

QML-31032 Full Capability Listing

The following listings represent the technologies that have been qualified by currently listed manufacturers and some additional optional capabilities. It is not comprehensive in that it does not preclude manufacturers from qualifying technologies not listed herein. This document has been prepared and is maintained by DLA Land and Maritime – VQE.

Specification	<ol style="list-style-type: none"> 1. MIL-PRF-31032/1 2. MIL-PRF-31032/2 3. MIL-PRF-31032/3 4. MIL-PRF-31032/4 5. MIL-PRF-31032/5 6. MIL-PRF-31032/6 7. MIL-PRF-31032/Custom <p>The following specification groupings may be applied if the more complex build is proven:</p> <ol style="list-style-type: none"> 1. MIL-PRF-31032/1, MIL-PRF-31032/2 2. MIL-PRF-31032/3, MIL-PRF-31032/4 3. MIL-PRF-31032/5, MIL-PRF-31032/6
Rigid Base Material:	Various
Flexible Base Material:	Various
Composition:	<ol style="list-style-type: none"> 1. S – Homogenous thermosetting base material printed boards. Printed board of this composition contain only thermosetting resin base materials 2. H - Homogenous thermoplastic base material printed boards. Printed board of this composition contain only thermoplastic resin base materials 3. M - Mixed based material printed boards. Printed boards of this composition contain layers of thermoplastic and thermosetting resin base materials 4. B - Metal backed printed boards. Printed boards of this composition contain a heavy layer of metal as specified
Max. Panel Size:	a" x b"
Max. Number of Layers:	x
Max. Board Thickness:	0.xxx"
Minimum Drilled Plated Through-Hole Size (before plating):	0.xxxx"
Minimum Laser Ablated Plated Hole Size (before plating):	0.xxxx"
Aspect Ratio:	x:y (plated through hole) x:y (microvia)
Min. Conductor Width:	0.xxxx"
Min. Conductor Space:	0.xxxx"
Hole Preparation:	<ol style="list-style-type: none"> 1. Permanganate Desmear 2. Permanganate Etchback 3. Plasma Desmear 4. Plasma Etchback 5. Sodium Treatment
Hole Wall Conductive Coating:	<ol style="list-style-type: none"> 1. Electroless Copper 2. Carbon-based 3. Graphite-based 4. Conductive Polymer 5. Palladium-based 6. Electroless Nickel
Copper Plating Method:	<ol style="list-style-type: none"> 1. Direct Current Plate 2. Pulse Plate

	3. Periodic Reverse Plate
Hole Fill / Via Plug:	1. Conductive 2. Non-conductive
Solder Resist:	1. Liquid Photoimageable 2. Dry Film 3. Silk Screen
Finish System:	1. HASL 2. Hot Oil Reflow of Plated Sn/Pb 3. IR Reflow of Plated Sn/Pb 4. ImmAg 5. Electrolytic Ni / Hard Au 6. Electrolytic Ni / Soft Au 7. ENIG 8. Ni/Pd/Au 9. OSP
Additional Fabrication Capabilities:	1. Foil Lamination 2. Sequential Lamination 3. Blind Vias 4. Buried Vias 5. Embedded Resistors 6. Copper Core 7. Copper Invar Copper 8. Book Binder 9. Press Fit Mounting
Controlled Impedance:	1. Single-Ended 2. Differential
Flex Usage:	1. Use A (Flex During Installation) 2. Use B (Dynamic Flex)

For more information regarding MIL-PRF-31032 and QML-313032, we encourage you to read the QML info book (<http://www.LandandMaritime.dla.mil/downloads/VQGeneral/IE31032CQIcurrent.pdf>). If you have additional questions, please contact your main point of contact at DLA Land and Maritime or email 5998.qualifications@dla.mil.

Visit us on the web at www.LandandMaritime.dla.mil/offices/sourcing_and_qualification