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Mechanical Engineering Division
November 10, 2011

SUMMARY OF TESTS PERFORMED

Project Number: 18.04481.20.101

Company: Panasonic Computer Solutions Company
Three Panasonic Way, 2F-12
Secaucus, NJ 07094
Attn: Angela MacNeill

Equipment Tested: Panasonic CF-H2

Test Dates: July 2011

Notes: *The test item was evaluated for the ability to boot into the Microsoft Windows® 7 operating system following each of the tests described within this summary report or for the ability to play an audio/visual file during the test parameter application. Some of the results are based on the outcome of previous testing of the CF-H1 Field, since the units are similar. A listing of summarized tests and results appear in the accompanying table. An asterisk in the listing identifies those evaluations that were based on previous test results. Full details will be provided in Report Number 18.04481.20.100.FR1.*

Report Written By:



Eric Dornes
Principal Engineer
Structural Dynamics and Product Assurance Section

Summary of Tests/Evaluations Performed on the Panasonic CF-H2

Test Description	Test Parameters	Test Results
Altitude: Storage/Air Transport	MIL-STD-810G, Method 500.5, Procedure I <ul style="list-style-type: none"> 15,000ft (non-operating) 	Pass*
Altitude: Operation/Air Carriage	MIL-STD-810G, Method 500.5, Procedure II <ul style="list-style-type: none"> 15,000ft (operating) 	Pass*
High Temperature: Storage	MIL-STD-810G, Method 501.5, Procedure I <ul style="list-style-type: none"> 160°F (non-operating) 	Pass*
High Temperature: Operation	MIL-STD-810G, Method 501.5, Procedure II <ul style="list-style-type: none"> 140°F (operating) 	Pass
High Temperature: Tactical-Standby to Operational	MIL-STD-810G, Method 501.5, Procedure III <ul style="list-style-type: none"> High storage (non-operating) to high operating (test for operation) Test results are for battery operation 	Pass
Low Temperature: Storage	MIL-STD-810G, Method 502.5, Procedure I <ul style="list-style-type: none"> -60°F (non-operating) 	Pass*
Low Temperature: Operation	MIL-STD-810G, Method 502.5, Procedure II <ul style="list-style-type: none"> -20°F (operating) 	Pass*
Temperature Shock	MIL-STD-810G, Method 503.5, Procedure I <ul style="list-style-type: none"> From 200°F to -60°F, three cycles 	Pass*
Rain: Blowing	MIL-STD-810G, Method 506.5, Procedure I <ul style="list-style-type: none"> 5.8in/hr rain, 70mph wind, 30 minutes per surface Unit operating 	Pass
Rain: Drip	MIL-STD-810G, Method 506.5, Procedure III <ul style="list-style-type: none"> 15 minute exposure, drip test 	Pass*
Humidity	MIL-STD-810G, Method 507.5, Procedure II (Aggravated) <ul style="list-style-type: none"> Temp. cycles 86°F to 140°F; 95%RH 	Pass
Sand and Dust: Dust	MIL-STD-810G, Method 510.5, Procedure I <ul style="list-style-type: none"> Blowing Dust (operating) Operating temperature of 140°F 	Pass*
Sand and Dust: Sand	MIL-STD-810G, Method 510.5, Procedure II <ul style="list-style-type: none"> Blowing Sand (operating) Operating temperature of 140°F 	Pass*
Explosive Atmosphere	MIL-STD-810G, Method 511.5, Procedure I	Pass
Vibration: General Vibration – operating	MIL-STD-810G, Method 514.6, Procedure I (Transportation) <ul style="list-style-type: none"> Panasonic provided conditions (operating) 	Pass*
Vibration: General Vibration – non-operating	MIL-STD-810G, Method 514.6, Procedure I (Transportation) <ul style="list-style-type: none"> Category 24, General minimal integrity (non-operating) 	Pass
Shock: Functional	MIL-STD-810G, Method 516.6, Procedure I <ul style="list-style-type: none"> 40g, 11ms (operating) 	Pass*

* Based on previous test results of the CF-H1 Field provided in Report Number 18.04481.17.100.FR1

Test Description	Test Parameters	Test Results
Shock: Transit-Drop 48-inch	MIL-STD-810G, Method 516.6, Procedure IV <ul style="list-style-type: none"> • 26 drops – 48in height on to 2in plywood – non-operating • All drops performed on the same unit 	Pass
Shock: Transit-Drop 60-inch	MIL-STD-810G, Method 516.6, Procedure IV <ul style="list-style-type: none"> • 26 drops – 60in height on to 2in plywood – non-operating • All drops performed on the same unit that was also subjected to all 48in drops 	Pass
Shock: Transit-Drop 72-inch	MIL-STD-810G, Method 516.6, Procedure IV <ul style="list-style-type: none"> • 26 drops – 72in height on to 2in plywood – non-operating • All drops performed on the same unit 	Pass
Freeze / Thaw	MIL-STD-810G, Method 524, Procedure III (Rapid Temperature Change) <ul style="list-style-type: none"> • Test effects include condensation 	Pass*
Dust	IEC 60529, IP 6x level, against ingress of foreign objects: dust-tight	Pass
Water	IEC 60529, IP x5 level, against ingress of water: jetting	Pass

* Based on previous test results of the CF-H1 Field provided in Report Number 18.04481.17.100.FR1