

TESTING SUMMARY – 2023-05-03

Trimline Dock and Cradle for Panasonic G2 Tablet

(AS7.P222.1xx Series Docks and Cradles)

Test Description	Test Parameters
Vibration Non-	MIL-STD-810G CHG1, Method 514.6, per Figure 514.6E-1, and in accordance with PSD
Operational	values in Graph A of Panasonic specification "Toughbook Tested for Vehicle Dock
Test date: Apr 2023	Partners Version 3.1" 2019-07-03., Section [A-1], . Test duration is one hour along
p	three mutually orthogonal axes – not simultaneously (3 hours total).
	• Unit is unlocked
Vibration Operational	MIL-STD-810G CHG1, Method 514.6, per Figure 514.6C-1, and in accordance with PSD
Test date: Apr 2023	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).
	• Unit is unlocked
Mechanical Shock	MIL-STD-810G CHG1, Table 516.6-II, 3 positive and 3 negative pulses along three
Safety: Non-Operational	mutually orthogonal axes (18 shocks in total), and per Panasonic specification
Test date: Apr 2023	"Toughbook Tested for Vehicle Dock Partners Version 3.1" 2019-07-03., Section [A-2]
	SHOCK Test.
	• 40G, 11ms half sine
Shock – Crash Hazard:	SAE J1455, Test Method 4.11.3.5, Figure 13, and Panasonic specification "Toughbook
Non-Operational Test	Tested for Vehicle Dock Partners Version 3.1" 2019-07-03., Section [A-2] SLED Test
Test date: Apr 2023	Unit is unlocked
Cycle Test: Non-	30,000 cycles of the docking connector, and latching mechanisms as per Panasonic
Operational	specification "Toughbook Tested for Vehicle Dock Partners Version 3.1" 2019-07-03.,
Test date: Apr 2023	Section [A-3]
I/O Connector Durability	in accordance with Panasonic specification "Toughbook Tested for Vehicle Dock
Mechanical Tests:	Partners Version 3.1" 2019-07-03., Section [A-4] Figure B, 20 kgf 5 sec in each of the 4
Test date: Apr 2023	directions Up, Down, Left, and Right on each of the two Front USB ports.
Sharp Edge Test	The test to be conducted as per Panasonic specification "Toughbook Tested for Vehicle
Test date: Apr 2023	Dock Partners Version 3.1" 2019-07-03., Section [A-5] using sharp edge tester.
Low Temperature:	MIL-STD 810G CHG1, Method 502.6, Procedure ll
Operational	 -30°C, Duration 24 h, Operational
Test date: Mar 2023	
Low Temperature:	MIL-STD 810G CHG1, Method 502.6, Procedure I, and as per Panasonic specification
Storage	"Toughbook Tested for Vehicle Dock Partners Version 3.1" 2019-07-03., Section [A-6]
Test date: Mar 2023	-40°C, Soak Duration 72 h, Non-Operational
High Temperature:	MIL-STD 810G CHG1, Method 501.6, Procedure II
Operational Test date: Apr 2023	 63°C to 30°C, 5 cycles, Cycle Duration 24 h, Operational
High Temperature:	MIL-STD 810G CHG1, Method 501.6, Procedure I, and as per Panasonic specification
Storage	"Toughbook Tested for Vehicle Dock Partners Version 3.1" 2019-07-03., Section [A-6]
Test date: Apr 2023	 85°C, Soak Duration 72h, Non-Operational
,	
	1

Thermal Shock <i>Test date: Mar 2023</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 °CHigh Temperature 85 °C50 CyclesTransfer Time < 1 minDwell time (at each temperature) 2 h
Humidity Test date: Apr 2023	MIL-STD 810G CHG1, Method 507.6, Procedure II, • 10 cycles of 24 hr, ranging from 30°C to 60°C at 95%RH, Non-Operational
Electrostatic Discharge: Operational Test date: Apr 2023	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]
EMC Testing <i>Test date: Apr 2023</i>	 Panasonic specification "Toughbook Tested for Vehicle Dock Partners Version 3.1" 2019-07-03., Section [B-2], and as per: FCC Part 15, Subpart B ICES-003 Issue 6 CISPR 32 EN 50498:2010
RoHS Compliance	EN IEC 63000:2018, RoHS3 Directive 2015/863 as per Panasonic specification "Toughbook Tested for Vehicle Dock Partners Version 3.1" 2019-07-03., Section [C-1]
UL-94 Flammability Compliance	 UL-94 EN IEC 60950-1 50498:2010 as per Panasonic specification "Toughbook Tested for Vehicle Dock Partners Version 3.1" 2019-07-03., Section [C-2]
Electrical Safety testing Test date: Apr 2023	 cQAlus Certification: CSA C22.2 No. 62368-1:19 and UL 62368-1 3rd ED Part-1 IEC 62368-1:2018
REACH Compliance	 (EC) No. 1907/2006 REACH Regulation Ammendment (EC) 2022/477 2022-03-24 Article 57 – Substances of Very High Concern SVHC 2023-01-17, Article 59(10) Annex XVII – Restricted Substance List 2022 [not in excess of 0.1% w/w and 1 t/y]

Name: Gerald Mychajlyszyn, P.Eng. APEGA 243441Title: Design Engineer, Precision Mounting TechnologiesDate: 2023-05-03