

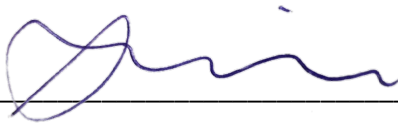


## TESTING SUMMARY

### Trimline Dock and Cradle for Panasonic TB40 Laptop Dock (AS7.P040.xxx Series Docks & Cradles)

Test Description	Test Parameters
<b>Vibration: Non-Operational</b> <i>Test date: Apr 2022</i>	MIL-STD-810G, Method 514.6, per Figure 514.6E-1, and in accordance with PSD values in Graph A of Panasonic specification "Toughbook Tested for Vehicle Dock Partners Version 3.1" 2019-07-03., Section [A-1]. Test duration is one hour along three mutually orthogonal axes – not simultaneously (3 hours total). <ul style="list-style-type: none"> <li>• Unit is unlocked</li> </ul>
<b>Vibration: Operational</b> <i>Test date: Apr 2022</i>	MIL-STD-810G CHG1, Method 514.6, per Figure 514.6C-1, and in accordance with PSD values in Graph B of Panasonic specification "Toughbook Tested for Vehicle Dock Partners Version 3.1" 2019-07-03., Section [A-1]. Test duration is two hours along three mutually orthogonal axes – not simultaneously (6 hours total). <ul style="list-style-type: none"> <li>• Unit is unlocked</li> </ul>
<b>Mechanical Shock Safety: Non-Operational</b> <i>Test date: Apr 2022</i>	MIL-STD-810G CHG1, Table 516.6-II, 3 positive and 3 negative pulses along three mutually orthogonal axes (18 shocks in total), and per Panasonic specification "Toughbook Tested for Vehicle Dock Partners Version 3.1" 2019-07-03., Section [A-2] SHOCK Test; and per Gamber-Johnson's Product Validation Testing Specification (RevC) Section 4.3. <ul style="list-style-type: none"> <li>• 40G, 11ms half sine</li> <li>• 20G, 11ms half sine</li> </ul>
<b>Cycle Test: Non-Operational</b> <i>Test date: June 2022</i>	30,000 cycles of the docking connector, and latching mechanisms as per Panasonic specification "Toughbook Tested for Vehicle Dock Partners Version 3.1" 2019-07-03., Section [A-3]
<b>Shock – Crash Hazard: Non-Operational</b> <i>Test date: May 2022</i>	SAE J1455, Test Method 4.11.3.5, Figure 13, and Panasonic specification "Toughbook Tested for Vehicle Dock Partners Version 3.1" 2019-07-03., Section [A-2] SLED Test <ul style="list-style-type: none"> <li>• Unit is unlocked.</li> </ul>
<b>Electrostatic Discharge: Operational</b> <i>Test date: April 2022</i>	ISO 10605, Section 8, Table C.2, Category 2 – Direct Air Discharge, and as per Panasonic specification "Toughbook Tested for Vehicle Dock Partners Version 3.1" 2019-07-03., Section [B-1]
<b>I/O Connector Durability Mechanical Tests:</b> <i>Test date: Apr 2022</i>	in accordance with Panasonic specification "Toughbook Tested for Vehicle Dock Partners Version 3.1" 2019-07-03., Section [A-4] <ul style="list-style-type: none"> <li>• Figure A, DC-IN connector round force, 3 kgf 2,000 cycle</li> <li>• Figure A, All other connectors, Connector Round Force, 3 kgf 100 cycle</li> <li>• Figure B, 20 kgf 5 sec in each of the 4 directions Up, Down, Left, and Right on All connectors (DC-IN, I/O, etc)</li> </ul>
<b>Sharp Edge Test</b> <i>Test date: May 2022</i>	The test conducted as per Panasonic specification "Toughbook Tested for Vehicle Dock Partners Version 3.1" 2019-07-03., Section [A-5] using sharp edge tester.
<b>EMC Testing</b> <i>Test date: April 2022</i>	Panasonic specification "Toughbook Tested for Vehicle Dock Partners Version 3.1" 2019-07-03., Section [B-2], and as per: <ul style="list-style-type: none"> <li>• FCC Part 15, Subpart B</li> <li>• ICES-003 Issue 6</li> <li>• CISPR 32</li> <li>• EN 50498:2010</li> </ul>

<b>Electrical Safety Testing</b> <i>Test date: July 2022</i>	<ul style="list-style-type: none"> <li>• cQAlus Certification: CSA C22.2 No. 62368-1:19 and UL 62368-1 3<sup>rd</sup> ED Part-1</li> <li>• IEC 62368-1:2018</li> </ul>
<b>Low Temperature: Operational</b> <i>Test date: May 2022</i>	MIL-STD 810G CHG1, Method 502.6, Procedure II <ul style="list-style-type: none"> <li>• -10°C, Duration 24 h, Operational</li> </ul>
<b>Low Temperature: Storage</b> <i>Test date: April 2022</i>	MIL-STD 810G CHG1, Method 502.6, Procedure I, and as per Panasonic specification "Toughbook Tested for Vehicle Dock Partners Version 3.1" 2019-07-03., Section [A-6] <ul style="list-style-type: none"> <li>• -40°C, Soak Duration 72 h, Non-Operational</li> </ul>
<b>High Temperature: Operational</b> <i>Test date: April 2022</i>	MIL-STD 810G CHG1, Method 501.6, Procedure II <ul style="list-style-type: none"> <li>• 63°C to 30°C, 5 cycles, Cycle Duration 24 h, Operational</li> </ul>
<b>High Temperature: Storage</b> <i>Test date: April 2022</i>	MIL-STD 810G CHG1, Method 501.6, Procedure I, and as per Panasonic specification "Toughbook Tested for Vehicle Dock Partners Version 3.1" 2019-07-03., Section [A-6] <ul style="list-style-type: none"> <li>• 85°C, Soak Duration 72h, Non-Operational</li> </ul>
<b>Multi Cycle Thermal Shock</b> <i>Test date: April 2022</i>	Basic Standard: MIL-STD-810G CHG1 Section: 503.6, and as per Panasonic specification "Toughbook Tested for Vehicle Dock Partners Version 3.1" 2019-07-03., Section [A-6] Limits: Low Temperature -40 °C                      High Temperature 85 °C 50 Cycles                      Transfer Time < 1 min Dwell time (at each temperature) 2 h
<b>Humidity</b> <i>Test date: May 2022</i>	MIL-STD 810G: CHG1, Method 507.6, Procedure II, Aggravated, Figure 507.6-7 <ul style="list-style-type: none"> <li>• Ten 24-hour cycles, temperature varied from 30°C to 60°C at constant 95% relative humidity.</li> </ul>
<b>RoHS Compliance</b> <i>Date: Jun 2022</i>	RoHS (63000:2018) Directive
<b>UL-94 Flammability Compliance</b> <i>May 2022</i>	<ul style="list-style-type: none"> <li>• UL-94</li> <li>• EN IEC 60950-1 50498:2010</li> </ul> as per Panasonic specification "Toughbook Tested for Vehicle Dock Partners Version 3.1" 2019-07-03., Section [C-2]



Name: Gerald Mychajlyszyn, P.Eng. APEGA 243441  
Title: Design Engineer, Precision Mounting Technologies  
Date: 2023-03-20



Conforms to CSA C22.2 No. 60950-1 & UL 60950-1  
call us at 1-888-869-7652 | info@precisionmounts.com