TELEAGRICULTURE BOARD V 2.0 **CON SPI** ANALOG SENSORS CONNECTORS POWER SELECTOR VOLTAGE REGULATOR 5V to 3.3V VCC_5V SPI DZ127R-11-06-25 ADC_1 22272031 ADC_2 22272031 ADC_3 22272031 PWR_JUMPER 210-1S-1*3Ppin Gold-plated ASMD0805-050 LDO1 RT9080-33GJ5 \dashv VCC_3V3 IN VOUT VCC_EXT VCC_5V 47uF VUSB GND GND VCC_5V **GND** GND GND GND -GND **USB CONNECTION Analog Input Filter BATTERY SENSING** 5V CONNECTOR to SOLAR BOARD D1 1N5819HW-7-F BAT2 PH-2AW PH-2AW VCC_EXT USB 105017-0001 442k GPIO7 R2 160K GND GND $\overline{\bar{\text{ND}}}$ $ar{ar{ ext{N}}} ar{ ext{D}}$ GND SWITCH for 1-Wire-Sensors LDO FOR SENSORS Lora Modul Connector 1-Wire-Sensor CONNECTORS 1-W_1 22272031 1-W_2 22272031 22272031 GND **GND** VCC_5V DZ254R-11-08-63 DZ254R-11-08-63 LDO2 RT9080-33GJ5 47uF 100k 100k ĠND GND GND **GND** GND GND ESP32-S3 Circuit **12C PULLUP RESISTORS 12C SENSOR CONNECTORS BUTTONS** RESET I2C_2 22272041 I2C_4 22272041 I2C_1 22272041 TS-1088-AR02016 ESP32-S3-WROOM-1-N8 CHIP_PU GND → VCC_3V3 GPIO1 GPIO2 U0TXD U0RXD ≢ GND RXD0 C16 100nF GPIO41 GPIO40 GPIO40 GPIO39 CS MISO CLK MOSI GPIO0 BOOT GND GND TS-1088-AR02016 GND GND GPIO0 CHIP_PU I2C Levelshifter 5V / 3.3V **5V I2C CONNECTOR** ĠND GND GND I2C_5V 22272041 **USER LED** VCC_5V Header-Male-2.54_1x6 U0TXD U0RXD GPIO45 GPIO46 LED 19-213/Y2C-CQ2R2L/3T(CY) VCC_3V3 VCC_3V3 GND ĠND **GND** teleagriculture Board V 2.0 Waveshare Solar Power Management board: https://www.waveshare.com/solar-power-manager.htm REV: 1.0 ESP32-S3-WROOM DevKit schematic: https://dl.espressif.com/dl/schematics/SCH_ESP32-S3-DevKitC-1_V1.1_20221130.pdf ESP32-S3 devboard: https://docs.espressif.com/projects/esp-idf/en/latest/esp32s3/hw-reference/esp32s3/user-guide-devkitc-1.html Company: teleagriculture.org ESP32-S3-WROOM datasheet: https://www.espressif.com/sites/default/files/documentation/esp32-s3-wroom-1_wroom-1u_datasheet_en.pdf 2022-12-24 Drawn By: artdanion