

## Testing Summary GJ Panasonic T1 Handheld Cradle

(7160-1275)

## **Summary of Tests Performed at Gamber-Johnson**

Test Description	Test Parameters
Vibration – Operational	Panasonic's Toughbook criteria per graph B, tailored MIL-STD 810G 514.6. Test duration is 2 hours along three mutually orthogonal
Test date: July 2019	<ul><li>axes – not simultaneously (6 hours total).</li><li>Unit is unlocked</li></ul>
Vibration –	Panasonic's Toughbook tested criteria per graph A. MIL-STD-810G,
Non-Operational (Minimum Integrity) Test date: June-July 2019	Method 514.6, Category 24, per Figure 514.6E-1. Test duration is one hour along three mutually orthogonal axes – not simultaneously (3 hours total).
	Unit is unlocked
Functional Shock - Non-Operational Test date: July 2019	MIL-STD-810G, Method 516.6, Procedure 1, 3 positive and 3 negative pulses each axis (vertical, longitudinal and transverse), 18 pulses  • 20G, 11ms half sine
	Unit is unlocked
Mechanical Shock	MIL-STD-810G, Method 516.6, Procedure 1, 3 positive and 3 negative
Safety -	pulses each axis (vertical, longitudinal and transverse), 18 pulses
Non-Operational Test date: July 2019	<ul><li>40G, 11ms half sine</li><li>Unit is unlocked</li></ul>
Security Testing Test date: July 2019	Gamber-Johnson LLC Product Validation Testing Specification section 3.8. An attempt to remove computer from docking station will be tested. Using one simple tool the computer should not be removed from docking station under in 60 seconds. No damage to the computer should occur.  • Unit is locked
Cycle Testing – Non-Operational Test date: July 2019	30,000 cycles of the docking connector, latching and locking mechanisms
Electrostatic Discharge – Operational Test date: July 2019	ISO 10605, Section 8, Table C.2, Category 2 – Direct Air Discharge

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## **Summary of Tests Performed at Independent Facility**

Test Description	Test Parameters	
Humidity	MIL-STD 810G, Method 507.5, Procedure II, Aggravated	
Test date: July 2019	<ul> <li>Ten 24-hour cycles, temperature varied from 30°C to 60°C</li> </ul>	
	to 30°C at constant 95% relative humidity.	
Thermal Shock	Panasonic Toughbook Criteria Specification	
Test date: July 2019	85°C to -40°C, Non-Operating	
	2hrs at each temperature, 50 cycles	
Low Temperature:	MIL-STD 810G, Method 502.5, Procedure II	
Operational	<ul> <li>-20°C Operating, 24 hours</li> </ul>	
Test date: July 2019		
Low Temperature:	MIL-STD 810G, Method 502.5, Procedure l	
Storage	<ul> <li>-40°C Non-Operating, 72 hours</li> </ul>	
Test date: July 2019		
High Temperature:	MIL-STD 810G, Method 501.5, Procedure II, Table 501.5- II	
Operational	• (5) 24-hour cycles	
Test date: July 2019		
High Temperature:	MIL-STD 810G, Method 501.5, Procedure l	
Storage	<ul> <li>96 hour soak at 71°C</li> </ul>	
Test date: July 2019		
Shock – Crash Hazard	SAE J1455, Section 4.11.3.5, per Figure 13	
Test date: July 2019	Unit is unlocked	
	<ul> <li>Tested in both laptop and tablet orientations.</li> </ul>	
EMC Testing	EN 55032:2012	
Test date: July 2019	<ul> <li>VCCI-CISPR 32 – Class B</li> </ul>	
	<ul> <li>FCC Part 15, Subpart B – Class B</li> </ul>	
E-Mark	ECE R10 REV.5	
Test date: July 2019		

## **Other Certifications**

Description	
EN 50581:2012 RoHS2 Directive 2011/65/EU	

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