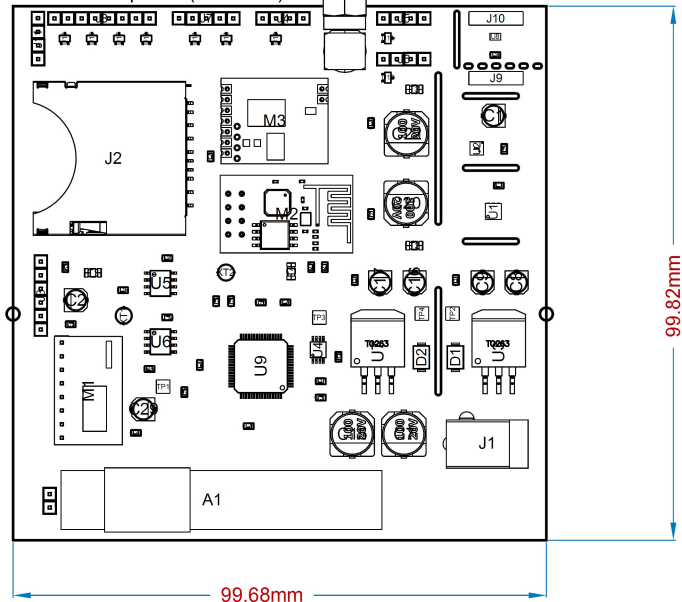
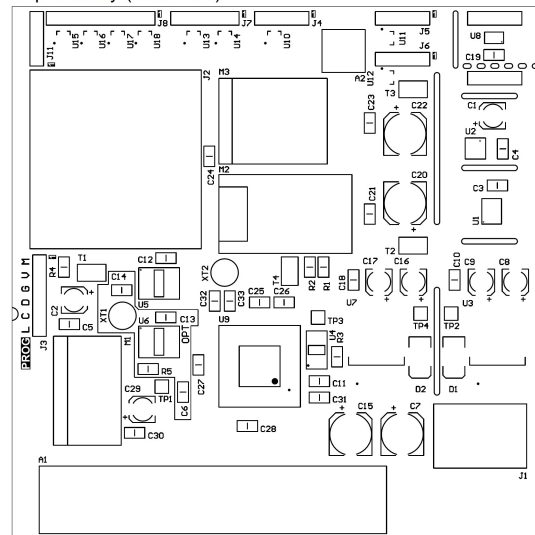


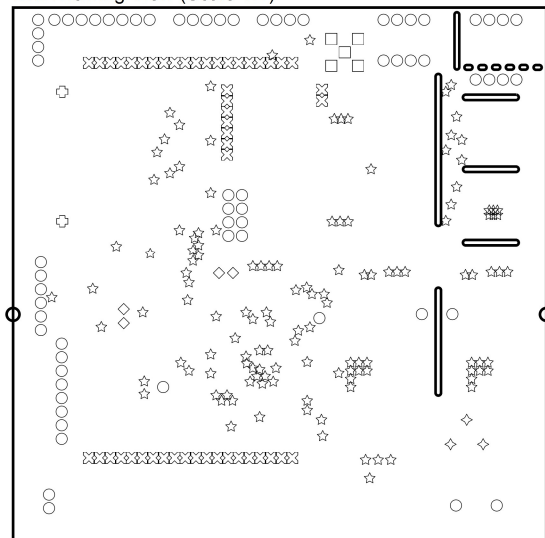
View from Top side (Scale 1:1)



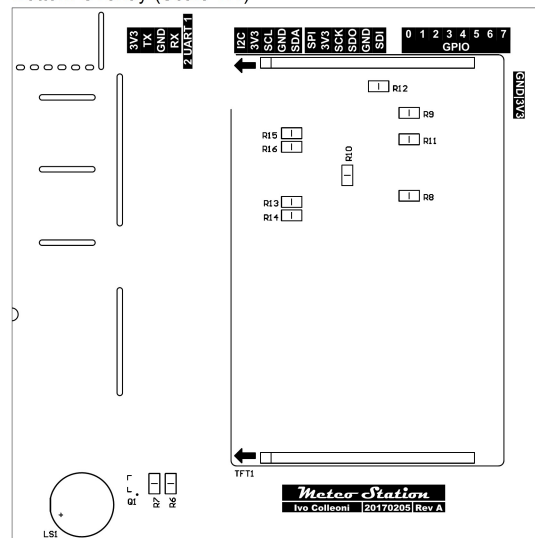
Top Overlay (Scale 1:1)



Drill Drawing View (Scale 1:1)



Bottom Overlay (Scale 1:1)



Bill Of Materials

| Item | Designator | Comment | Quantity |
|------|--|-------------------|----------|
| 1 | A1 | 77.5KHz antenna | 1 |
| 2 | A2 | 868MHz Antenna | 1 |
| 3 | C14 | 22pF | 1 |
| 4 | C1, C2, C8, C9, C16, C17, C29 | 22uF | 7 |
| 5 | C3-C6, C10-C13, C18, C19, C21, C23-C28, C30, C31 | 100nF | 19 |
| 6 | C32, C33 | 12pF | 2 |
| 7 | C7, C15, C20, C22 | 100uF | 4 |
| 8 | D1, D2 | MRA4003 | 2 |
| 9 | J1 | DC IN | 1 |
| 10 | J9, J10 | VEML_H | 2 |
| 11 | J11 | POWER | 1 |
| 12 | J2 | SD_CONNECTOR | 1 |
| 13 | J3 | Program | 1 |
| 14 | J4 | I2C EXT | 1 |
| 15 | J5 | UART1 EXT | 1 |
| 16 | J6 | UART2 EXT | 1 |
| 17 | J7 | SPI_EXT | 1 |
| 18 | J8 | GPIO | 1 |
| 19 | LS1 | Buzzer | 1 |
| 20 | M1 | EM6DCF3V | 1 |
| 21 | M2 | ESP8266 Module | 1 |
| 22 | M3 | HM-TRP 868 Module | 1 |
| 23 | Q1 | BC817 | 1 |
| 24 | R1, R2, R5 | 4K7 | 3 |
| 25 | R3, R4, R6, R13-R16 | 5K6 | 7 |
| 26 | R7 | 33K | 1 |
| 27 | R8-R12 | 47K | 5 |
| 28 | T1-T4 | NFE31PT101 | 4 |
| 29 | TFT1 | TFT_HY28B | 1 |
| 30 | TP1-TP4 | TP | 4 |
| 31 | U1 | HDC1080DMBR | 1 |
| 32 | U10-U18 | TPD2E007 | 9 |
| 33 | U2 | LPS25HB | 1 |
| 34 | U3, U7 | LM1085 3.3V | 2 |
| 35 | U4 | HKW581 | 1 |
| 36 | U5 | 24LC1025 | 1 |
| 37 | U6 | PFC8563 | 1 |
| 38 | U8 | VEML6075 | 1 |
| 39 | U9 | PIC18F67K22-I/PT | 1 |
| 40 | XT1, XT2 | 32.768Hz | 2 |

Drill Table

| Symbol | Count | Hole Size | Plated | Hole Tolerance |
|--------|-----------|-----------|------------|----------------|
| ☆ | 131 | 0.30 | Plated | None |
| ◇ | 4 | 0.70 | Plated | None |
| ⊗ | 49 | 0.80 | Plated | None |
| ○ | 67 | 0.90 | Plated | None |
| □ | 5 | 1.50 | Plated | None |
| ⊕ | 2 | 2.00 | Non-Plated | None |
| ◇ | 3 | 3.00 | Plated | None |
| | 261 Total | | | |