

Typical Qualification Tests

Table 1

Typical Qualification Tests For Quartz Crystals			
TEST NO.	TEST TYPE	TEST METHOD	TEST CONDITION
1	Electrical Characteristics	Internal Specification	Per Specification
2	Frequency vs. Temperature	Internal Specification	Per Specification
3	Mechanical Shock	MIL-STD-202, Method 213, C	100 g's
4	Vibration	MIL-STD-202, Method 201 - 204	10 g's from 10 - 2000 Hz
5	Thermal Shock	MIL-STD-202, Method 107, B	-65°C to +125°C
6	Aging	Internal Specification	168 Hours at 105°C
7	Gross Leak	MIL-STD-202, Method 112	30 Second Immersion
8	Fine Leak	MIL-STD-202, Method 112	Must Meet 1 X 10 ⁻⁸
9	Solderability	ANSI/J-STS-002	8 Hour Steam Age - Must Exhibit 95% Coverage
10	Resistance to Solvents	MIL-STD-883, Method 2015	Three 1 Minute Soaks
11	Terminal Pull	MIL-STD-202, Method 211, A	Wires - 2 Pounds, Pins - 4 Pounds
12	Terminal Bend	MIL-STD-202, Method 211, B	2 Bending Cycles
13	Wire-Lead Bend	MIL-STD-202, Method 211, C	1 Pound, 3 Bends Per Lead
14	Physical Dimensions	MIL-STD-883, Method 2016	Per Specification
15	Internal Visual	Internal Specification	Per Internal Specification

Typical Qualification Tests For Clock Oscillators			
TEST NO.	TEST TYPE	TEST METHOD	TEST CONDITION
1	Electrical Characteristics	Internal Specification	Per Specification
2	Frequency vs. Temperature	Internal Specification	Per Specification
3	Mechanical Shock	MIL-STD-202, Method 213, C	100 g's
4	Vibration	MIL-STD-202, Method 201 - 204	10 g's from 10 - 2000 Hz
5	Thermal Shock	MIL-STD-202, Method 107, B	-65°C to +125°C
6	Aging	Internal Specification	1000 Hours at 55°C
7	Gross Leak	MIL-STD-202, Method 112	30 Second Immersion
8	Fine Leak	MIL-STD-202, Method 112	Must Meet 1 X 10 ⁻⁸
9	Solderability	ANSI/J-STD-202	8 Hour Steam Age - Must Exhibit 95% Coverage
10	Resistance to Solvents	MIL-STD-883, Method 2015	Three 1 Minute Soaks
11	Terminal Pull	MIL-STD-883, Method 2004, A	2 Pounds
12	Lead Bend	MIL-STD-883, Method 2004, B1	1 Bending Cycle
13	Physical Dimensions	MIL-STD-883, Method 2016	Per Specification
14	Internal Visual	Internal Specification	Per Internal Specification

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