

Company Introduction

Professional Printed Circuit Board & MCPCB Vendor

Welcome to BEST

<http://www.bestpcbs.com>



Company Introduction

YOUR BEST SOURCE IN ASIA

We are dedicated to providing quality, service and value to our customers

While maintaining our traditional dedication to excellence.

Contents

Part 1

Company Introduction

Part 2

Product, Quality & Customer

Part 3

Our Vision

Part 1

Company Introduction

Stare at Best Technology...

Establish: Jun 28, 2006

Products: FR4 PCB, HDI(1+N+1, 2+N+2), Metal Core PCB, Ceramic PCB
Rigid-flex Circuit, PCBA, Wire-Bonding, Assembly

Location...

Office: 9E, Jindacheng Bld, Center Road, Shajing Town, Bao'an District, Shenzhen, China

Plant 1: 5/F 14th Bld, Zhiying Circuit Industry Park, Shaijing, Bao'an, Shenzhen, China

Plant 2: ShangZha Industrial Zone, Dongcun, Xing Tan, ShunDe, Guangdong, China

SMT Plant: 6/F, Bld 48, 5th Industry Zone, Cuigang, Huaide, Fuyong, Shenzhen, China

Contact...

Tel: +86-755-2909 1601/1602 Fax: +86-755-8949 2899

Email: peter.gui@bestpcbs.com Attn: Peter Gui

Website: <http://www.bestpcbs.com>



Company Overview

Since founded in June 2006, we continue to provide various high quality printed circuit board for Telecommunication, Computer product, Control & Security system, Power supply, Mobile phone, LED and others.

Why BEST?

- Technical Support Before & After Sales
- Prototype & Small Volume Welcome
- Quick Turn-out, On-time Delivery
- High Quality, Special Request Available
- Strong R&D Team, Know How-To
- Rich Experience (>10 Years)
- Prompt Feedback (within 12H)
- Good Price
- One-stop Service (PCBA/Assembly)

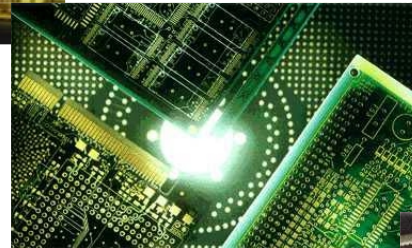
Full Service Solutions



PCB, MCPCB, Ceramic PCB Engineering & Process Design

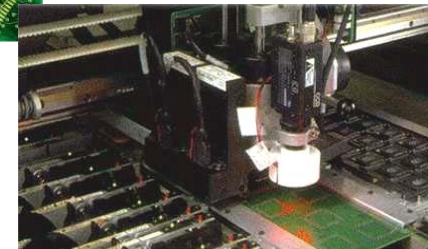


Components Management,
Sourcing Solution



Precision PCB, MC
PCB, Ceramic PCB
Fabrication

PCB In House Assembly &
Full System Integration



Part 2

Product, Quality, Customers

Process Flow Chart & QC System

Product Capability & Lead Time

Manufacturing Machine

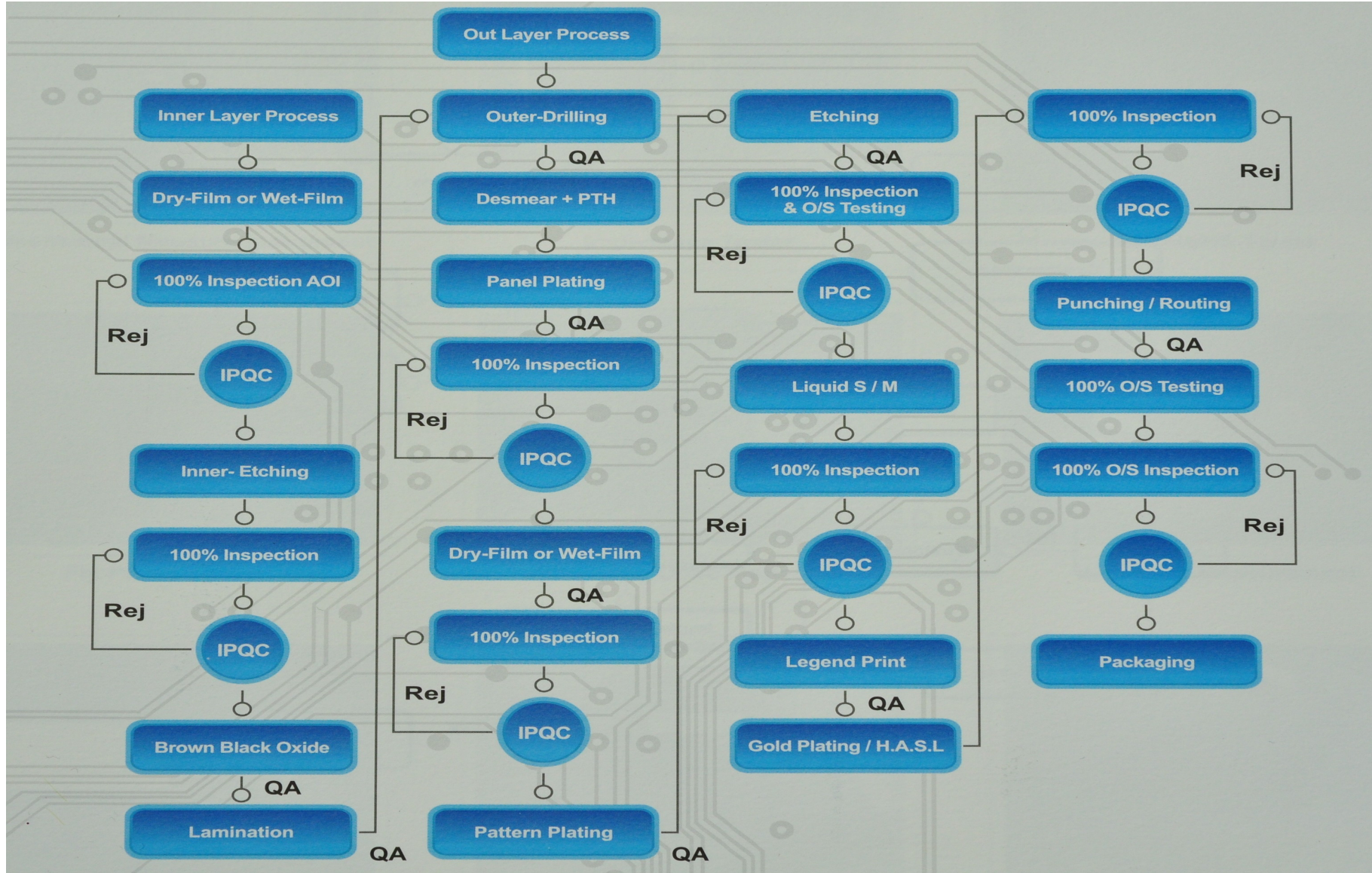
Test Machine

Products

Marketing

PCB Process Flow Chart & QC System

PCB Process Flow Chart & QC System



Product Capability & Lead Time

FR4 PCB Capability

Item	Technical Data
Max. Layer Count	1-30 layers
Max. Dimension	24"x24" (610X610mm); 15x48"(380*1,220mm)
Min Board Thickness	2L: 6mil (0.15mm); Multi-layer: 0.4mm
Interior Cu Thickness	½ oz~20 OZ
Outer Cu Thickness	1 oz~20 OZ
Min Line Width/Space	4 mil/4mil (0.10/0.10mm) 3mil/3mil for HDI
Min Hole Diameter	10 mil (0.25mm) normal, 4mil (0.10mm) HDI;
Min Solder PAD Diameter	10 mil (0.25mm)
Min Hole Spacing	12 mil (0.30mm)
Min Ring	4.5 mil (0.115mm)
NPTH Hole Size Tolerance	± 2 mil (± 0.05 mm)
PTH Tolerance	± 3 mil (± 0.075 mm)
Hole Position Precision	± 2 mil (± 0.05 mm)
Maximum Aspect Ratio	6.0:1

FR4 PCB Capability

Product Capability & Lead Time

Item	Technical Data
Minmum Size of Punched Hole	10 mil (2.5mm)
Hole Wall Cu Thickness	0.8mil (0.02mm)
Min Soldermask Pitch	4mil (0.10mm)
Outline Tolerance	CNC: \pm 6mils (0.15 mm)
	Die-Punching: \pm 4 mils (0.10 mm)
	Precision Die: \pm 2 mils (0.05mm)
Impedance Control Tolerance	+/- 10%
Warp/Twist	\leq 1.0 %
Soldermask Color	Green/White/Black/Yellow/Blue/Red
Silkscreen Color	Black/White/Yellow
Surface finishing	HAL, HAL(LF), OSP, Immersion Tin, ENIG, Flash Gold, Hard Gold, Immersion Silver
Tg Value	130C, 170C, 180C

MCPCB & Ceramic PCB Capability

Product Capability & Lead Time

Items	MCPCB	Ceramic PCB
Max Layer Count	10 Layers	Thick Film: 10L; DCB: 2L
Minimum Board Thickness	12 mil (0.3mm)	Thick Film: 10 mil (0.25mm) DCB: 12mil (0.30mm)
	24 mil (0.6mm)	Thick Film: 11 mil (0.28mm) DCB: 16mil (0.40mm)
	40 mil (1.0mm)	13.5 mil (0.34mm)
	48 mil (1.2mm)	18 mil (0.46mm)
	62 mil (1.6mm)	32 mil (0.81mm)
	79 mil (2.0mm)	42 mil (1.05mm)
MaxBoard Thickness	157 mil (4.0mm)	60 mil (1.5mm)
Max Board Dimension	24" *64"(610mm*1,625mm)	Thick Film: 138*80mm DCB: 138*178mm
Max Board Dimension	24" *64"(610mm*1,625mm)	Thick Film: 138*80mm DCB: 138*178mm

MCPCB & Ceramic PCB Capability

Items	MCPCB	Ceramic PCB
Max Conductor thickness	10 OZ (14mil)	Thick Film: 13um (0.51mil) DCB: 8.6OZ (12mil)
Minimum conductor thickness	1/2 OZ (0.7mil)	Thick Film: 10um (0.39mil) DCB: 3.9OZ (4mil)
Min Trace Width/Space	4/4mil (0.1/0.10mm)	10/10 mil (0.3/0.30mm)
Min Hole Diameter	10 mil (0.25mm)	mil (0.1mm)
Min Punch Hole Dia	0.12" (3.0mm)	N/M
Min Hole Spacing	16 mil (0.4mm)	NPTH: 16 mil (0.3mm) PTH: 20 mil (0.5mm)
Max Aspect Ratio	12:1	8:1
Min Solder PAD Dia	14 mil (0.35mm)	10 mil (0.25mm)
Min PAD Ring (Single Side)	3 mil (0.075mm)	
PTH Wall Thickness	0.48mil (12 um) for HDI; 0.59mil (15um) for normal	Thick Film: 4mil (10um) DCB: N/M

MCPCB & Ceramic PCB Capability

Items	MCPCB	Ceramic PCB
PTH Dia Tolerance	± 3 mil (0.075mm)	± 4 mil (0.10mm)
NPTH Dia Tolerance	±2 mil (0.05mm)	±2 mil (0.05mm)
Hole Position Deviation	±3 mil (0.075mm)	±4 mil (0.10mm)
Outline Tolerance	CNC: ± 6 mil (0.15mm)	Laser: +0.20mm/-0.05mm
	Die Punch: ± 6 mil (0.15mm)	Die Punch: +0.25mm/-0.2mm
Min Soldermask Bridge	8 mil (0.20mm)	12 mil (0.3mm)
Min BAG PAD Margin	5 mil (0.125mm)	12 mil (0.3mm)
Thermal Conductivity (W/m.K or W/m.C)	Normal: 0.8~1.0, 1.5 High: 2.0, 3.0	Al2O3: 24; AlN/BeO: ≥170
Dielectric Strength	> 1.3 KV /mm	≥15 KV/mm
Wrap & Twist	≤ 0.75%	≤ 3%
Surface Treatment	ENIG, Flash Gold, Hard Gold Finger, Gold Plating(50mil), Gold finger, Selected Gold plating,ENEPIG, ENIPIG; HAL, HASL(LF), OSP, Silver Imm., Tin Imm	Thick Film: AgPd, AuPd DCB: Ni plating, ENIG

FR4 PCB Lead Time

Prototype	Single Layer	3~4 Days
	2 Layers	4~6 Days
	4~6 Layers	6~10 Days
	8 Layers	10~14 Days
	10 Layers	14-18 Days
	HDI (1+N+1 2+N+2)	2.5-3.5 Weeks
Production	Single Layer	4~6 Days
	2 Layers	5~8 Days
	4~6 Layers	8~12 Days
	8 Layers	12~16 Days
	10 Layers	18-20 Days
	HDI (1+N+1 2+N+2)	3-4 Weeks

Expediated FR4 PCB Lead Time

Prototype	Single Layer	1Working Day(24Hours)
	2 Layers	1WD (24 H)
	4 Layers	2 WD (48 H)
	6 Layers	3 WD (72 H)
	8Layers	4-5 WD (72-96 H)
	>=10L	Depends Upon
Production	Single Layer	2~3 WD
	2 Layers	2~3 WD
	4 Layers	3~5 WD
	6 Layers	4~6 WD
	8 Layers	6~8 WD
	>=10L	Depends Upon

MCPCB Lead Time

Prototype	Single Layer	4~6 Days
	2 Layers	14~18 Days
	4 Layers	15~20 Days
	6 Layers	18~22 Days
	8 Layers	20~24 Days
	10 Layers	22~26 Days
Production	Single Layer	5~8 Days
	2 Layers	16~20Days
	4 Layers	18~22 Days
	6 Layers	20~25 Days
	8 Layers	22-27 Days
	10 Layers	25-30 Weeks

Rigid-Flex PCB Lead Time

Prototype	2~3 Layers	2~2.5 Weeks
	4 Layers	2.5~3.0 W
	6 Layers	3~4 W
	8 Layers	4~6 W
	10 Layers	5~7 W
Production	2 Layers	2.5~3 W
	4 Layers	3~4 W
	6 Layers	4~6 W
	8 Layers	6~8 W
	10 Layers	6~8 W

Ceramic PCB Lead Time

Prototype	1Layers	Thick Film: 3~3.5 W; DCB: 3.5~4 W
	2Layers	Thick Film: 3.5~4 W; DCB: 4~4.5 W
	4~6 L(only Thick Film)	4~4.5 W
	8~10 L (only Thick Film)	4.5~5 W
	10 Layers(only Thick Film)	5~7 W
Production	1 Layers	Thick Film: 3.5~4.5 W; DCB: 4~5 W
	2 Layers	Thick Film: 4.5~5.5 W; DCB: 5~6 W
	4~6 Layers(only Thick Film)	5~6 W
	8 Layers(only Thick Film)	5.5~7 W
	10 Layers(only Thick Film)	5.5~8 W

PCBA Lead Time

Prototype	Components size \geq 0402, no DIP	1~1.5 Weeks
	Components size \geq 0402, with DIP	1.5~2 Weeks
	Components size \leq 0201, no DIP	2~2.5 W
	Components size \leq 0201, with DIP	2.5~3 W
Production	Components size \geq 0402, no DIP	1.5~2 W
	Components size \geq 0402, with DIP	1.5~2.5 W
	Components size \leq 0201, no DIP	2.5~3.5W
	Components size \leq 0201, with DIP	3.0~4.5 W

Notes: Customers provided components. If BOM purchased by us, 1 week will be added for most of cases. For components without stock, or with longer lead time, L/T will be negotiated with customers.

Production & Measure Machine

Major Manufacturing Machines



Dry Film Laminator



D/F Exposure Machine



Drill Machine



Copper I auto Line

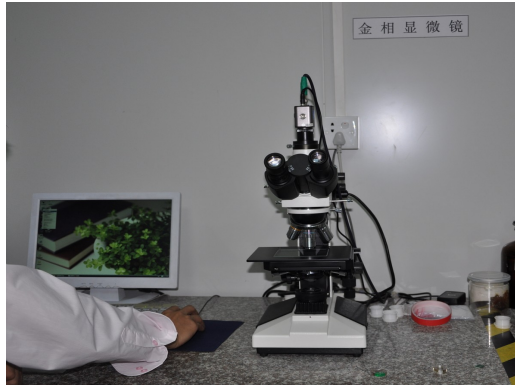


Copper II Auto-Line

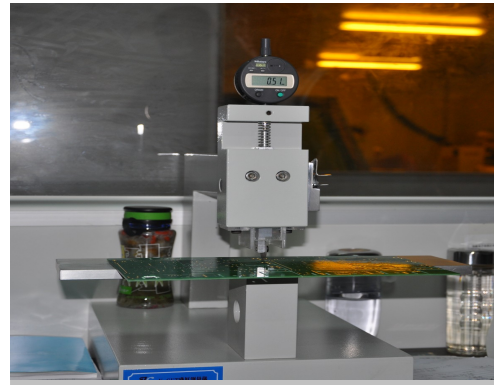


Auto Soldermask Printer

Measure & Test Equipments



Micro-Setion Probe



V-cut Depth Tester



Hole Dia Testing



Copper Thickness Tester



General Tester



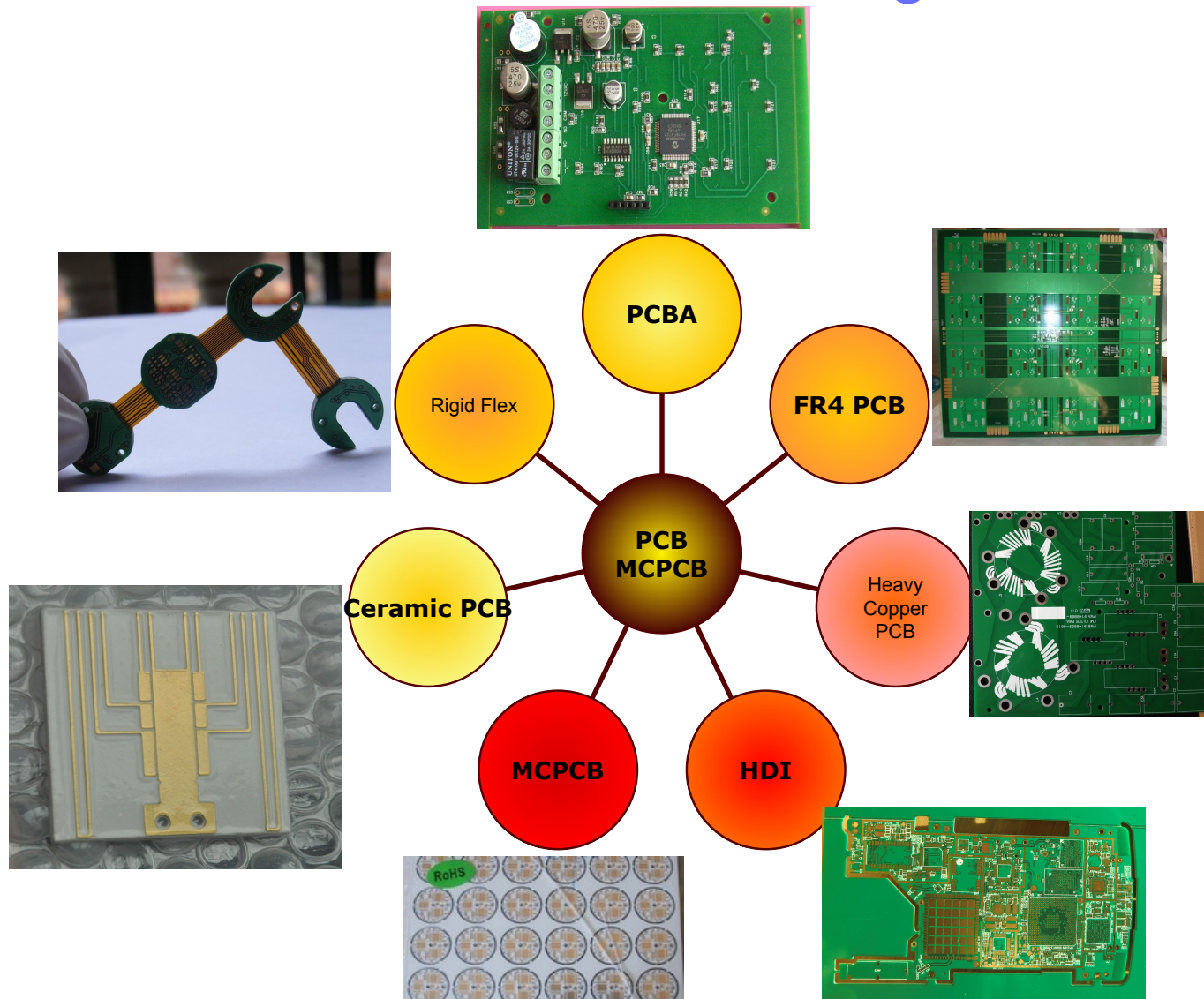
Flying Probe Tester

Equipment List

Equipment	QTY	Equipment	QTY
Laser Plotter	3	Auto Film Development	2
CNC Drilling Machine	10	Auto PTH Line	1
CNC Routing Machine	6	PTH Line	1
Die-Punching Machine	8	Auto Panel Plating Line	1
Vacuum pressing Machine	2	Panel pattern plating line	1
Auto Soldermask Machine	4	Etching Machine	3
Auto Silkscreen Machine	6	High Pressure Clean Line	4
Dry Film Sticker	2	AOI	1
Surface Exposure Machine	4	General E-Tester	6
Auto V-cut	5	Flying Probe Tester	10
Laser Resistor Trimmer	2	Resistance Grading Machine	4
Vacuum Package Machine	2	Micro Section Photo System	2

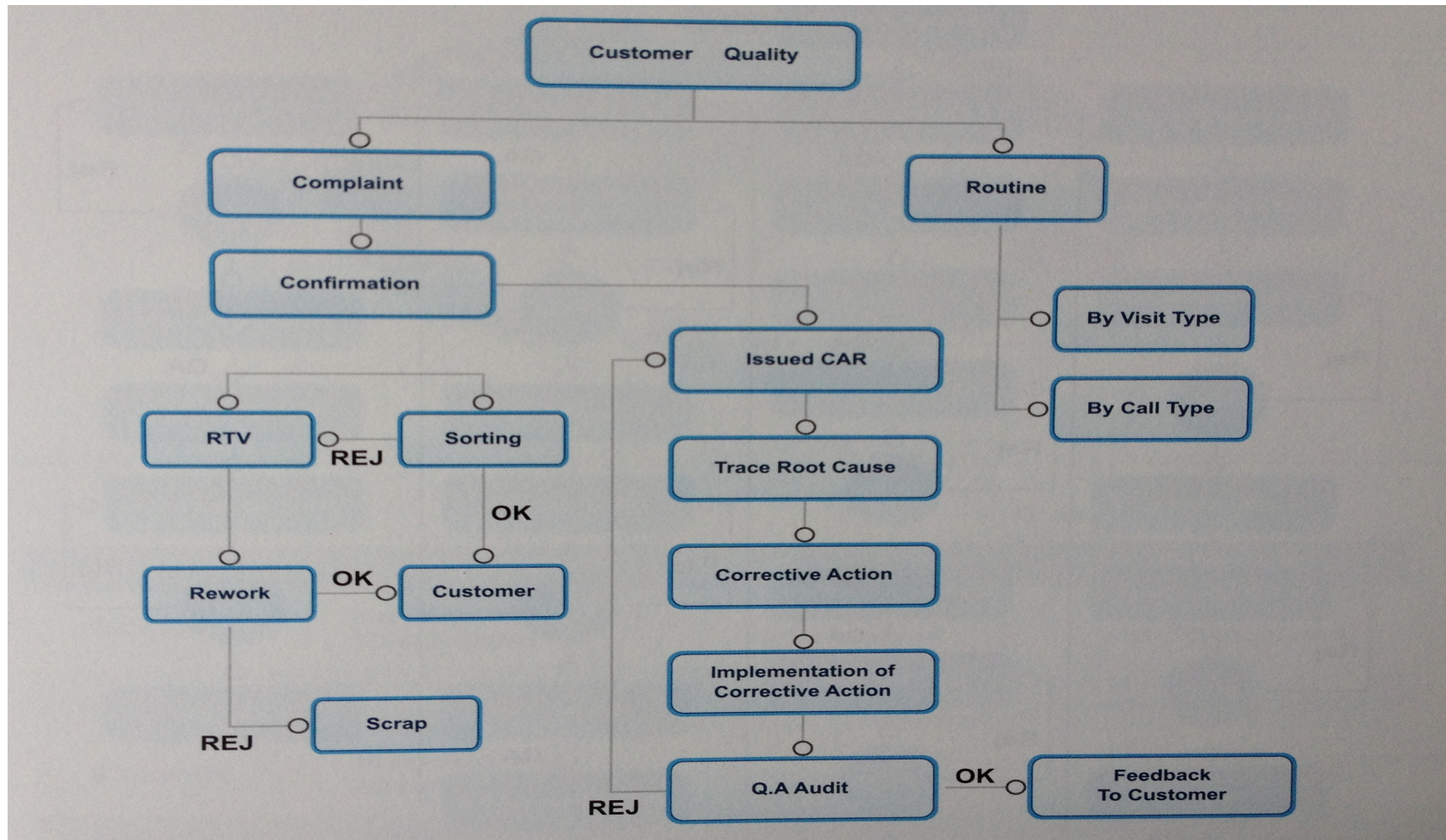
Products Classification

Products Offering



Quality Control

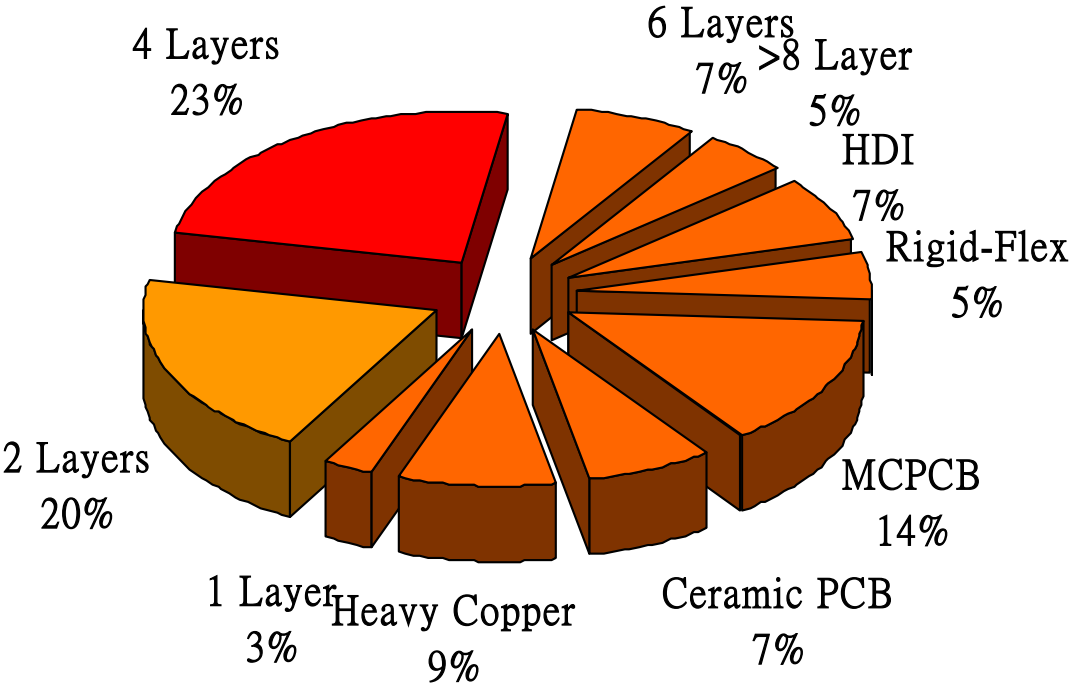
Quality Control System



Marketing Overview

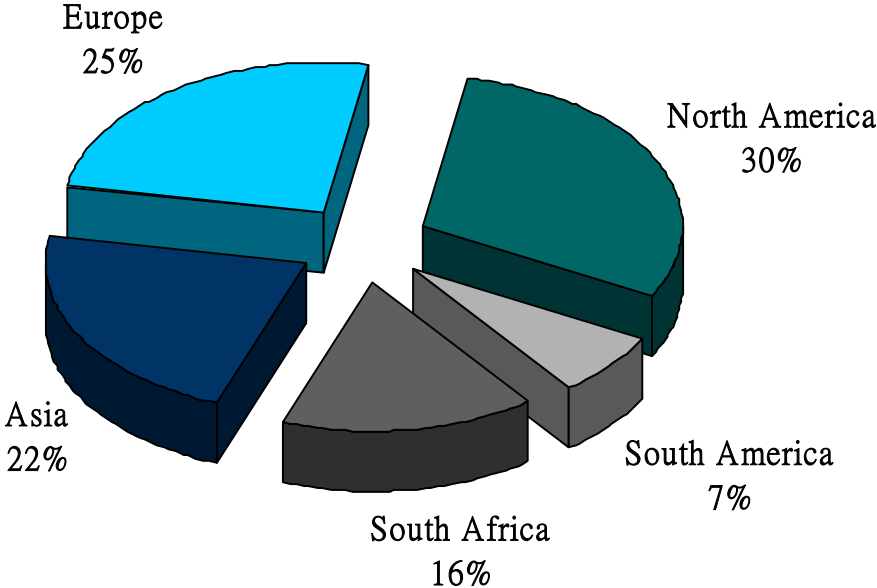
Revenue By Layer Chart

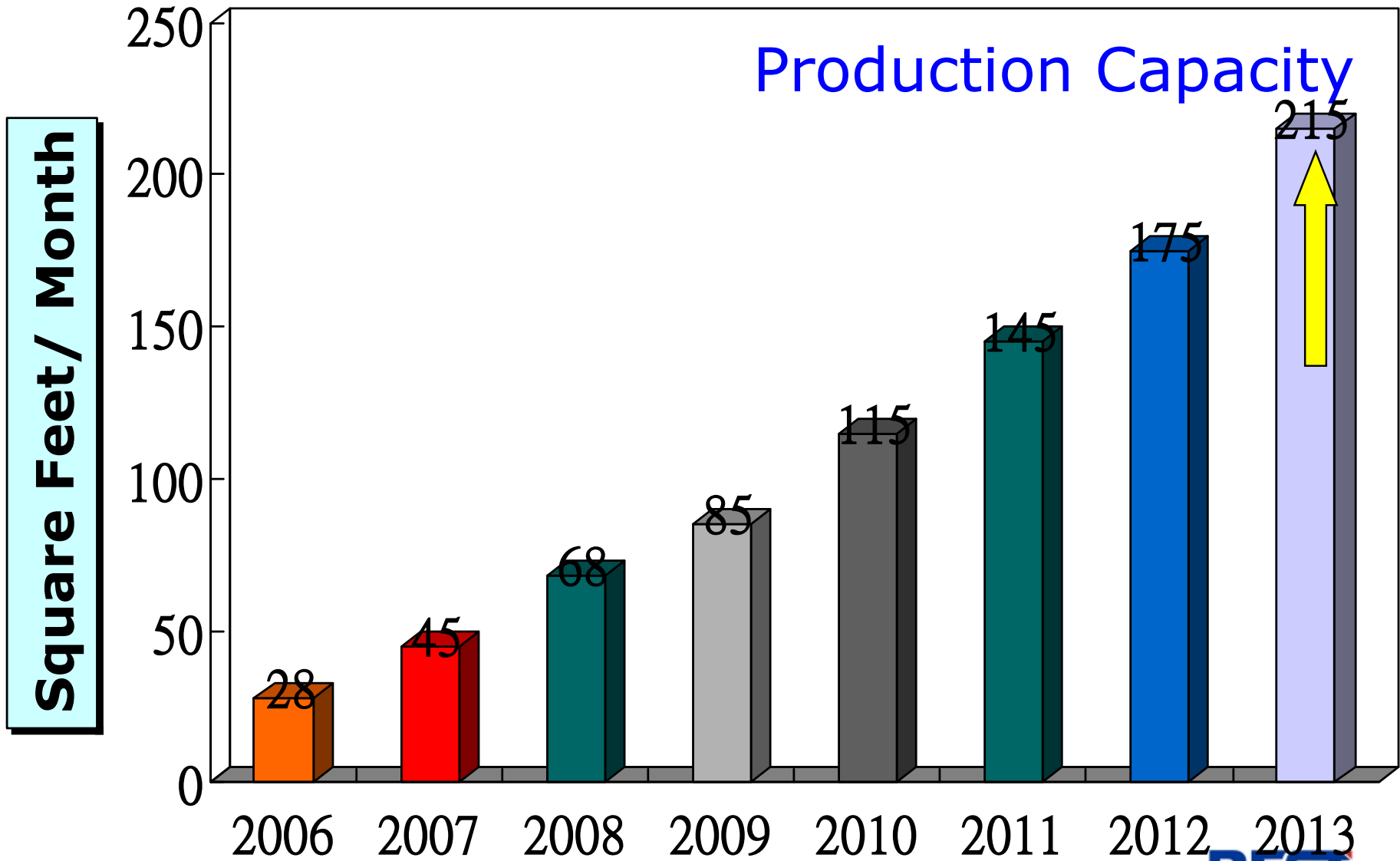
Percentage of Revenue



Sales Turnover by Region

Percentage of Revenue





Part 3

Our Vision

Quality Improvement

Internal Management

Earth Friendly Commitment

Quality Improvement

Expect Quality Improvement

PCB Rejection Rate

2.8%
In 4Q 2011

2.1%
Sep 2012

2013 Target
1.5%

Effectiveness

FACTS

- Double Layer
2.3% in Oct. 2011
↓
1.8% in Aug, 2012
- 4L
3.5% in Oct. 2011
↓
1.9% in Aug, 2012
- MCPCB
3.8% in Dec. 2011
↓
2.56% in Sep, 2012

Internal Management Plan

Importation of new technologies.
Cost reduction and efficiency
program



Going to Construct ERP system for man
agement efficiency of total resources

Earth Friendly Commitment



RoHS Compliant - European Union (EU) Directive for the Restriction of Hazardous Substances.



At BEST:
Lead-Free = RoHS Compliant = Green



Our Earth-Friendly Commitment

- ✓ Recycling, waste reduction, energy management programs in place
- ✓ Driving removal of potentially harmful materials from all products
- ✓ Provide Lead-free solutions that enable customers to meet environmental-friendly manufacturing goals with the lowest risk and lowest cost



Thank You!