Canbus Order
GMU11
GSA28 Yaw
GSA28 Pitch
G5
GDU460
GSU25
GTR20
GMC507
GAD29
GEA24
GAD27
GSA28 Roll

Power
SMOKE_PWR
GDU4XX_PWR
G5_PWR
GSU25_PWR
GMU11_PWR
GEA24_PWR
GAD27_PWR
LAND_TAXI_PWR
FLAP_PWR
GPS175_PWR
GAD29_PWR
GTX320_PWR
ENCODER_PWR
TAILBCN_PWR
GDL52_PWR
IGN_BAK_LOW
IGN_BAK_VOLTS
GTR20_PWR
LEMO_PWR
BT_PWR
GSA28_PWR
GMC507_PWR
FUEL_ON
ELT_PWR
GND_BUS
File: power.kicad_sch

Lycoming
AIRCRAFT_PWR
AIRCRAFT_GND
IGN_PWR
BAK_BATTERY_VOLTS
File: lycoming.kicad_sch

PFD
GDU4XX_PWR
G5_PWR
GSU25_PWR
GMU11_PWR
GND_BUS
XPDR_AIRDATA_SERIAL_OUT
XPDR_AIRDATA_SERIAL_IN
XPDR_AIRDATA_SERIAL_GND
ADSB_SERIAL_OUT
ADSB_SERIAL_IN
ADSB_SERIAL_GND
AIRDATA_SERIAL_OUT
AIRDATA_SERIAL_GND
CANBUS_LO_IN
CANBUS_HI_IN
CANBUS_HI_GMU_OUT
CANBUS_LO_GMU_OUT
EIS_SERIAL_OUT
EIS_SERIAL_IN
EIS_SERIAL_GND
LIGHTING_HI
AUDIO_HI
AUDIO_LO
CANBUS_HI_OUT
CANBUS_LO_OUT
File: pfd.kicad_sch

Transponder
AIRDATA_SERIAL_IN
AIRDATA_SERIAL_OUT
AIRDATA_SERIAL_GND
ADSB1_SERIAL_IN
ADSB2_SERIAL_OUT
ADSB2_SERIAL_GND
AIRDATA_RS232_IN
AIRDATA_RS232_GND
LIGHTING_HI
ADSB2_SERIAL_IN
ADSB1_SERIAL_OUT
ADSB1_SERIAL_GND
GTX320_PWR
ENCODER_PWR
GDL52_PWR
GND_BUS
MUSIC_OUT_LEFT
MUSIC_OUT_RIGHT
MUSIC_OUT_LO
File: transponder.kicad_sch

Navigator
ADSB_SERIAL_GND
ADSB_SERIAL_IN
ADSB_SERIAL_OUT
CONNEXT_SERIAL_IN
CONNEXT_SERIAL_OUT
CONNEXT_SERIAL_GND
MAPMX_SERIAL_IN
MAPMX_SERIAL_OUT
MAPMX_SERIAL_GND
CAN_HI_OUT
CAN_LO_OUT
LIGHTING_HI
TOGA_OUT
GPS175_PWR
GAD29_PWR
GND_BUS
CAN_HI_IN
CAN_LO_IN
File: navigator.kicad_sch

Miscellaneous
GPS_SERIAL_IN
GPS_SERIAL_GND
ELT_PWR
GND_BUS
ELT_SERIAL_OUT
ELT_SERIAL_GND
File: miscellaneous.kicad_sch

NAV_CONNEXT_SERIAL_OUT
NAV_CONNEXT_SERIAL_IN
NAV_CONNEXT_SERIAL_GND
NAV_MAPMX_SERIAL_OUT
NAV_MAPMX_SERIAL_IN
NAV_MAPMX_SERIAL_GND

EIS
FUEL_ON
EIS_SERIAL_IN
EIS_SERIAL_OUT
EIS_SERIAL_GND
BAK_BATTERY_VOLTS
CAN_HI_IN
CAN_LOW_IN
GEA24_PWR
GEA24_BAK_PWR
GND
GEA24_PWR
GEA24_BAK_PWR
GND_BUS
CAN_HI_OUT
CAN_LO_OUT
File: eis.kicad_sch

Multifunction
CAN_HI_IN
CAN_LO_IN
AVIONICS_LIGHTING
SMOKE_PWR
GAD27_PWR
FLAP_PWR
LIGHT_PWR
GND_BUS
CAN_HI_OUT
CAN_LO_OUT
File: multifunction.kicad_sch

Autopilot
LIGHTING_HI
TOGA_IN
CAN_LO_YAW_IN
CAN_HI_YAW_IN
CAN_HI_PITCH_OUT
CAN_LO_PITCH_OUT
CAN_HI_ROLL_IN
CAN_LO_ROLL_IN
GMC507_PWR
GSA28_PWR
GND_BUS
CAN_HI_GMC_IN
CAN_LO_GMC_IN
CAN_LO_GMC_OUT
CAN_HI_GMC_OUT
File: autopilot.kicad_sch

Communication
AUDIO_IN_HI
AUDIO_IN_LO
CAN_HI_IN
CAN_LO_IN
CAN_HI_OUT
CAN_LO_OUT
GTR20_PWR
LEMO_PWR
BT_PWR
GND_BUS
MUSIC_IN_LO
MUSIC_IN_RIGHT
MUSIC_IN_LEFT
File: communication.kicad_sch

Standard Colors

Canbus
Hi: White
Lo: White/Blue

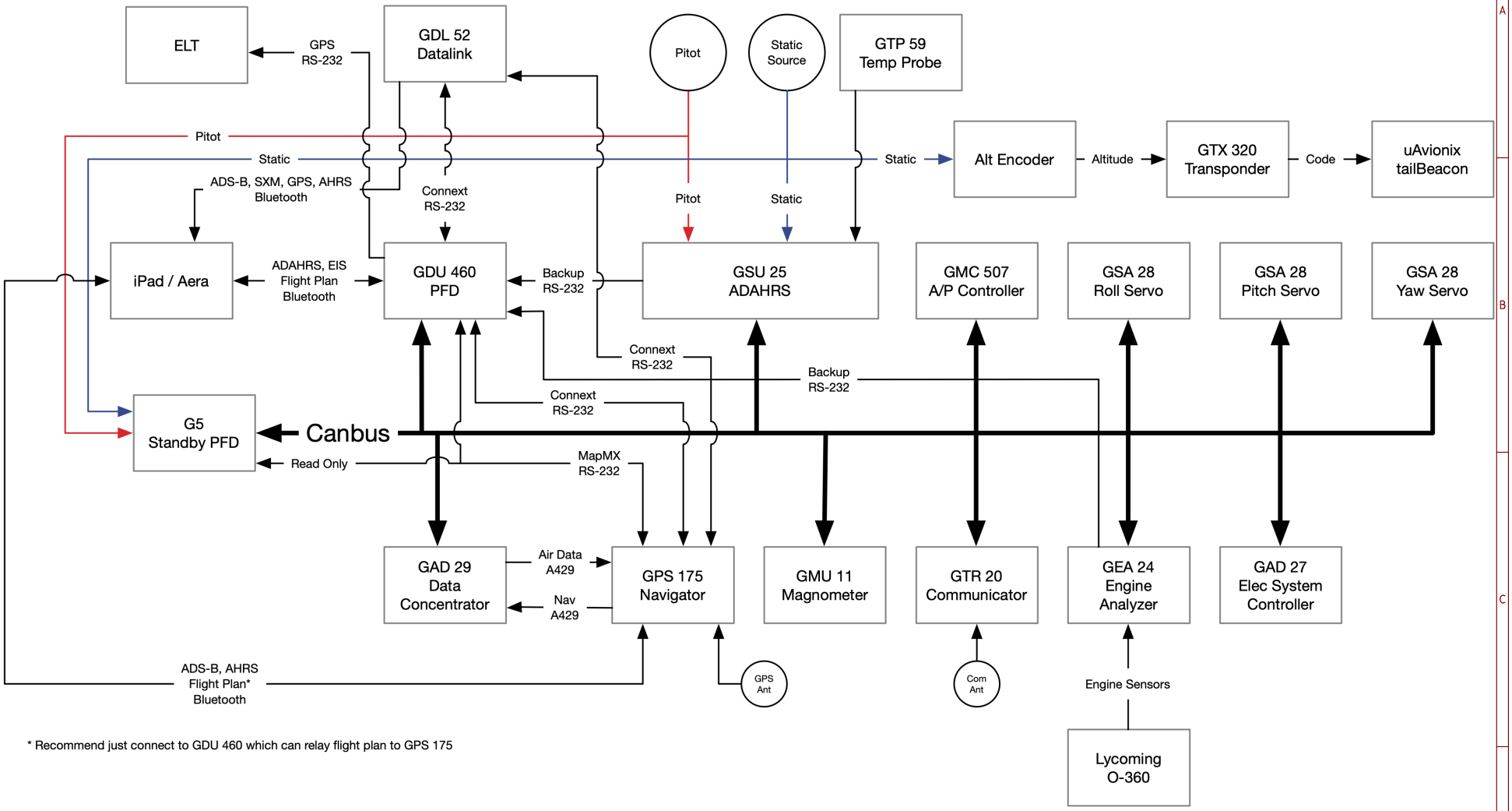
Serial
Tx: White
Rx: White/Blue
Gnd: White/Orange

Audio
Left: White
Right: White/Blue
Lo: White/Orange

Overview
File: overview.kicad_sch

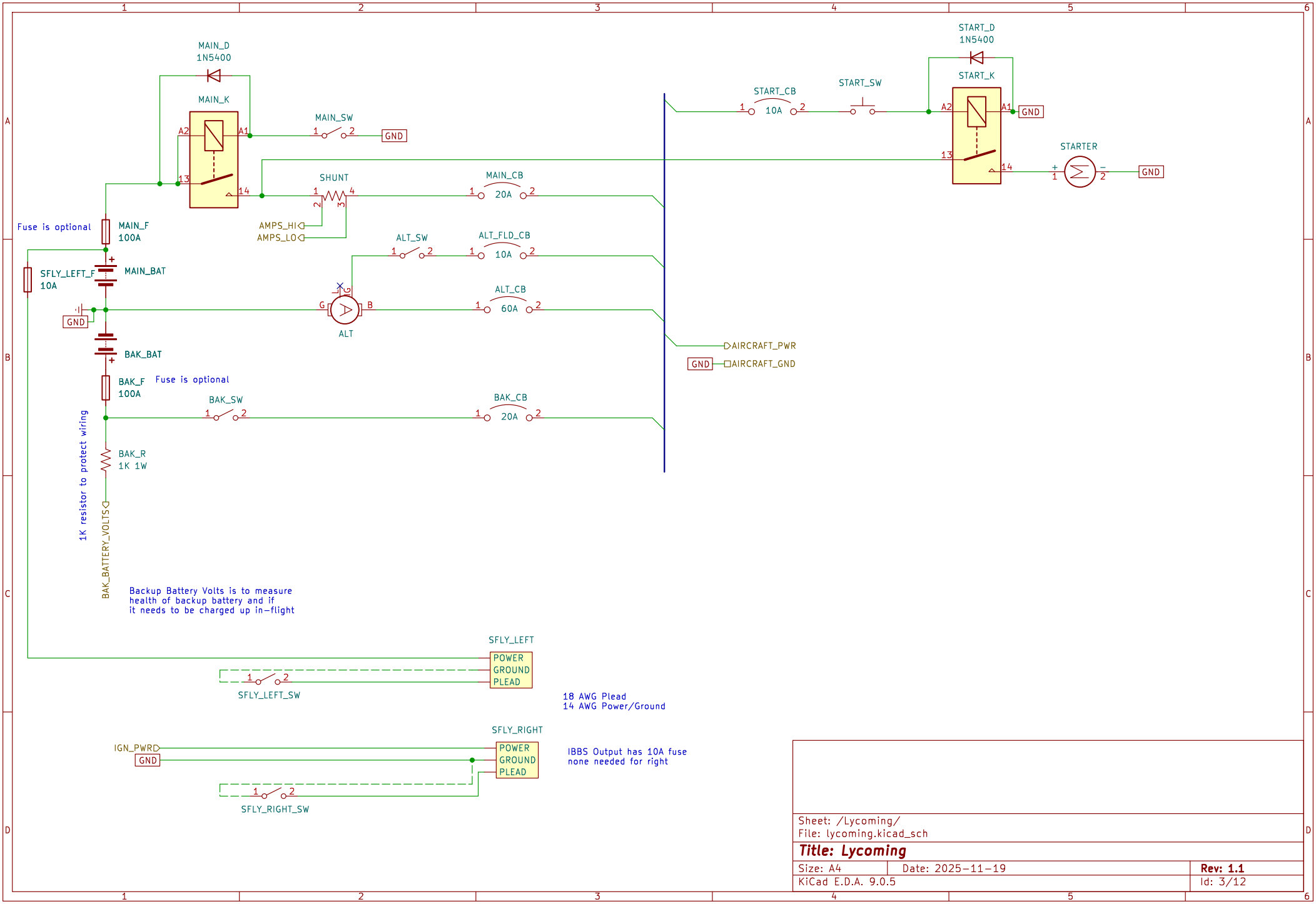
N877RV
Sheet: /
File: electrical.kicad_sch
Title: Electrical Overview
Size: B
Date: 2025-11-19
Rev: 1.1
KiCad E.D.A. 9.0.5
Id: 2/12

N877RV System Overview



* Recommend just connect to GDU 460 which can relay flight plan to GPS 175

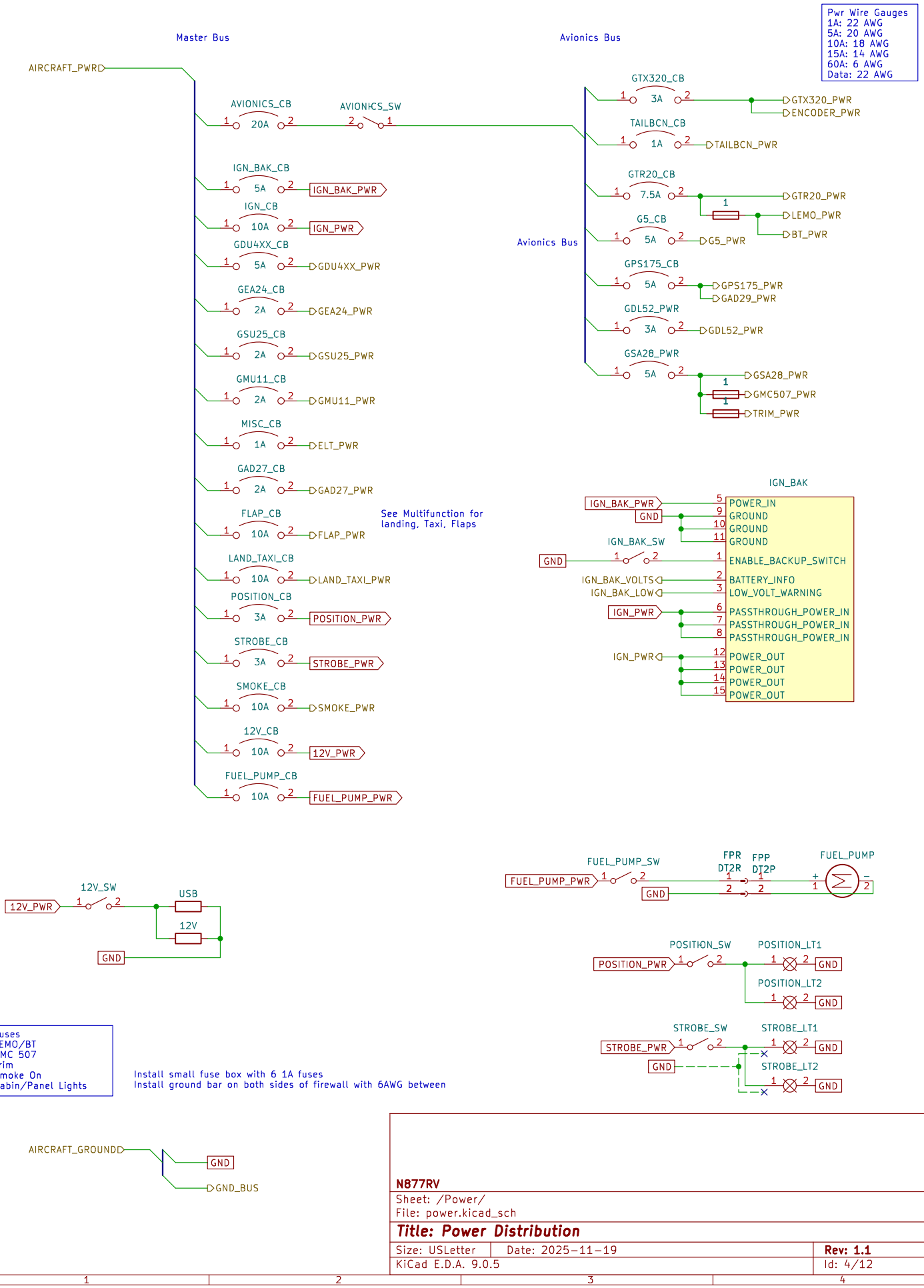
N877RV		
Sheet: /Overview/		
File: overview.kicad_sch		
Title: System Overview		
Size: USLetter	Date: 2025-11-19	**Rev: 1.1**
KiCad E.D.A. 9.0.5		Id: 1/12

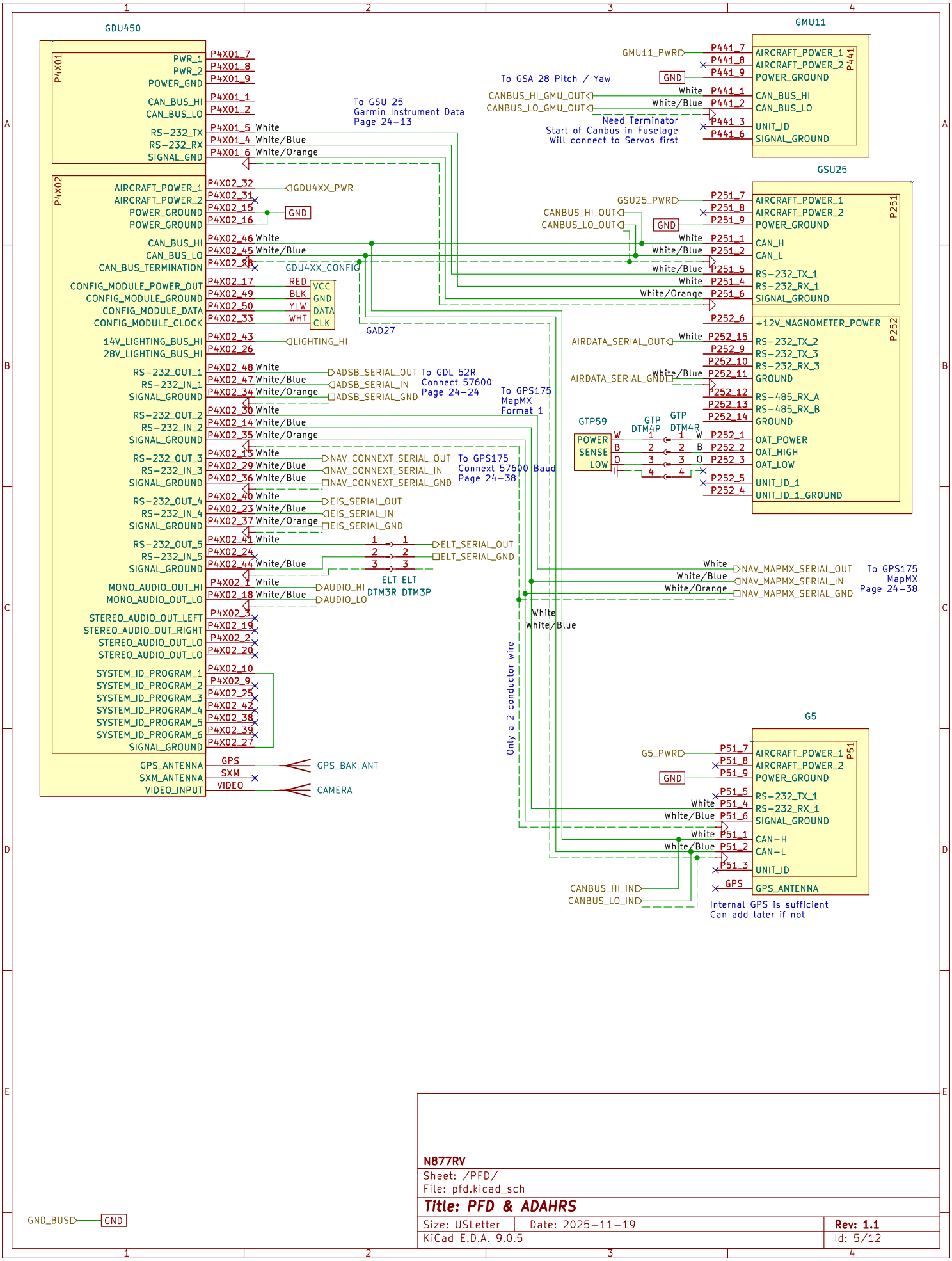


Sheet: /Lycoming/
File: lycoming.kicad_sch

Title: Lycoming

Size: A4	Date: 2025-11-19	**Rev: 1.1**
KiCad E.D.A. 9.0.5		Id: 3/12


Pwr Wire Gauges
1A: 22 AWG
5A: 20 AWG
10A: 18 AWG
15A: 14 AWG
60A: 6 AWG
Data: 22 AWG
Master Bus
Avionics Bus
AIRCRAFT_PWR
AVIONICS_CB
20A
AVIONICS_SW
IGN_BAK_CB
5A
IGN_BAK_PWR
IGN_CB
10A
IGN_PWR
GDU4XX_CB
GDU4XX_PWR
GEA24_CB
2A
GEA24_PWR
GSU25_CB
GSU25_PWR
GMU11_CB
GMU11_PWR
MISC_CB
1A
ELT_PWR
GAD27_CB
GAD27_PWR
FLAP_CB
FLAP_PWR
See Multifunction for landing, Taxi, Flaps
LAND_TAXI_CB
LAND_TAXI_PWR
POSITION_CB
3A
POSITION_PWR
STROBE_CB
STROBE_PWR
SMOKE_CB
SMOKE_PWR
12V_CB
12V_PWR
FUEL_PUMP_CB
FUEL_PUMP_PWR
Avionics Bus
GTX320_CB
7.5A
GTX320_PWR
ENCODER_PWR
TAILBCN_CB
1A
TAILBCN_PWR
GTR20_CB
GTR20_PWR
LEMO_PWR
BT_PWR
G5_CB
G5_PWR
GPS175_CB
GPS175_PWR
GAD29_PWR
GDL52_PWR
GSA28_PWR
GMC507_PWR
TRIM_PWR
IGN_BAK
POWER_IN
GROUND
ENABLE_BACKUP_SWITCH
BATTERY_INFO
LOW_VOLT_WARNING
PASSTHROUGH_POWER_IN
POWER_OUT
IGN_BAK_SW
IGN_BAK_VOLTS
IGN_BAK_LOW
12V_SW
USB
12V
FUEL_PUMP_SW
FPR
DT2R
FPP
DT2P
FUEL_PUMP
POSITION_SW
POSITION_LT1
POSITION_LT2
STROBE_SW
STROBE_LT1
STROBE_LT2
Fuses
LEMO/BT
GMC 507
Trim
Smoke On
Cabin/Panel Lights
Install small fuse box with 6 1A fuses
Install ground bar on both sides of firewall with 6AWG between
AIRCRAFT_GROUND
GND_BUS
N877RV
Sheet: /Power/
File: power.kicad_sch
Title: Power Distribution
Size: USLetter
Date: 2025-11-19
Rev: 1.1
KiCad E.D.A. 9.0.5
Id: 4/12


GDU450
P4X01
PWR_1
PWR_2
POWER_GND
CAN_BUS_HI
CAN_BUS_LO
RS-232_TX
RS-232_RX
SIGNAL_GND
P4X02
AIRCRAFT_POWER_1
AIRCRAFT_POWER_2
POWER_GROUND
POWER_GROUND
CAN_BUS_HI
CAN_BUS_LO
CAN_BUS_TERMINATION
CONFIG_MODULE_POWER_OUT
CONFIG_MODULE_GROUND
CONFIG_MODULE_DATA
CONFIG_MODULE_CLOCK
14V_LIGHTING_BUS_HI
28V_LIGHTING_BUS_HI
RS-232_OUT_1
RS-232_IN_1
SIGNAL_GROUND
RS-232_OUT_2
RS-232_IN_2
SIGNAL_GROUND
RS-232_OUT_3
RS-232_IN_3
SIGNAL_GROUND
RS-232_OUT_4
RS-232_IN_4
SIGNAL_GROUND
RS-232_OUT_5
RS-232_IN_5
SIGNAL_GROUND
MONO_AUDIO_OUT_HI
MONO_AUDIO_OUT_LO
STEREO_AUDIO_OUT_LEFT
STEREO_AUDIO_OUT_RIGHT
STEREO_AUDIO_OUT_LO
STEREO_AUDIO_OUT_LO
SYSTEM_ID_PROGRAM_1
SYSTEM_ID_PROGRAM_2
SYSTEM_ID_PROGRAM_3
SYSTEM_ID_PROGRAM_4
SYSTEM_ID_PROGRAM_5
SYSTEM_ID_PROGRAM_6
SIGNAL_GROUND
GPS_ANTENNA
SXM_ANTENNA
VIDEO_INPUT
GPS
SXM
VIDEO
GPS_BAK_ANT
CAMERA
P4X01_7
P4X01_8
P4X01_9
P4X01_1
P4X01_2
P4X01_5 White
P4X01_4 White/Blue
P4X01_6 White/Orange
To GSU 25
Garmin Instrument Data
Page 24-13
P4X02_32
GDU4XX_PWR
P4X02_31
P4X02_15
GND
P4X02_16
P4X02_46 White
P4X02_45 White/Blue
P4X02_28
GDU4XX_CONFIG
P4X02_17 RED
P4X02_49 BLK
P4X02_50 YLW
P4X02_33 WHT
VCC
GND
DATA
CLK
GAD27
P4X02_43
LIGHTING_HI
P4X02_48 White
P4X02_47 White/Blue
P4X02_34 White/Orange
ADSB_SERIAL_OUT
ADSB_SERIAL_IN
ADSB_SERIAL_GND
To GDL 52R
Connect 57600
Page 24-24
P4X02_30 White
P4X02_14 White/Blue
P4X02_35 White/Orange
To GPS175
MapMX
Format 1
P4X02_13 White
P4X02_29 White/Blue
P4X02_36 White/Blue
NAV_CONNEXT_SERIAL_OUT
NAV_CONNEXT_SERIAL_IN
NAV_CONNEXT_SERIAL_GND
To GPS175
Connext 57600 Baud
Page 24-38
P4X02_40 White
P4X02_23 White/Blue
P4X02_37 White/Orange
EIS_SERIAL_OUT
EIS_SERIAL_IN
EIS_SERIAL_GND
P4X02_41 White
P4X02_24
P4X02_44 White/Blue
ELT_SERIAL_OUT
ELT_SERIAL_GND
ELT ELT
DTM3R DTM3P
P4X02_1 White
P4X02_18 White/Blue
AUDIO_HI
AUDIO_LO
P4X02_3
P4X02_19
P4X02_2
P4X02_20
P4X02_10
P4X02_9
P4X02_25
P4X02_42
P4X02_38
P4X02_39
P4X02_27
GMU11
GMU11_PWR
P441_7
P441_8
GND
P441_9
To GSA 28 Pitch / Yaw
CANBUS_HI_GMU_OUT
CANBUS_LO_GMU_OUT
White
White/Blue
P441_1
P441_2
P441_3
P441_6
Need Terminator
Start of Canbus in Fuselage
Will connect to Servos first
AIRCRAFT_POWER_1
AIRCRAFT_POWER_2
POWER_GROUND
CAN_BUS_HI
CAN_BUS_LO
UNIT_ID
SIGNAL_GROUND
P441
GSU25
GSU25_PWR
P251_7
P251_8
CANBUS_HI_OUT
CANBUS_LO_OUT
GND
P251_9
White
White/Blue
P251_1
P251_2
P251_5
P251_4
White/Orange
P251_6
AIRCRAFT_POWER_1
AIRCRAFT_POWER_2
POWER_GROUND
CAN_H
CAN_L
RS-232_TX_1
RS-232_RX_1
SIGNAL_GROUND
P251
P252_6
+12V_MAGNOMETER_POWER
AIRDATA_SERIAL_OUT
White
P252_15
P252_9
P252_10
RS-232_TX_2
RS-232_TX_3
RS-232_RX_3
AIRDATA_SERIAL_GND
White/Blue
P252_11
GROUND
P252_12
P252_13
P252_14
RS-485_RX_A
RS-485_RX_B
GROUND
GTP59
GTP
DTM4P
GTP
DTM4R
POWER
SENSE
LOW
W
B
O
P252_1
P252_2
P252_3
P252_5
P252_4
OAT_POWER
OAT_HIGH
OAT_LOW
UNIT_ID_1
UNIT_ID_1_GROUND
P252
White
White/Blue
White/Orange
NAV_MAPMX_SERIAL_OUT
NAV_MAPMX_SERIAL_IN
NAV_MAPMX_SERIAL_GND
To GPS175
MapMX
Page 24-38
White
White/Blue
Only a 2 conductor wire
G5
G5_PWR
P51_7
P51_8
GND
P51_9
P51_5
White
P51_4
White/Blue
P51_6
White
P51_1
White/Blue
P51_2
P51_3
CANBUS_HI_IN
CANBUS_LO_IN
GPS
AIRCRAFT_POWER_1
AIRCRAFT_POWER_2
POWER_GROUND
RS-232_TX_1
RS-232_RX_1
SIGNAL_GROUND
CAN-H
CAN-L
UNIT_ID
GPS_ANTENNA
P51
Internal GPS is sufficient
Can add later if not
GND_BUS
GND
N877RV
Sheet: /PFD/
File: pfd.kicad_sch
Title: PFD & ADAHRS
Size: USLetter
Date: 2025-11-19
Rev: 1.1
KiCad E.D.A. 9.0.5
Id: 5/12

GEA24

P241
AIRCRAFT_POWER_1 — P241_7 — GEA24_PWR
AIRCRAFT_POWER_2 — P241_8
GROUND — P241_9 — GND
CAN_HI — P241_1 White — CAN_HI_IN
CAN_LO — P241_2 White/Blue — CAN_LOW_IN
P241_5 White/Blue — CAN_HI_OUT
RS-232_TX — EIS_SERIAL_OUT
RS-232_RX — P241_4 White — EIS_SERIAL_IN
SIGNAL_GND — P241_6 White/Orange — EIS_SERIAL_GND — CAN_LO_OUT

P242
CHT1_HI — P242_24 Yellow — CHT1
CHT1_LO — P242_12 Red
CHT2_HI — P242_22 — CHT2
CHT2_LO — P242_10
CHT3_HI — P242_20 — CHT3
CHT3_LO — P242_8
CHT4_HI — P242_18 — CHT4
CHT4_LO — P242_6
K-Type Yellow Connectors
CHT5_HI/CHT1_RESISTIVE_HI — P242_16
CHT5_LO/CHT1_RESISTIVE_LO — P242_4
CHT5_HI/CHT2_RESISTIVE_HI — P242_14
CHT6_LO/CHT2_RESISTIVE_LO — P242_2

EGT1_HI — P242_25 Yellow — EGT1
EGT1_LO — P242_13 Red
EGT_2_HI — P242_23 — EGT2
EGT2_LO — P242_11
EGT3_HI — P242_21 — EGT3
EGT3_LO — P242_9
EGT4_HI — P242_19 — EGT4
EGT4_LO — P242_7
K Type Yellow Connectors
EGT5_HI — P242_17
EGT5_LO — P242_5
EGT6_HI — P242_15
EGT6_LO — P242_3

P243
FUEL_PRESS — P243_2 White/Blue
FUEL_PRESS_XDCR_+12V — P243_3
FUEL_PRESS_XDCR_+5V — P243_4 White
FUEL_PRESS_GND — P243_1 White/Orange
P243_8 White/Blue
FUEL_PRESSURE GPT 30G: R VIN, G OUPUT, B GROUND
Connector Built In

RPM_1 — P243_9 White — POWER_VSS
RPM_XDCR_+12V_1 — P243_7 White/Orange — GROUND
RPM_XDCR_GND_1
RPM_2 — P243_6 — SIGNAL_OUT
RPM_XDCR_+12V_2 — P243_10 — UNUSED
RPM_XDCR_GND_2 — P243_5
TACH UMA 1A3
Connector Built In

MANIFOLD_PRESS — P243_13 White/Blue
MANIFOLD_PRESS_XDCR_+12V — P243_14
MANIFOLD_PRESS_XDCR_+5V — P243_15 White
MANIFOLD_PRESS_GND — P243_12 White/Orange
MANIFOLD_PRESSURE GPT 30A: R VIN, G OUPUT, B GROUND
Connector Built In

OIL_PRESS_HI — P243_17 White/B/lue
OIL_PRESS_XDCR_+12V — P243_18
OIL_PRESS_XDCR_+5V — P243_19 White
OIL_PRESS_GND — P243_16 White/Orange
OIL_PRESSURE GPT 150G: R VIN, G OUPUT, B GROUND
Connector Built In

Shared with J244_37 FUEL_RETURN — P243_21
FUEL_XDCR_+12V_1 — P243_24 White
GUEL_XDCR_GND_1 — P243_20
FFR FFP DTM3R DTM3P
White 1 1 R POWER
White/Blue 2 2 B GROUND
White/Orange 3 3 W SIGNAL_OUT
FUEL_FLOW FT-60

Shared with J244_36 FUEL_FLOW — P243_23 White/Blue
FUEL_XDCR_+12V_2 — P243_25
FUEL_XDCR_GND_2 — P243_22 White/Orange
COR COP DTM6R DTM6P
GP+5V_1 — P243_26 White — RED +5V
GP_GND_1 — P243_27 White/Green — BLK GROUND
P243_31 White/Blue — WHT CO
POS_6/TIT_1/MISC_TEMP_1_HI — P243_30 — YLW O2_PSI
POS_6/TIT_1/MISC_TEMP_1_LO — P243_29 White/Orange — BLU SPO2
POS_7/TIT_2/MISC_TEMP_2_HI — P243_28 — GRN RS232
POS_7/TIT_2/MISC_TEMP_2_LO
Analog
CO Aithre 3.0

OTR DTM2R OTP DTM2P
OIL_TEMP_HI — P243_33 White
OIL_TEMP_LO — P243_32 White/Blue
OIL_TEMP

SHUNT_1_HI — P243_37 White — AMPS_HI
SHUNT_1_LO — P243_36 White/Blue — AMPS_LO
Shared with J244_46 SHUNT_2_HI — P243_35
Shared with J244_47 SHUNT_2_LO — P243_34
Screw Terminal Connectors at Shunt

P244
FADEC_CAN2_H — P244_17
FADEC_CAN2_L — P244_33
GEA24B Only
FADEC_CAN3_HI — P244_47
FADEC_CAN3_LO — P244_49

FUEL_QTY_1 — P244_6 — FUEL_LEFT
FUEL_QTY_+5V_1 — P244_5
FUEL_QTY_1_GND — P244_7
Blade Connectors Wing Roots
FUEL_QTY_2 — P244_9 — FUEL_RIGHT
FUEL_QTY_+5V_2 — P244_8
FUEL_QTY_2_GND — P244_10

POS_3/GP_3/FUEL_QTY_3 — P244_12 — IGN_BAK_VOLTS
POS_3_HI/+5V_3 — P244_11
POS_3_LO/GND — P244_13

POS_4/GP_4/FUEL_QTY_4 — P244_15
POS_4_HI/+5V_4 — P244_14
POS_4_LO/GND — P244_16

POS_5/GP_5/FUEL_QTY_5 — P244_31 White/Red
POS_5_HI/+5V_5 — P244_30
POS_5_LO/GND — P244_32

GP1/POS_1 — P244_19 White/Blue — PITCH_TRIM_POS
GP1_HI/+5V — P244_18 White — PITCH_TRIM_HI
GP1_LO/GND — P244_20 White/Orange — PITCH_TRIM_LO

GP2/POS_2 — P244_22 White/Blue — O +5V
GP2_HI/+5V — P244_21 White — G SENSE
GP2_LO/GND — P244_23 White/Orange — B LOW
FLAPS_POS POS-12
FLAPR FLAPP DTM3R DTM3P

GP_+5V_2 — P244_24
GP_GND_2 — P244_26
GP_+5V_3 — P244_27
GP_GND_3 — P244_29
GP_+12V — P244_50

VOLTS_1 — P244_25 — Configure "VOLTS 1" input to "EIS Power Input 1 Volts"
VOLTS_2 — P244_28 — BAK_BATTERY_VOLTS

Shared with J243_23 FUEL_FLOW — P244_36
FUEL_XDCR_+12V_3 — P244_34
FUEL_XDCR_GND_3 — P244_38

Shared with J243_21 FUEL_RETURN — P244_37
FUEL_XDCR_+12V_4 — P244_35
FUEL_XDCR_GND_4 — P244_39

DISCRETE_IN_1 — P244_40 — GLIDE_SW
DISCRETE_IN_2 — P244_41 — WARNING_SW
DISCRETE_IN_3 — P244_42 — CAUTION_SW
DISCRETE_IN_4 — P244_43 — IGN_BAK_LOW
GND

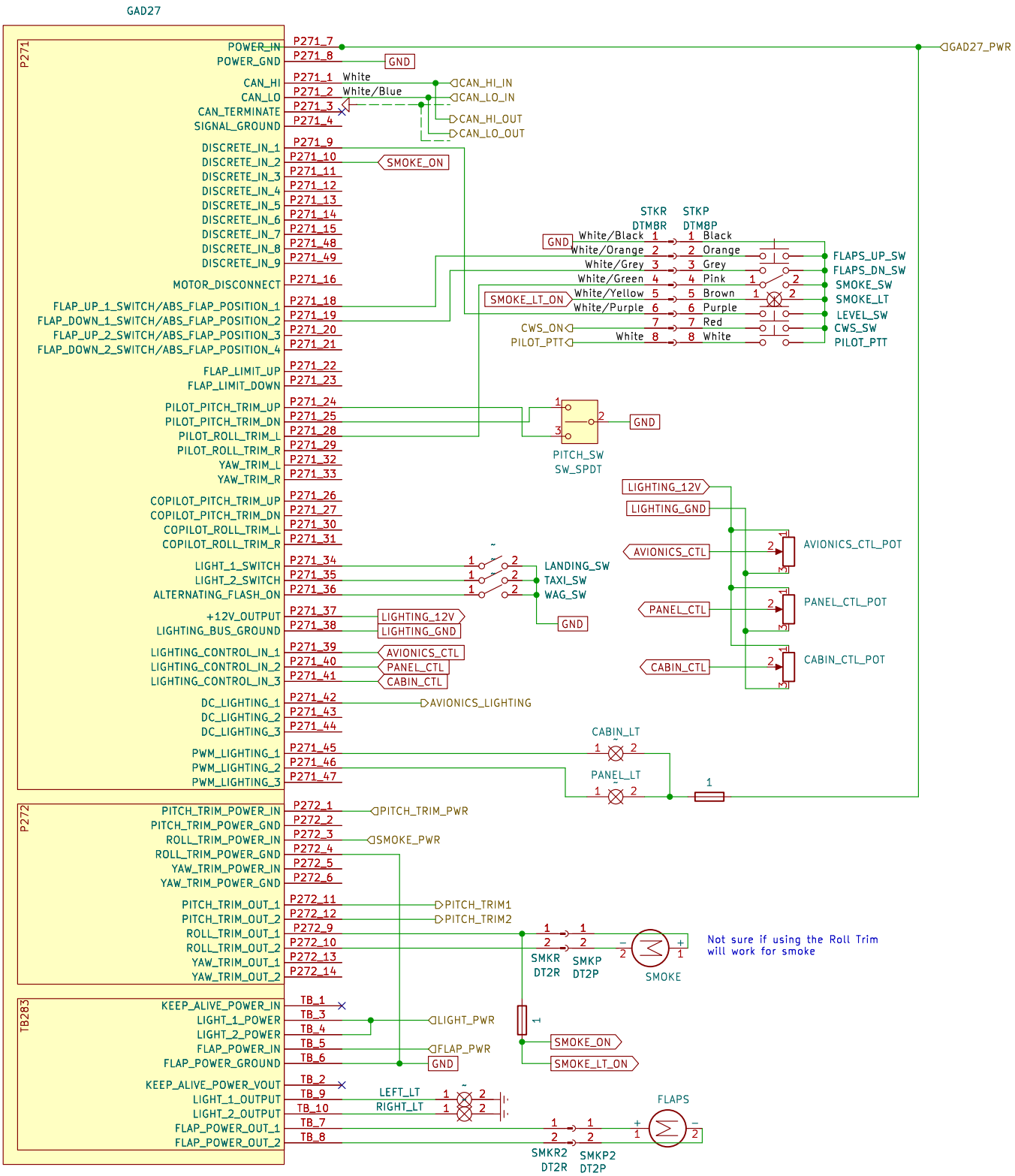
Shared with J243_35 SHUNT_2_HI — P244_46
Shared with J243_34 SHUNT_2_LO — P244_47

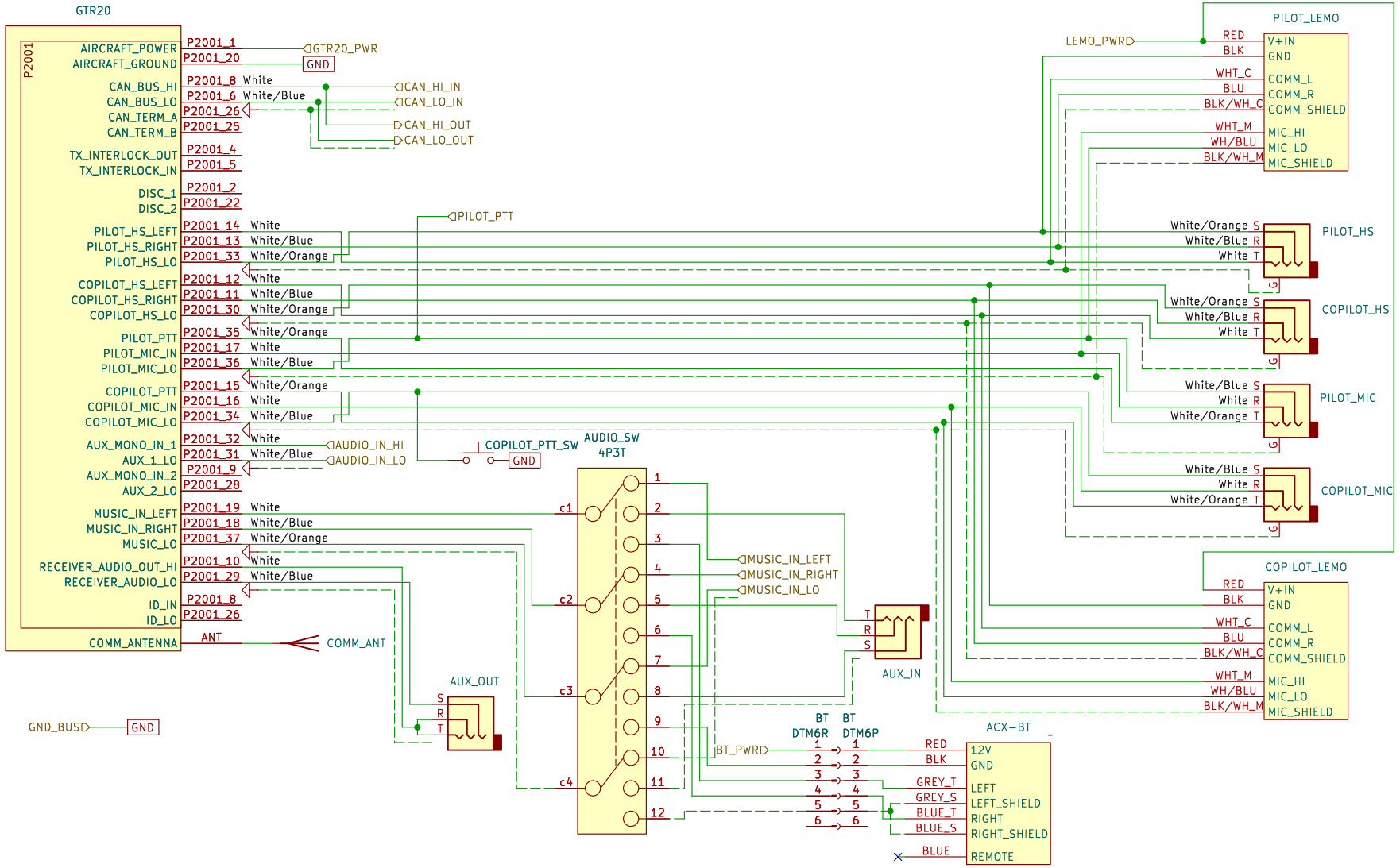
DISCRETE_OUT_1/WARNING — P244_44 — Red 1 2 WARNING_LT
DISCRETE_OUT_2/CAUTION — P244_45 — Yellow 1 2 CAUTION_LT

SYSTEM_ID_1A — P244_1
SYSTEM_ID_1B_/_GND — P244_2

GND_BUS — GND

N877RV
Sheet: /EIS/
File: eis.kicad_sch
Title: EIS
Size: USLedger | Date: 2025-11-19 | Rev: 1.1
KiCad E.D.A. 9.0.5 | Id: 6/12


GAD27
P271
POWER_IN
POWER_GND
CAN_HI
CAN_LO
CAN_TERMINATE
SIGNAL_GROUND
DISCRETE_IN_1
DISCRETE_IN_2
DISCRETE_IN_3
DISCRETE_IN_4
DISCRETE_IN_5
DISCRETE_IN_6
DISCRETE_IN_7
DISCRETE_IN_8
DISCRETE_IN_9
MOTOR_DISCONNECT
FLAP_UP_1_SWITCH/ABS_FLAP_POSITION_1
FLAP_DOWN_1_SWITCH/ABS_FLAP_POSITION_2
FLAP_UP_2_SWITCH/ABS_FLAP_POSITION_3
FLAP_DOWN_2_SWITCH/ABS_FLAP_POSITION_4
FLAP_LIMIT_UP
FLAP_LIMIT_DOWN
PILOT_PITCH_TRIM_UP
PILOT_PITCH_TRIM_DN
PILOT_ROLL_TRIM_L
PILOT_ROLL_TRIM_R
YAW_TRIM_L
YAW_TRIM_R
COPILOT_PITCH_TRIM_UP
COPILOT_PITCH_TRIM_DN
COPILOT_ROLL_TRIM_L
COPILOT_ROLL_TRIM_R
LIGHT_1_SWITCH
LIGHT_2_SWITCH
ALTERNATING_FLASH_ON
+12V_OUTPUT
LIGHTING_BUS_GROUND
LIGHTING_CONTROL_IN_1
LIGHTING_CONTROL_IN_2
LIGHTING_CONTROL_IN_3
DC_LIGHTING_1
DC_LIGHTING_2
DC_LIGHTING_3
PWM_LIGHTING_1
PWM_LIGHTING_2
PWM_LIGHTING_3
P271_7
P271_8
P271_1 White
P271_2 White/Blue
P271_3
P271_4
P271_9
P271_10
P271_11
P271_12
P271_13
P271_14
P271_15
P271_48
P271_49
P271_16
P271_18
P271_19
P271_20
P271_21
P271_22
P271_23
P271_24
P271_25
P271_28
P271_29
P271_32
P271_33
P271_26
P271_27
P271_30
P271_31
P271_34
P271_35
P271_36
P271_37
P271_38
P271_39
P271_40
P271_41
P271_42
P271_43
P271_44
P271_45
P271_46
P271_47
GND
SMOKE_ON
CAN_HI_IN
CAN_LO_IN
CAN_HI_OUT
CAN_LO_OUT
GAD27_PWR
STKR DTM8R
STKP DTM8P
White/Black 1
White/Orange 2
White/Grey 3
White/Green 4
White/Yellow 5
White/Purple 6
7 Red
White 8
1 Black
2 Orange
3 Grey
4 Pink
5 Brown
6 Purple
7 Red
8 White
FLAPS_UP_SW
FLAPS_DN_SW
SMOKE_SW
SMOKE_LT
LEVEL_SW
CWS_SW
PILOT_PTT
SMOKE_LT_ON
CWS_ON
PILOT_PTT
PITCH_SW
SW_SPDT
LANDING_SW
TAXI_SW
WAG_SW
LIGHTING_12V
LIGHTING_GND
AVIONICS_CTL
PANEL_CTL
CABIN_CTL
AVIONICS_CTL_POT
PANEL_CTL_POT
CABIN_CTL_POT
AVIONICS_LIGHTING
CABIN_LT
PANEL_LT
P272
PITCH_TRIM_POWER_IN
PITCH_TRIM_POWER_GND
ROLL_TRIM_POWER_IN
ROLL_TRIM_POWER_GND
YAW_TRIM_POWER_IN
YAW_TRIM_POWER_GND
PITCH_TRIM_OUT_1
PITCH_TRIM_OUT_2
ROLL_TRIM_OUT_1
ROLL_TRIM_OUT_2
YAW_TRIM_OUT_1
YAW_TRIM_OUT_2
P272_1
P272_2
P272_3
P272_4
P272_5
P272_6
P272_11
P272_12
P272_9
P272_10
P272_13
P272_14
PITCH_TRIM_PWR
SMOKE_PWR
PITCH_TRIM1
PITCH_TRIM2
SMKR DT2R
SMKP DT2P
SMOKE
Not sure if using the Roll Trim will work for smoke
TB283
KEEP_ALIVE_POWER_IN
LIGHT_1_POWER
LIGHT_2_POWER
FLAP_POWER_IN
FLAP_POWER_GROUND
KEEP_ALIVE_POWER_VOUT
LIGHT_1_OUTPUT
LIGHT_2_OUTPUT
FLAP_POWER_OUT_1
FLAP_POWER_OUT_2
TB_1
TB_3
TB_4
TB_5
TB_6
TB_2
TB_9
TB_10
TB_7
TB_8
LIGHT_PWR
FLAP_PWR
LEFT_LT
RIGHT_LT
FLAPS
SMKR2 DT2R
SMKP2 DT2P
GND_BUS
Some flap & trim functions are in the EIS drawing, specifically the position sensors for the Flaps & Trim.
N877RV
Sheet: /Multifunction/
File: multifunction.kicad_sch
Title: Flaps, Lights & Trim
Size: USLetter
Date: 2025-11-19
Rev: 1.1
KiCad E.D.A. 9.0.5
Id: 7/12



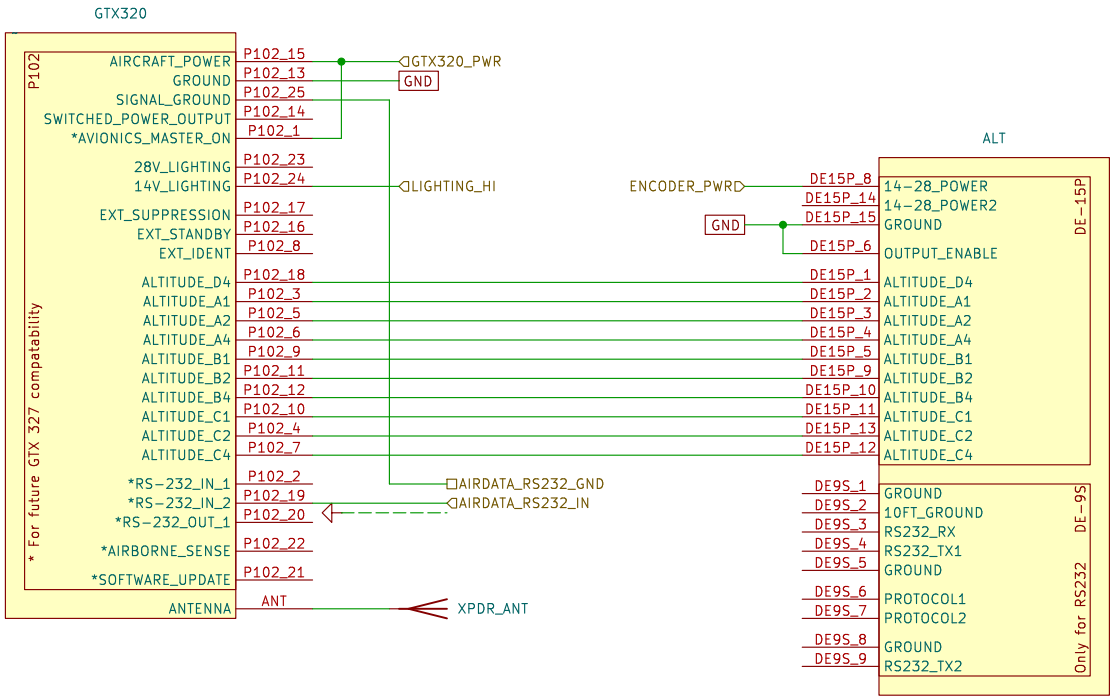
N877RV

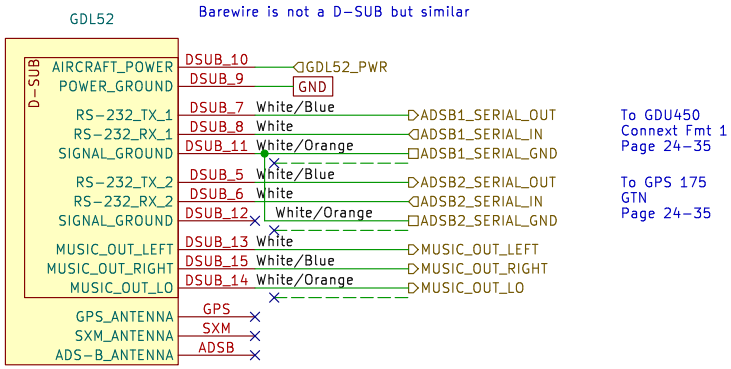
Sheet: /Communication/

File: communication.kicad_sch

Title: Communication

Size: USLetter	Date: 2025-11-19	**Rev: 1.1**
KiCad E.D.A. 9.0.5		Id: 8/12



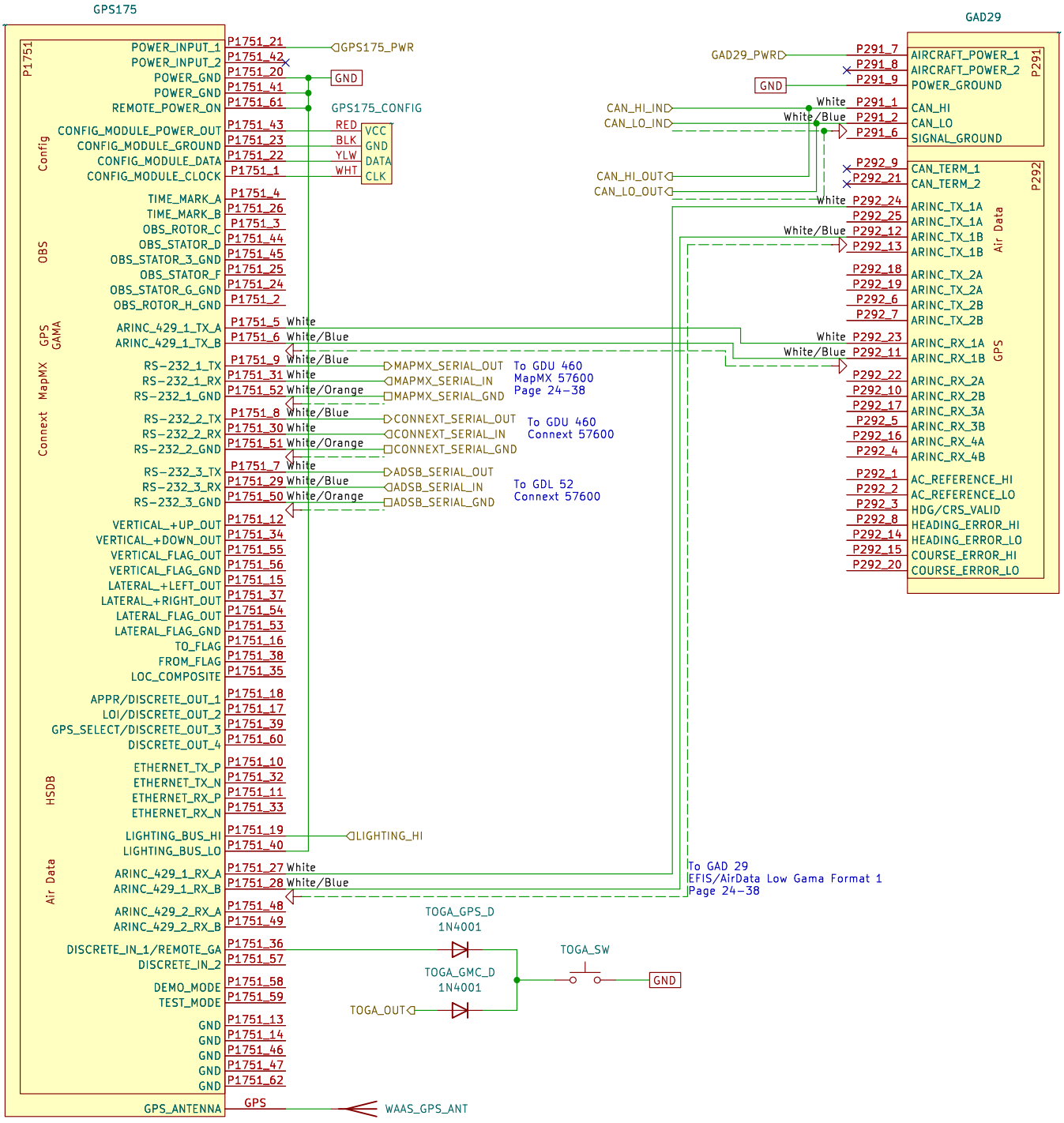


N877RV

Sheet: /Transponder/
File: transponder.kicad_sch

Title: Transponder

Size: USLetter	Date: 2025-11-19	**Rev: 1.1**
KiCad E.D.A. 9.0.5		Id: 9/12



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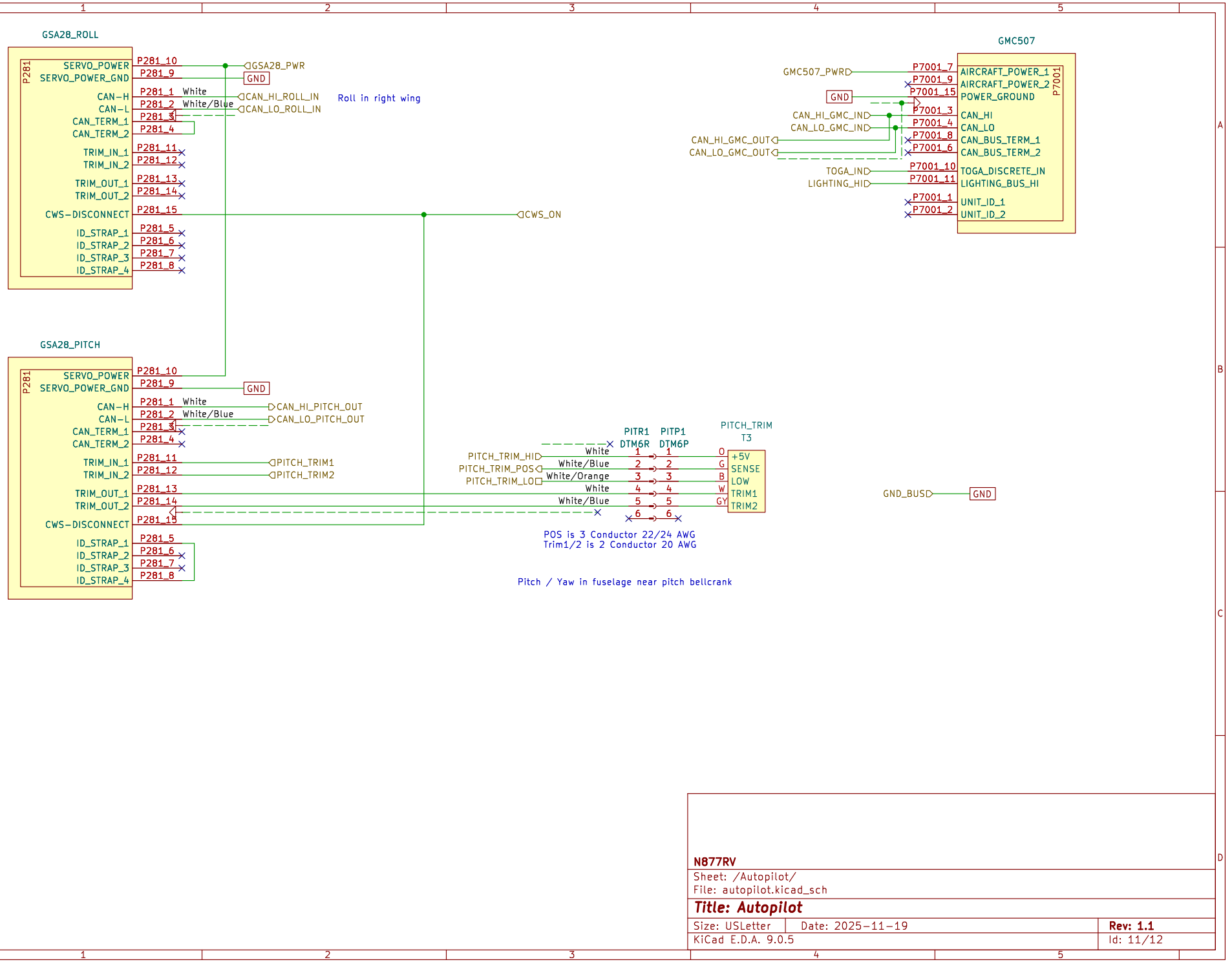
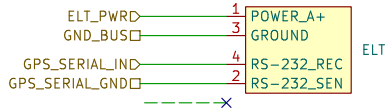
File: navigator.kicad_sch		
Title:		
Size: A	Date: 2025-11-19	**Rev: 1.1**
KiCad E.D.A. 9.0.5		Id: 10/12


GSA28_ROLL
P281
SERVO_POWER
SERVO_POWER_GND
CAN-H
CAN-L
CAN_TERM_1
CAN_TERM_2
TRIM_IN_1
TRIM_IN_2
TRIM_OUT_1
TRIM_OUT_2
CWS-DISCONNECT
ID_STRAP_1
ID_STRAP_2
ID_STRAP_3
ID_STRAP_4
P281_10
P281_9
P281_1
P281_2
P281_3
P281_4
P281_11
P281_12
P281_13
P281_14
P281_15
P281_5
P281_6
P281_7
P281_8
White
White/Blue
GSA28_PWR
GND
CAN_HI_ROLL_IN
CAN_LO_ROLL_IN
Roll in right wing
CWS_ON
GSA28_PITCH
CAN_HI_PITCH_OUT
CAN_LO_PITCH_OUT
PITCH_TRIM1
PITCH_TRIM2
GMC507
GMC507_PWR
P7001_7
P7001_9
P7001_15
P7001_3
P7001_4
P7001_8
P7001_6
P7001_10
P7001_11
P7001_1
P7001_2
AIRCRAFT_POWER_1
AIRCRAFT_POWER_2
POWER_GROUND
CAN_HI
CAN_LO
CAN_BUS_TERM_1
CAN_BUS_TERM_2
TOGA_DISCRETE_IN
LIGHTING_BUS_HI
UNIT_ID_1
UNIT_ID_2
P7001
CAN_HI_GMC_IN
CAN_LO_GMC_IN
CAN_HI_GMC_OUT
CAN_LO_GMC_OUT
TOGA_IN
LIGHTING_HI
PITR1
DTM6R
PITP1
DTM6P
PITCH_TRIM
T3
PITCH_TRIM_HI
PITCH_TRIM_POS
PITCH_TRIM_LO
White/Orange
+5V
SENSE
LOW
TRIM1
TRIM2
O
G
B
W
GY
POS is 3 Conductor 22/24 AWG
Trim1/2 is 2 Conductor 20 AWG
Pitch / Yaw in fuselage near pitch bellcrank
GND_BUS
GND
N877RV
Sheet: /Autopilot/
File: autopilot.kicad_sch
Title: Autopilot
Size: USLetter
Date: 2025-11-19
Rev: 1.1
KiCad E.D.A. 9.0.5
Id: 11/12



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Sheet: /Miscellaneous/
File: miscellaneous.kicad_sch

Title: Miscellaneous

Size: USLetter	Date: 2025-11-19	**Rev: 1.1**
KiCad E.D.A. 9.0.5		Id: 12/12