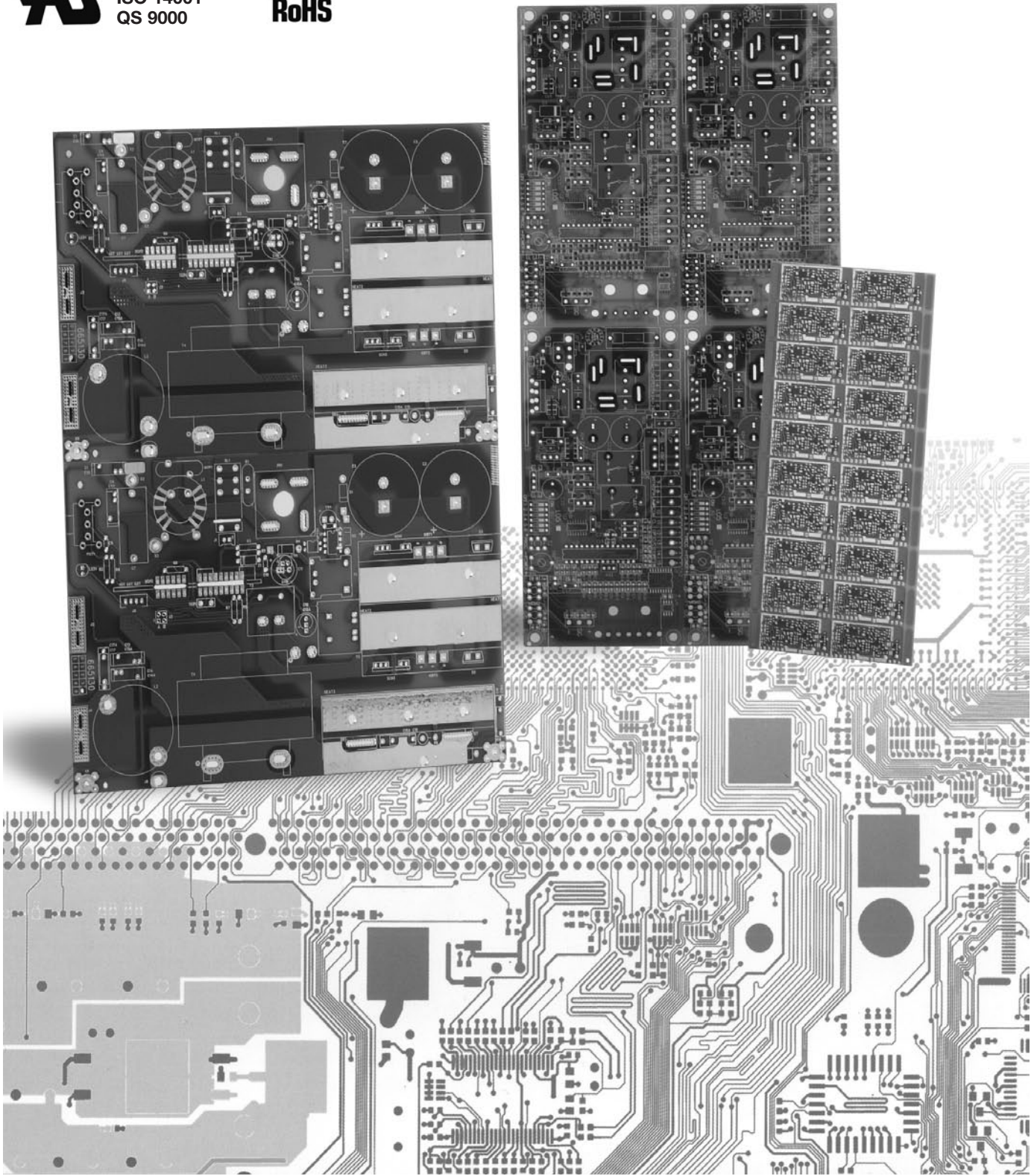


# Circuit Boards



ISO 9001: 2000  
ISO 14001  
QS 9000



**Production specification**

Descriptions	Capacity
Material	FR4, FR2, Cem, High TG, Aluminium, Flex
Layers count	1-16 layers
Finish board thickness	0.15 mm up to 3.5 mm
Max Panel size	20"x24" (508x609 mm)
Min. Trace width/spacing	Outer layers: 4/4 mil (0.1/0.1 mm) Inner layers: 4/4 mil (0.1/0.1 mm)
Misregistration	≤0.125 mm
Copper foil thickness	1/2 oz to 4 oz
Min. Drilling size	0.2 mm
Tolerance of PTH	±0.08 mm
Tolerance of NPTH	±0.05 mm
Tolerance of hole position	±0.076 First Drill ±0.127 mm Second Drill
Copper thickness in PTH (Normal)	18um Min (According to IPC-A-600F Class II)
Finished board thickness tolerance	≤0.8±0.0762 mm ≥1.0 mm±10%
Impedance control	±10%
Routing outline tolerance	±0.13 mm
Punching outline tolerance	±0.1 mm
Flatness (Bow and twist)	≤0.75% (According to IPC-A-600F Class II)
Surface Finish	OSP, HAL, Leadfree HAL, Flash gold, Chemical gold, Chemical Tin, Chemical Silver, Gold finger
Additional finish	Peelable Mask, Carbon Ink
ENIG Thickness (Normal)	Au: 3u" (0.025-0.075um); Ni: 120-200u" (3-5um)
Immersion Tin	0.8-1.2um

**Fabrication Data Inputs**

Type	Preferred	Usable
Gerber Electronic Files	RS-274-X or RS-274-D	GC-CAM/View 2000
Print Files	HPGL	Gerber, DXF
Drill Files	ASCII	Excellon, Gerber, Trudrill
Aperture List	Standard Wheel with D.code List	If RS-274-D is used

**Sales by production Category**

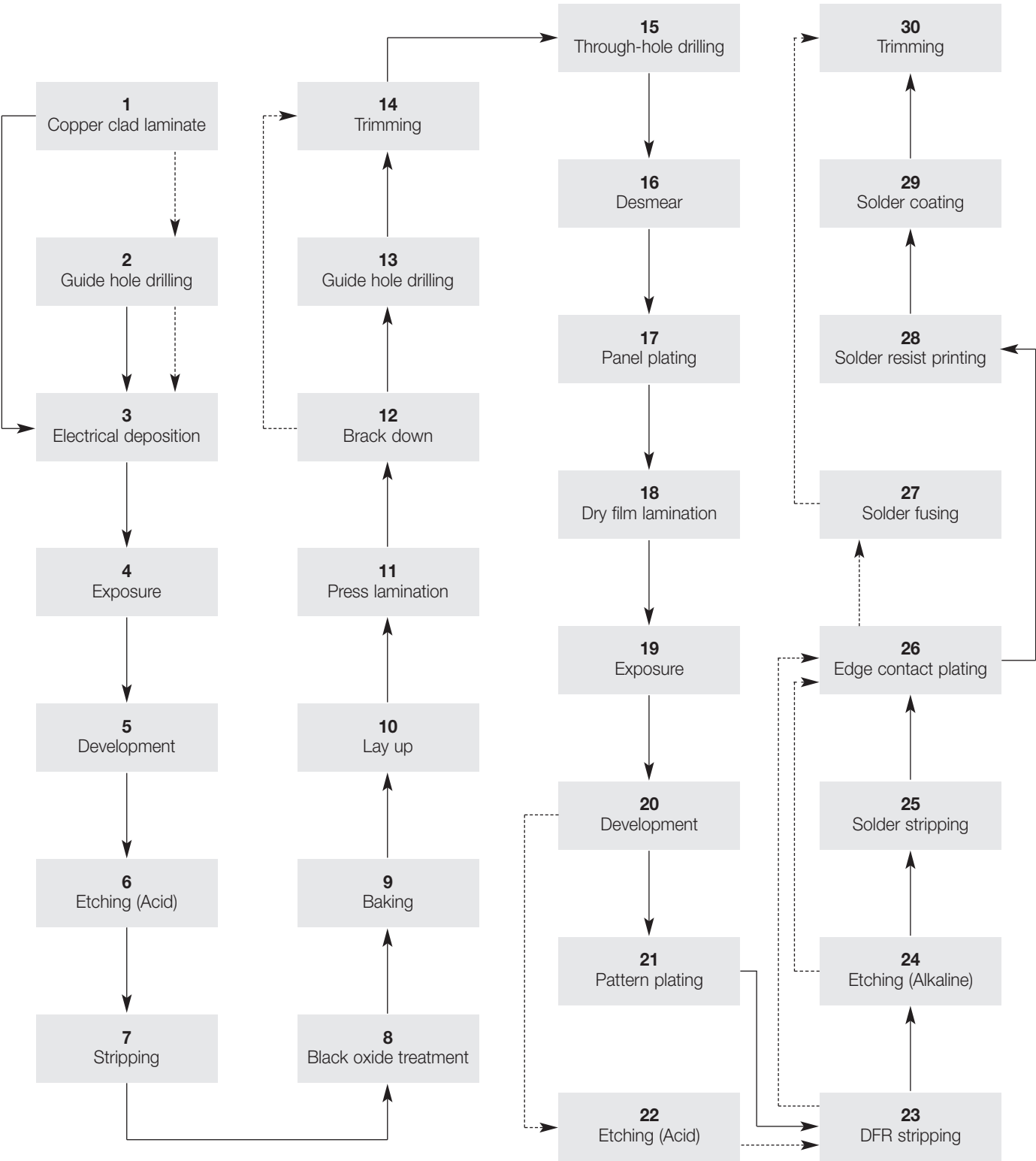
Double Sides		20%
4-Layers		30%
6-Layers		25%
8-Layers/Over		25%

**Sales by Industries**

Computer/Periphery		40%
Automotive		15%
Tele Communication		20%
Others		25%

**Multilayer print circuit board**

Flow chart



**Assure Quality and Delivery**

**QA Function**

**Incoming Quality Control (IQC)**

- Machinery and laminates inspection
- Chemicals inspection
- Incoming Quality Data
- Incoming Quality Engineering

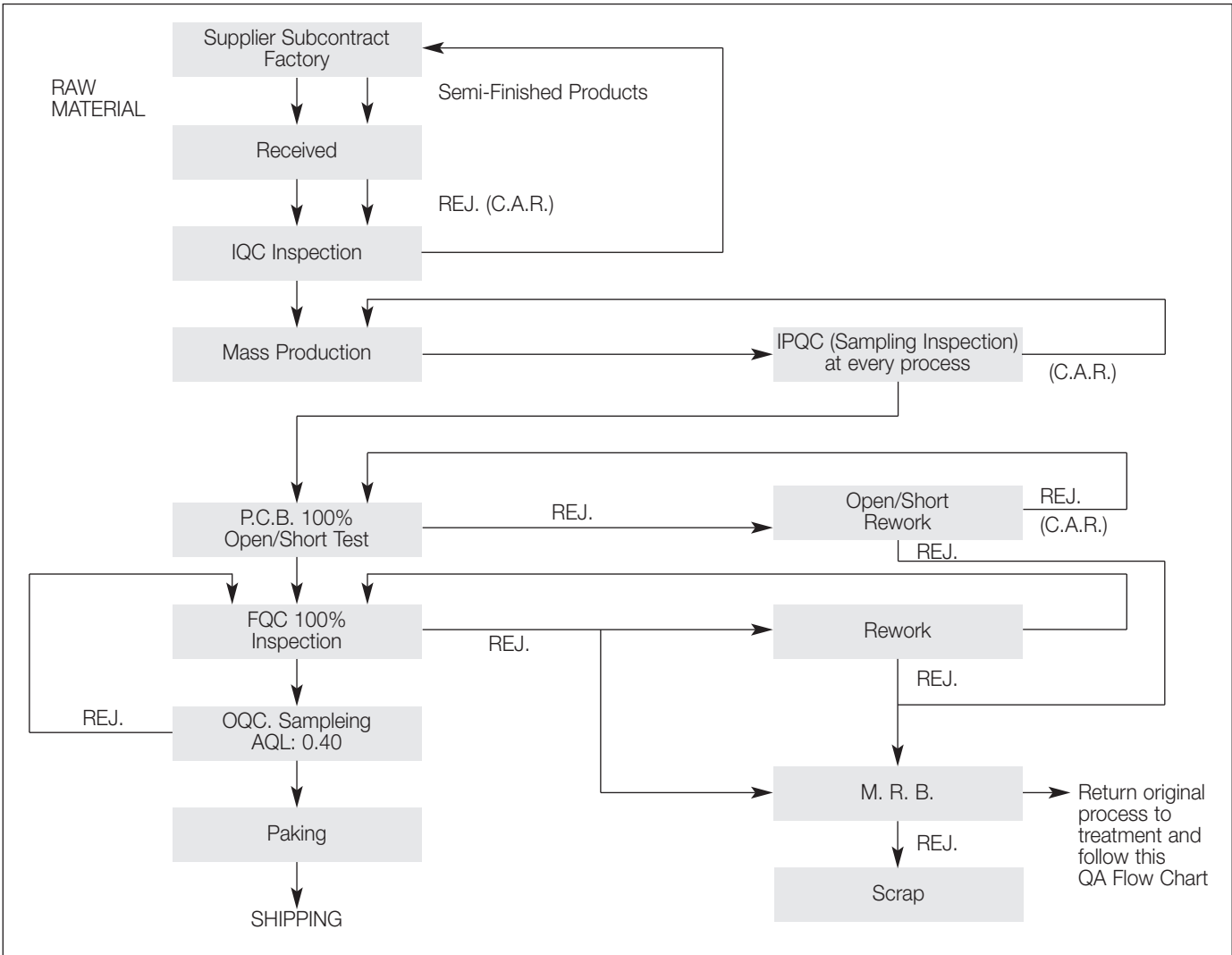
**In process Quality Control (IPQC)**

- Routing/Punching/V-Score
- Laminating
- Printing & CNC drilling & dry film
- Plating (Cu, Sn, Ni, Au)
- Microsection

**Quality assurance engineering (QAE)**

- Quality Improvement Plan
- First Article Inspection
- Reliability Test
- Auditing of Calibration Activity
- Qualitative Analysis
- Engineering Change Request
- Out-Going Quality Control

**QA Flow Chart**



**Product Applications**

- Computer & Peripherals
- Mobile Devices
- Networks & Communication
- Automotive
- Consumer