

MIL-STD-810G test results

This is designed to test equipment limits in various conditions where it is expected to be used (environment) or transported (shocks). An independent third-party laboratory has tested certain products using recommended test methods.

	Surface Laptop 2	Surface Pro 6
Model number	1769	1796
Test		
High Altitude Operating	PASS	PASS
High Altitude Storage	PASS	PASS
Humidity	PASS	PASS
High Temperature Storage	PASS	PASS
High Temperature Operating	PASS	PASS
Vibration Minimum Integrity	PASS	PASS
Vibration Ground Vehicle	PASS	PASS
Low Temperature Operating	PASS	PASS
Low Temperature Storage	PASS	PASS
Shock Operational	PASS	PASS
Crash Hazard Operational	PASS	PASS
Drop Benchtop	PASS	PASS
Drop Transit [modified 30"]	PASS	PASS
Blowing Dust	PASS	PASS
Temperature Shock	NO	PASS
Freeze/Thaw	PASS	PASS
Blowing Sand	PASS	NO
Explosive Atmosphere	PASS	PASS

	Surface Laptop	Surface Pro 5 LTE
Model number	1769	1807
Test		
Thermal Shock	NO	NO
Humidity	PASS	PASS
Explosive Atmosphere	NO	PASS
High Temperature Storage (Constant)	PASS	PASS
High Temperature Operating (Constant)	PASS	PASS
Low Temperature Storage	PASS	PASS
Low Temperature Operating	PASS	PASS
Blowing Dust	PASS	PASS
High Altitude Storage	PASS	PASS
High Altitude Operation	PASS	PASS
High Temperature Storage (cyclic)	PASS	PASS
Vibration Minimum Integrity	PASS	PASS
Vibration Ground Vehicle	PASS	PASS
Function Shock	PASS	PASS
Blowing Sand	NO	NO
Freeze/Thaw	PASS	PASS
Crash Safety Shock	PASS	PASS
Bench Handling	PASS	PASS
Transit Drop	PASS	PASS

	Surface Book 2 13.5" Intel Core i5	Surface Book 2 13.5" Intel Core i7	Surface Book 2 15" Intel Core i7
Model number	1834	1835	1813
Test			
Thermal Shock	NO	NO	NO
Humidity	PASS	PASS	PASS
Explosive Atmosphere	PASS	PASS	PASS
High Temperature Storage (Constant)	PASS	PASS	PASS
High Temperature Operating (Constant)	PASS	PASS	PASS
Low Temperature Storage	PASS	PASS	PASS
Low Temperature Operating	PASS	PASS	PASS
Blowing Dust	PASS	PASS	PASS
High Altitude Storage	PASS	PASS	PASS
High Altitude Operation	PASS	PASS	PASS
High Temperature Storage (cyclic)	PASS	PASS	PASS
Vibration Minimum Integrity	PASS	PASS	PASS
Vibration Ground Vehicle	PASS	PASS	PASS
Function Shock	PASS	PASS	PASS
Blowing Sand	NO	NO	NO
Freeze/Thaw	PASS	PASS	PASS
Crash Safety Shock	PASS	PASS	PASS
Bench Handling	PASS	PASS	PASS
Transit Drop	PASS	PASS	PASS

	Surface Go
Model number	1824
Test	
Thermal Shock	NO
Humidity	PASS
Explosive Atmosphere	PASS
High Temperature Storage (Constant)	PASS
High Temperature Operating (Constant)	PASS
Low Temperature Storage	PASS
Low Temperature Operating	PASS
Blowing Dust	PASS
High Altitude Storage	PASS
High Altitude Operation	PASS
High Temperature Storage (cyclic)	PASS
Vibration Minimum Integrity	PASS
Vibration Ground Vehicle	PASS
Function Shock	PASS
Blowing Sand	NO
Freeze/Thaw	PASS
Crash Safety Shock	PASS
Bench Handling	PASS
Transit Drop	PASS

	Surface Laptop 3 13"	Surface Laptop 3 15"
Model number	1867	1872
Test		
High Altitude Operating	PASS	PASS
High Altitude Storage	PASS	PASS
Humidity	PASS	PASS
High Temperature Storage	PASS	PASS
High Temperature Operating	PASS	PASS
Vibration Minimum Integrity	PASS	PASS
Vibration Ground Vehicle	PASS	PASS
Low Temperature Operating	PASS	PASS
Low Temperature Storage	PASS	PASS
Shock Operational	PASS	PASS
Crash Hazard Operational	PASS	PASS
Drop Benchtop	PASS	PASS
Drop Transit	PASS	PASS
Blowing Dust	PASS	PASS
Temperature Shock	PASS	PASS
Freeze/Thaw	PASS	PASS
Blowing Sand	PASS	PASS
Explosive Atmosphere	PASS	PASS

	Surface Pro 7	Surface Pro X
Model number	1866	1876
Test		
Thermal Shock	PASS	PASS
Humidity	PASS	PASS
Explosive Atmosphere	PASS	PASS
High Temperature Storage (Constant)	PASS	PASS
High Temperature Operating (Constant)	PASS	PASS
Low Temperature Storage	PASS	PASS
Low Temperature Operating	PASS	PASS
Blowing Dust	PASS	PASS
High Altitude Storage	PASS	PASS
High Altitude Operation	PASS	PASS
High Temperature Storage (cyclic)	PASS	PASS
Vibration Minimum Integrity	PASS	PASS
Vibration Ground Vehicle	PASS	PASS
Function Shock	PASS	PASS
Blowing Sand	PASS	PASS
Freeze/Thaw	PASS	PASS
Crash Safety Shock	PASS	PASS
Bench Handling	PASS	PASS
Transit Drop	PASS	PASS

	Surface Go 2 LTE	Surface Go 2
Model number	1927	1926
Test		
High Altitude Operating	PASS	PASS
High Altitude Storage	PASS	PASS
Humidity	PASS	PASS
High Temperature Storage	PASS	PASS
High Temperature Operating	PASS	PASS
Vibration Minimum Integrity	PASS	PASS
Vibration Ground Vehicle	PASS	PASS
Low Temperature Operating	PASS	PASS
Low Temperature Storage	PASS	PASS
Shock Operational	PASS	PASS
Crash Hazard Operational	PASS	PASS
Drop Benchtop	PASS	PASS
Drop Transit	PASS	PASS
Blowing Dust	PASS	PASS
Temperature Shock	PASS	PASS
Freeze/Thaw	PASS	PASS
Blowing Sand	PASS	NO
Explosive Atmosphere	PASS	PASS

	Surface Book 3 13"	Surface Book 3 15"
Model number	1900	1899
Test		
Thermal Shock	PASS	PASS
Humidity	PASS	PASS
Explosive Atmosphere	PASS	PASS
High Temperature Storage (Constant)	PASS	PASS
High Temperature Operating (Constant)	PASS	PASS
Low Temperature Storage	PASS	PASS
Low Temperature Operating	PASS	PASS
Blowing Dust	PASS	PASS
High Altitude Storage	PASS	PASS
High Altitude Operation	PASS	PASS
High Temperature Storage (cyclic)	PASS	PASS
Vibration Minimum Integrity	PASS	PASS
Vibration Ground Vehicle	PASS	PASS
Function Shock	PASS	PASS
Blowing Sand	PASS	PASS
Freeze/Thaw	PASS	PASS
Crash Safety Shock	PASS	PASS
Bench Handling	PASS	PASS
Transit Drop	PASS	PASS

	Surface ProX SQ2	Surface Laptop Go
Model number	1876	1943
Test		
Thermal Shock	PASS	PASS
Humidity	PASS	PASS
Explosive Atmosphere	PASS	PASS
High Temperature Storage (Constant)	PASS	PASS
High Temperature Operating (Constant)	PASS	PASS
Low Temperature Storage	PASS	PASS
Low Temperature Operating	PASS	PASS
Blowing Dust	PASS	PASS
High Altitude Storage	PASS	PASS
High Altitude Operation	PASS	PASS
High Temperature Storage (cyclic)	PASS	PASS
Vibration Minimum Integrity	PASS	PASS
Vibration Ground Vehicle	PASS	PASS
Function Shock	PASS	PASS
Blowing Sand	PASS	PASS
Freeze/Thaw	PASS	PASS
Crash Safety Shock	PASS	PASS
Bench Handling	PASS	PASS
Transit Drop	PASS	PASS

	Surface Pro 7+ Wi-Fi	Surface Pro 7 + LTE
Model number	1961	1960
Test		
Thermal Shock	PASS	PASS
Humidity	PASS	PASS
Explosive Atmosphere	PASS	PASS
High Temperature Storage (Constant)	PASS	PASS
High Temperature Operating (Constant)	PASS	PASS
Low Temperature Storage	PASS	PASS
Low Temperature Operating	PASS	PASS
Blowing Dust	PASS	PASS
High Altitude Storage	PASS	PASS
High Altitude Operation	PASS	PASS
High Temperature Storage (cyclic)	PASS	PASS
Vibration Minimum Integrity	PASS	PASS
Vibration Ground Vehicle	PASS	PASS
Function Shock	PASS	PASS
Blowing Sand	PASS	PASS
Freeze/Thaw	PASS	PASS
Crash Safety Shock	PASS	PASS
Bench Handling	PASS	PASS
Transit Drop	PASS	PASS

	Surface Laptop 4	Surface Laptop 4
Model number	1951	1953
Test		
Thermal Shock	PASS	PASS
Humidity	NO	PASS
Explosive Atmosphere	PASS	PASS
High Temperature Storage (Constant)	PASS	PASS
High Temperature Operating (Constant)	PASS	PASS
Low Temperature Storage	PASS	PASS
Low Temperature Operating	PASS	PASS
Blowing Dust	PASS	PASS
High Altitude Storage	PASS	PASS
High Altitude Operation	PASS	PASS
High Temperature Storage (cyclic)	PASS	PASS
Vibration Minimum Integrity	PASS	PASS
Vibration Ground Vehicle	PASS	PASS
Function Shock	PASS	PASS
Blowing Sand	PASS	PASS
Freeze/Thaw	PASS	PASS
Crash Safety Shock	PASS	PASS
Bench Handling	PASS	PASS
Transit Drop	PASS	PASS

	Surface Laptop 4	Surface Laptop 4
Model number	1959	1979
Test		
Thermal Shock	PASS	PASS
Humidity	PASS	PASS
Explosive Atmosphere	PASS	PASS
High Temperature Storage (Constant)	PASS	PASS
High Temperature Operating (Constant)	PASS	PASS
Low Temperature Storage	PASS	PASS
Low Temperature Operating	PASS	PASS
Blowing Dust	PASS	PASS
High Altitude Storage	PASS	PASS
High Altitude Operation	PASS	PASS
High Temperature Storage (cyclic)	PASS	PASS
Vibration Minimum Integrity	PASS	PASS
Vibration Ground Vehicle	PASS	PASS
Function Shock	PASS	PASS
Blowing Sand	PASS	PASS
Freeze/Thaw	PASS	PASS
Crash Safety Shock	PASS	PASS
Bench Handling	PASS	PASS
Transit Drop	PASS	PASS

	Surface Go 3 Wi-Fi	Surface Go 3 LTE
Model number	1926	2022
Test		
Thermal Shock	PASS	PASS
Humidity	PASS	PASS
Explosive Atmosphere	PASS	PASS
High Temperature Storage (Constant)	PASS	PASS
High Temperature Operating (Constant)	PASS	PASS
Low Temperature Storage	PASS	PASS
Low Temperature Operating	PASS	PASS
Blowing Dust	PASS	PASS
High Altitude Storage	PASS	PASS
High Altitude Operation	PASS	PASS
High Temperature Storage (cyclic)	PASS	PASS
Vibration Minimum Integrity	PASS	PASS
Vibration Ground Vehicle	PASS	PASS
Function Shock	PASS	PASS
Blowing Sand	PASS	PASS
Freeze/Thaw	PASS	PASS
Crash Safety Shock	PASS	PASS
Bench Handling	PASS	PASS
Transit Drop	PASS	PASS

	Surface Laptop Studio	Surface Pro X SQ2
Model number	1964	2010
Test		
Thermal Shock	PASS	PASS
Humidity	PASS	PASS
Explosive Atmosphere	PASS	PASS
High Temperature Storage (Constant)	PASS	PASS
High Temperature Operating (Constant)	PASS	PASS
Low Temperature Storage	PASS	PASS
Low Temperature Operating	PASS	PASS
Blowing Dust	PASS	PASS
High Altitude Storage	PASS	PASS
High Altitude Operation	PASS	PASS
High Temperature Storage (cyclic)	PASS	PASS
Vibration Minimum Integrity	PASS	PASS
Vibration Ground Vehicle	PASS	PASS
Function Shock	PASS	PASS
Blowing Sand	PASS	PASS
Freeze/Thaw	PASS	PASS
Crash Safety Shock	PASS	PASS
Bench Handling	PASS	PASS
Transit Drop	PASS	PASS

	Surface Duo 2	Surface Laptop SE
Model number	1995	2016
Test		
Thermal Shock	PASS	PASS
Humidity	PASS	PASS
Explosive Atmosphere	PASS	PASS
High Temperature Storage (Constant)	PASS	PASS
High Temperature Operating (Constant)	PASS	PASS
Low Temperature Storage	PASS	PASS
Low Temperature Operating	PASS	PASS
Blowing Dust	PASS	PASS
High Altitude Storage	PASS	PASS
High Altitude Operation	PASS	PASS
High Temperature Storage (cyclic)	PASS	PASS
Vibration Minimum Integrity	PASS	PASS
Vibration Ground Vehicle	PASS	PASS
Function Shock	PASS	PASS
Blowing Sand	PASS	PASS
Freeze/Thaw	PASS	PASS
Crash Safety Shock	PASS	PASS
Bench Handling	PASS	PASS
Transit Drop	PASS	PASS

	Surface Pro 8 Wi-Fi	Surface Pro 8 LTE
Model number	1982	1983
Test		
Thermal Shock	PASS	PASS
Humidity	PASS	PASS
Explosive Atmosphere	PASS	PASS
High Temperature Storage (Constant)	PASS	PASS
High Temperature Operating (Constant)	PASS	PASS
Low Temperature Storage	PASS	PASS
Low Temperature Operating	PASS	PASS
Blowing Dust	PASS	PASS
High Altitude Storage	PASS	PASS
High Altitude Operation	PASS	PASS
High Temperature Storage (cyclic)	PASS	PASS
Vibration Minimum Integrity	PASS	PASS
Vibration Ground Vehicle	PASS	PASS
Function Shock	PASS	PASS
Blowing Sand	PASS	PASS
Freeze/Thaw	PASS	PASS
Crash Safety Shock	PASS	PASS
Bench Handling	PASS	PASS
Transit Drop	PASS	PASS