

Solar Sensor Tag EFM THSensor parts

Reduced part list for TH sensors with VL2020 battery

| Ref | Value | Size / Case / Spec | PartNo. / Alternatives | |
|-------------------------|----------------------|---|--|--|
| THSensor project | | | | |
| IC3 | M24256 | SOIC-8 3,9mm P1.27mm, EEPROM | M24256E-FMN6TP M24256-BRMN6TP M24M01-DFMN6TP | |
| IC5 | Reg. 3,0V | bridge pin 1-5 | | |
| IC6 | EFM32 | QFN-32, MCU AMTEL (EFM32HG210F32 for release not tested) | EFM32HG210F64-B-QFN32 | |
| IC7 | TCK106AF | SOT23-5 | TCK106AF,LF | |
| IC_S3 | SHT4x | SHT4x 1.5x1.5mm P0.8mm | SHT40-AD1B-R2 SHT40A SHT41A | |
| D2 | BAS40-05 | SOT-23, common cathode, low leakage or bridge pin 2-3 | BAS40-05 BAS70-05 BAT54C | |
| D4 | LED RedGreen | 5mm/3mm, THT, 3Pin, common cathode | WP59SURKCGKW | |
| D5 | BAS385 | MicroMELF, 0603, 0805, low leakage | CDBU40 | |
| D7 | 150 | 0603 (resistor instead of diode) | | |
| C1 | 100n | 0603 | CL10B104KA8NNWC | |
| C4 | 47uF 6,3V | 1206, X5R, poss. Tantal 1210 low height | CL31A476MQHNNNE | |
| C5 | 100nF | 0603 | | |
| C6 | 1nF | 0603 | | |
| C7 | 1uF | 0805 | CL21B105KAFNNNE | |
| C10 | 100nF | 0603 | | |
| C11 | 220pF | 0603 | | |
| C12 | 100nF | 0603 | | |
| R3 | 10k | unbridge for debug | | |
| R4 | 6k8 | 0603, I2C pullup | | |
| R5 | 6k8 | 0603, I2C pullup | | |
| R10 | 47k | 0603 | | |
| R11 | 620 | 0603 | | |
| R12 | 240 | 0603 | | |
| R13 | 10k | 0603 | | |
| R14 | 10k | 0603 | | |
| JP1 | | bridge | | |
| TRX1 | CC1101 868MHz | 19x17mm module | | |
| ANT | 83mm 868MHz | isolated wire antenna | | |
| BT1 | VL2020 | Li.Va. battery cell with solder tabs Charge end 3.4V, Discharge end: 2,5V! max. short load current not spec.! | VL2020/1HF VL2020/HFN BL2020 | |
| TA1 | PushButton | 6x6mm ... from CASE | | |
| SP1 | SC-3722-9 | SolarPanel 4V, 37x22mm ... from CASE | | |
| LP | HM SST V1.0 | PCB, 31,2x41,2mm, 4-layer | | |
| CASE | | SolarPowerFlashLight | | |