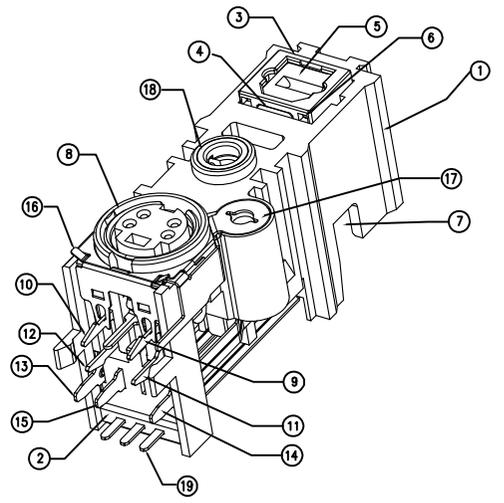
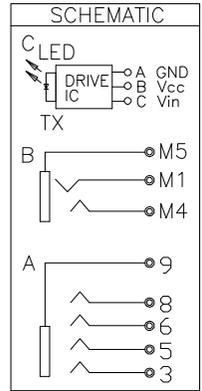


REV.	ECN. NO.	REVISION NOTE	APR.	DATE
X1			Vegas	2013-08-05
X2		MODIFY DESIGN	PAT	2013-10-10

✕2



ITEM	DESCRIPTIONs	MATERIAL	FINISH	Q'TY	NOTE
(19)	POF LATCH	BRASS	TIN 50u" MIN., NI 50u" MIN. UNDERPLATING	3	
(18)	3.5 RING	BRASS	30u" NI MIN.	1	
(17)	EARTH DITTING	BRASS	TIN 50u" MIN., NI 50u" MIN. UNDERPLATING	1	
(16)	SPRING GROUND	SUS 304		1	NONE PLATED
(15)	RING-A	PBS	TIN 50u" MIN., NI 50u" MIN. UNDERPLATING	1	
(14)	TIP-RING	PBS	TIN 50u" MIN., NI 50u" MIN. UNDERPLATING	1	
(13)	RING-B	PBS	TIN 50u" MIN., NI 50u" MIN. UNDERPLATING	1	
(12)	TERMINAL	BRASS	TIN 50u" MIN., NI 50u" MIN. UNDERPLATING	1	
(11)	TERMINAL	BRASS	TIN 50u" MIN., NI 50u" MIN. UNDERPLATING	1	
(10)	TERMINAL	BRASS	TIN 50u" MIN., NI 50u" MIN. UNDERPLATING	1	
(9)	TERMINAL	BRASS	TIN 50u" MIN., NI 50u" MIN. UNDERPLATING	1	
(8)	GROUND	BRASS	TIN 50u" MIN., NI 50u" MIN. UNDERPLATING	1	
(7)	DRIVE IC			1	
(6)	SPRING	SUS 304		1	NONE PLATED
(5)	GATE-HOUSING	PA66	UL94V-0	1	#577C
(4)	BACK-HOUSING	PA66	UL94V-0	1	BLACK
(3)	FRONT-HOUSING	PA66	UL94V-0	1	BLACK
(2)	SPACER	PA66	UL94V-0	1	BLACK
(1)	HOUSING	PBT+30%G/F	UL94V-0	1	BLACK

DIMENSION IN mm		ZUANBAO		CHINA ZUANBAO ELECTRONICS CO.,LTD.			
GENERAL TOLERANCES (UNLESS SPECIFIED)				TITLE: CONN IR SVID OPTICAL STACK THMT SLDR			
.X ±0.38	X.* ±3.0°	APR.		PART NO.	3AR-2A06-PKS0-T0	DWG NO.	ZB-0D0008
.XX ±0.20	.X.* ±2.0°	CHK.		SIZE: A3		SHEET	1/4
.XXX ±0.10	.XX.* ±1.5°	DRA.	PAT 2013-10-10	SCALE: 2:1		REV.	X2

1. GENERAL

SCOPE

The light transmitting unit is a standard-packaged product with connector and opto-electric component packaged with LED and drive IC. The function of unit changes the electric signal into light signal and be transmitted by plastic fiber.

This unit is operated at single +3.3V ~ +5V and the input signal is TTL compatible. The module has a maximum operating speed of 13.2 Mbps. The light signal is coupled into plastic fiber by connector. This unit has high performance at low dissipation current, steady light output and efficient light coupling.

MATED PLUG

The mated plug should complied with standard EIAJ-5720B

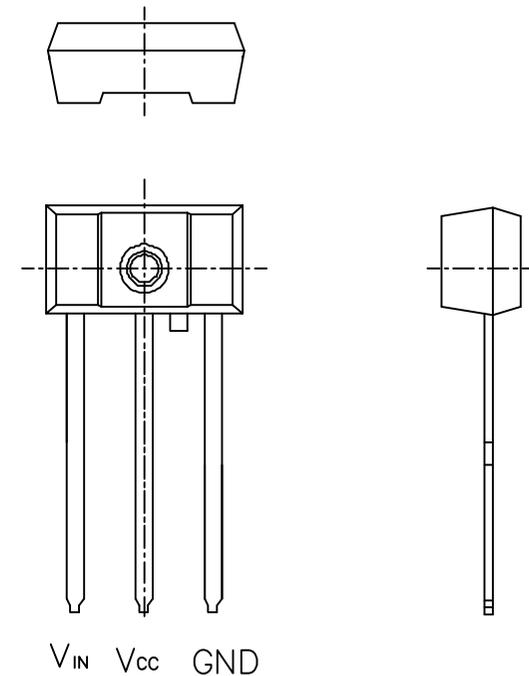
2. ABSOLUTE MAXIMUN RATING

Parameters	Symbol	Rating	Unit
Supply Voltage	V _{cc}	-0.5~+7.0	V
Input Voltage	V _{IN}	-0.5~V _{cc} +0.5	V
Operating Temperature	T _{opr}	-20~+70	°C
Storage Temperature	T _{stg}	-40~+70	°C
ElectroStatic Damage	ESD	3.5	KV
Soldering Temperature	T _{sol}	260	°C

Soldering Time ≤ 10 Seconds

3. RECOMMENDED OPERATING CONDITION

Parameters	Symbol	MIN.	TYP.	MAX.	Unit
Supply Voltage	V _{cc}	2.7		5.5	V
High Level Input Voltage	V _{IN}	2.0			V
Low Level Input Voltage	V _{IL}			0.8	V



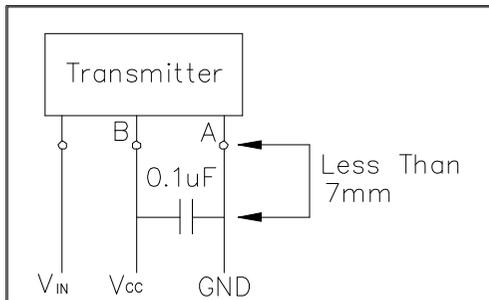
PART NO.	3AR-2A06-PKS0-T0	SHEET	2/4
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4. ELECTRICAL CHARACTERISTICS($V_{CC} = 3.0V$ or $5.0V$ / $T_A = 25^\circ C$)

Parameters	Symbol	Condition	MIN.	TYP.	MAX.	Unit
Transmission Distance	D	Using APF	0.2		20	m
Output Power	P_f		-21	-17	-15	dBm
Center Emission Wavelength	λ		630		690	nm
High Level Input Voltage	V_{IH}	$V_{CC} = 3V$ or $5V$	2.0			V
Low Level Input Voltage	V_{IL}	$V_{CC} = 3V$ or $5V$			0.8	V
Quiescent Supply Current	I_{OUT_ON}	$V_{CC} = 3V$ or $5V$ $V_{IN} = V_{CC}$ $V_{FLED} = 2.0V$		6	10	mA
Output Leakage Current	I_{OUT_OFF}	$V_{CC} = 3V$ or $5V$ $V_{IN} = V_{SS}$ $V_{FLED} = 2.0V$				μA
Propagation Delay	t_{PLH} t_{PHL}	NRZ Code $C_{LED} = 30$ PF $V_{FLED} = 2.0V$			100	ns
Rise Time of I_{OUT}	t_r	NRZ Code $C_{LED} = 30$ PF			30	ns
Fall Time of I_{OUT}	t_f	$V_{FLED} = 2.0V$				
Pulse Width Distorsion	Δt_w	6 Mbps NRZ Code	-25		25	ns
Jitter	Δt_j				25	ns
Data Rate	T	NRZ Code $C_{LED} = 30$ PF $V_{FLED} = 2.0V$	DC		13.2	Mbps

APPLICATION NOTE:

1.



2. The total line resistance of power line (from V_{CC} to B) and ground line (from GND to A) should not too high as to reduce the bias voltage across the transmitter (between B & A) that cause the module fail.
3. Please be noted that attenuation due to layout should not cause the V_{IN} too worse.

PART NO.	3AR-2A06-PKS0-T0	SHEET	3/4
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Notes:

1. Electrical:

- a. Voltage Rating: 7VDC(r.m.s)
- b. Current Rating: 0.5Amperes.
- c. Insulation Resistance: 100M ohms min.
- d. Dielectric Withstand Voltage: AC 500V/1 min.
- e. Contact Resistance: Plug to contacts 50m ohms initial;
contacts to shunt (ground) 30m ohms initial;

2. Mechanical:

- a. Material: See BOM list (Sheet 1 OF 4).
- b. Plating: See BOM list (Sheet 1 OF 4).
Tin plating means 50u" min., Ni 50u" min. underplated overall.
- c. Durability: Optical Jack 500 cycles; Audio Jack & Mini Din 5000 cycles.
- d. Mating force: Optical Jack 5.88N~39.2N, ;
Audio Jack 2.94N~29.4N; Mini Din 3.92N~44.1N.
Unmating force: Optical Jack 5.88N~39.2N, ;
Audio Jack 2.94N~29.4N; Mini Din 3.92N~44.1N.

- e. Coplanarity of SMT Leads: Not Applicable.
- f. Solderability: More than 95% of solderable area shall be covered with solder after 5~10 seconds flux(No clean flux)deep.
- g. Soldering Profile: 260°C±5°C for 5±1 seconds without remarkable deterioration.

3. Environmental:

- a. Operating/Storage Temperature: -25°C to +70°C.
- b. Temperature Life: A temperature of 85±2°C for 96hours.
- c. Salt Spray test shall be tested per ASTM 117 for 4 hours.
- d. Steady State Humidity: 90%~95% humidity on 40±3°C for 96hours.
- e. After environmental test, connector Plug to contact should not increase to 100m ohms max. contacts to shunt (ground) resistance should not increase to 60m ohms max. and meet IR and DWV as initial.

4. Compliance:

- a. Standard: Optical Jack connector specification.
- b. Standard: Audio Jack connector specification.
- c. Standard: Mini Din connector specification.
- d. RoHS 6/6 Compliant.

5. Order Information:

PART. NUMBER

3AR-2A 06 - P K S 0 - I 0

① ② ③④⑤⑥ ⑦

① CONNECTOR:

3AR-2A: POF + 3.5 Audio + S-Video,
R/A

② PIN NUMBER:

06: 6PIN

③ INSULATOR MATERIAL:

P: PBT

④ INSULATOR COLOR:

K: BLACK

⑤ TERMINAL PLATING:

S: MATTE Sn

⑥ SHELL PLATING:

0: W/O SHELL

⑦ PACKING:

T: TRAY

PART NO.	3AR-2A06-PKS0-T0	SHEET	4/4
DWG NO.	ZB-0D0008	REV.	X2