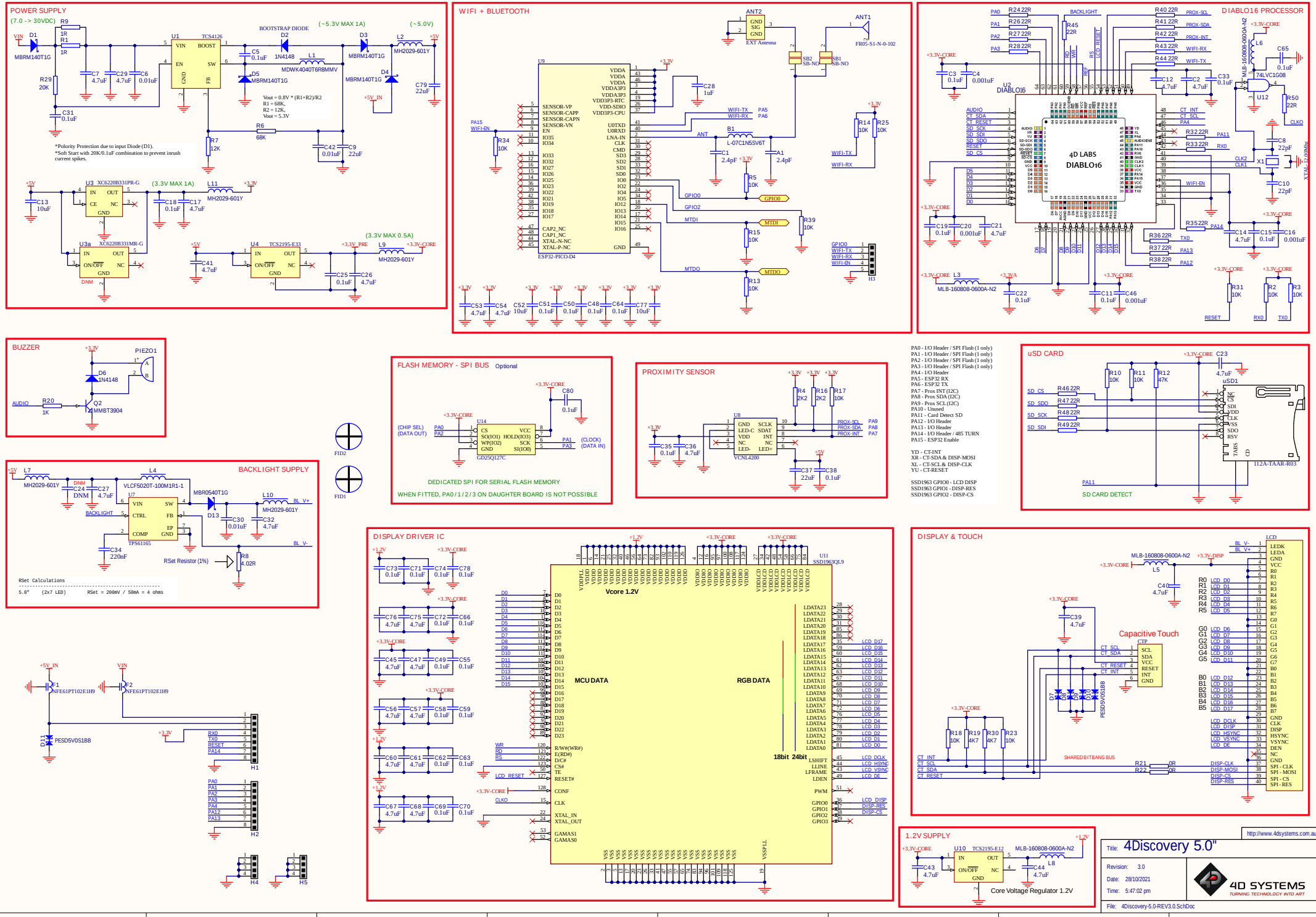
POWER SUPPLY
(7.0 -> 30VDC)
(~5.3V MAX 1A)
(~5.0V)
BOOTSTRAP DIODE
MDWK4040T6R8MMV
Vout = 0.8V * (R1+R2)/R2
R1 = 68K,
R2 = 12K,
Vout = 5.3V
*Polority Protection due to input Diode (D1).
*Soft Start with 20K/0.1uF combination to prevent inrush current spikes.
(3.3V MAX 1A)
(3.3V MAX 0.5A)
WIFI + BLUETOOTH
EXT Antenna
ESP32-PICO-D4
DIABLO16 PROCESSOR
4D LABS
DIABLO16
BUZZER
BACKLIGHT SUPPLY
RSet Resistor (1%)
RSet Calculations
5.0" (2x7 LED) RSet = 200mV / 50mA = 4 ohms
FLASH MEMORY - SPI BUS Optional
DEDICATED SPI FOR SERIAL FLASH MEMORY
WHEN FITTED, PA0/1/2/3 ON DAUGHTER BOARD IS NOT POSSIBLE
PROXIMITY SENSOR
PA0 - I/O Header / SPI Flash (1 only)
PA1 - I/O Header / SPI Flash (1 only)
PA2 - I/O Header / SPI Flash (1 only)
PA3 - I/O Header / SPI Flash (1 only)
PA4 - I/O Header
PA5 - ESP32 RX
PA6 - ESP32 TX
PA7 - Prox INT (I2C)
PA8 - Prox SDA (I2C)
PA9 - Prox SCL (I2C)
PA10 - Unused
PA11 - Card Detect SD
PA12 - I/O Header
PA13 - I/O Header
PA14 - I/O Header / 485 TURN
PA15 - ESP32 Enable
YD - CT-INT
XR - CT-SDA & DISP-MOSI
XL - CT-SCL & DISP-CLK
YU - CT-RESET
SSD1963 GPIO0 - LCD DISP
SSD1963 GPIO1 - DISP-RES
SSD1963 GPIO2 - DISP-CS
uSD CARD
SD CARD DETECT
DISPLAY DRIVER IC
Vcore 1.2V
MCU DATA
RGB DATA
18bit 24bit
DISPLAY & TOUCH
Capacitive Touch
SHARED BITBANG BUS
1.2V SUPPLY
Core Voltage Regulator 1.2V
http://www.4dsystems.com.au
Title: 4Discovery 5.0"
Revision: 3.0
Date: 28/10/2021
Time: 5:47:02 pm
4D SYSTEMS
TURNING TECHNOLOGY INTO ART
File: 4Discovery-5.0-REV3.0.SchDoc