

Limit Switch Random Vibration: Fighter Aircraft Applications

Scope:

This specification covers random vibration specifications for limit switches for fighter aircraft applications and other similar high vibration energy applications with frequency ranges from 15 to 2000 Hz.

Definition:

The random vibration profile to be met by this specification is given in the following table:

Break Point ID	Frequency (Hz)	Power Density (g ² /Hz)
1	15	0.063
2	53	0.063
3	100	3.79
4	300	3.49
5	400	0.40
6	550	0.15
7	700	0.39
8	900	0.39
9	1060	0.24
10	2000	0.24

The above spectrum is to be run 40 hours per each principal axis. Two switches are required, one tested in its unactuated state, the second in its actuated state. The total test time of 120 hours for each switch. Contact chatter is to be no longer than 10 microseconds.

Initial Release:

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