

VIASYSTEMS ZHONGSHAN

PCB



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Guang Fu Road
Luosha Yongning
Xiaolan Zhen, Zhongshan
Guandong Province
528415 PR China
Tel: (86-760) 2225-5814
Fax: (86-760) 2225-2045

CERTIFICATIONS

- ISO 9001:2008
- TL 9000 R5.0/R4.0
- UL 796
- ISO 14001:2004
- ISO/TS 16949:2009
- Bellcore Compliant
- ISO/IEC 17025:2005

PHYSICAL ATTRIBUTES

- Maximum Layer Count..... 10
- Inner Copper Weight..... 0.5 – 12 oz
- Outer Copper Weight..... 0.5 – 5 oz
- SMT Pitch..... 12 mil
- Core Thickness..... 3 – 96 mil
- Board Thickness..... 18 – 160 mil
- Plating Aspect Ratio..... Max 10:1

CORE COMPETENCY

- High-volume Double-sided Through 10 Layer Printed Circuit Boards

KEY DATA

- 799,000 square feet
- Maximum Panel Size: 18" x 24"
- Maximum Board Thickness: 160 mil
- Aspect Ratio: 10 : 1
- Layer Count: 1 - 10
- Tracks & Gaps: 4/4 (External) & 3/3 (Internal)
- Minimum Core Thickness: 3 mil
- Tab Plating
- Heat-sink
- Controlled impedance
- Heavy Copper

PROCESS CAPABILITY

- Line/Space - Print/Etch Inner Layer..... 3/3 mil
- External Layer 4/4 mil
- Impedance Control ±10%
- Solder Mask Dam 3 mil
- Board Thickness Tolerance ±10%
- Warp (mils/inch) 5 mil/inch
- Internal Annular Ring - ≤ 12 layers(mil) ... DHS+12
- External Annular Ring (mil) DHS+12
- Hole to Edge Tolerance..... ±5 mil
- Feature to Edge Tolerance ±5 mil

MATERIALS

- FR4 (Tg 140°C, 150°C and 170°C, Lead Free and Halogen-Free Material CEM1, CEM3, FR1

SURFACE FINISHES

- HASL
- Lead-Free OSP
- Immersion Silver
- Immersion Tin
- Hard Gold Tab
- Immersion Gold
- Carbon Ink
- Lead Free HAL (SN 100CL)

ZHONGSHAN

SOLDER MASK

- Taiyo, Tamura, Nanya, Probimer, Enthone

TEST EQUIPMENT

- x AOI
 - Orbotech AOI Machine
 - Camtek AOI Machine
- E-Test
 - Kaima/OS/Mason E-Tester
- Lab. Testing
 - Cross-section
 - SIR
 - Ionic Chromatography
 - Thermal Cycling

CAD/CAM

- Orbotech/Valor Workstation
- Orbotech Laser Plotter

CAPACITY

- Inner Capacity: 233,000 square feet per week
- Outer Capacity: 333,000 square feet per week

MANUFACTURING EQUIPMENT

- Board Cutting
 - ACS Auto Sawing Machine
- Inner D/E
 - C'Sun Laminator, Hakuto Laminator & Cedal Laminator
 - C'Sun and ORC Exposer Machine
 - Automatech and ORC Automatic Exposure Machine
- DES
 - Hollmuller DES Line + Kalex DES Line
- Black Oxide
 - Gainford Black Oxide Line
- Pressing
 - Dah Tyan/Burkle Mass Lamination with Seiko Bonding Machine
- Drilling
 - Hitachi/Excellon Drilling Machine
- Outer D/F
 - Cedal Laminator, Hakuto Laminator and Dynachem Laminator
 - Co-light & ORC Exposer Machine
 - ORC Automatic Exposure Machine
- SES
 - U-Tah and UCE SES Line
- Solder Mask
 - Group Up Electrostatic Spray Coating Machine
 - ORC Auto Exposure Machine
- HASL
 - HALCO HASL Machine
 - Quicksilver Vertical HASL (LF)
 - Serion HC-7 Hole Checking Machine
- Profiling
 - Hitachi/Sogotec/Excellon Routing Machine
 - Lenz, NCV-600 and VMS-4000 V-cut Machine