

# FQCC

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## FIRST QUALITY CIRCUIT

Precision PCB - From Thailand - 100+ Layers - 9 Certifications

## Full Specification Matrix

Production-grade specs from FQC's Rayong, Thailand facility. Parent Sihui Fushi Electronics (SZSE: 300852) validates layer count and HDI order in volume.

|                             |   |                            |
|-----------------------------|---|----------------------------|
| <b>Max layers</b>           | 100   | parent spec                |
| <b>Board thickness</b>      | 0.4 - 6.5 mm                                    | rigid                      |
| <b>Min trace / space</b>    | 2 mil / 50 um                                   | production grade           |
| <b>Min mechanical drill</b> | 6 mil (0.15 mm)                                 | -                          |
| <b>Min laser via</b>        | 3 mil (0.075 mm)                                | CO2 / UV                   |
| <b>Max aspect ratio</b>     | 20:1  | mechanical TH              |
| <b>Impedance tolerance</b>  | +/-5%   | vs industry +/-10%         |
| <b>Max copper (outer)</b>   | 15 oz   | UL-listed                  |
| <b>Max copper (inner)</b>   | 13 oz   | UL-listed                  |
| <b>Max frequency</b>        | 40 GHz  | Megtron / Rogers / Taconic |
| <b>Surface finishes</b>     | ENIG, ENEPIG, OSP, HASL, Imm.<br>Ag, Au Fingers | -                          |
| <b>HDI order</b>            | 5th-order any-layer                             | up to 16 L                 |

## Certifications

|                    |                |                    |
|--------------------|----------------|--------------------|
| ISO 9001:2015      | ISO 14001:2015 | ISO 45001:2018     |
| IATF 16949:2016    | ISO 13485:2016 | IECQ QC080000:2017 |
| ISO/IEC 27001:2022 | ISO 14064:2018 | EN 9100:2018       |
| UL (heavy copper)  |                |                    |

## Materials Supported

|                       |   |
|-----------------------|---|
| <b>FR-4</b>           | ITEQ IT-180A - Isola FR408HR - Panasonic R-1755V - TUC TU-872 |
| <b>Low-loss</b>       | Panasonic Megtron 6 / 7 / 8 - Isola Astra MT                  |
| <b>RF / microwave</b> | Rogers RO4350B, RO3003 - Taconic RF-35                        |
| <b>Flex</b>           | DuPont Kapton - polyimide substrates                          |
| <b>Specialty</b>      | Ceramic-filled - metal-core - embedded Cu blocks              |

## Surface Finishes

ENIG - ENEPIG - OSP - HASL (lead-free) - Immersion Silver - Immersion Tin - Gold Fingers

## Process Flow - 12 Stations

|           |  |   |
|-----------|--|---|
| <b>01</b> | <b>CCL Cutting</b>   | Cut raw copper-clad laminate to panel size.       |
| <b>02</b> | <b>Inner-layer LDI Imaging</b>   | Laser direct imaging of inner circuitry.          |
| <b>03</b> | <b>DES (Develop / Etch / Strip)</b>                                      | Pattern the inner copper.                         |
| <b>04</b> | <b>Inner AOI</b>   | Automated optical inspection of inner layers.     |
| <b>05</b> | <b>Brown Oxidation</b>   | Surface treatment for lamination adhesion.        |
| <b>06</b> | <b>Vacuum Lamination Press</b>   | Bond inner layers + prepreg into multilayer.      |
| <b>07</b> | <b>Drilling</b>  | Mechanical + CO2 / UV laser vias.                 |
| <b>08</b> | <b>Chemical Plating</b>  | Desmear + electroless copper to seed via walls.   |
| <b>09</b> | <b>VCP Electroplating</b>  | Vertical continuous plating builds conductor.     |
| <b>10</b> | <b>Solder Mask + Cure</b>  | Apply and cure green/black soldermask.            |
| <b>11</b> | <b>Legend Inkjet Printing</b>  | Digital silkscreen - no screen mask.              |
| <b>12</b> | <b>Outline Rout / V-cut -&gt; E-test -&gt; AVI / FQC -&gt; Packaging</b> | Singulate, flying-probe test, final visual, pack. |

## Contact & Factory Information

**Factory address**

7/44 Moo 4, Phananikhom, Nikhom Phatthana,  
Rayong 21180, Thailand

**Phone**

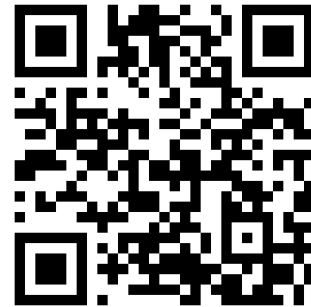
+66 (0) 33 010 890

**Email**

marketing@fqc.co.th

**Website**

fqc.co.th



Scan -> fqc-website.vercel.app

### Factory at a Glance

|   |  |
|---|--|
| <b>Industrial estate</b>                    | AMATA City Rayong                        |
| <b>Site area</b>                            | 88,000 m2                                |
| <b>Building footprint</b>                   | 28,700 m2 - 406 m x 60 m production hall |
| <b>Distance to Laem Chabang port</b>        | 27 km                                    |
| <b>Distance to BKK Suvarnabhumi Airport</b> | 99 km                                    |
| <b>Phase 1 production capacity</b>          | 50,000 m2 / month                        |
| <b>Phase 2 target capacity</b>              | 300,000 m2 / month                       |
| <b>Parent</b>                               | Sihui Fushi Electronics (SZSE: 300852)   |

### Sales Contacts

|  |                    |
|--|--------------------|
| <b>Mu Chao</b><br>Thailand - regional    | muchao@fqc.co.th   |
| <b>Mark Chen</b><br>China - cross-border | markchen@fqc.co.th |