

## BILL OF MATERIALS

Board: Opal Board Rev E

Version: 1

Date: 2/28/2023

| ITEM # | REF DES | DESCRIPTION                      | QTY | MANUFACTURER                    | MPN                | ASSEMBLY NOTES                             |
|--------|---------|----------------------------------|-----|---------------------------------|--------------------|--|
| 1      |         | Blank PCB                        | 1   |                                 | Custom             | NA   |
| 2      | U1      | WIRELESS GECKO, BLUETOOTH SIP MO | 1   | Silicon Labs                    | BGM220SC12WGA2R    |  |
| 3      | U2      | IC BATT CHG LI-ION 1CELL 25DSBGA | 1   | Texas Instruments               | BQ25120YFPT        |  |
| 4      | BT1     | BATTERY LITHIUM 3V RECHARGE      | 1   | Seiko Instruments               | ML414H IV01E       |  |
|        | J2 - J5 | PCB SPRING CONTACT, C-CLIP       | 4   | TE Connectivity                 | 3100069            |  |
| 5      | M1      | VIBRATION ERM MOTOR FPC 3V 0.2G  | 1   | Vytronics Inc                   | VC0720B088L        | NOT SMD, mates with spring contacts J4, J5 |
| 6      | SW1     | SWITCH TACTILE SPST-NO 0.02A 15V | 1   | Panasonic Electronic Components | EVP-BB2A9B000      |  |
| 7      | C1      | CAP CER 10UF 10V X5R 0402        | 2   | Samsung Electro-Mechanics       | CL05A106MP5NUNC    |  |
| 8      | C2 - C5 | CAP CER 1UF 6.3V X7R 0402        | 4   | Murata Electronics              | GRM155R70J105MA12D |  |
| 9      | L1      | FIXED IND 2.2UH 1.5A 160MOHM SMD | 1   | Murata Electronics              | MAKK2016T2R2M      |  |
| 10     | R1, R2  | RES 10K OHM 5% 1/20W 0201        | 2   | Stackpole Electronics Inc       | RMCF0201JG10K0     |  |
| 11     | R3      | RES 100K OHM 5% 1/20W 0201       | 1   | Stackpole Electronics Inc       | RMCF0201JT100K     |  |
| 12     | R4      | RES 14K OHM 1% 1/20W 0201        | 2   | Stackpole Electronics Inc       | RMCF0201JG10K0     |  |
| 13     | R5      | RES 14.3K OHM 1% 1/20W 0201      | 1   | Stackpole Electronics Inc       | RMCS0201FT14K0     |  |
| 14     | R6, R7  | RES 0 OHM JUMPER 1/20W 0201      | 2   | Stackpole Electronics Inc       | RMCF0201ZTOR00     |  |