



Volga Wet base model User Interface Board

Adapted from Volga Dry base model User Interface Board

Changelog:

- REV A -- VOLGA DRY P1 BOARD
-- Initial send to layout.
- REV B -- change J4, J8, J9 to vertical from RA.
- REV C -- adjust numbers of bypass capacitors
- REV D -- Rename LED outputs
- REV E -- Fix power connection on U6.
- REV F -- VOLGA DRY P2 BOARD
-- Change processor to Cortex M4.
-- Lower LED brightness on R114,R115
-- Add transzorb on CAN.
- REV G -- Rearrange signals on membrane panel.
-- Change R68 and R70 to POPULATED.
- REV H-J --Change USB ground ferrites to 0 Ohm resistors.
- REV K -- VOLGA DRY PP BOARD
-- Fix pinout on U7.
-- Add R134-R138, not populated.
- REV L -- VOLGA WET P1 BOARD
-- Add DIGITAL_IN_5 and DIGITAL_IN_6 to micro.
-- Add ESTOP_READ circuit to J7-1.
-- Disconnect 50mA source from J7-1.
-- Rename LED and membrane switch signals.
-- Change population of membrane switch/LED components.
-- Add bail disable circuit R309,R310,Q19 R139, change R29 to 4.99K.
-- Added pins to connectors for mtg holes - TS
-- Renamed several footprints per Allegro constraints - TS
-- Corrected 3.3V_UNSW to 3.3V (ESTOP READ ckt)- TS
- REV M -- Change generic signal names to be more specific. Page 2,4.
- REV N -- Volga Wet P1.5 board
-- Change VREF to more accurate LM4128-3.3.
-- Add RC filter to misc inputs page 4.
-- Delete unused 5V sources page 4.
-- Adjust LED drive strengths.
-- Change switch input resistors to 1K from 332.
--Add 3 board revision bits.
- REV O -- Volga Wet P2 board
-- Delete TP1 thru TP4.
-- Delete bail disable and add bail attenuator ckt.
- REV P -- Volga Wet PP board
-- Change all diode footprints so pin 1 is Cathode
- REV Q -- Change R58 to 0 Ohms.

REFERENCE PART NUMBERS:

- MH1

MOUNTING HOLE

1

MH2

MOUNTING HOLE

1

MH3

MOUNTING HOLE

1

MH4

MOUNTING HOLE

1
- PCA

ASSEMBLY

1210738
- FW

FIRMWARE

Q30061-001
- PCB1

PCB

Q25042-008
- SCHEMATIC1

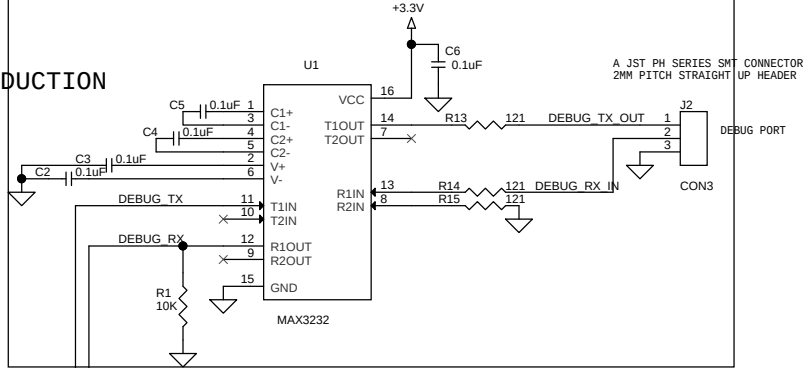
SCHEMATIC

Q26007-002

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VOLGA WET BASE USER INTERFACE MODULE		
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DNI FOR PRODUCTION

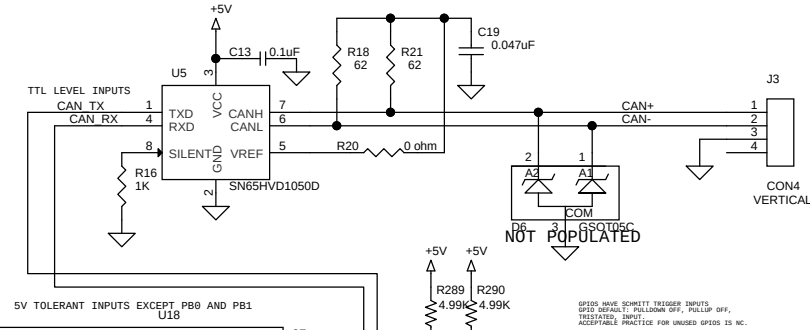
RS-232 SERIAL PORT



CAN INTERFACE

ELECTROSTATIC DISCHARGE PROTECTION
over operating Free-air temperature range
PARAMETER TEST CONDITIONS VALUE
ESD Contact Discharge IEC 61000-4-2, test Method A154°C, 2kV HBM terminals vs GND or 15kV Machine Model, IEC Standard 22, test Method C200 All pins vs 1.5 kV Machine Model, IEC Standard 22, test Method C200 All pins vs 1.5 kV

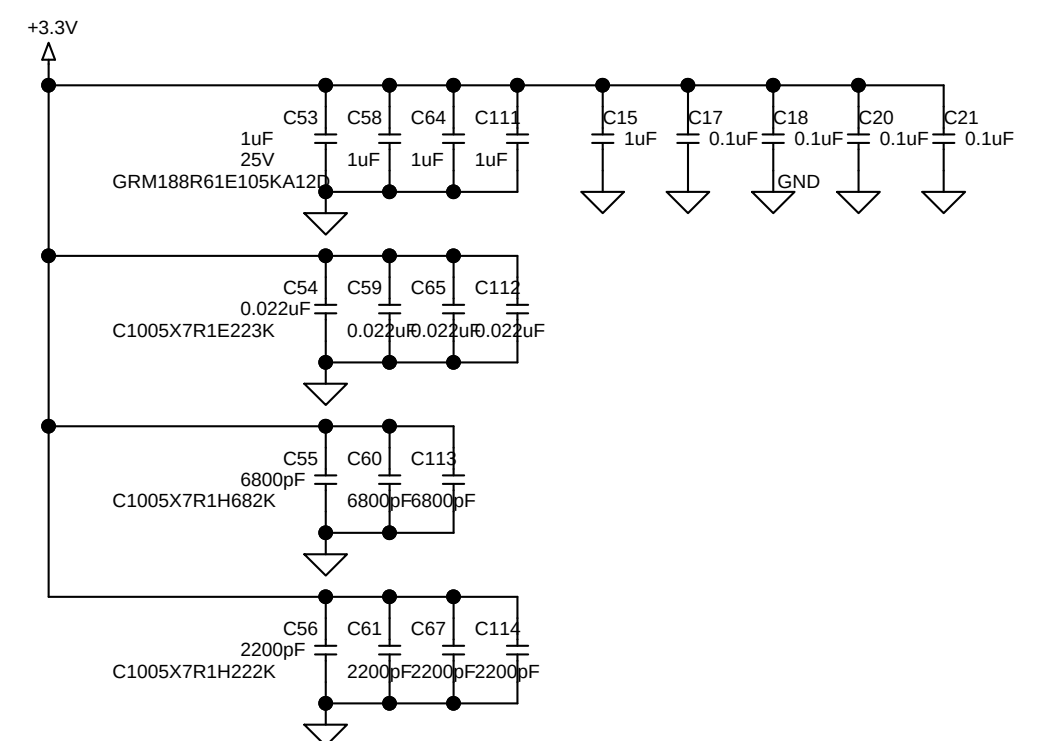
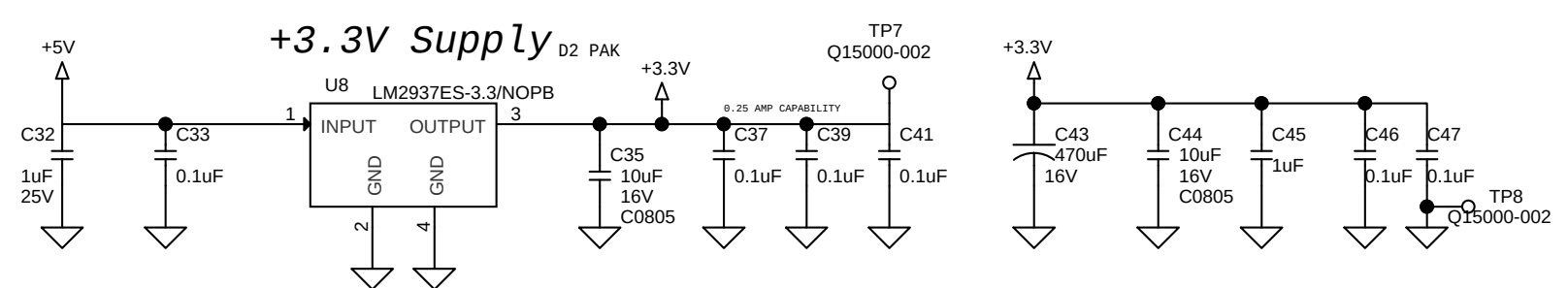
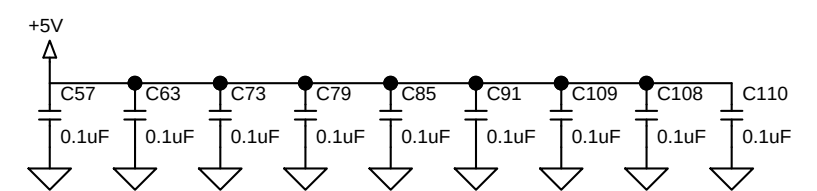
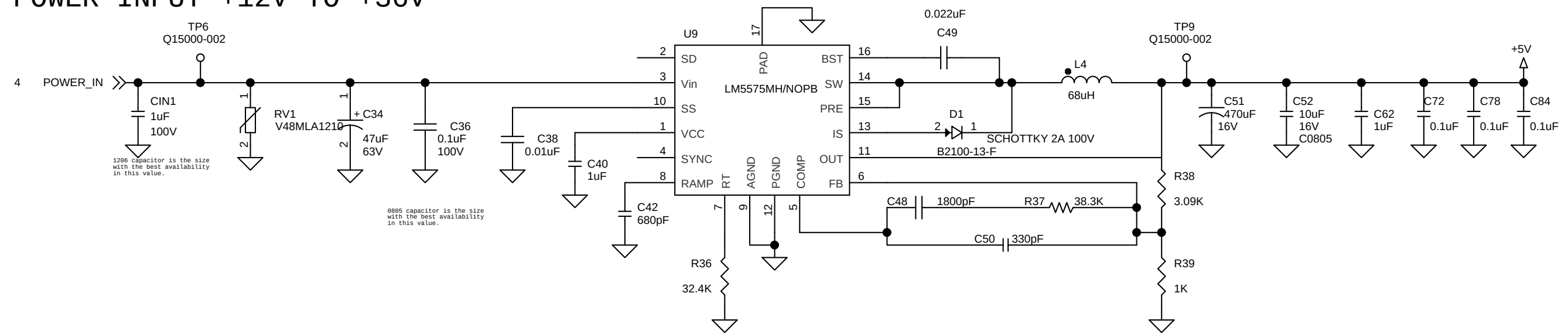
Note:
To make a transceiver endpoint,
simply populate the 62 Ohm
resistors



POWER INPUT +12V TO +36V

POWER SUPPLY +5V

design borrowed from Einstein
Input range 8V-72V



Power Supplies

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