SS8050-G_C164885
IO0

Ejection Pin

EJECT
XH-2A_C722856
Eject
GND
DONE

BMP 180 Circuit

+3V3
BMP
SCL
SDA
Female header1*5P
GND
DONE

GPS Headers

GPS
Female header1*5P
TXgps
RXgps
GND
+3V3
DONE

MPU 6050 Circuit

+3V3
U4
AD0
CLKIN / NC / NC / NC / AUX_DA / AUX_CL / VLOGIC / AD0 / REGOUT / FSYNC / INT
SDA / SCL / RESV / RESV / CPOUT / RESV / GND / NC / NC / NC / VDD
R11 10k
R12 10k
SDA
SCL
C12 2.2nF
C13 10nF
C5 100nF
+3V3
C8 100nF
INT
GND
MPU-6050_C24112
DONE

Flash Memory

U7 W25Q64FVSSIQ
CS#
DO(IO1)
WP#(IO2)
GND
VCC
HOLD#(IO3)
CLK
DI(IO0)
CS
DO
CLK
DI
+3V3
C10 100nF
GND
DONE

U8 W25Q64FVSSIQ
CS#
DO(IO1)
WP#(IO2)
GND
VCC
HOLD#(IO3)
CLK
DI(IO0)
CS
DO
CLK
DI
+3V3
C9 100nF
GND

BUCK CONVERTER CIRCUIT

DONE
U9 LM2596S-ADJ
Vin / Output / Gnd / Feedback / ON#/OFF
TAB
R17 10k
Vin
C20 220uF
C14 100nF
Vout
R15 330
FB
D5 SS34_C489140
U10 330uH
EXT_5V
C21 220uF
GND

Battery Connector 11V

11V
XH-2A_C722856
EXT_5V
GND

FIN CONTOL POWER

F1 XH-2A_C722856
EXT_5V
GND
F3 XH-2A_C722856
EXT_5V
GND
F2 XH-2A_C722856
EXT_5V
GND
F4 XH-2A_C722856
EXT_5V
GND

AMS 1117 Power Supply

EXT_5V
U11
GND VOUT
VOUT VIN
AMS1117-3.3
+3V3
R18 5.1k
U17 22uF
U18 22uF
LED1
BL-HUF35A-AV-TR8
GND

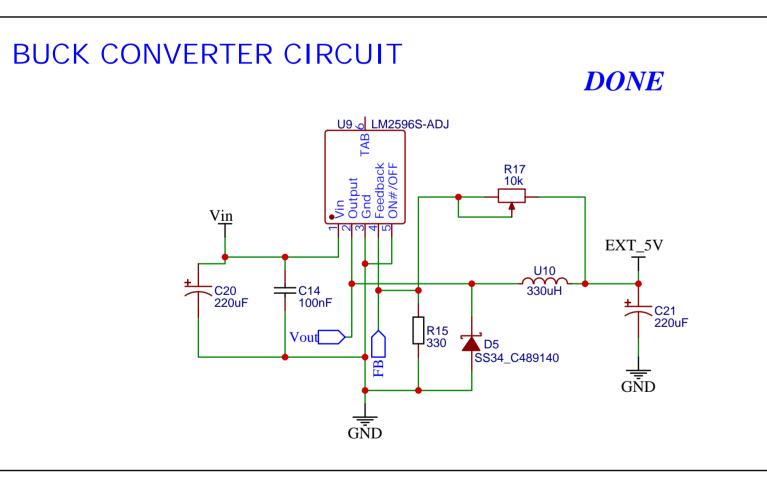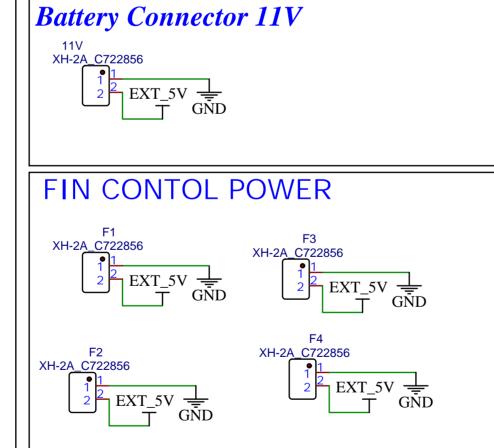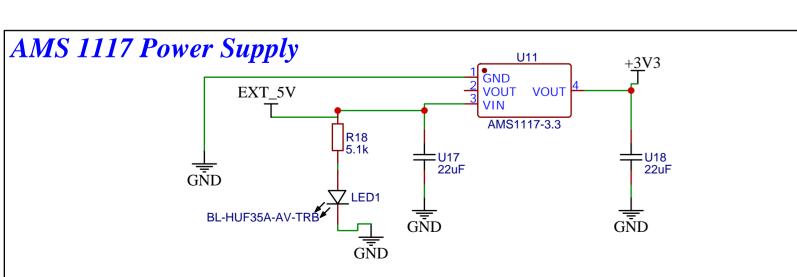| TITLE:	NAKUJA N3 FLIGHT COMPUTER	REV: 1.0
	Company: JICA NAKUJA	Sheet: 1/1
EasyEDA	Date: 2023-10-05 Drawn By: Kisaka the Jones	