

**SECTION II**

**LIST OF MANUFACTURERS' QUALIFIED CAPABILITIES FOR EACH TECHNOLOGY**

<b>MANUFACTURER NAME &amp; ADDRESS</b>  TTM Technologies, Inc. Santa Clara Division 400 Matthew Street Santa Clara, CA 95054	<b>PLANT LOCATION</b>  Same	<b>CAGE CODE:</b> 65916  <b>CONTACT:</b> Nellie Gurierrez <b>PHONE #:</b> (408) 486-3184 <b>FAX #:</b> (408) 727-1003 <b>EMAIL:</b> <a href="mailto:nellie.gutierrez@ttmtech.com">nellie.gutierrez@ttmtech.com</a>																														
<b>CAPABILITIES BY TECHNOLOGY / ASSOCIATED SPECIFICATION:</b>		<b>QUALIFICATION LETTER:</b>																														
MIL-PRF-31032/1 MIL-PRF-31032/2  <table border="0"> <tr><td>Panel Size</td><td>18" X 24"</td></tr> <tr><td>Max. Board Thickness</td><td>0.120"</td></tr> <tr><td>Min Hole Size</td><td>0.191"/0.012"</td></tr> <tr><td>Aspect Ratio</td><td>9:1</td></tr> <tr><td>Max. Number of Layers</td><td>20</td></tr> <tr><td>Min. Conductor Width</td><td>0.004"</td></tr> <tr><td>Min. Conductor Spacing</td><td>0.004"</td></tr> <tr><td>Part Mounting</td><td>SMT, THM, MIX</td></tr> <tr><td>Base Material</td><td>BI (Nonwoven Aramid Reinforced Polyimide resin) GF (Woven E-glass, Epoxy resin) GI (Woven E-glass, Polyimide resin)</td></tr> <tr><td>Finish System</td><td>HASL, Immersion Ni/Au</td></tr> <tr><td>Hole Preparation</td><td>Plasma Desmear/Etchback</td></tr> <tr><td>Copper Plating</td><td>Electrolytic Acid Copper</td></tr> <tr><td>Solder Resist</td><td>LPI, Screen Printed</td></tr> <tr><td>Controlled Impedance</td><td>Range 30-150 ohms (±10%), Microstrip, Embedded Microstrip, Dual Stripline, Characteristic, Differential</td></tr> <tr><td>Alternate Construction</td><td>Blind Vias</td></tr> </table>		Panel Size	18" X 24"	Max. Board Thickness	0.120"	Min Hole Size	0.191"/0.012"	Aspect Ratio	9:1	Max. Number of Layers	20	Min. Conductor Width	0.004"	Min. Conductor Spacing	0.004"	Part Mounting	SMT, THM, MIX	Base Material	BI (Nonwoven Aramid Reinforced Polyimide resin) GF (Woven E-glass, Epoxy resin) GI (Woven E-glass, Polyimide resin)	Finish System	HASL, Immersion Ni/Au	Hole Preparation	Plasma Desmear/Etchback	Copper Plating	Electrolytic Acid Copper	Solder Resist	LPI, Screen Printed	Controlled Impedance	Range 30-150 ohms (±10%), Microstrip, Embedded Microstrip, Dual Stripline, Characteristic, Differential	Alternate Construction	Blind Vias	VQE-03-3888 VQE-04-5823
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MIL-PRF-31032/3 MIL-PRF-31032/4  <table border="0"> <tr><td>Panel Size</td><td>18" X 24"</td></tr> <tr><td>Max./Min. Board Thickness</td><td>0.0120"</td></tr> <tr><td>Max./Min. PTH Hole Size</td><td>0.191"/0.012"</td></tr> <tr><td>Aspect Ratio</td><td>9:1</td></tr> <tr><td>Max. Number of Layers</td><td>10</td></tr> <tr><td>Min. Conductor Width</td><td>0.004"</td></tr> <tr><td>Min. Conductor Spacing</td><td>0.004"</td></tr> <tr><td>Part Mounting</td><td>SMT, THM, MIX</td></tr> <tr><td>Rigid Base Material</td><td>GF (Woven E-glass, Epoxy resin) GI (Woven E-glass, Polyimide resin)</td></tr> <tr><td>Flex Base Material</td><td>IPC-4204/1, IPC-241/1 (Acrylic Adhesive) IPC-4204/11, IPC-241/11 (Adhesiveless)</td></tr> <tr><td>Finish System</td><td>HASL, Immersion Ni/Au</td></tr> <tr><td>Hole Preparation</td><td>Plasma Desmear/Etchback</td></tr> <tr><td>Copper Plating</td><td>Electro-deposited Acid Copper</td></tr> </table>		Panel Size	18" X 24"	Max./Min. Board Thickness	0.0120"	Max./Min. PTH Hole Size	0.191"/0.012"	Aspect Ratio	9:1	Max. Number of Layers	10	Min. Conductor Width	0.004"	Min. Conductor Spacing	0.004"	Part Mounting	SMT, THM, MIX	Rigid Base Material	GF (Woven E-glass, Epoxy resin) GI (Woven E-glass, Polyimide resin)	Flex Base Material	IPC-4204/1, IPC-241/1 (Acrylic Adhesive) IPC-4204/11, IPC-241/11 (Adhesiveless)	Finish System	HASL, Immersion Ni/Au	Hole Preparation	Plasma Desmear/Etchback	Copper Plating	Electro-deposited Acid Copper	VQE-03-3895				
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<b>MANUFACTURER NAME &amp; ADDRESS</b>  TTM Technologies, Inc. Stafford Division 4 Old Monson Road, P.O. Box 145 Stafford, CT 06075	<b>PLANT LOCATION</b>  Same	<b>CAGE CODE: 5L706</b>  <b>CONTACT: Michele Herbert</b> PHONE #: (860) 684-5881 FAX #: (860) 684-7425 EMAIL: <a href="mailto:michele.hebert@ttmtech.com">michele.hebert@ttmtech.com</a>																																
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