

SPEC NO.: CU-021SSMD

Specification

TO:STE

Model Name: Crystal Unit

PART NO: 49S2-SMD-7.3728M-16-10-30-E

CUSTOMER PART NO.:

Approval sheet:

Approved?	Yes
	No.
Customer's comments are welcomed here.	
Pls return this copy as a certificate of your approval by Fax.	
Approved By	Date: _____

STRONG ELECTRONICS&TECHNOLOGY LIMITED

Service Hotline:86-755-84528985 Fax: 86-755-84528986

Email:info@strongfirst.com.cn

www.strongfirst.com.cn

SPECIFICATION OF CRYSTAL UNIT

1. SCOPE

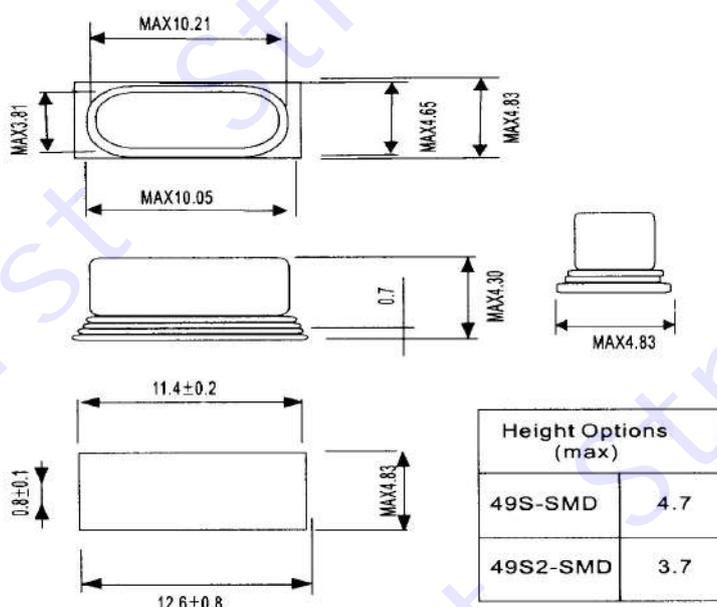
This specification shall cover the characteristics of crystal unit with

P/N: 49S2-SMD-7.3728M-16-10-30-E

2. ELECTRICAL SPECIFICATION

ITEM	SPECIFICATION
HOLDER TYPE	49S2-SMD
NOMINAL FREQUENCY	7.3728MHz
LOAD CAPACITANCE	16PF
OSCILLATION MODE	Fundamental
FREQUENCY TOLERANCE AT 25°C ± 2°C	± 10PPM
EQUIVALENT SERIES RESISTANCE	60 Ω max.
DRIVE LEVEL	0.5 MW
OPERATING TEMPERATURE RANGE	-40°C~+85°C
STORAGE TEMPERATURE	-55°C~+125°C
FREQUENCY STABILITY	± 30PPM
SHUNT CAPACITANCE	<7PF
AGING	± 5PPM/YEAR
INSULATION RESISTANCE	>500MΩ at DC 100V

3. Dimension (mm)



4. MECHANICAL SPECIFICATION

1) Terminal Strength

* Lead pulling test

Conditions:	Load	907.2 gram
	Direction	To the downward
	Duration of applied force	5 seconds
Results:	There should be no distortion in appearance.	

* Lead bending test

Conditions:	Load	453.6 gram
	Bending angle	90° to normal position
	Rate of bending	3 seconds in each cycle
	Number of bending	3
Results:	There should be no distortion in appearance.	

2) Lead solder-ability test

Conditions:	Dipping in solder(+230°C ± 5°C)for 5 seconds	
Results:	More than 95% of surface being tested should be coated uniformly with solder.	

3) Vibration test

Conditions:	Frequency	10 – 55Hz
	Amplitude	0.762mm
	Sweep	1.0 minute
	Duration	2 hours
Results:	Frequency and wave form of tested products must remain within specifications.	

4) Drop test

Conditions:	Method of drop	Natural drop
	Dropping floor	Hard wood board
	Height	30cm
	Number of drops	3 times
Results:	Frequency and wave form of tested products must remain within specifications.	

5. ENVIRONMENTAL SPECIFICATION

1) Temperature test

* Temperature cycling test

Conditions:	Steps of cycle	1) At -55°C,30 minutes 2) At +25°C,10 - 15 minutes 3) At +85°C,30 minutes 4) At +25°C,10 - 15 minutes
	Number of cycles	3 times

Results: Frequency and wave form of tested products must remain within specifications.

* Low Temperature test

Conditions:	Temperature	-20°C ± 2°C
	Length of test	96 hours

Results: There should be no stain on surface of products.
Frequency and wave form of tested products must remain within specifications.

2) Aging test

Conditions:	Temperature	+85°C ± 20°C
	Length of test	96 hours

Results: Deviation of frequency must be less than ± 3ppm

3) Salt spray test

Conditions:	Temperature	+35°C ± 2°C
	Length of test	48 hours
	NaCl %	5%

Results: There should be no stain on surface of products.

4) Humidity test

Conditions:	Temperature	+40°C ± 2°C
	Relative humidity	90 - 95%
	Length of test	96 hours

Results: a. Insulation resistance must be 500 MΩ /100 Vac. minimum
b. Resistance and wave form must remain within specifications.