



**ZHEJIANG A-CRYSTAL**  
**ELECTRONIC TECHNOLOGY CO., LTD.**



Issue	December 21, 2024
Rev.	1.0
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# CRYSTAL UNIT SPECIFICATIONS

<p>客户批准 Customer Approval</p>           <p>(请批准后回签一份 Please Return A Copy With Approval)</p>
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<b>Customer</b>	
<b>Customer P/N</b>	
<b>Product</b>	<b>CRYSTAL RESONATORS</b>
<b>Spec</b>	<b>ATLF310/3.579~4.000M</b>
<b>A-Crystal P/N</b>	<b>AD1 Series</b>

<b>Drawn</b>	<b>Checked</b>	<b>Approved</b>
<i>Caoqiang</i>	<i>Fengying</i>	<i>Tanlong</i>



ZHEJIANG A-CRYSTAL

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## 1. ELECTRICAL SPECIFICATIONS

## 1.1 Hold Type: ATLF310

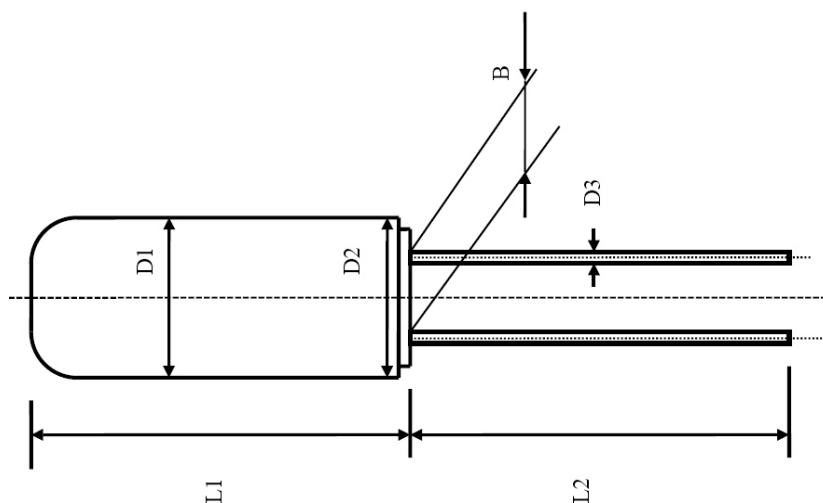
No.	Item	Symb	Electrical Specification				Remark
			Min.	Type	Max.	Units	
1	Nominal Frequency	F0	3.579		4.000	MHz	
2	Mode of Vibration	■ Fundamental △3rd Overtone △5th Overtone					
3	Frequency Tolerance	$\Delta F/F0$	$\pm 10$	$\pm 30$	$\pm 50$	ppm	at 25°C $\pm 3$ °C
4	Operating Temperature Range	T <sub>OPR</sub>	-20 -40	-	+70 +85	°C	
5	Frequency Stability	T <sub>C</sub>	$\pm 30$		$\pm 50$	ppm	
6	Storage Temperature	T <sub>STG</sub>	-40	-	+85	°C	
7	Load capacitance	CL	6~specify			pF	
8	Equivalent Series Resistance	ESR	Seepage 1			$\Omega$	
9	Drive Level	DL	-	100	200	$\mu W$	
10	Insulation Resistance	IR	500	-	-	M $\Omega$	At 100V <sub>DC</sub>
11	Shunt Capacitance	Co	-	-	5	pF	
12	Aging Per Year	Fa	-5	-	+5	ppm	First Year
13	Package type	$\Phi 3.0*10.0$					

## Seepage1

Frequency Range(MHz)	Mode of Vibration	ESR( $\Omega$ ) Max
3.579 $\leq$ F0<4.000	AT Fundamental	$\leq 150$

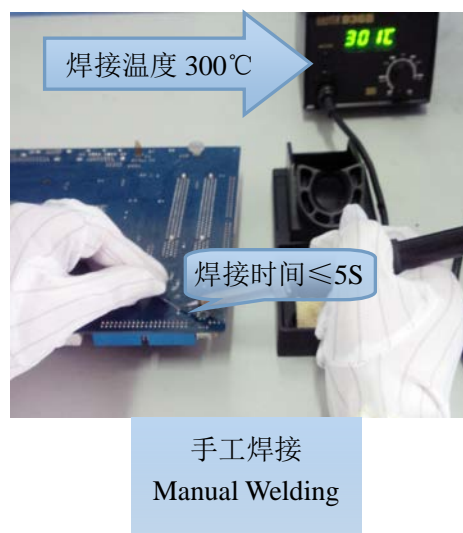
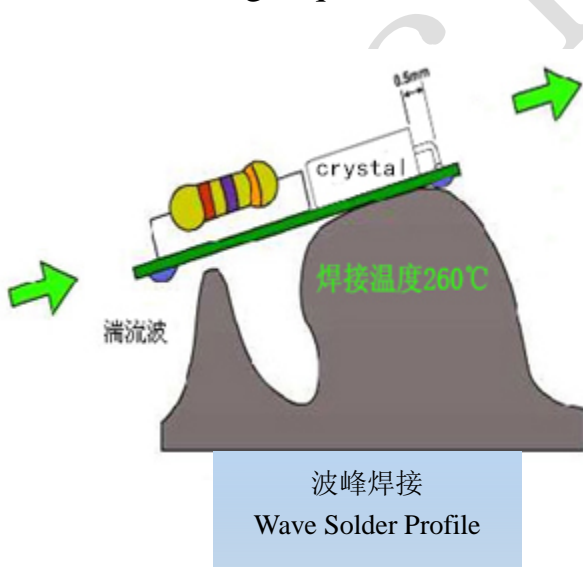


### 1.2 Dimension (Unit: mm)



型号/尺寸	L1	L2	D1	D2	D3	B
3*10	10.2Max	8.0Min	2.95 ± 0.1	3.0 ± 0.1	0.3 ± 0.05	0.8 ± 0.05

### 1.3 The soldering requirements





## 2. PACKING

### 2.1 Section of package

Package is made of corrugated paper with thickness of 0.8cm. Package has 10 inner boxes, each box has 10 bag

#### 2.1.1 Quantity of package

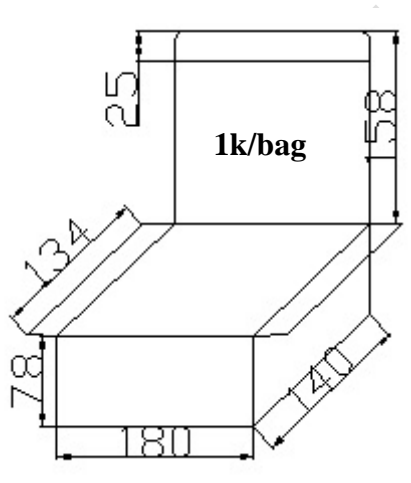
Each bag 1000 pieces of Crystal Resonators

Per inner box 10 bag (1k/bag)

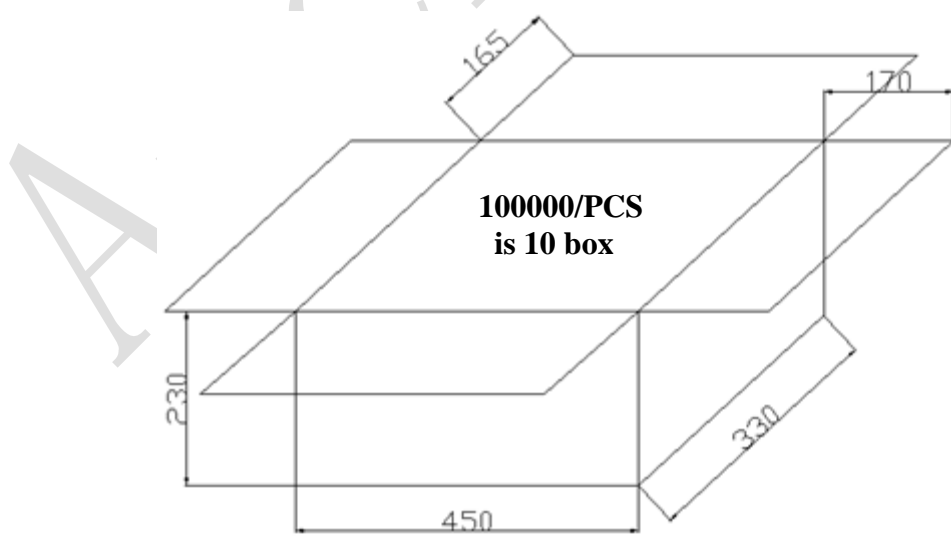
Per package 10 inner boxes & 10 inner boxes

(100000 pieces of Crystal Resonators)

#### 2.1.2 Inner Box Dimensions (Unit: mm)



#### 2.1.3 Dimensions and Mark (Unit: mm)





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### 3. Products Code

#### 3.1 DIP Crystal Resonators/MHz

公司代码 浙江一晶	产品型号 (2位)	工作频率 (全频点位数)	负载电容 (1位字母)	调整频差 (1位字母)	温度频差 (1位字母)	工作温度 (1位字母)	其它
A-crystal Logo	Package	Nominal Frequency	Load Capacitance	Frequency Tolerating	Freq Temp Characteristics	Operating Temperture Range	Others
A	D1 (ATLF310)	3.579545M	A = 12.5PF	01=5PPM	A=10PPM	1=0~50	Special
		3.6864M	B = 10PF	02=10PPM	B=15PPM	2=-10~60	
			C = 9PF	03=20PPM	C=20PPM	3=-10~70	
			D = 8PF	04=30PPM	D=25PPM	4=-20~70	
			E = 7PF	05=40PPM	E=30PPM	5=-30~85	
			F = 6PF	06=50PPM	F=50PPM	6=-40~85	
			G = 16PF	07=100PPM	G=100PPM	7=-40~105	
			H = 18PF			8=-40~125	
			J = 20PF				
			K = 22PF				
			L = 30PF				