

Philway Domestic Rigid Product Line

<p>RIGID BOARD TYPES</p> <p>Single Sided Double Sided Multilayer: (Thickness Min. – Half oz. Cu. & 1-Ply .003” Min. Dielectric) 4 layers (.015”) 6 layers (.023”) 8 layers (.030”) 10 layers (.037”) 12 layers (.045”)</p> <p>Higher Layer Count Are Available (up to 40 layers) – Note: Philway was one of the first companies to develop the multi-layer process and has been building multi-layers since the 1960’s</p>	<p>VOLUMES PRODUCED</p> <p>All Quantities (Prototype to High Volume Production) Multi-Plant Operations Including China Consortium (Far East)</p>								
<p>SPECIALIZED PCB TECHNOLOGY</p> <p>Impedance Controlled (TDR Testing) PCMCIA (IPC-6014) Heavy Foil (2 oz. & Up – Produced 14 oz. PCBs) SMT (All Types & Mixed Technology) Blind/Buried Vias (IPC-6012 Type 4 Only) External Heat Sinks (Copper or Aluminum & Aluminum Clad) Low, Medium, & High Technology</p> <p style="padding-left: 40px;">.004” & .004” Traces & Spaces (Standard Production - half oz. Cu.) .007” & .006” Traces & Spaces (Standard Production – 1 oz. Cu.)</p> <p>Solder Masks – Various Colors Available</p> <ul style="list-style-type: none"> • SMO-Cu., SMO-HASL (LPI Green Semi-Gloss is Standard) <p>Carbon Ink Screening</p> <p>Electro-Plated Acid Copper, Nickel-Gold Tabs, Deep Ni-Au (Panel/Pre-etch or Tie Line/Post-etch Edge Plating</p> <p>Panelization</p> <ul style="list-style-type: none"> • (V-Score, Route, Drill) 	<p>CORPORATE HEADQUARTERS</p> <p>Philway Products Inc. 701 Virginia Ave. Ashland, OH 44805 Phone – (419) 281-7777 Fax – (419) 289-3447 info@philway.com (E-mail) http://www.philway.com</p>								
<p>MARKETS SERVED</p> <p>Commercial / Military Design IPC-2221 & IPC-2222 Assy Type 1-A,B,C & X 2 – A,B,C & X (not Y or Z) Producibility Design Level A (Pref) B (Std) C (Reduced)</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 50%;">Automotive</td> <td style="width: 50%;">Avionics/Aerospace</td> </tr> <tr> <td>Consumer</td> <td>Computer</td> </tr> <tr> <td>Industrial</td> <td>Instrumentation</td> </tr> <tr> <td>Medical</td> <td>Commercial</td> </tr> </table> <p>Telecommunications-Bellcore/Telcordia-(TR-NWT-000078)</p> <p>Military (Cage Code 21971) See Acceptability Below</p>	Automotive	Avionics/Aerospace	Consumer	Computer	Industrial	Instrumentation	Medical	Commercial	<p>A.O.I (Automatic Optical Inspection) Inner layer Production</p>
Automotive	Avionics/Aerospace								
Consumer	Computer								
Industrial	Instrumentation								
Medical	Commercial								
<p>ACCEPTABILITY</p> <p>IPC-A-600 Performance Class 1, 2, & 3 (See Below) IPC-6012 Board Type 1, 2, 3, 3A, & 4 (not 5 or 6) IPC-6011</p> <ul style="list-style-type: none"> • Class 1 = General Electronic Products • Class 2 = Dedicated Service Electronic Products • Class 3 = High Reliability Electronic Products • Class 3A = Military/Space 									

<p>Small Diameter Drilling</p> <ul style="list-style-type: none"> ($\pm .005$" Finished Hole Size in .062" Thick Mat'l) <p>RoHS No Lead Finishes</p> <ul style="list-style-type: none"> Electroless Ni/Immersion Au (ENIG) Lead Free HAL Immersion Silver (IS) Organic Solderability Preservative (OSP) <p>Reflow / Fuse & HASL</p> <ul style="list-style-type: none"> (Hot Oil, Hot Air Solder Level-Vert. & Horiz) <p>CAD/CAM (E-mail) Full MIL-Etch back, Plasma, and Chemical Desmear Back Panels – Up to 16" x 21" Total Micro sectioning & Testing Lab Capability Including Solderability J-STD-003, XRF, & Rework Simulation</p>	<p>Mil & Gov't – Various Specialized Specifications including</p> <p>NASA NHB5300.4 MIL-PRF-31032/55110 Certified (CML VQE-99-1107) WS-6536 (Weapons Spec) MIL-I-45208 (Applies to early MIL-P-55110 Revisions Only)</p> <p>UL & CUL Certified ISO 9001 : 2000 Certified</p> <hr/> <p>ELECTRICAL TESTING</p> <p>Grid / Fixtures – Test size up to 18" x 21" Flying Probe / Fixtureless up to 15.7" x 20.4"</p> <p>HiPot TDR</p>
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MATERIALS

Standard Materials IAW IPC-4101 /21, 22, 23, 24, 26, 28, 30, 40-41-42, 97-129 including RoHS High Td, NEMA/Mil Grades, FR-4/GFN (Natural also Red, Black, and Blue), FR-5/GHN, Multifunctional/Tetrafunctional, Polyimide/GI, BT/GM. Epoxy Mixed Material – GF & GI, GF & GM. We also stock corresponding B-Stage/Prepreg, some small volume misc. laminates & B-Stage/prepreg including Taconic, Teflons, CEM-1 & 3.

DELIVERIES

2 Weeks & Up Standard, 2 Days & Up Proto-types & Premium, Ship from Stock, Just-in Time Programs, Capacity Agreements

QUALITY RELATED PROGRAMS

ISO 9001-2000 Certified, Six Sigma, Zero Defects, Q-1, TQC, Dock to Stock, IPC-PC-90, UL & CUL Approved E37078 (N), DESC and other Mil/Gov't Related, TQM With Statistical Process Control (SPC) on Critical Processes.

NOTE: We are a woman/disadvantaged minority owned company. Philway has a specific product expertise that assures you of matching your needs at the VERY LOWEST possible economical TOTAL COST, thus ASSURING YOU (our Customer) A PCB ECONOMICAL COST ADVANTAGE OVER YOUR COMPETITION.