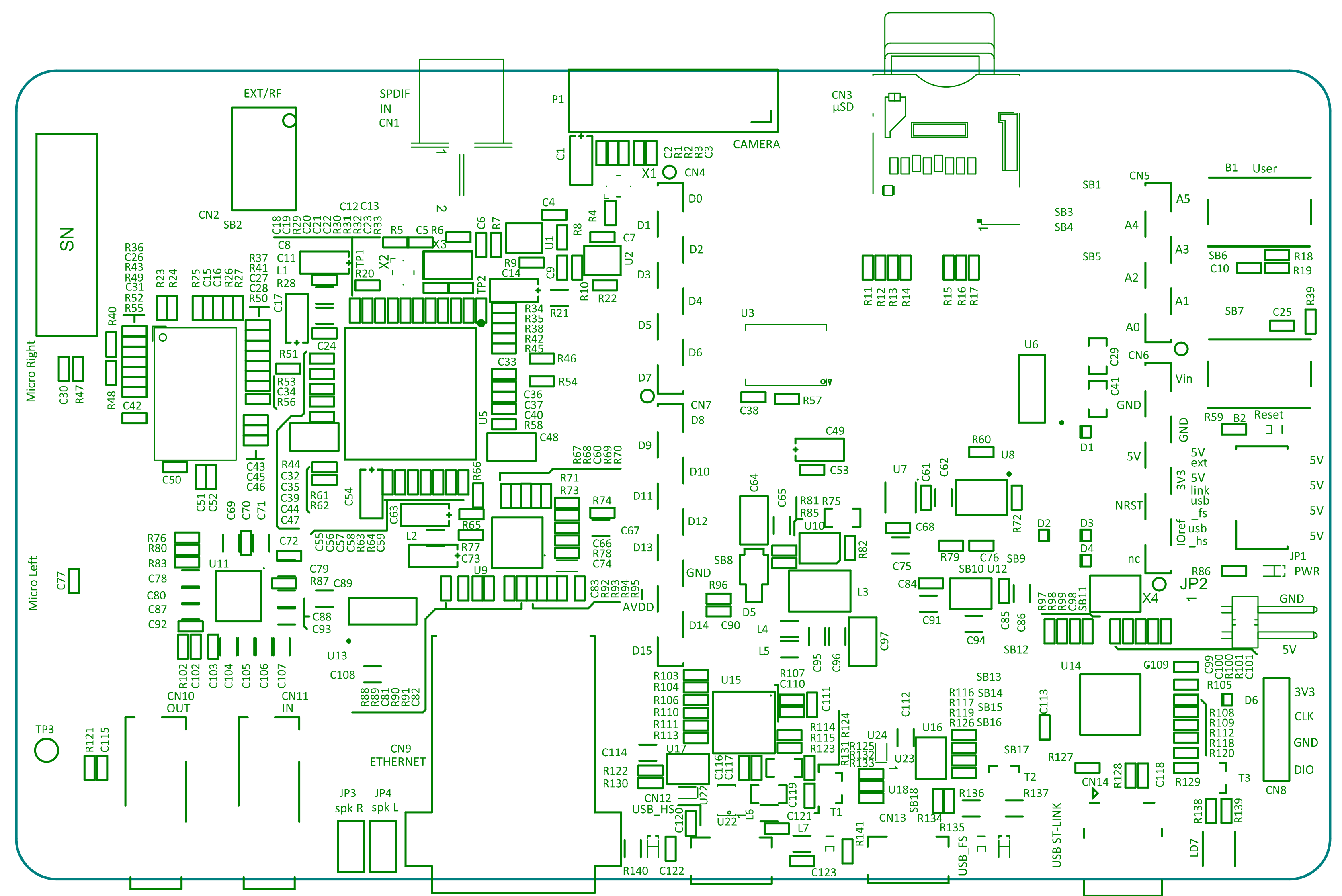
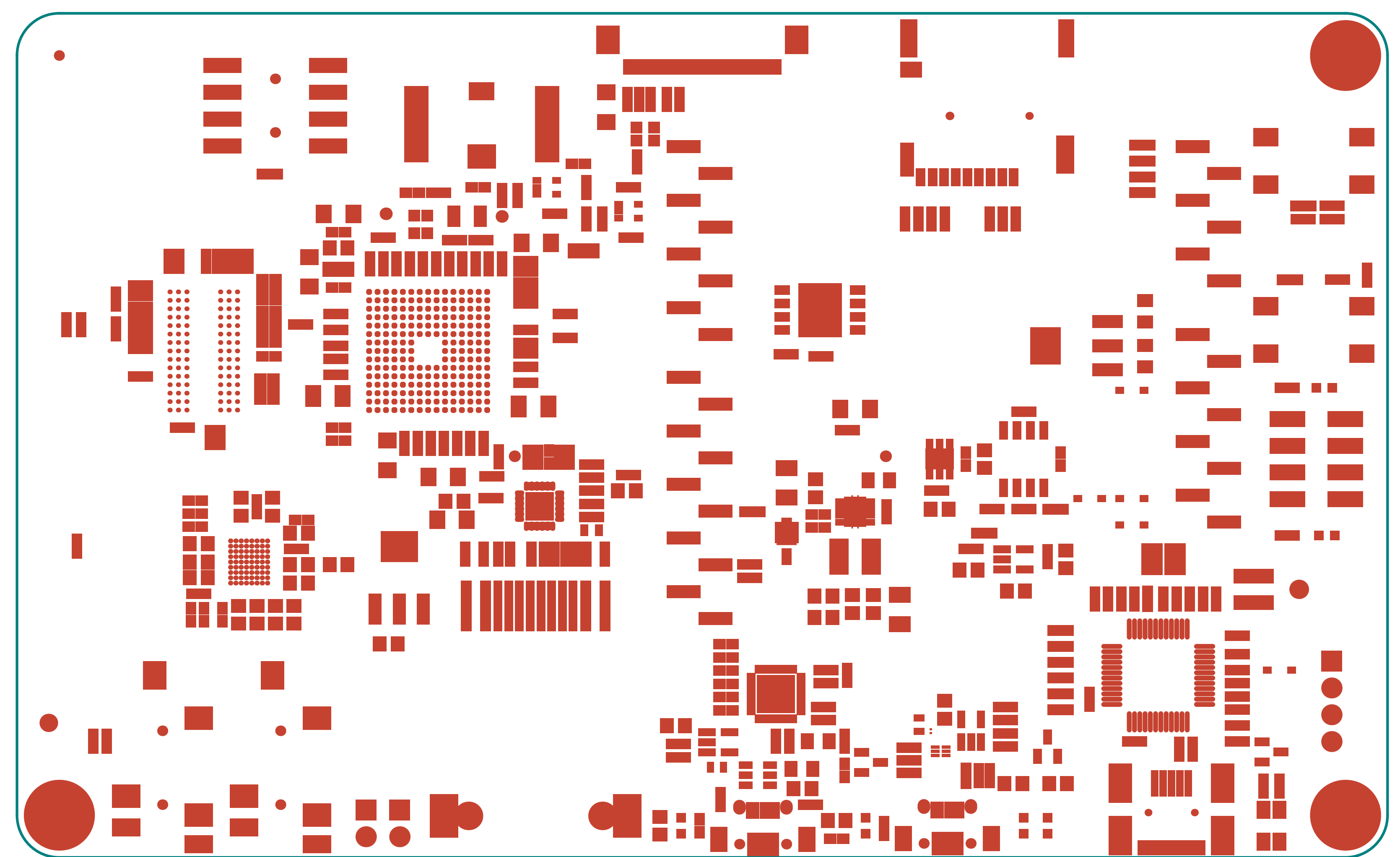
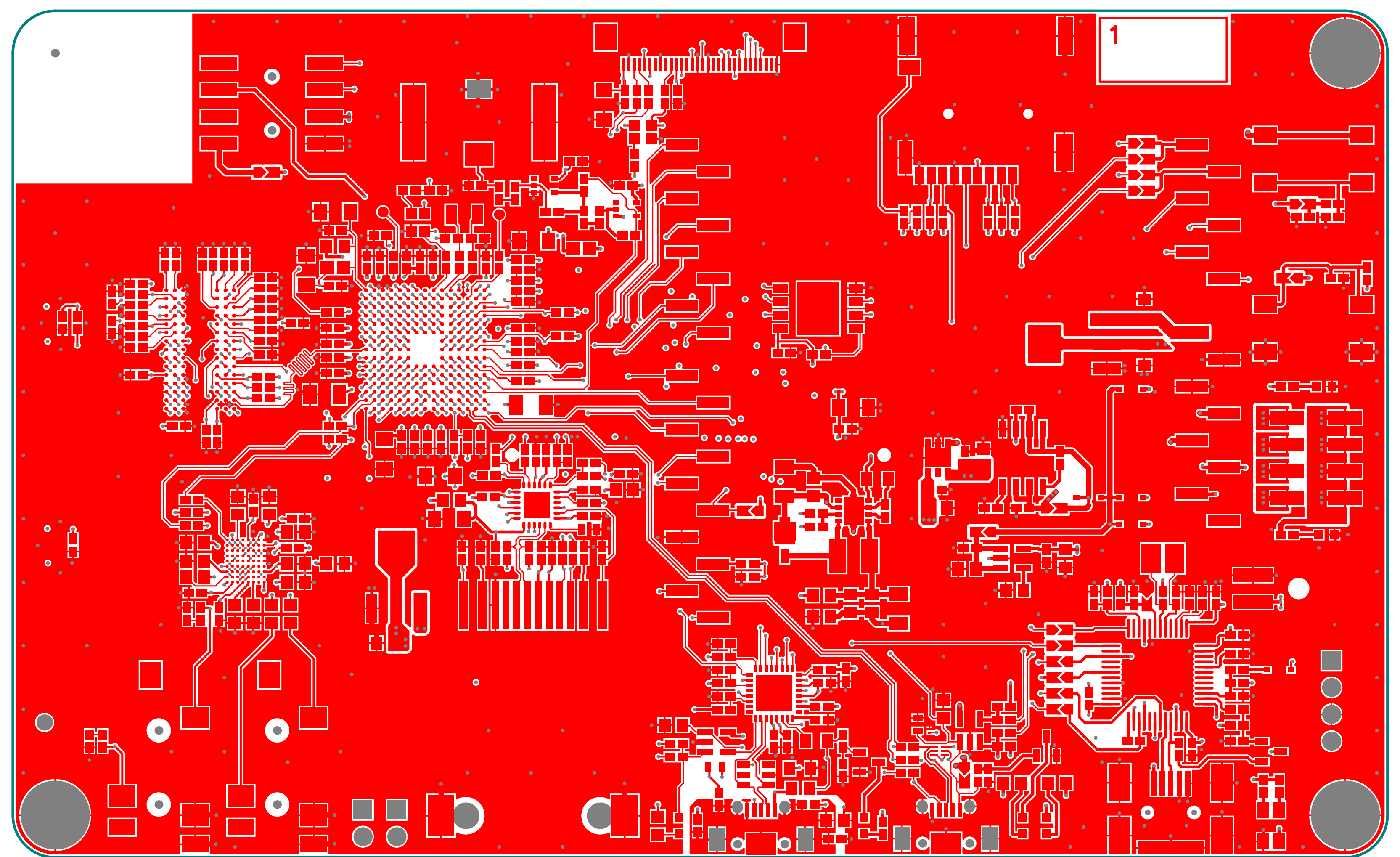




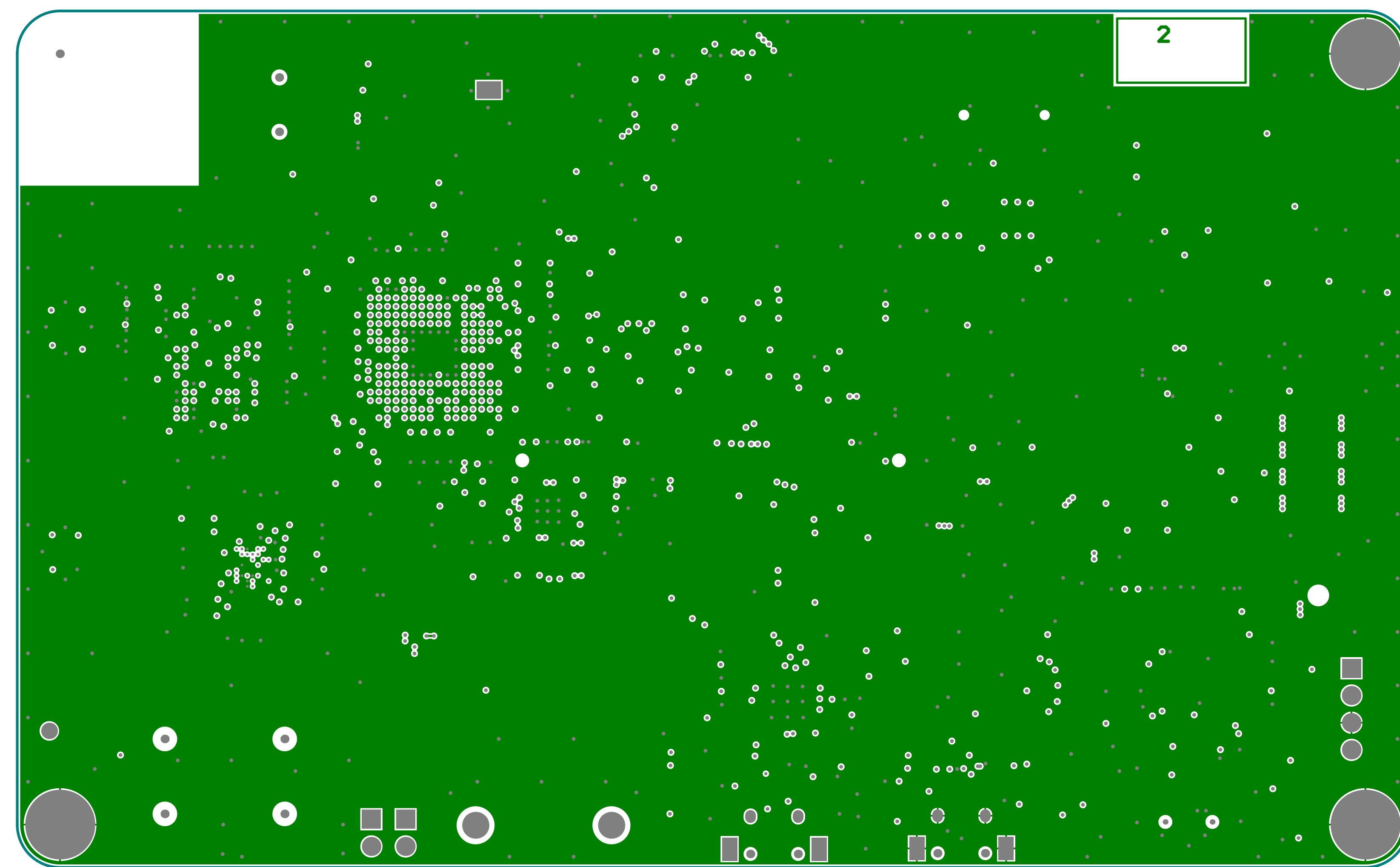




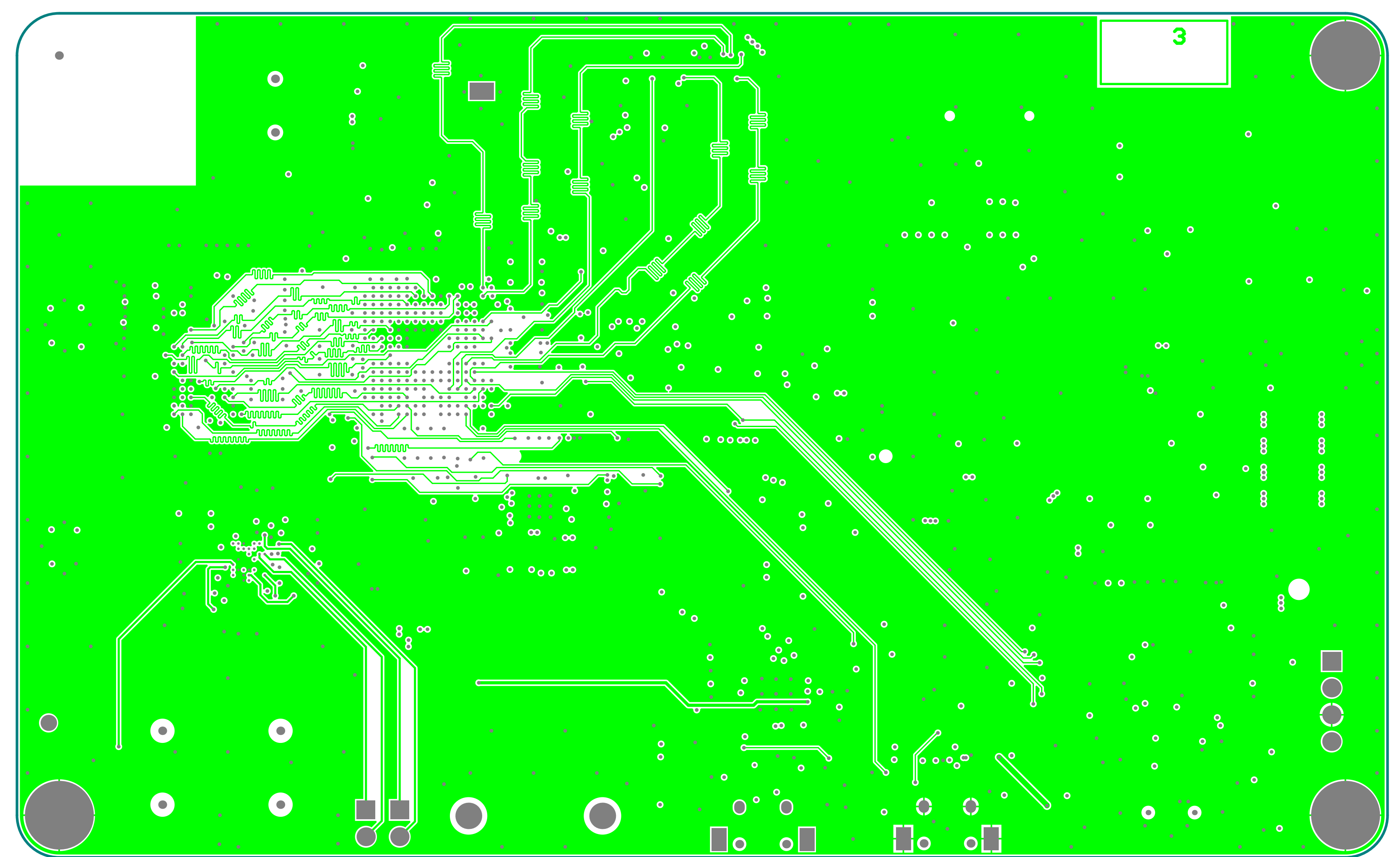




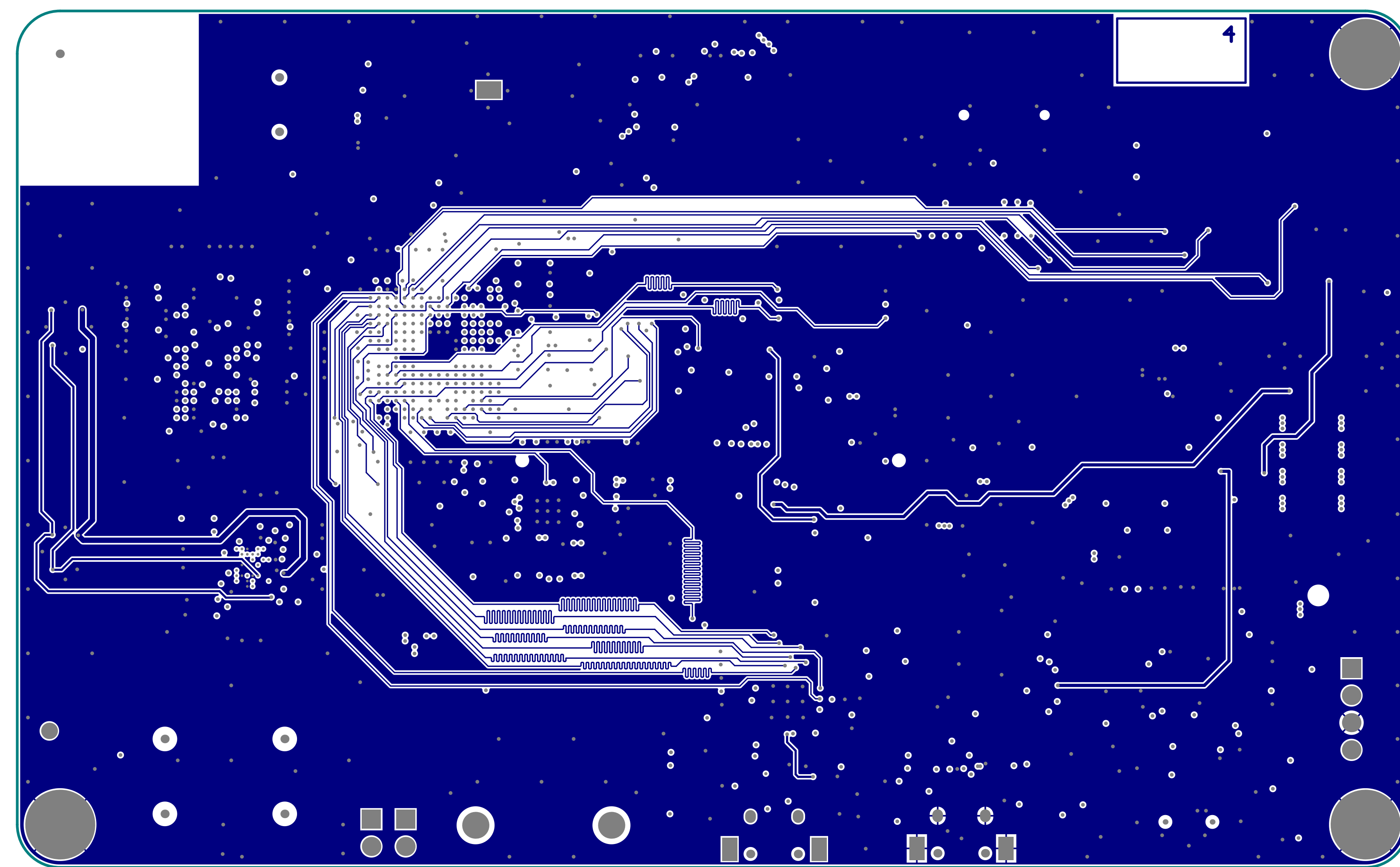




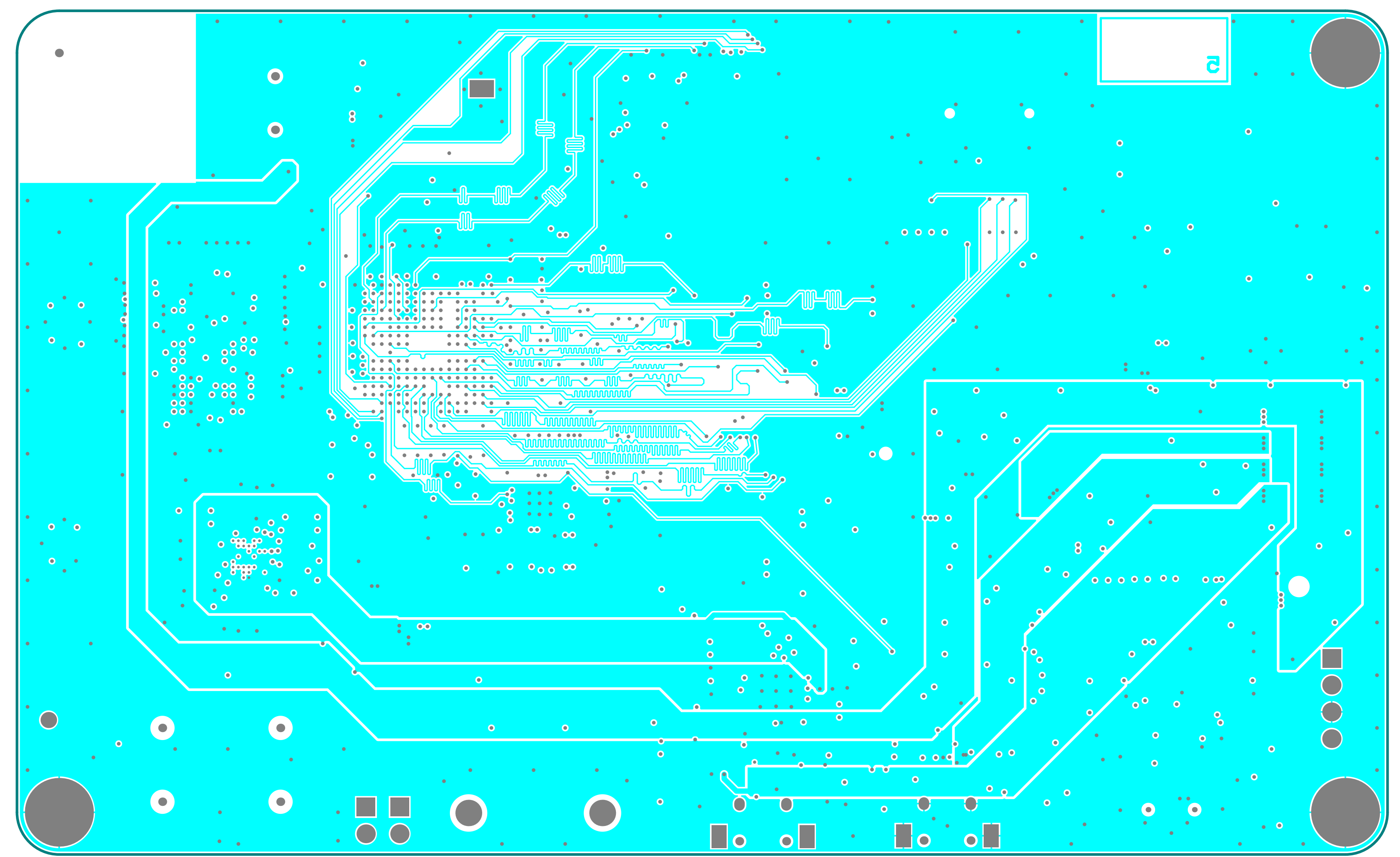




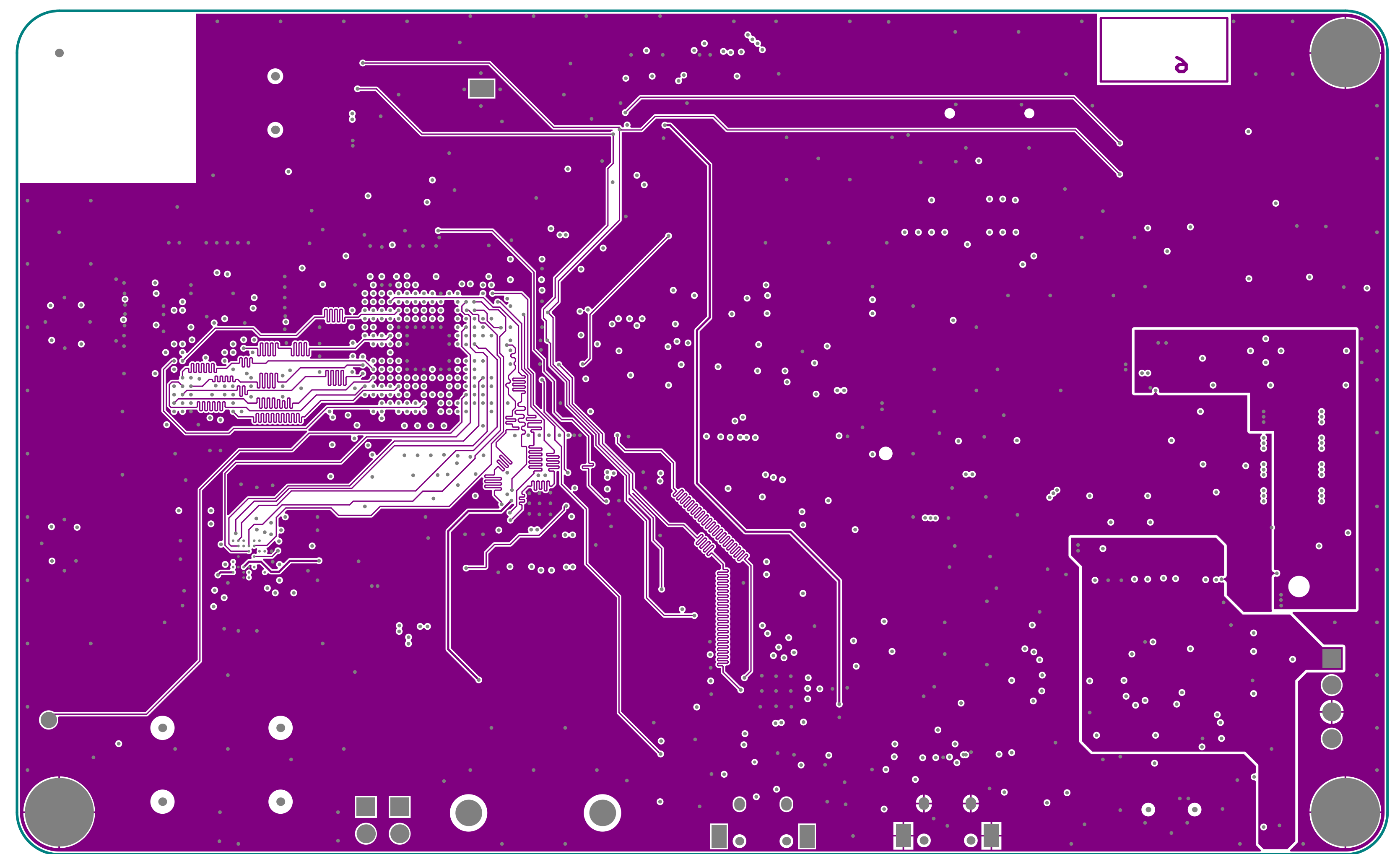




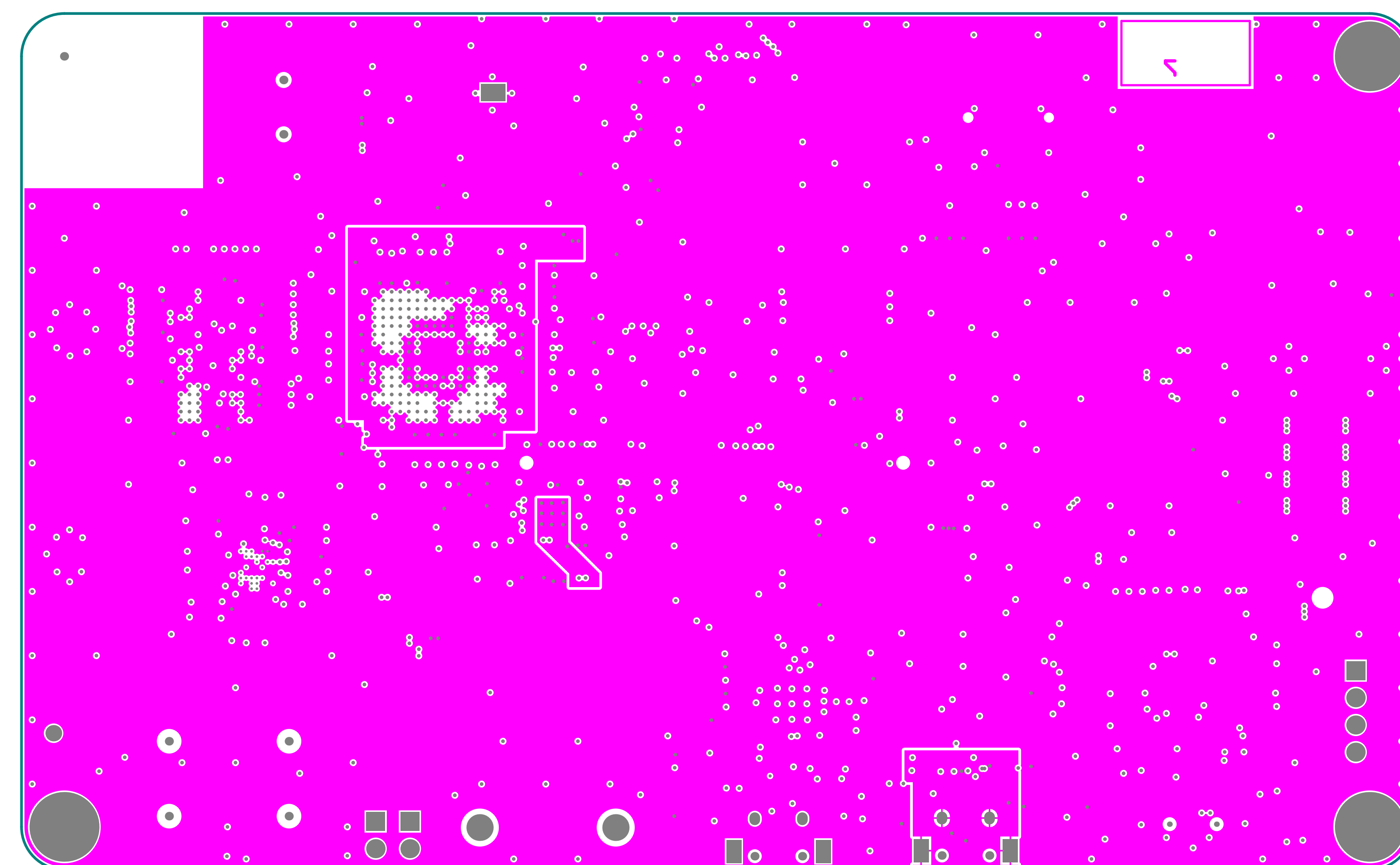




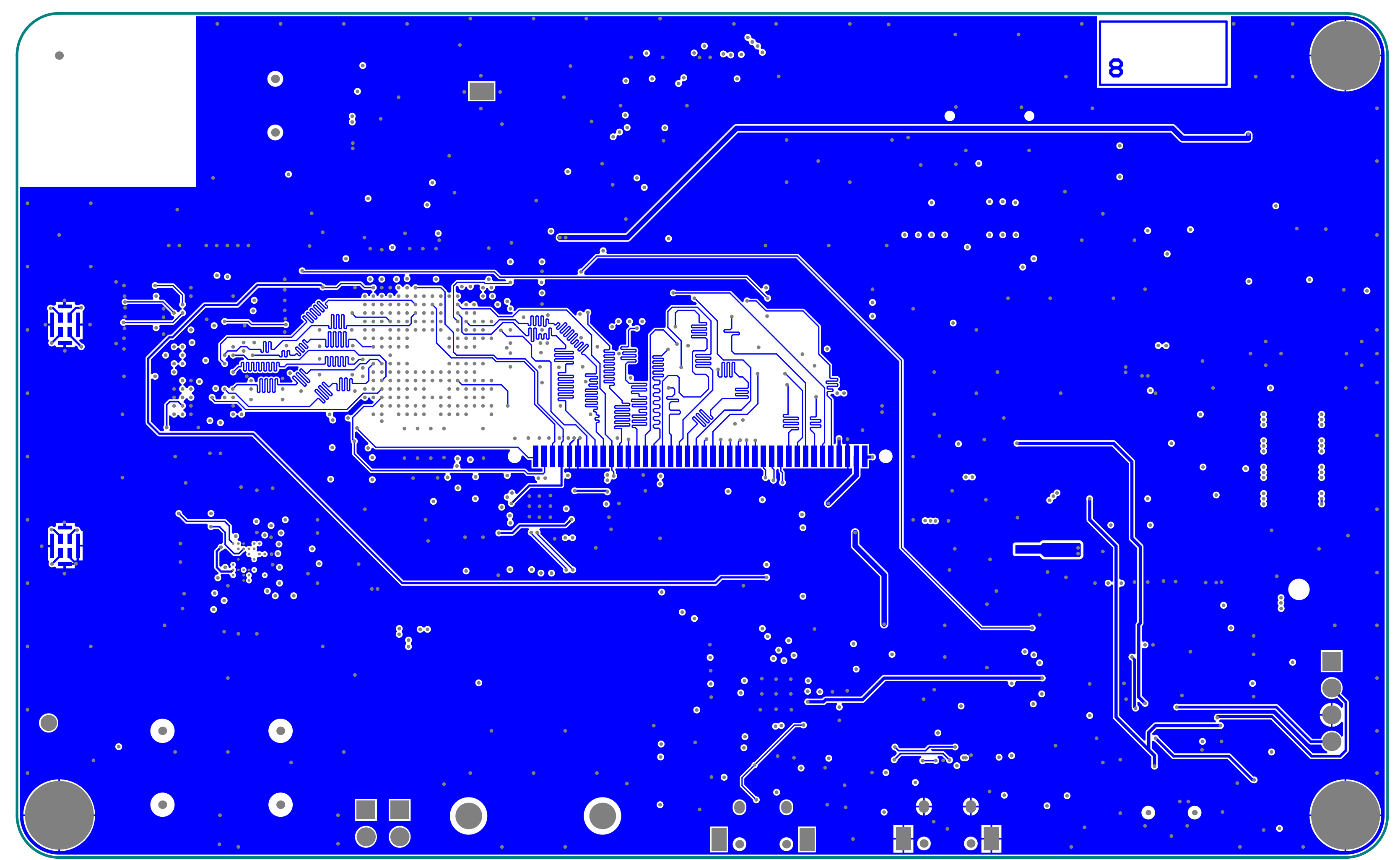




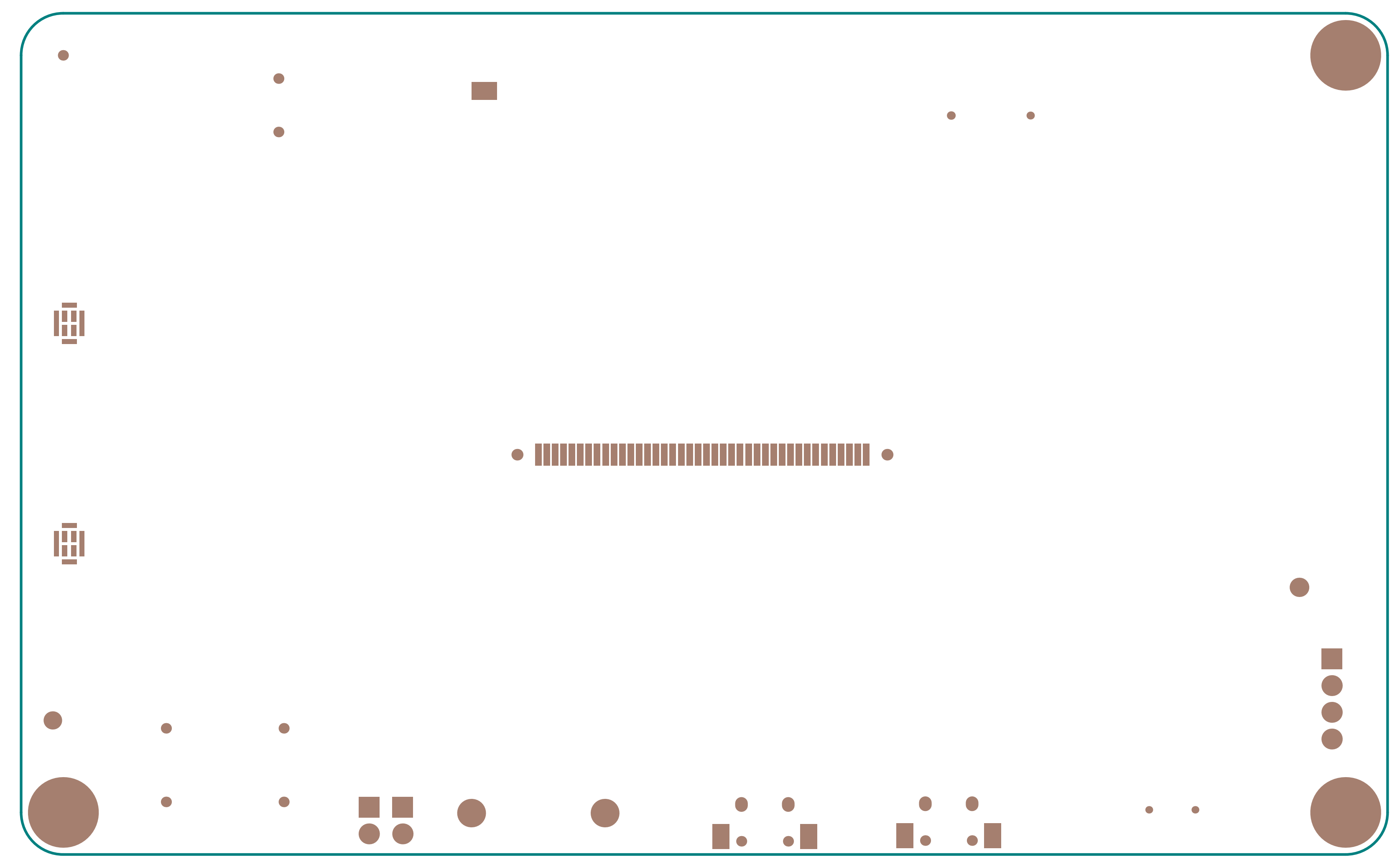


















Note 1

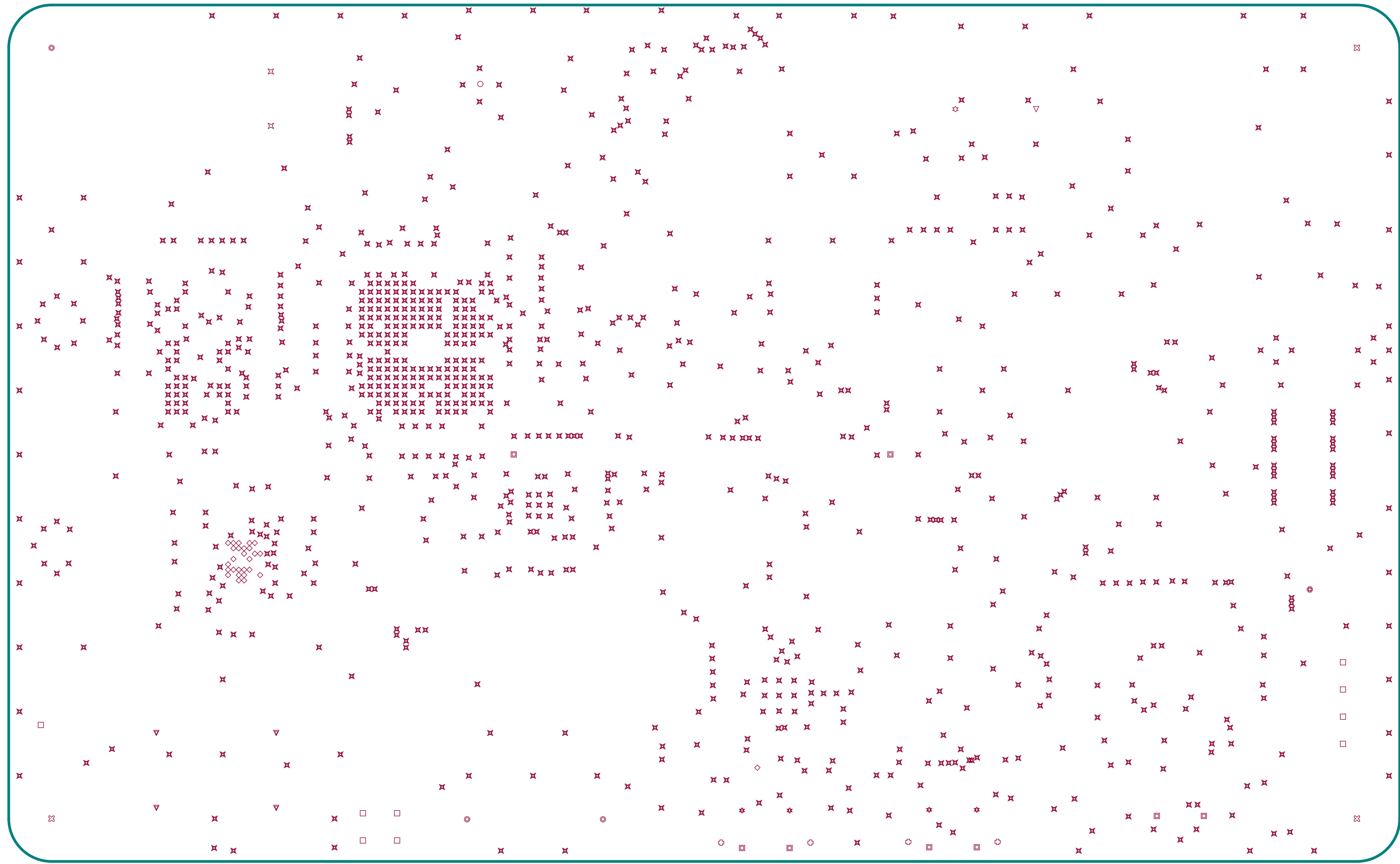
| Layer | Layer Name      | Impedance Structure | Trace Width (µm) | Trace Separation (µm) | Target Impedance | Tolerance +/- % | Layer Ref. Plane |
|-------|-----------------|---------------------|------------------|-----------------------|------------------|-----------------|------------------|
| 1     | Top Layer       | EDGED COUPLED       | 150              | 170                   | 90 Ohms          | 10              | 2                |
|       |                 | EDGED COUPLED       | 150              | 130                   | 90 Ohms          | 10              | 2                |
|       |                 | EDGED COUPLED       | 125              | 165                   | 100 Ohms         | 10              | 2                |
| 2     | Mid-Layer 1-GND |                     |                  |                       |                  |                 |                  |
| 3     | Mid-Layer 2-PWR | SINGLE ENDED        | 120              |                       | 50 Ohms          | 10              | 2, 4             |
| 4     | Mid-Layer 3-PWR | SINGLE ENDED        | 120              |                       | 50 Ohms          | 10              | 3, 5             |
| 5     | Mid-Layer 4-GND | SINGLE ENDED        | 120              |                       | 50 Ohms          | 10              | 4, 6             |
| 6     | Mid-Layer 5     | SINGLE ENDED        | 120              |                       | 50 Ohms          | 10              | 5, 7             |
| 7     | Mid-Layer 6-GND |                     |                  |                       |                  |                 |                  |
| 8     | Bottom Layer    | SINGLE ENDED        | 120              |                       | 50 Ohms          | 10              | 7                |

BE CAREFULL : CHECK CAPABILITIES MANUFACTURER PCB FOR HOLES AND PADS



| Symbol | Hit Count  | Finished Hole Size | Plated | Hole Length       | Routed Path Length | Via/Pad |
|--------|------------|--------------------|--------|-------------------|--------------------|---------|
| ◇      | 27         | 0.10mm (3.94mil)   | PTH    | -                 | -                  | Via     |
| ✕      | 1041       | 0.15mm (5.91mil)   | PTH    | -                 | -                  | Via     |
| ▽      | 1          | 0.65mm (25.59mil)  | NPTH   | -                 | -                  | Pad     |
| ✧      | 4          | 0.65mm (25.59mil)  | PTH    | 0.85mm (33.47mil) | 0.20mm (7.87mil)   | Pad     |
| ☆      | 1          | 0.70mm (27.56mil)  | NPTH   | -                 | -                  | Pad     |
| ⊕      | 4          | 0.80mm (31.50mil)  | PTH    | 1.40mm (55.12mil) | 0.60mm (23.62mil)  | Pad     |
| ▣      | 8          | 1.00mm (39.37mil)  | NPTH   | -                 | -                  | Pad     |
| □      | 9          | 1.00mm (39.37mil)  | PTH    | -                 | -                  | Pad     |
| ○      | 1          | 1.00mm (39.37mil)  | PTH    | 1.60mm (62.99mil) | 1.60mm (62.99mil)  | Pad     |
| ✧      | 2          | 1.20mm (47.24mil)  | NPTH   | -                 | -                  | Pad     |
| ⊕      | 1          | 1.73mm (68.11mil)  | NPTH   | -                 | -                  | Pad     |
| ▽      | 4          | 2.00mm (78.74mil)  | NPTH   | -                 | -                  | Pad     |
| ◎      | 3          | 3.25mm (127.95mil) | NPTH   | -                 | -                  | Pad     |
| ⊗      | 3          | 3.25mm (127.95mil) | PTH    | -                 | -                  | Pad     |
|        | 1109 Total |                    |        |                   |                    |         |

Slot definitions : Routed Path Length = Calculated from tool start centre position to tool end centre position.  
Hole Length = Routed Path Length + Tool Size = Slot length as defined in the PCB layout



PCB SPECIFICATIONS:

- A. MATERIAL : FR-4 ☐ TG-170 ☒ TG-150 ☐ TG-140
- B. MATERIAL FAMILY : N/A
- C. SOLDERMASK COLOR : ☐ GREEN ☒ BLUE ☐ RED ☐ BLACK
- D. SILKSCREEN COLOR : ☒ WHITE ☐ YELLOW ☐ BLACK
- E. SURFACE FINISH : ☒ ENIG ☐ IMMERSION SILVER ☐ IMMERSION TIN
- ☐ HASL ☐ HASL (PB-FREE) ☐ GOLDEN FINGER
- F. IMPEDANCE CONTROL : ☐ NO ☒ YES (SEE IMPEDANCE TABLE FOR DETAIL INFORMATION)
- G. THROUGH VIA : PLUG THE VIAS WHICH ARE COVERED WITH SOLDERMASK ONE OR TWO SIDE.  
PLUG MATERIAL : ☒ SOLDERMASK ☐ NON-CONDUCTIVE EPOXY.
- H. STACK-UP : SEE LAYER STACK-UP SEQUENCE FOR OVERALL THICKNESS.

| Layer | Name           | Material      | Thickness |
|-------|----------------|---------------|-----------|
| 1     | Top Silk       |               |           |
| 2     | Top Mask       | Solder Resist | 0.015mm   |
| 3     | TOP            | Copper        | 0.055mm   |
| 4     | Dielectric 1   | Prepreg 2116  | 0.108mm   |
| 5     | F2             | Copper        | 0.033mm   |
| 6     | Dielectric2    | Core 125      | 0.125mm   |
| 7     | F3             | Copper        | 0.033mm   |
| 8     | Dielectric3    | Prepreg 2116  | 0.108mm   |
| 9     | F4             | Copper        | 0.033mm   |
| 10    | Dielectric4    | Core 125      | 0.125mm   |
| 11    | F5             | Copper        | 0.033mm   |
| 12    | Dielectric5    | Prepreg 2116  | 0.108mm   |
| 13    | F6             | Copper        | 0.033mm   |
| 14    | Dielectric6    | Core 125      | 0.125mm   |
| 15    | F7             | Copper        | 0.033mm   |
| 16    | Dielectric7    | Prepreg 2116  | 0.108mm   |
| 17    | Bottom         | Copper        | 0.055mm   |
| 18    | Bottom Solder  | Solder Resist | 0.015mm   |
| 19    | Bottom Overlay |               |           |