XL-ED4335IRC　　4335红外发射940　　技术数据表　Technical Data Sheet

特点（characteristic）：



模型图仅供参考

* 外观尺寸:4.4*3.5*3.85mm

Appearance dimension:4.4*3.5*3.85mm

* 发光颜色及胶体:红外940/透明胶体

Luminous color and colloid: infrared emission 940/Transparent colloid

* 环保工艺符合ROHS要求

Environmental protection products Complied With ROHS Directive

* 湿气敏感性等级（MSL）:3级

Moisture sensitivity level（MSL）: 3levels

* EIA规范标准包装

EIA standard packaging

* 高能效、启动快

High energy efficiency, fast startup

应用领域（product application）：

* 医用设备

Medical equipment

* 红外遥控器

Infrared remote controller

* 摄像监控头

Camera monitoring head

* 工业控制：计数器、热成像、智能电表

Industrial control: counters, thermal imaging, smart meter

* 红外光电开关

Infrared photoelectric switch

* 无线通信与信号传输

Wireless communication and signal transmission

* 智能小车, 机器人

Intelligent car, robot









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电性参数

Electrical Characteristics

极限参数（Absolute Maximum Ratings）（Ta=25℃）

参数名称 Parameter	符号 Symbol	数值 Rating	单位 Unit
耗功率 Power consumption	Pd	150	mW
最大持续工作电流 Max continuous working current	IF	100	mA
正向脉冲电流 Peak Forward Current	IFP	1000	mA
反向电压 Reverse breakdown voltage	VR	5	V
抗静电能力 （Antistatic ability ）	ESD	2000	
工作温度 Operating Temperature	Topr	-40℃ +85℃	℃
存储温度 Storage Temperature	Tstg	-40℃ +85℃	℃
焊接条件 Welding conditions	Tsol	回流焊（Reflow soldering）：260℃，6s 手动焊（manual welding ）：300℃，3s	

光电参数（Initial Electrical Optical Characteristics）（Ta=25℃）

Parameter 参数	Symbol 符号	Min. 最小值	Typ. 典型值	Max. 最大值	Unit 单位	Test Condition 试验条件
辐射强度（ θ=0° ） radiation intensity（ θ=0° ）	Ie	15	--	36	mW/Sr	IF=20mA
视角 Emission Angle	2θ1/2	--	90	--	Deg	IF=20mA
波长 Wavelength	λp	--	940	--	nm	IF=20mA
半波宽 Half wave width	Δλ	--	30	--	nm	IF=20mA
正向电压 Forward Voltage	VF	1.2	1.3	1.4	V	IF=20mA
反向电流 Reverse current	IR	---	---	10	μA	VR=5.0V

备注(Note)：

1. θ1/2 是半值角，指辐射强度是光学中心线光强的 1/2 到光学中心线的角度
   Theta 1/2 is the half-value Angle, which refers to the Angle of radiation intensity from the optical center line to the optical center line, which is 1/2 of the light intensity of the optical center line
2. 上述辐射通量的测试允许公差是±10%
   The permissible tolerance for the above radiation flux test is±10%
3. 以上所示电压测量误差±0.1v
   The voltage measurement error shown above is ±0.1v
4. 以上所示波长测量误差±1nm
   The above wavelength measurement error is ±1nm

辐射强度:
radiation intensity

代码 Code	最小值 Min	最大值 Max	单位 Unit	测试条件 Test conditions
P1-5	15	20	mW/Sr	IF=20mA
P1-6	20	25		
P1-7	25	30		
P1-8	30	45		

电压分档:
Voltage grading:

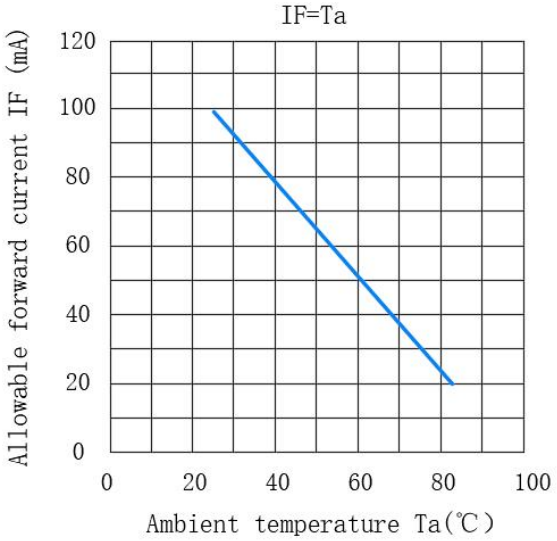
代码 Code	最小值 Min	最大值 Max	单位 Unit	测试条件 Test conditions
M17-3	1.2	1.3	V	IF=20mA
M17-4	1.3	1.4		

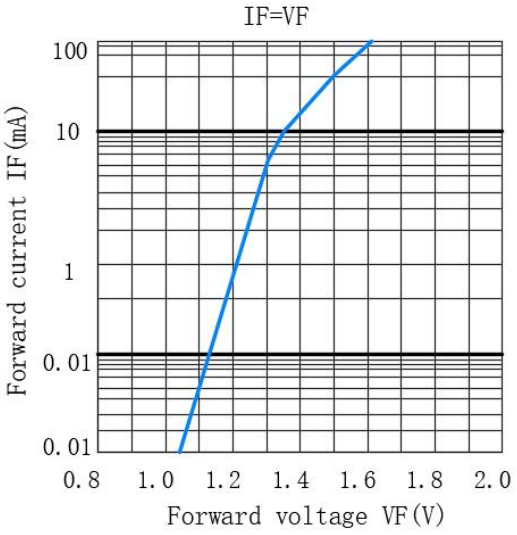
波长分档:
Wavelength grading:

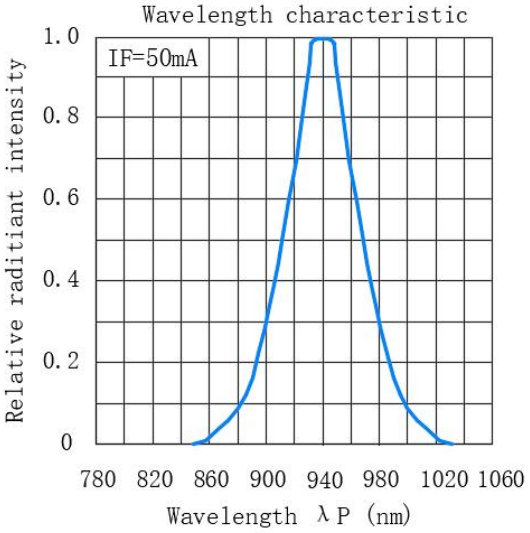
代码 Code	最小值 Min	最大值 Max	单位 Unit	测试条件 Test conditions
IR02	930	940	nm	IF=20mA
IR03	940	950		

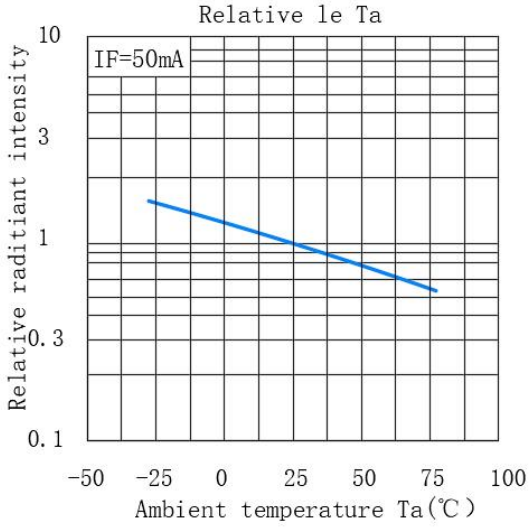
典型特性曲线

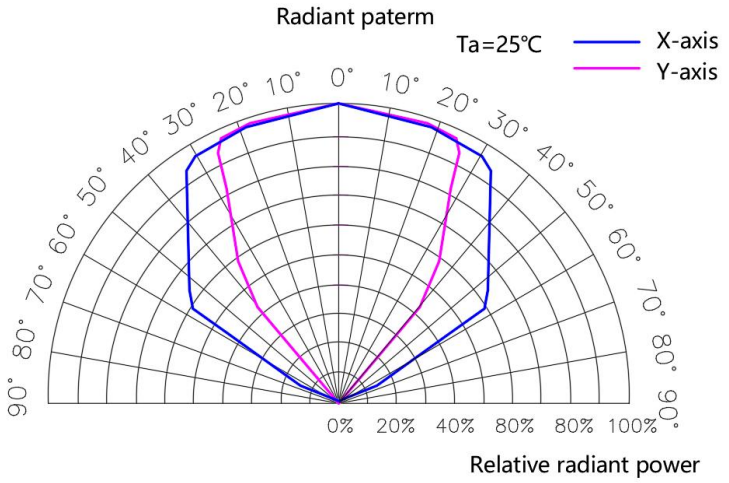
Typical Characteristics Curves





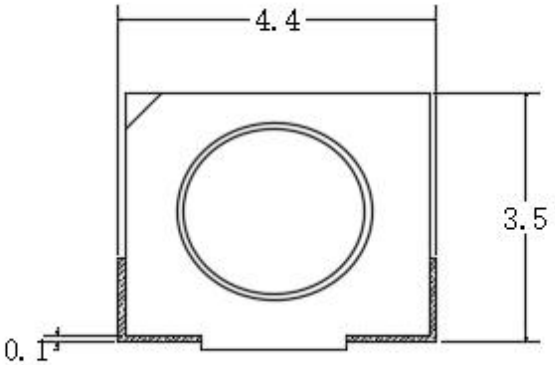


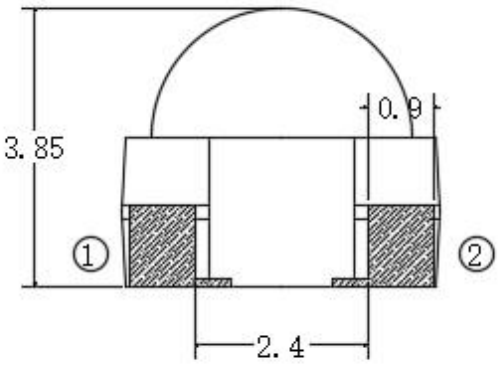




外形尺寸

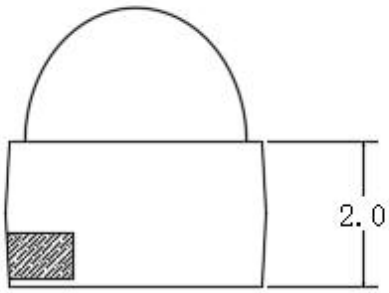
Outline Dimension

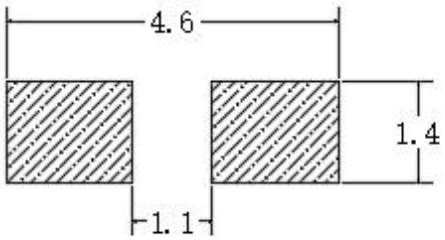






极性
Polarity





建议焊盘尺寸
Recommended Soldering Pattern

备注(Note)：

1. 标注尺寸单位为毫米

Dimensions are in millimeters

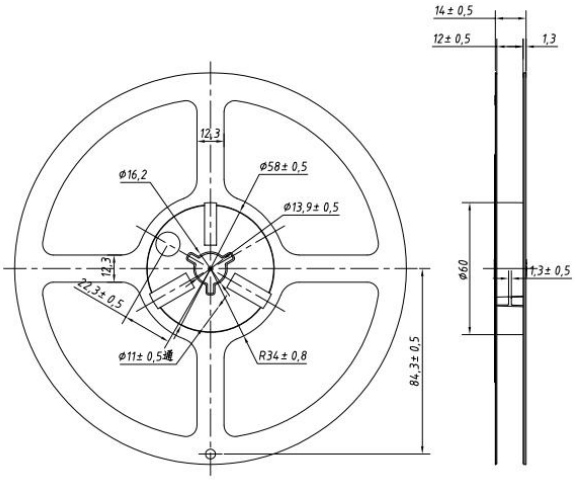
2. 除特别标注外，所有尺寸允许公差± 0.25mm

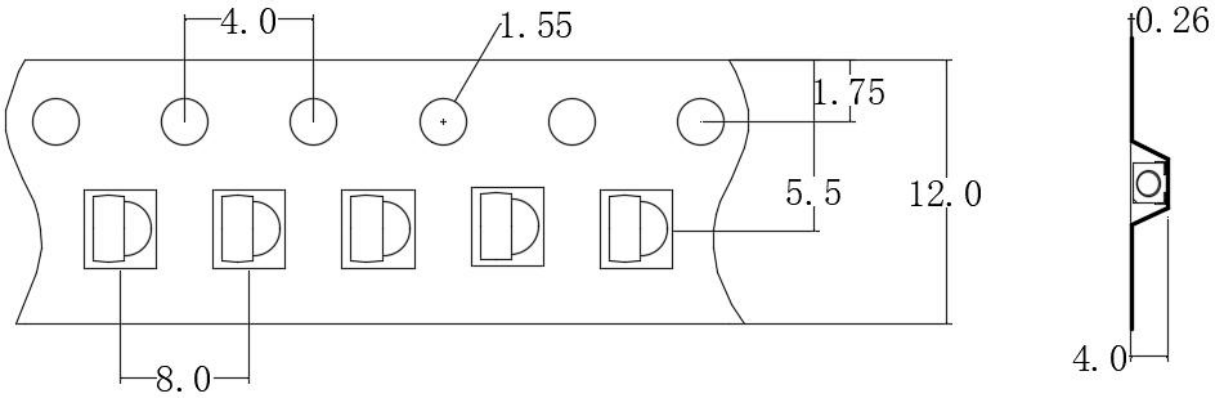
Tolerances unless mentioned are ± 0.25mm

包装（1）

Packaging (1)

载带与圆盘尺寸 Belt and disk dimensions

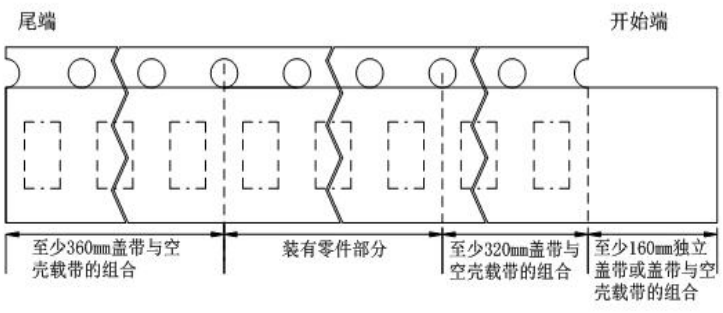


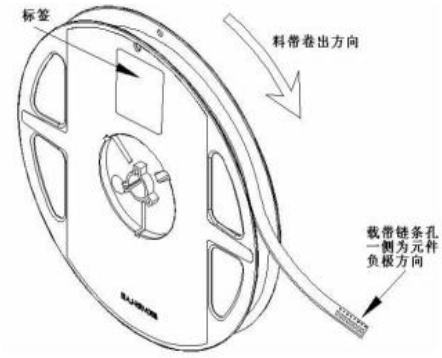


注:

1. 尺寸单位为毫米(mm)。
1. Size unit is mm (mm).
2. 尺寸公差是±0.1mm。
2. The dimensional tolerance is ± 0.1mm.

✧ **圆盘及载带卷出方向及空穴规格 Disk and carrier belt direction of roll and hole dimensions**

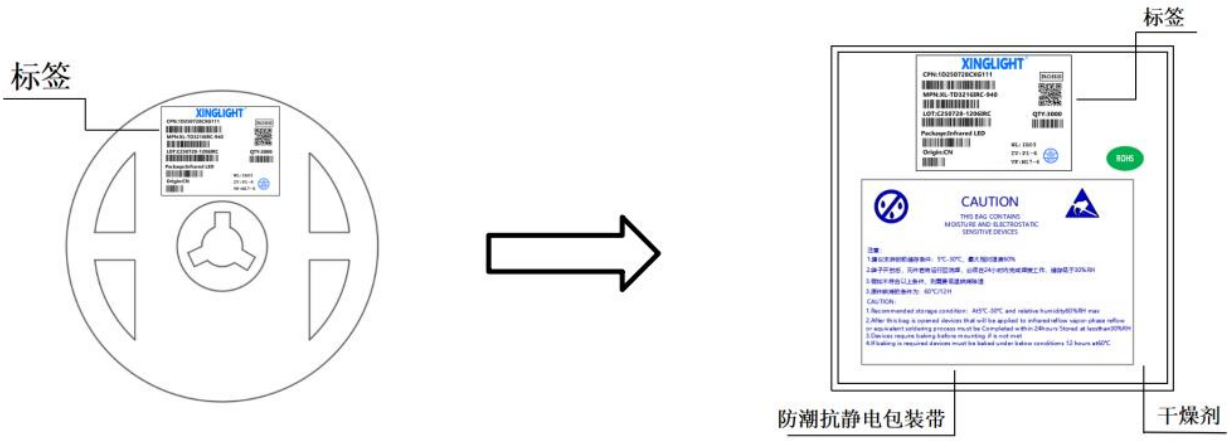




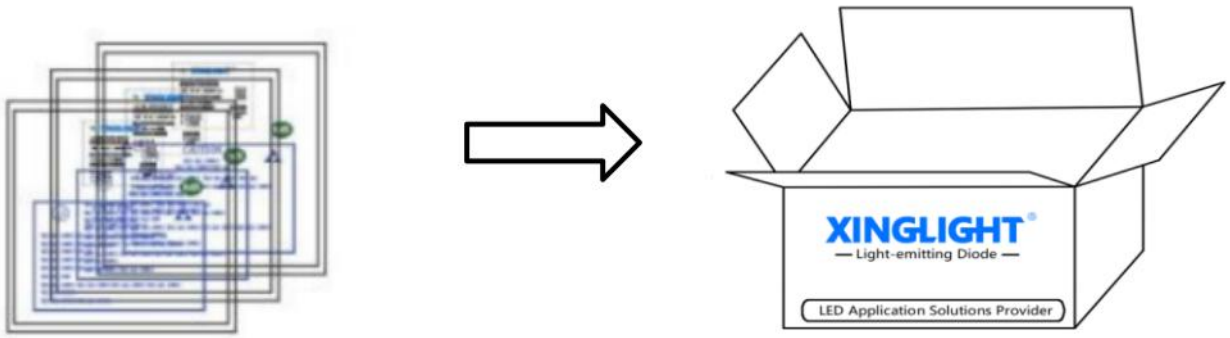
包装（2）

Packaging (2)

◇ 防潮抗静电包装 Moisture Proof and Antti-Electrostic Foil Bag



◇ 外包装箱 Cardboard Box



◇ 标签说明 Label Expantion

CPN：批号/档位　　LOT：日期/封装颜色

MPN：型号　　VF：电压代码

WL：色温代码　　IV：辐射强度

ORIGIN：产地　　QTY：数量

PACKAQE：封装



焊接指导（1）

Guideline for Soldering (1)

1. 使用烙铁人手焊接

Hand Soldering

只建议在修理和重工的情况下使用手工焊接；推荐使用功率低于 30W 的烙铁，焊接时烙铁的温度必须保 持在 300℃以下，且每个电极只能进行一次焊接，每次焊接的持续时间不得超过 3 秒。

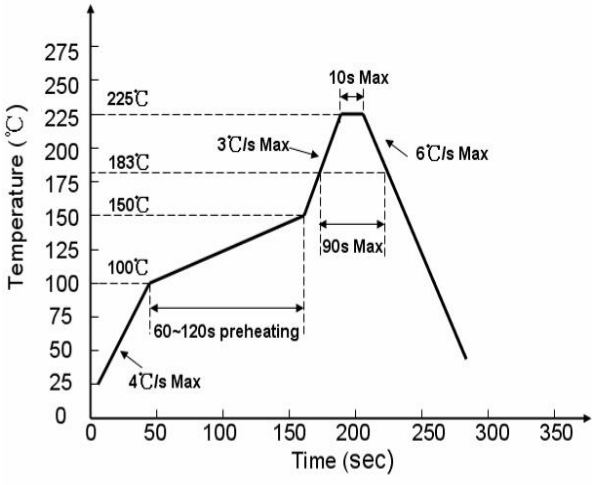
人手焊接过程中的不慎操作易引起 LED 产品的损坏，应当小心谨慎。

Manual welding is recommended only for repair and heavy industry situations. A soldering iron of less than 30W is recommended to be used in Hand Soldering. Please keep the temperature of the soldering iron under 300℃ while soldering. Each terminal of the LED is to go for less than 3 second and for one time only.

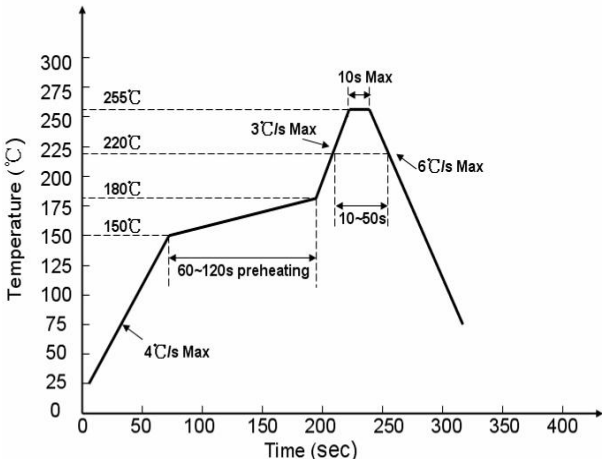
Be careful because the damage of the product is often started at the time of the hand soldering.

2. 回流焊接： 推荐使用以下无铅回流焊接温度图进行。

Reflow Soldering: Use the conditions shown in the under Figure of Pb -Free Reflow Soldering.



有铅制程Lead process



无铅制程lead free

回流焊接最多只能进行两次。

Reflow soldering should not be done more than two times.

在回流焊接升温过程中，请不要对 LED 施加任何压力。

Stress on the LEDs should be avoided during heating in soldering process.

在焊接完成后，待产品温度下降到室温之后，再进行其他处理。

After soldering, do not deal with the product before its temperature drop down to room temperature.

产品最佳的最高焊接温度建议控制在240±5℃/6S

The recommended maximum welding temperature for the product is 240±5 ℃/6s

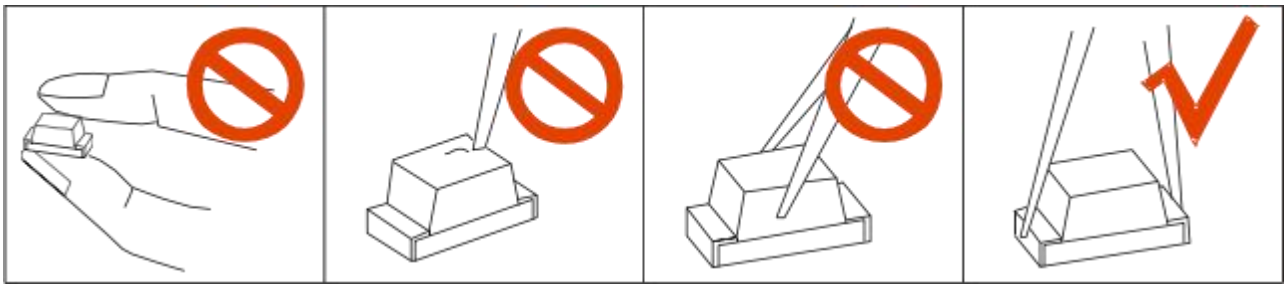
使用注意事项
Precautions

1、其他事项：

Others：

*直接用手拿取产品不但会污染封装树脂表面，也可能由于静电等因素导致产品性能的改变。过度的压力也可能直接影响封装内部的管芯和金线，因此请勿对产品施加过度压力，特别当产品处于高温状态下，例如在回　　流焊接过程中。

*When handling the product, touching the encapsulant with bare hands will not only contaminate its surface, but also affect on its optical characteristics. Excessive force to the encapsulant might result in catastrophic failure of the LEDs due to die breakage or wire deformation. For this reason, please do not put excessive stress on LEDs, especially when the LEDs are heated such as during Reflow Soldering.



*LED　的环氧树脂封装部分相当脆弱，请勿用坚硬、尖锐的物体刮、擦封装树脂部分。在用镊子夹取的时候也应当小心注意。

*The epoxy resin of encapsulant is fragile, so please avoid scratch or friction over the epoxy resin surface. While handling the product with tweezers, do not hold by the epoxy resin, be careful.

2、眼睛保护忠告：

Safety Advice For Human Eyes

*LED　发光时，请勿直视发光光源，特别是对于一些光强较高的 LED，强光可能伤害你的眼睛。

*Viewing direct to the light emitting center of the LEDs, especially those of great Luminous Intensity, will cause great hazard to human eyes. Please be careful.

规格书如有修改，不另行通知
If there are any modifications to the specification sheet, no further notice will be given