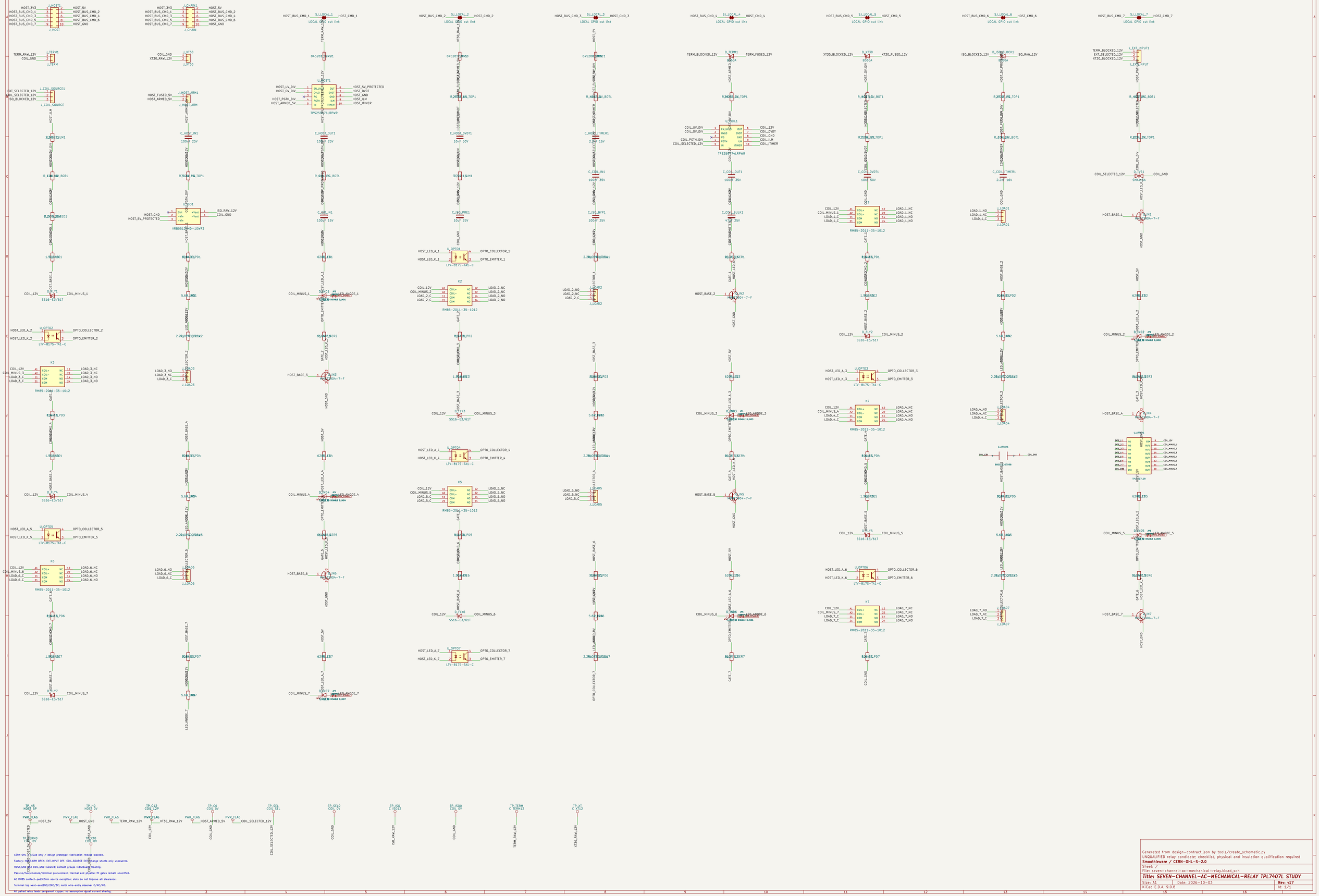

J_HOST1
J_HOST
J_CHAIN1
J_CHAIN
J_TERM1
J_TERM
J_XT30
J_COIL_SOURCE1
J_COIL_SOURCE
J_HOST_ARM1
J_HOST_ARM
U_BOOST1
TPS25947ALRPWR
U_CTL1
TPS25947ALRPWR
U_CTL2
TPS25947ALRPWR
U_CTL3
TPS25947ALRPWR
U_CTL4
TPS25947ALRPWR
U_CTL5
TPS25947ALRPWR
U_CTL6
TPS25947ALRPWR
U_CTL7
TPS25947ALRPWR
U_ISO1
VRB0512YMD-10WR3
J_EXT_INPUT1
J_EXT_INPUT
D_TERM1
D_XT30
D_ISOBLOCK1
D_TVS1
D_FLY1
D_FLY2
D_FLY3
D_FLY4
D_FLY5
D_FLY6
D_FLY7
K1
K2
K3
K4
K5
K6
K7
RMBS-2011-35-1012
J_LOAD1
J_LOAD2
J_LOAD3
J_LOAD4
J_LOAD5
J_LOAD6
J_LOAD7
U_OPTO1
U_OPTO2
U_OPTO3
U_OPTO4
U_OPTO5
U_OPTO6
U_OPTO7
LTV-817S-TA1-C
U_ARM1
C_ARM1
D_IN1
D_IN2
D_IN3
D_IN4
D_IN5
D_IN6
D_IN7
MMBD4004-7-F
D_GND1
D_GND2
D_GND3
D_GND4
D_GND5
D_GND6
D_GND7
SMAJ5.0A
SS16-E3/61T
R_GATE_PD1
R_GATE_PD2
R_GATE_PD3
R_GATE_PD4
R_GATE_PD5
R_GATE_PD6
R_GATE_PD7
R_GATE_ZENER1
R_GATE_ZENER2
R_GATE_ZENER3
R_GATE_ZENER4
R_GATE_ZENER5
R_GATE_ZENER6
R_GATE_ZENER7
R_LED_A1
R_LED_A2
R_LED_A3
R_LED_A4
R_LED_A5
R_LED_A6
R_LED_A7
R_OPTO_COLLECTOR1
R_OPTO_COLLECTOR2
R_OPTO_COLLECTOR3
R_OPTO_COLLECTOR4
R_OPTO_COLLECTOR5
R_OPTO_COLLECTOR6
R_OPTO_COLLECTOR7
R_HOST_ARM_DIV
R_HOST_UV_DIV
R_HOST_PGTH_DIV
R_COIL_UV_DIV
R_COIL_PGTH_DIV
R_COIL_DVDT1
R_COIL_ITIMER1
R_ISO_PRE1
R_ISO_BYP1
C_HOST_IN1
C_HOST_OUT1
C_HOST_DVDT1
C_HOST_ITIMER1
C_COIL_IN1
C_COIL_OUT1
C_COIL_DVDT1
C_COIL_ITIMER1
C_ISO_PRE1
C_ISO_BYP1
C_COIL_BULK1
C_ARM1
HOST_3V3
HOST_5V
HOST_GND
COIL_GND
COIL_12V
COIL_MINUS_1
COIL_MINUS_2
COIL_MINUS_3
COIL_MINUS_4
COIL_MINUS_5
COIL_MINUS_6
COIL_MINUS_7
TERM_RAW_12V
XT30_RAW_12V
ISO_RAW_12V
TERM_FUSED_12V
XT30_FUSED_12V
ISO_BLOCKED_12V
TERM_BLOCKED_12V
XT30_BLOCKED_12V
EXT_SELECTED_12V
COIL_SELECTED_12V
HOST_5V_PROTECTED
HOST_FUSED_5V
HOST_ARMED_5V
HOST_PGTH_DIV
HOST_UV_DIV
COIL_UV_DIV
COIL_PGTH_DIV
HOST_BUS_CMD_1
HOST_BUS_CMD_2
HOST_BUS_CMD_3
HOST_BUS_CMD_4
HOST_BUS_CMD_5
HOST_BUS_CMD_6
HOST_BUS_CMD_7
HOST_CMD_1
HOST_CMD_2
HOST_CMD_3
HOST_CMD_4
HOST_CMD_5
HOST_CMD_6
HOST_CMD_7
SJ_LOCAL_1
SJ_LOCAL_2
SJ_LOCAL_3
SJ_LOCAL_4
SJ_LOCAL_5
SJ_LOCAL_6
SJ_LOCAL_7
LOCAL GPIO cut link
HOST_BASE_1
HOST_BASE_2
HOST_BASE_3
HOST_BASE_4
HOST_BASE_5
HOST_BASE_6
HOST_BASE_7
GATE_1
GATE_2
GATE_3
GATE_4
GATE_5
GATE_6
GATE_7
OPTO_EMITTER_1
OPTO_EMITTER_2
OPTO_EMITTER_3
OPTO_EMITTER_4
OPTO_EMITTER_5
OPTO_EMITTER_6
OPTO_EMITTER_7
OPTO_COLLECTOR_1
OPTO_COLLECTOR_2
OPTO_COLLECTOR_3
OPTO_COLLECTOR_4
OPTO_COLLECTOR_5
OPTO_COLLECTOR_6
OPTO_COLLECTOR_7
LED_ANODE_1
LED_ANODE_2
LED_ANODE_3
LED_ANODE_4
LED_ANODE_5
LED_ANODE_6
LED_ANODE_7
LOAD_1_NC
LOAD_1_NO
LOAD_2_NC
LOAD_2_NO
LOAD_3_NC
LOAD_3_NO
LOAD_4_NC
LOAD_4_NO
LOAD_5_NC
LOAD_5_NO
LOAD_6_NC
LOAD_6_NO
LOAD_7_NC
LOAD_7_NO
TP_H0
TP_H0
TP_C12
TP_C0
TP_SEL
TP_SEL0
TP_ISO
TP_ISO0
TP_TERM
TP_XT
HOST_SP
HOST_0V
COIL_12P
COIL_0V
COIL_SEL
C_ISO12
C_TERM12
C_XT12
PWR_FLAG
TP_HSTCTD
TP_HMID
TP_XTO
TP_CTD
TP_CMID
TP_SELCTD
TP_SELMID
TP_SELXTO
TP_ISOCTD
TP_ISOMID
TP_ISOXTO
CERN OHL-S v2 KiCad only / design prototype, fabrication release blocked.
Factory: HOST_ARM OPEN, EXT_INPUT OFF, COIL_SOURCE EXT; change shunts only unpowered.
HOST_GND and COIL_GND isolated; contact groups individually floating.
Passive/fuse/module/terminal procurement, thermal and physical fit gates remain unverified.
AC RMBS contact-pad3.2mm source exception; slots do not improve air clearance.
Terminal top west-east1NO/2NC/3C; north wire-entry observer C/NC/NO.
All panel relay leads permanent copper; no assumption equal current sharing.
Generated from design-contract.json by tools/create_schematic.py
UNQUALIFIED relay candidate: checklist, physical and insulation qualification required
Smoothieware / CERN-OHL-S-2.0
Sheet: /
File: seven-channel-ac-mechanical-relay.kicad_sch
Title: SEVEN-CHANNEL-AC-MECHANICAL-RELAY TPL7407L STUDY
Size: A1
Date: 2026-10-03
Rev: v17
KiCad E.D.A. 9.0.8
Id: 1/1