

FQC

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.

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

FR-4	ITEQ IT-180A - Isola FR408HR - Panasonic R-1755V - TUC TU-872
Low-loss	Panasonic Megtron 6 / 7 / 8 - Isola Astra MT
RF / microwave	Rogers RO4350B, RO3003 - Taconic RF-35
Flex	DuPont Kapton - polyimide substrates
Specialty	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

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

Contact & Factory Information

Factory address

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

Phone

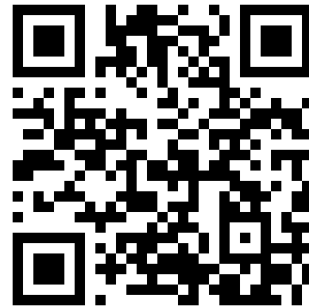
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Website

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Factory at a Glance

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

Sales Contacts

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