ALPES LASERS

pioneering photonics for a brighter future

Shock and Vibration Testing

Alpes Lasers SA offers a service of shock and vibration testing. Originally designed for qualifying laser devices to the MIL-STD-810H defense standard, the same tests can be applied to a variety of different products.

Key Features

- Random Vibrations
- Sawtooth Shocks
- Halfsine Shocks

Key Applications

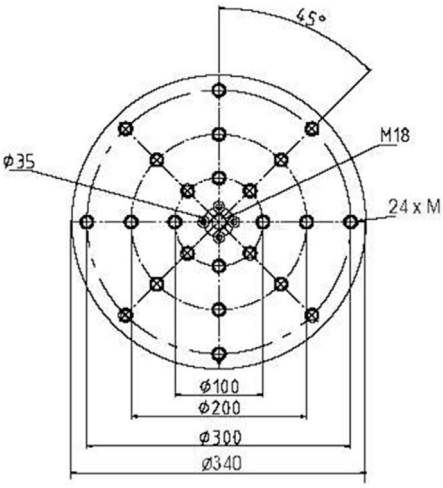
- Ruggedness testing
- MIL certification
- Flight qualification
- Space qualification

SWISS MADE

In order to adapt your product to the test chamber, we will require one technician knowledgeable with the product to be present onsite in Switzerland for at least one full day, where he will handle the products, perform the tests and record the results with the assistance of the Alpes technical team, with at least one Alpes technician being assigned full time to the task.

Vibration testing can be performed on up to 4 devices at a time for an arbitrary amount of time. Shock testing can be performed on one device at a time. Device exchange time can vary according to the design of your product but is typically ~ 20 min.

The pricing will be established on the basis of the total time spent using the facility.



Dimensions of the plate on which the tested device will be bolted

Specifications

PARAMETER NAME	MINIMUM VALUE	TYPICAL VALUE	MAXIMUM VALUE	UNIT	NOTE
Sine Peak Force	0		4000	N	Method 514.8 of MIL-STD-810H used for vibration testing
Sine Peak Velocity	0		2	m/s	
Sine Peak Acceleration	0		50	G	
Random Peak Force	0		3600	N	Method 514.8 of MIL-STD-810H used for vibration testing
Random Peak Velocity	0		2	m/s	
Random Peak Acceleration	0		45	G	
Shock Peak Force	0		12 000	N	Method 516.8 of MIL-STD-810H used for shock testing
Shock Peak Velocity	0		2.4	m/s	
Shock Peak Acceleration	0		130	G	
Frequency Range	2		300	Hz	
Main Resonance Frequency	2700			Hz	All resonance frequencies are above 2700 Hz.
Displacement	0		50.8	mm	Peak-to-Peak
Effective Moving Mass		8.3		kg	+/- 5 %
Payload	0		250	kg	
K95 Accelerometer Sensitivity	10		100	mV/g	Exactly 10 or 100; Select most appropriate
K95 Accelerometer Frequency Range	1		10 000	Hz	
K95 Accelerometer Weight		3.2		g	Attached with M3 screws.

Note: Maximum values only suitable for short term testing.
Custom test profiles can be defined

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