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TECHNICAL BULLETIN TB-155

**104 KEY MILITARY KEYBOARD
M756/0001 AND M756/0002*
ENVIRONMENTAL TESTS**

The StacoSwitch 104 Key Military Keyboard reference model # M756/0001 is designed and integrated with a force sensor cursor controller. This data entry device is designed to meet the requirements of both MIL-STD-810E and MIL-STD-461D as identified in the Product Qualification Verification Matrix of Table 1 and 2. Furthermore, this data entry product was successfully tested by an independent test laboratory as outlined in Table 1 and 2 below.

* M756/0002 is the same as M756/0001 with a standard English legend set.

**Product Qualification Verification Matrix
104 Key Military Keyboard Reference Model # M756/0001**

Table 1

Description of Test Parameter	Verification Method				Military Standard	Method	Procedure	Comments
	Test	Analysis	Similarity	Design				
Operating Temperature	√			√	810E	501.3 502.3	II	
Storage Temperature	√			√	810E	501.3 502.3	I	
Temperature Shock	√			√	810E	503.3		
Functional Shock	√			√	810E	516.4	I	
Crash Hazard	√			√	810E	516.4	V	
Bench Handling	√			√	810E	516.4	VI	
Random Operational Vibration at Mounting Surface	√			√	810E	514.4		Category 8
Altitude (operating & non-operating conditions)	√			√	810E	500.3	I and II	
Sand and Dust	√			√	810E	510.3	I	
Salt Fog	√			√	810E	509.3	I	
Washdown/Rain	√			√	810E	506.3	III	
Fungal Growth		√		√				
Icing-Freezing and Deicing	√			√	810E	521.1		6 mm and 2 mm
Humidity	√			√	810E	507.3	III	
Mechanical Life			√	√				1.5+ Million Cycles

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**Electromagnetic Compatibility Product Qualification Verification Matrix
104 Key Military Keyboard Reference Model # M756/0001
in Compliance with MIL-STD-461D Requirements**

Table 2

Description of Test Parameter	Verification Method			Military Standard	Requirement	Comments
	Test	Analysis	Design			
Conducted Susceptibility, Power Leads, 30 Hz to 150 kHz	√		√	461D	CS101	
Conducted Susceptibility, Bulk Cable Injection, 10 kHz to 200 MHz	√		√	461D	CS114	
Conducted Susceptibility, Bulk Cable Injection, Impulse Excitation	√		√	461D	CS115	
Radiated Emissions, Electric Field, 10 kHz to 18 GHz	√		√	461D	RE102	
Radiated Susceptibility, Electric Field, 2 MHz to 40 GHz	√		√	461D	RS103	See application note "***"

Application note "***": The keyboard design features were verified in compliance with the Radiated Susceptibility requirements of RS103 and are compatible for the installation of:

- a) Below decks of both metallic and nonmetallic ships.
- b) Internal installation in submarines.
- c) Ground vehicles.
- d) Space lift vehicles.

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