





# 东莞市溪榜电子有限公司

DONG GUAN XI BANG ELECTRONICS CO., LTD

SPECIFICATION 规格书

Model Type: 类型型号:	FIBER SOCKET	WRITTEN 制作	CHECKED 审核	APPROVED 批准
Part No.: 料号:	XB-0J series 光钎插座发射端	谢冰芯	庞东	贺龙飞

## 1. Features/ 特征

1-1. Low jitter ( $\Delta t_j$ : 1ns)

低抖动 (  $\Delta t_j$ : 1ns )

1-2. High speed signal transmission (12Mbps, NRZ signal)

高速信号传输 ( 12Mbps , NRZ )

1-3. Directly connectable to modulation IC for digital audio equipment

直接连接到调制集成电路用于数字音频设备

## 2. Applications/ 应用

2-1.digital audio for CD, MD and DVD, DVB player, used in personal computers and computer entertainment system in the sound playback

数字音频设CD, MD 和 DVD、DVB播放器, 使用在个人电脑和计算机娱乐系统在声音播放

2-2.Navigation System

导航系统

## 3. Absolute maximum ratings[Ta=25°C]/ 绝对最大额定值[温度=25°C]

Paramrter 参数	Symbol 符号	Rating 额定值	Unit 单位
Supply Voltage 电源电压	<b>Vcc</b>	<b>-0.5 ~ +7</b>	<b>V</b>
Input Voltage 输入电压	<b>Vin</b>	<b>-0.5 ~ Vcc+0.5</b>	<b>V</b>
Power Dissipation 功耗	<b>P</b>	<b>125</b>	<b>mW</b>
Operating Temperature 工作温度	<b>Topr</b>	<b>-20 ~ +70</b>	°C
Storage Temperature 存储温度	<b>Tstg</b>	<b>-30 ~ +80</b>	°C
Soldering Temperature <sup>[1]</sup> 耐焊接热	<b>Tsol</b>	<b>260</b>	°C

Note [1] : Soldering time=5 seconds 2 times max.

注[ 1 ] : 焊接时间= 5秒, 最多2次



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#### 4. Mechanical Characteristics[Ta=25℃]/ 机械特性[温度=25℃]

Paramrter 参数	Conditions 条件	Min 最小值	Typ. 典型值	Max 最大值	Unit 单位
Insertion force 插入力	Using standard POF[2] 使用标准 POF <sub>[2]</sub>	3		40	N
Extraction force 拔出力	Using standard POF[2] 使用标准 POF <sub>[2]</sub>	3		40	N
the fixed torque 自固定转矩	the fixed screw 自固定的螺丝			0.8	N-cm

#### 5. Electrical and optical character terisdtics[Ta=25℃]/ 电及光学特性[温度=25℃]

Paramrter 参数	Symbol 符号	Conditions 条件	Min 最小值	Typ. 典型值	Max 最大值	Unit 单位
Operating Voltage 工作电压	Vcc	-	2.7	5	5.5	V
Peak Emission Wavelength 发射器波长	λ <sub>p</sub>	-	-	670	-	nm
Optical Power Output Coupling With Fiber 发射器光能	Pc	Refer to Fig.1 参照 Fig.1	-21	-17	-15	dBm
Dissipation Current 工作电流	Icc	Refer to Fig.2 参照 Fig.2		8	14	mA
High Level Input Voltage 最低输入高电平	V <sub>IH</sub>	-	2			V
Low Level Input Voltage 最高输入低电平	V <sub>IL</sub>	-			0.8	V
Low→High Propagation Delay Time 上升延迟	t <sub>pLH</sub>	Refer to Fig.3 参照 Fig.3	-	-	100	ns
High→Low Propagation Delay Time 下降延迟	t <sub>pHL</sub>	Refer to Fig.3 参照 Fig.3	-	-	100	ns
Pulse Width Distortion 脉冲宽度失真	Δtw	Refer to Fig.3 参照 Fig.3	-25	-	25	ns
Jitter 抖动	Δtj	Refer to Fig.4 参照 Fig.4	-	1	25	ns
Operating Transfer Rate 数据速度	T	-	-	-	25	Mbps
Transmission Distance 传输距离		Using POF[2] 使用 POF <sub>[2]</sub>	-	-	20	m

Note [2] : Polymer Optical Fiber(980/1000μm )

注[ 2 ] : 聚合物光纤头 (980/1000μm)



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## 6. Caution: / 使用注意事项:

### 1) launch of a fixed optical receivers

Welding OMAT001XX transmitter module pin fixed to the printed circuit board to a fixed module.

### 1) 固定光纤发射接受器

焊接发射器模块OMAT001XX的固定管脚到印制电路板上来固定模块。

### 2) solvent

Flux in the clear when using solvents, do not use a high acid or high alkali solvent. Careful not to touch the mouth luminescence spilled solvent. If not careful cleaning with cotton.

### 2) 溶剂

在用溶剂清楚焊剂时，不要使用高酸性或者高碱性的溶剂。注意不要把溶剂溅到 发光接触口。假如不小心溅上了用棉签清理。

### 3) protection cap

When the optical transmitter OMAT001XX when not in use, use of protective caps.

### 3) 保护帽

当光发射器OMAT001XX不使用时，使用保护帽。

### 4) Power Supply Voltage

Conditions typical VCC supply voltage is 5V plus or minus changes in 0.25V. To ensure that no more than 7V power supply voltage even if the voltage can not be instantaneous.

### 4) 电源电压

典型条件的电源电压是VCC 在5V正负变化0.25V。确保电源电压不要超过7V即使是瞬时电压也不可以。

### 5) input voltage

Adding more than the voltage VCC +0.5 launchers added to the optical input of the IC will cause internal damage. If this high voltage may be added to the input protection circuit to be inserted.

### 5) 输入电压

加入超过VCC+0.5的电压加在光发射器的输入端会引起内部的IC的损坏。假如这种过高的电压可能会加在输入端要插入保护电路。

### 6) Welding conditions

Temperature 260 °C, time of less than 5 seconds.

### 6) 焊接条件 温度260℃，时间少于5秒。

### 7) the prevention of waste

Discard the device and packaging materials, to comply with the provisions of the local process to protect the environment from pollution. In waste or discarded in the final deal must be concerned about the workers and the environment.

### 7) 预防浪费

丢弃器件和封装材料时，遵守当地的流程规定保护环境不受污染。在丢弃废料或者是在最后处理时，必须关注工人和环境。

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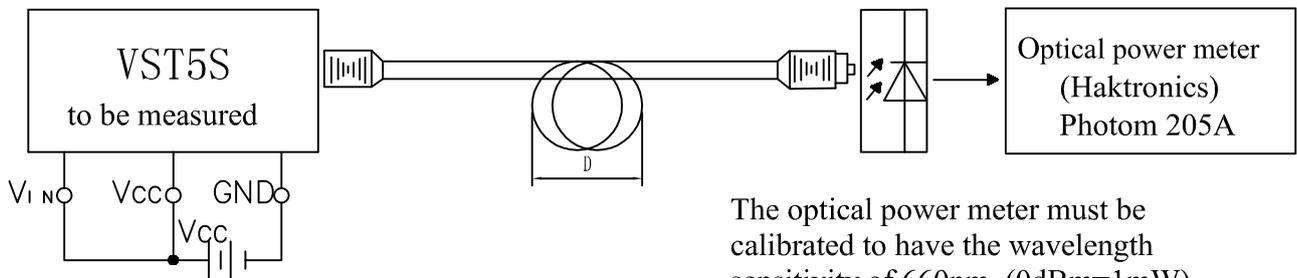
### 7. Amendment / 变更修正

When the amendment of this specification comes into necessity, it shall made by the mutual consultation and agreement between manufacture and customer.

当有必要对规格书进行变更修正时，应该在制造商和客户共同商议及同意后才可以进行。

Fig.1 Measuring method of optical output coupling with Fiber

Fig.1 发射器光能测量方法

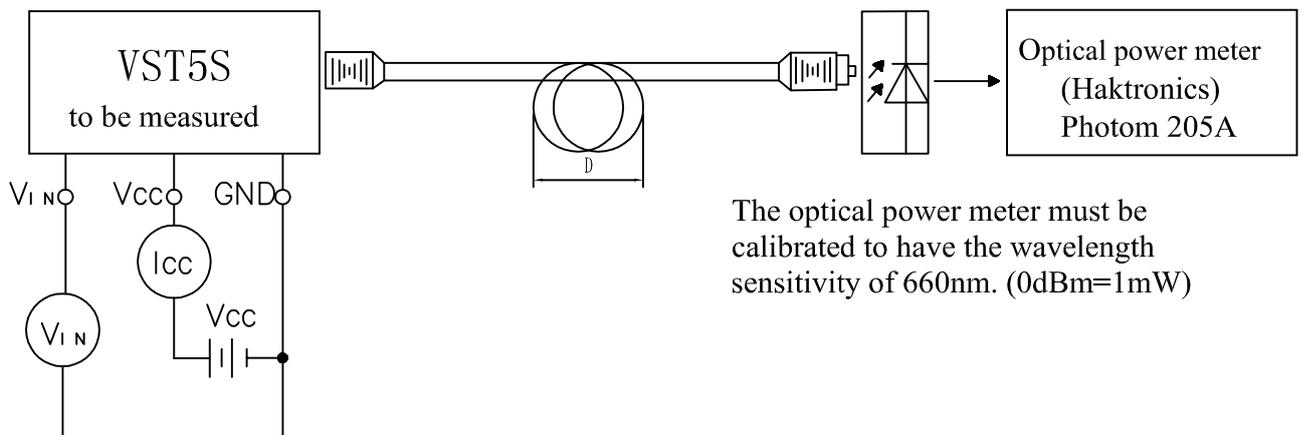


Notes (1)  $V_{CC}=5.0 \pm 0.05V$  (Operating)

(2) To bundle up the standard fiber cable, make it into a loop with the diameter (D) of 10cm or more.

Fig.2 Measuring method of Dissipation Current

Fig.2 工作电流测量方法



Note (1)  $V_{CC}=5.0 \pm 0.05V$  (ON-State)

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Fig.3 Measuring method of Pulse Response

Fig.3 脉冲响应测量方法

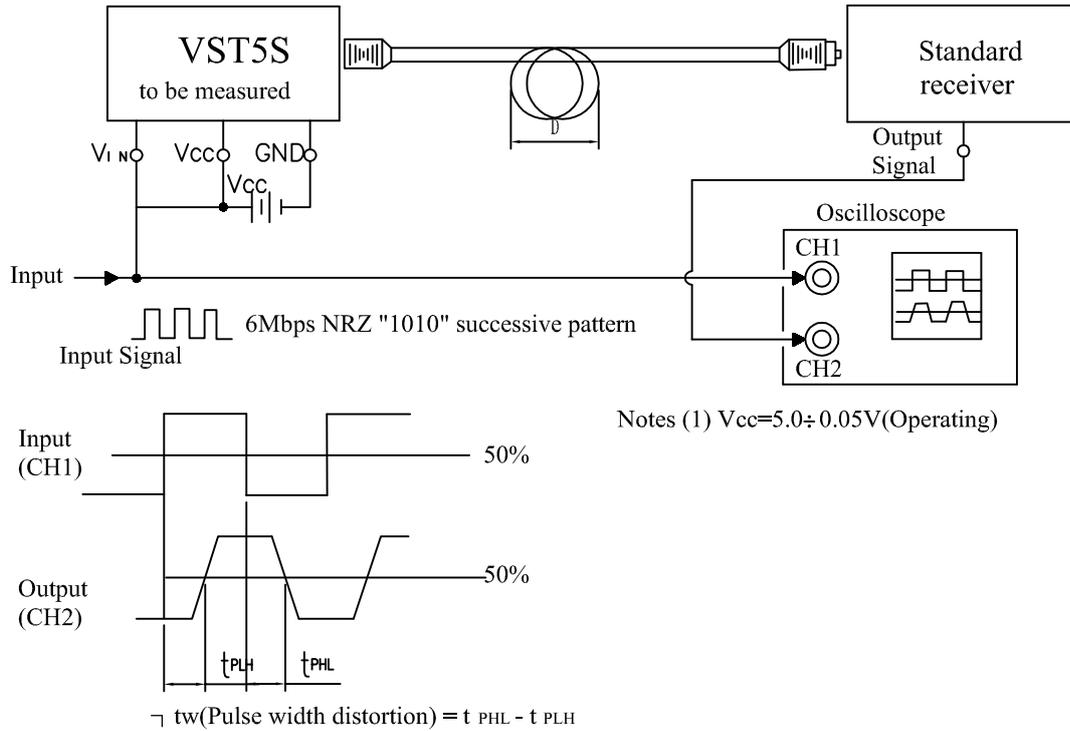
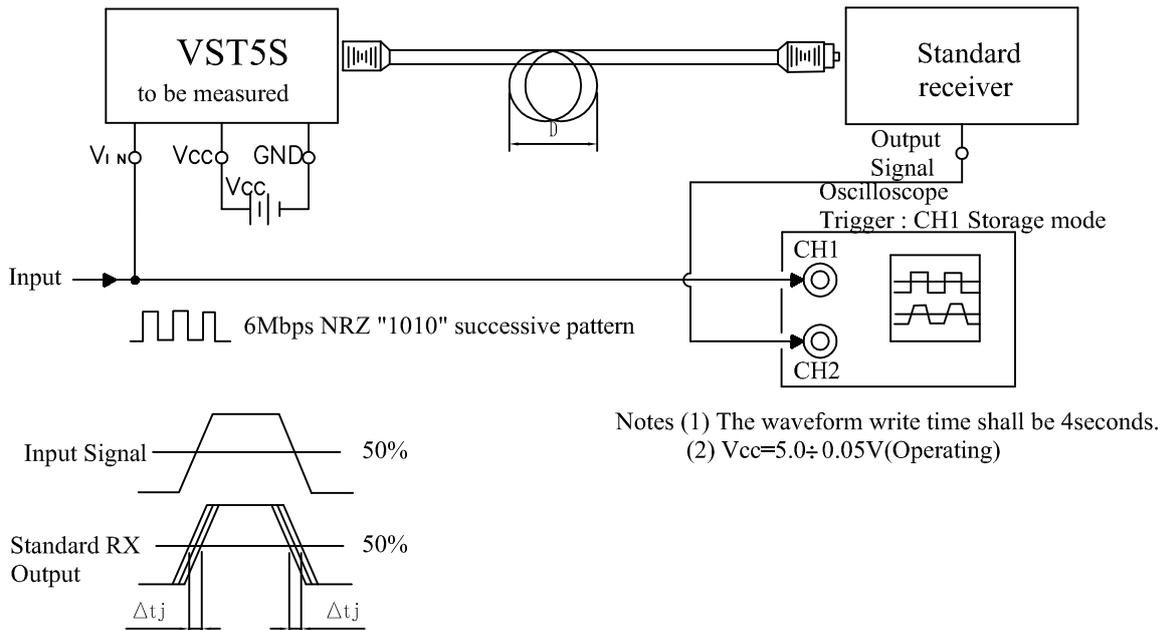


Fig.4 Measuring method of Jitter

Fig.4 抖动测量方法



※ This specification is state with Chinese & English, Chinese is preferential while doubt in interpretation.  
规格书同时记入中英文，但发生疑义的场所以中文优先。