

规格书编号

SPEC NO :

# 产品规格书

# SPECIFICATION

CUSTOMER 客户: \_\_\_\_\_  
PRODUCT 产品: \_\_\_\_\_ OSCILLATOR \_\_\_\_\_  
MODEL NO 型号: \_\_\_\_\_ OSC14-32.768KHZ-50-3.3V/E-TRI \_\_\_\_\_  
PREPARED 编制: \_\_\_\_\_ LEO \_\_\_\_\_ CHECKED 审核: \_\_\_\_\_ YORK \_\_\_\_\_  
APPROVED 批准: \_\_\_\_\_ LIUMING \_\_\_\_\_ DATE 日期: \_\_\_\_\_ 2018-12-26 \_\_\_\_\_

客户确认 CUSTOMER RECEIVED:		
审核 CHECKED	批准 APPROVED	日期 DATE

无锡市好达电子有限公司  
Shoulder Electronics Limited

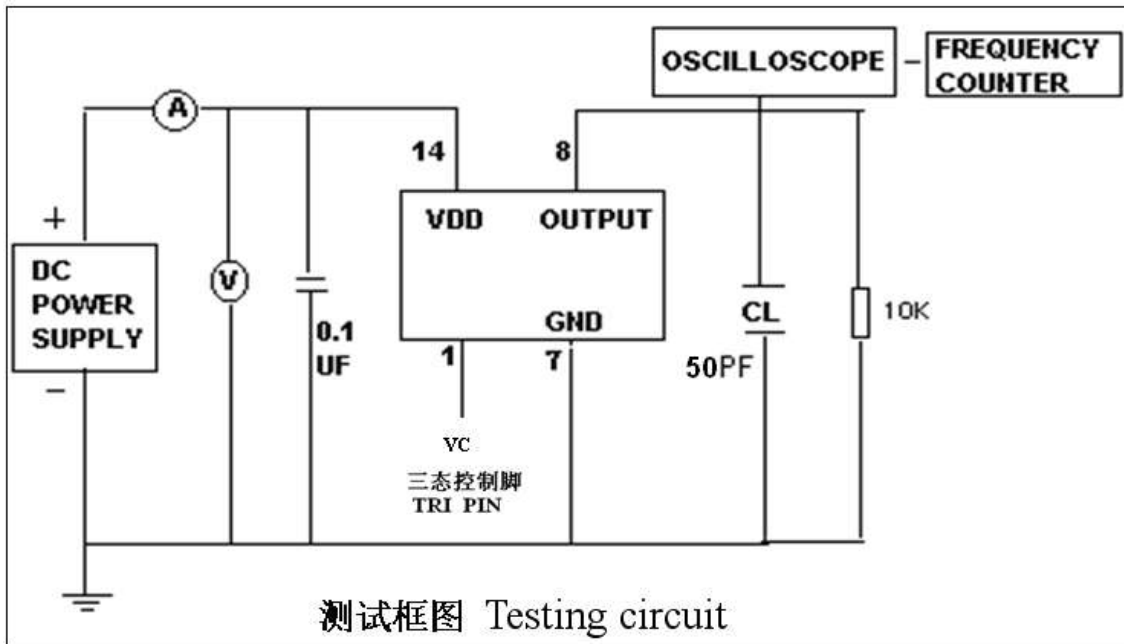


## 目录 (Contents)

- 一、技术规范 (Specifications)
- 二、测试电路及设备 (Testing circuit and Equipments)
- 三、可靠性测试方法 (Reliability testing method)
- 四、标识及尺寸(Dimensions and mark)
- 一、技术规范 (Specifications)

标称频率 Normal Freq.	<b>32.768KHz</b>		工作电压 Vs	<b>3.3V ± 5%</b>	
频率特性 Frequency Specialty	准确度 Frequency Tolerance	≤ ± 20PPm	波形特性 Waveform Specialty	幅度 Output voltage	≥ 3.0V
	频率温度稳定度 Frequency-Temp Stability	≤ ± 24PPm		上升时间 Rise time	≤ 10ns
	频率负载稳定度 Frequency-Load Stability	≤ ± 1PPm		下降时间 Fall time	≤ 10ns
	电源电压稳定度 Frequency-Vs Stability	≤ ± 2PPm		占控比 Duty	45%~55%
老化 aging	老化/日 aging/day		输出阻抗 Output Impedance	10K Ω // 50PF	
	老化/年 aging/year	≤ ± 3PPm			
谐波抑制 Harmonic			相位噪声 SSB Noise		
输出波形 Waveform	<b>10TTL/HCMOS</b>				
封装形式 Package	<b>DIP14</b>		电流 Current	≤ 30mA	
温度范围 Temperature Range	操作温度范围 Operating Temperature	-40℃~85℃	Output disable time	100ns	
	储存温度范围 Storage Temperature	-40℃~85℃	Output enable time	100ns	

二、测试电路 (Testing circuit)  
 1.测试电路(Testing circuit)



2.主要测试仪器/设备 (Equipments)

电源(Power): SS-1792

计数器(Counter): HP53131

示波器 (Oscilloscope): TEK2440

老化测试系统: NF2001

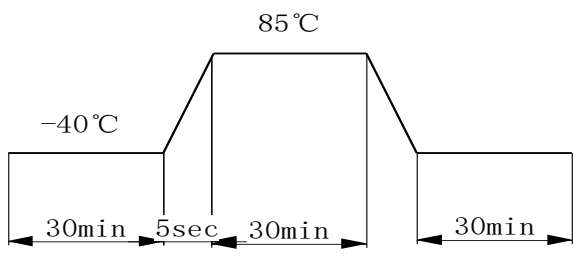
频谱仪 (Spectrum): HP4195A

高低温试验箱 (Oven): WD6-005

常规参数测试系统: NF1001

参考铱标: PRES-102

### 三、可靠性测试方法 (Reliability testing method)

项目 (Items)	内容 (Contents)	要求 Requirements
振动 Vibrating	<p>振动频率：从 10HZ 到 55HZ,再回到 10HZ, 1 倍频程/min, 幅度为 1.5mm, 3 个相互垂直的方向各 2 小时</p> <p>Frequency range: 10HZ to 55HZ and return to 10HZ, shall be transverse in 1min.</p> <p>Amplitude (total excursion): 1.5 mm. This motion shall be applied for a period of 2 h each of 3 mutually perpendicular axes</p>	<±3ppm
跌落 Drop	<p>从 750 毫米高处跌落到 30 毫米厚的硬质木板上, 重复 3 次</p> <p>From 750mm height to 30mm hard wooden floor, 3 times.</p>	<±3ppm
恒定湿热 Damp heat, constant	<p>在温度：40℃±2℃、湿度：90% to 95%条件下存放 7 天, 常温常压下放置 1 小时后测试</p> <p>Stored at 40℃±2℃ with relative humidity of 90% to 95% for 7d, then stored at normal condition for 1 h.</p>	<±3ppm
低温存储 Coldness	<p>在-55℃±3℃下存放 2 小时, 常温常压下放置 1 小时后测试</p> <p>Stored at -55±3℃ for 2h, then stored at normal condition for 1 h.</p>	<±3ppm
高温存储 heat	<p>在 105℃±3℃下存放 16 小时, 常温常压下放置 1 小时后测试</p> <p>Stored at 105±3℃ for 16h, then stored at normal condition for 1 h.</p>	<±3ppm
老化 Aging	<p>在 85±2℃下放置 30 天, 常温常压下放置 1 小时后测试</p> <p>Stored at 85±2℃ for 30 days, then stored at normal condition for 1 h.</p>	<±3ppm
热冲击 Thermal shock	<p>-40℃±3℃(0.5h), 85℃±3℃(0.5h), 转换时间小于 1min, 循环 5 次, 常温常压下放置 1 小时后测试</p> <p>-40℃±3℃(0.5h), 85℃±3℃(0.5h), and changing time less than 1 min, then stored at normal condition for 1 h.</p>  <p>The diagram illustrates a thermal shock cycle. It starts with a 30-minute dwell at -40°C. This is followed by a 5-second ramp up to 85°C. There is a 30-minute dwell at 85°C. Finally, there is a 30-second ramp down back to -40°C. The cycle then repeats.</p>	<±3pm
耐焊接热 Resistance to soldering heat	<p>铬铁温度 350℃±10℃, 5S MAX</p> <p>The temperature of soldering iron : 350℃±10℃, 5S MAX</p>	<±3pm

### 三、标识及尺寸 (Dimensions and mark)

#### 1. 尺寸(dimensions)

