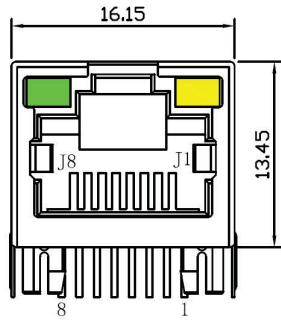
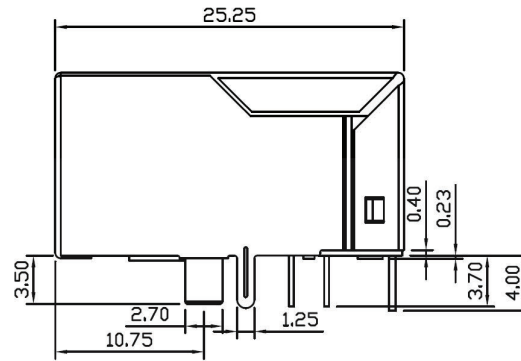


Mechanical:

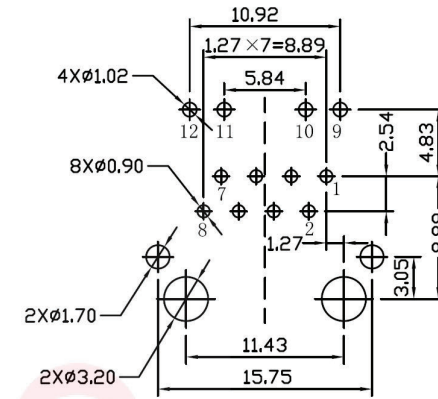
REV.	ECN NO.	DESCRIPTION	DATE	APPD
A	REL		2010-04-15	



Front Side View



Left Side View

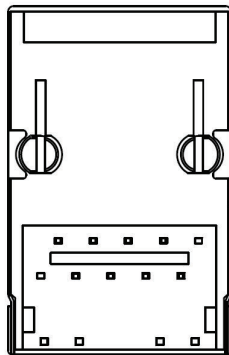


Suggested PCB Layout (Top View)

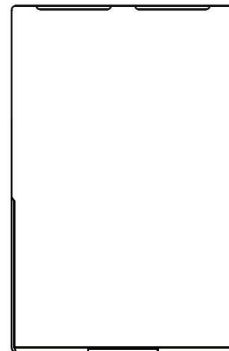


NOTES:

- Designed to support application, such as SOHO (ADSL modems), LAN-on-Motherboard (LOM), hub and Switches.
- Meets IEEE 802.3 specification
- Connector Materials:
 Housing: Thermoplastic PBT+30%G.F UL94V-0
 Contact: Phosphor Bronze C5210R-EH Thickness=0.35mm
 Pins: Brass C2680R-H Thickness=0.35mm
 Shield: SUS 201-1/2H Thickness=0.2mm
 Contact plating: Gold 6 micro-inches min. In contact area.
- Voltage rating : 125 VAC RMS
- Current Rating : 1.5 AMP
- Contact resistance : 50 mΩ Max
- Insulation resistance : 500 MΩ Min @500V DC
- Dielectric strength : 1000 VAC RMS 60Hz, 1 Min.
- Mating / Unmating : 30N /3.06KG Max
- Retention Strength : 30N Min. For 60S ± 5S
- Operating Life : 2500 Cycles Min.
- Storage : -40°C ~ +85°C
- Operation : -40°C ~ +85°C.
- Wave solder tip temperature: 250°C, 5 Sec.
- UL Certification



Bottom Side View



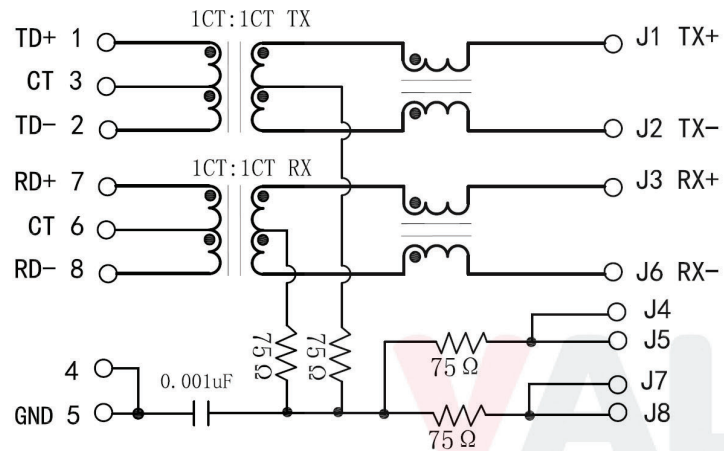
Top Side View

X:X ±0.30	APPD:	Toby Electronics Ltd www.toby.co.uk
X:XX ±0.25	CHKD:	
X:XXX ±0.05	DR: TOM	
ANGLES ±1°	UNIT: mm	TITLE: RJ45 Connector with 10/100 Base-T Integrated Magnetics
		PART NO.: VSIMJL-88-CC-E-GY
	SCALE: 2/1	SHEET: 2/2
		REV: A
		DWG NO.:

Schematic:

REV.	ECN NO.	DESCRIPTION	DATE	APPD
A	REL		2010-04-15	

PC BOARD CONNECTIONS

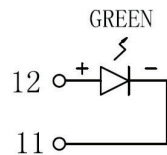


RJ45 CONNECTOR

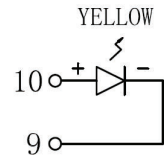
Electrical Specification:

TEST NOTES (25±5°C)

- TR: (@100KHz, 0.1V);
TX=1CT:1CT ±3% RX=1CT:1CT ±3%
- OCL (@100KHz, 100mV, 8mA, DC Bias):
PINS: (P1, P2), (P7, P8)=350uH MIN
- HIPOT:
PINS (P1, P3, P2) TO (J1, J2)=1500VAC FOR 60 SECONDS
PINS (P7, P6, P8) TO (J3, J6)=1500VAC FOR 60 SECONDS
- INSERTION LOSS:
-1.0dB MAX @1~65MHz
- RETURN LOSS:
-20dB MIN @1~10MHz
-16dB MIN @10~30MHz
-12dB MIN @30~60MHz
-10dB MIN @60~100MHz
- CROSS TALK:
-40dB MIN @1~30MHz
-35dB MIN @30~60MHz
-30dB MIN @60~100MHz
- COMMON TO COMMON MODE REJECTION:
-30dB MIN @1~50MHz
-20dB MIN @50~150MHz
- OPERATING TEMPERATURE: -40°C~+85°C.



LEFT LED



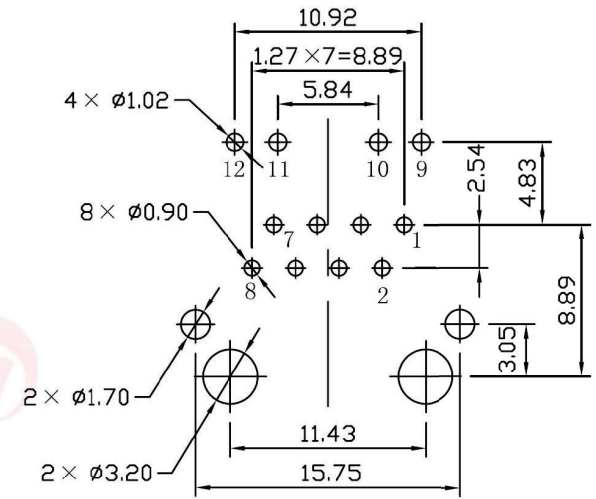
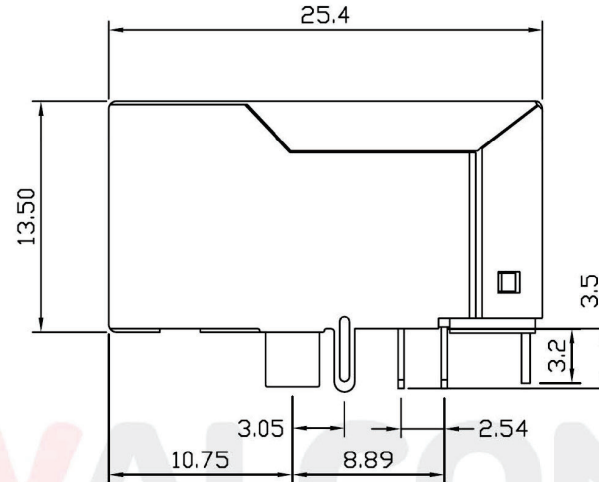
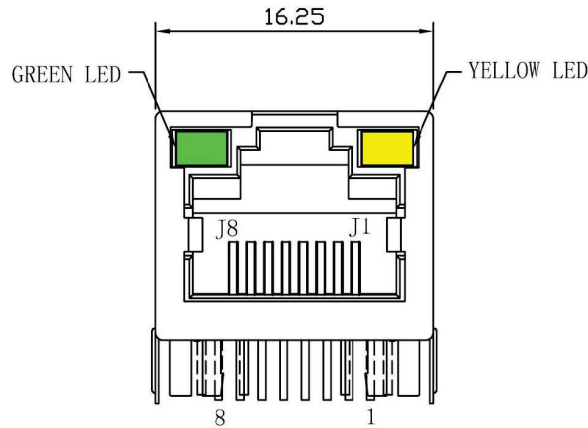
RIGHT LED

Emitting Color	λp(nm)	VF@IF=20mA	IR @VR=5V
GREEN	565	1.8~2.6V	10 μA max
YELLOW	585	1.8~2.6V	10 μA max

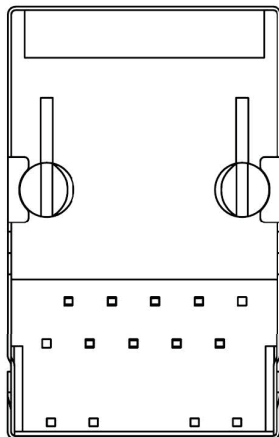
X:X ±0.30	APPD:	Toby Electronics Ltd www.toby.co.uk	
X:XX ±0.25	CHKD:		
X:XXX ±0.05	DR: TOM	TITLE: RJ45 Connector with 10/100 Base-T Integrated Magnetics	
ANGLES ±1°	UNIT: mm	PART NO.: VSIMJL-88-CC-E-GY	
	SCALE: 2/1	SHEET: 1/2	REV: A DWG NO.:

Mechanical :

REV.	ECN NO.	DESCRIPTION	DATE	APPD
A	REL		10/05/2008	



SUGGESTED PCB LAYOUT (TOP VIEW)



NOTES:

1. Designed to support application, such as SOHO (ADSL modems), LAN-on-Motherboard (LOM), hub and Switches.
2. Meets IEEE 802.3 specification
3. Connector Materials:
 Housing: Thermoplastic UL94V-0
 Contact/Shield: Copper alloy
 Shield plating: Nickel
 Contact plating: Gold 6 micro-inches min. In contact area.
4. Wave solder tip temperature: 260°C
 Wave solder tip temperature time: 5 Sec Max

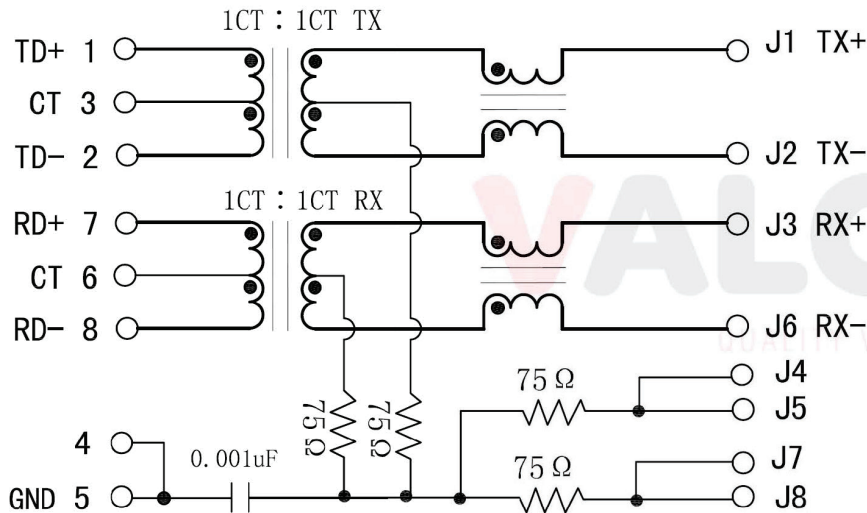


X:X	±0.20	APPD:	Toby Electronics Ltd www.toby.co.uk	
X:XX	±0.10	CHKD:		
X:XXX	±0.05	DR: TOM	Title: RJ45 Connector With 10/100 Base-TX Integrated Magnetic	
ANGLES	±1°	UNIT: mm	PART NO.: VSIMJL-88-CC-GY	
SCALE: 2/1		SHEET: 2/2		REV: A DWG NO.:

Schematic:

REV.	ECN NO.	DESCRIPTION	DATE	APPD
A	REL		10/05/2008	

PC BOARD CONNECTIONS



RJ45 CONNECTOR

Electrical Specification:

TEST NOTES (25±5°C)

1. TR: (100KHz, 0.1V);
TX-1CT : 1CT ±3% RX-1CT : 1CT ±3%

2. LX: (100KHz, 100mV, 8mA, DC Bias)
PINS: (P1, P2), (P7, P8)=350uH MIN

3. HIPOT:
PINS (P1, P3, P2) TO (J1, J2) -1500VAC FOR 60 SECONDS
PINS (P7, P6, P8) TO (J3, J6) =1500VAC FOR 60 SECONDS

4. INSERTION LOSS:
-1.0dB MAX @ 1.0MHz TO 65MHz

5. RETURN LOSS:
-20dB MIN @ 1MHz TO 10MHz
-16dB MIN @ 10MHz TO 30MHz
-12dB MIN @ 30MHz TO 60MHz
-10dB MIN @ 60MHz TO 100MHz

6. CROSS TALK:
-40dB MIN @1MHz TO 30MHz
-35dB MIN @30MHz TO 60MHz
-30dB MIN @60MHz TO 100MHz

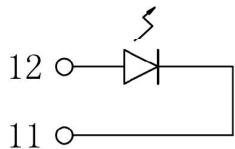
7. COMMON TO COMMON MODE REJECTION:
-30dB MIN @1MHz TO 50MHz
-20dB MIN @50MHz TO 150MHz

8. OPERATING TEMPERATURE: 0°C ~70°C.

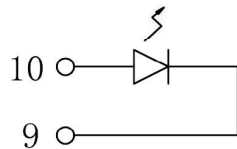
RJ45 Durability Testing Rating

Part Number	Mating Force (MAX)	Unmating Force (MAX)	Durability	Plug to Jack Retention (MIN)
VSIMJL-88-CC-GY	5 lbs./2.268kgs	5 lbs./2.268kgs	750 Insertions	20 lbs./9.072kgs

GREEN/LEFT LED



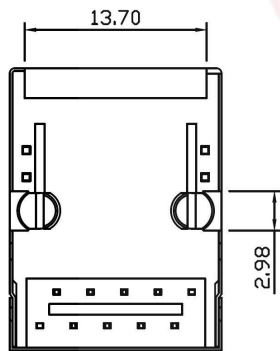
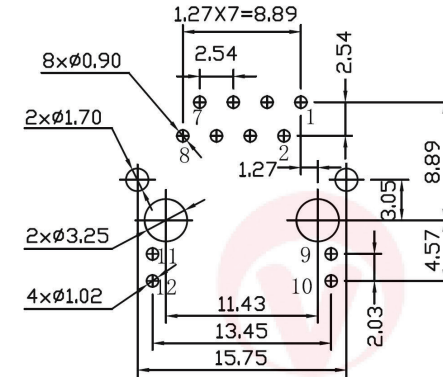
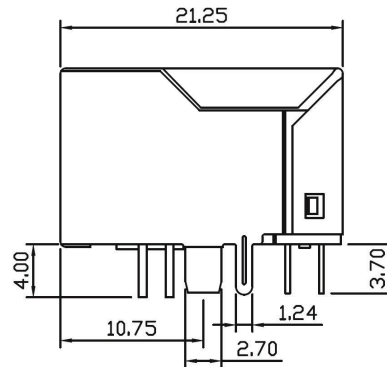
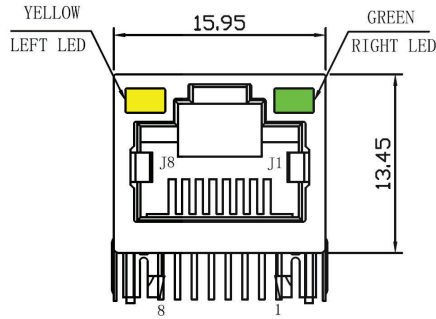
YELLOW/RIGHT LED



X:X	±0.20	APPD:	Toby Electronics Ltd www.toby.co.uk	
X:XX	±0.10	CHKD:		
X:XXX	±0.05	DR: TOM	Title: RJ45 Connector With 10/100 Base-TX Integrated Magnetic	
ANGLES	±1°	UNIT: mm	PART NO.: VSIMJL-88-CC-GY	
	SCALE: 2/1	SHEET: 1/2	REV: A	DWG NO.:

Mechanical:

REV.	ECN NO.	DESCRIPTION	DATE	APPD
A	REL		2011-01-05	



NOTES:

1. Designed to support application, such as SOHO (ADSL modems), LAN-on-Motherboard (LOM), hub and Switches.
2. Meets IEEE 802.3 specification
3. Connector Materials:
 Housing: Thermoplastic PBT+30%G.F UL94V-0
 Contact: Phosphor Bronze C5210R-EH Thickness=0.35mm
 Pins: Brass C2680R-H Thickness=0.35mm
 Shield: SUS 201-1/2H Thickness=0.2mm
 Contact plating: Gold 6 micro-inches min. In contact area.
4. Wave solder tip temperature: 260°C Max, 5 Sec.
5. UL Certified

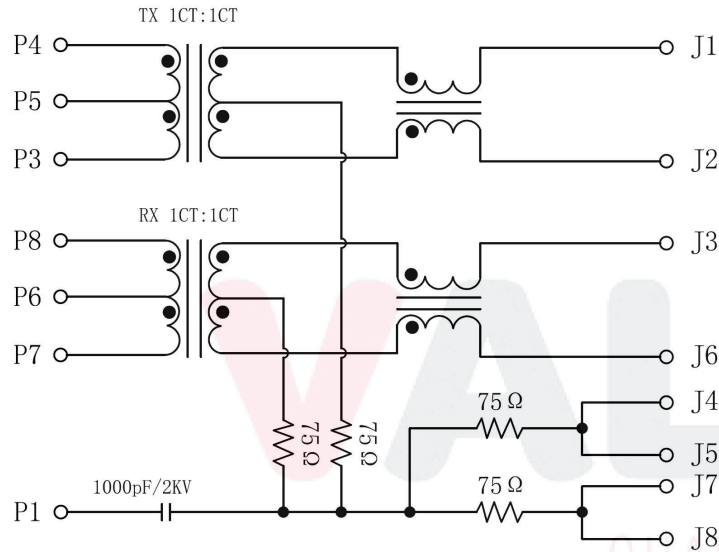


X:X ±0.30	APPD: TOM	Toby Electronics Ltd sales@toby.co.uk
X:XX ±0.25	CHKD: JAMES	
X:XXX ±0.05	DR: LEO	TITLE: RJ45 Connector with 10/100 Base-T Integrated Magnetics
ANGLES ±1°	UNIT: mm	PART NO.: VSIMJL-88-CC-SB-GY
	SCALE: 2/1	SHEET: 2/2
	REV: A	DWG NO.: LP11010529

Schematic:

REV.	ECN NO.	DESCRIPTION	DATE	APPD
A	REL		2011-01-05	

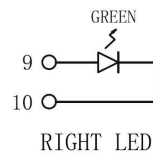
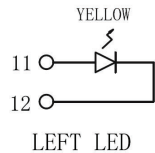
PC BOARD CONNECTIONS



Electrical Specifications @25°C

- Turns Ratio ($\pm 2\%$) :
TX=1CT:1CT RX=1CT:1CT
- Inductance OCL: 350uH Min
@100KHz, 0.1Vrms, 8mA DC bias
- Insertion Loss:
0.3-100MHz: -1.2dB Max
- Return Loss(dB Min, 100 Ω) :
1-30MHz: -16; 40MHz: -14;
50MHz: -13; 60-80MHz: -10
- Crosstalk(dB Min):
30MHz: -40; 60MHz: -36;
100MHz: -30
- Common Mode Rejection(dB Min):
30MHz: -35; 60MHz: -32;
100MHz: -30
- Hipot Test: 1500Vrms
- Operating Temperature: 0°C ~ 70°C.

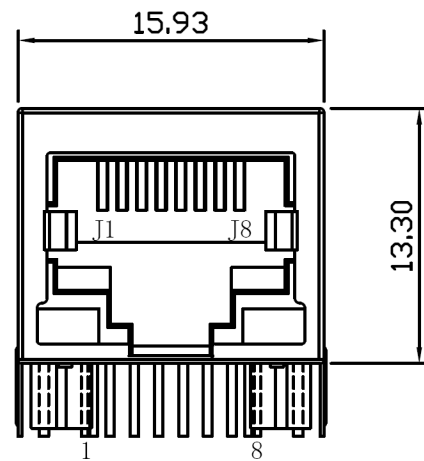
Emitting Color	λ_p (nm)	V _{F@I_F} =20mA	I _{R @V_R} =5V
GREEN	565	1.8~2.6V	10 μ A max
YELLOW	585	1.8~2.6V	10 μ A max



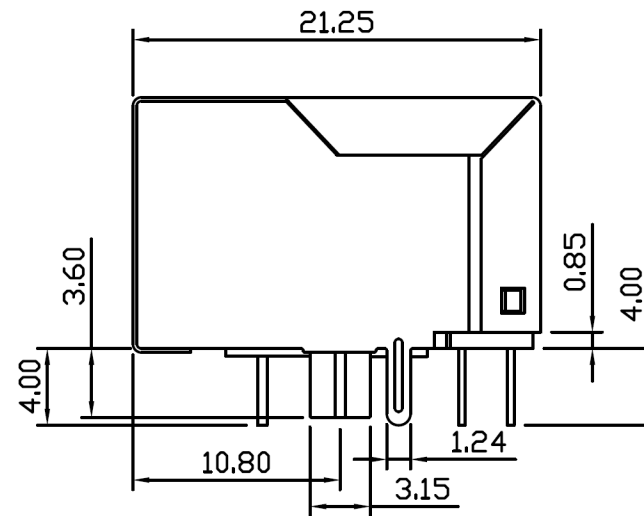
X:X ± 0.30	APPD: TOM	Toby Electronics Ltd sales@toby.co.uk
X:XX ± 0.25	CHKD: JAMES	
X:XXX ± 0.05	DR: LEO	TITLE: RJ45 Connector with 10/100 Base-T Integrated Magnetics
ANGLES $\pm 1^\circ$	UNIT: mm	PART NO. : VSIMJL-88-CC-SB-GY
	SCALE: 2/1	SHEET: 1/2
	REV: A	DWG NO. : LP11010529

Mechanical:

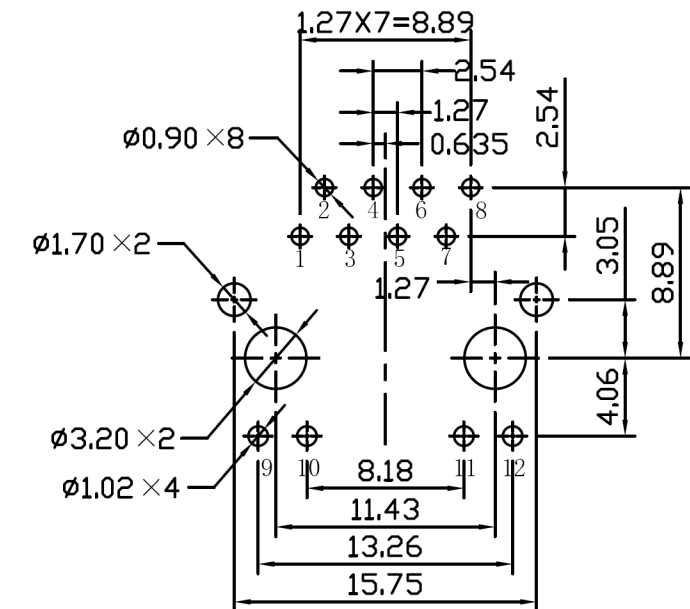
REV.	ECN NO.	DESCRIPTION	DATE	APPD
A	REL		2008-12-12	



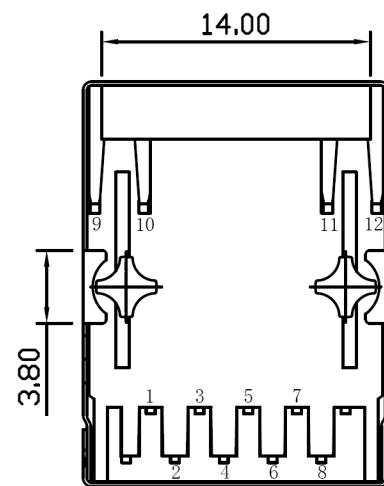
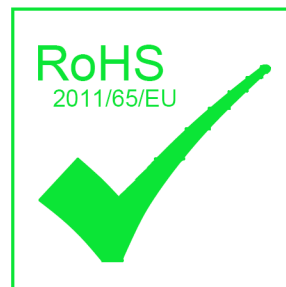
Front Side View



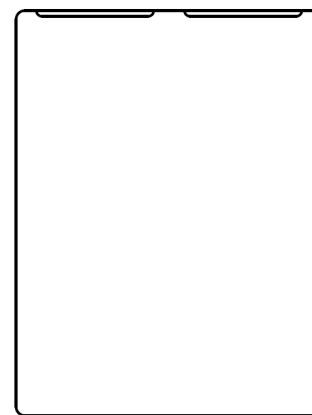
Left Side View



Suggested PCB Layout (Top View)



Bottom Side View



Top Side View

NOTES:

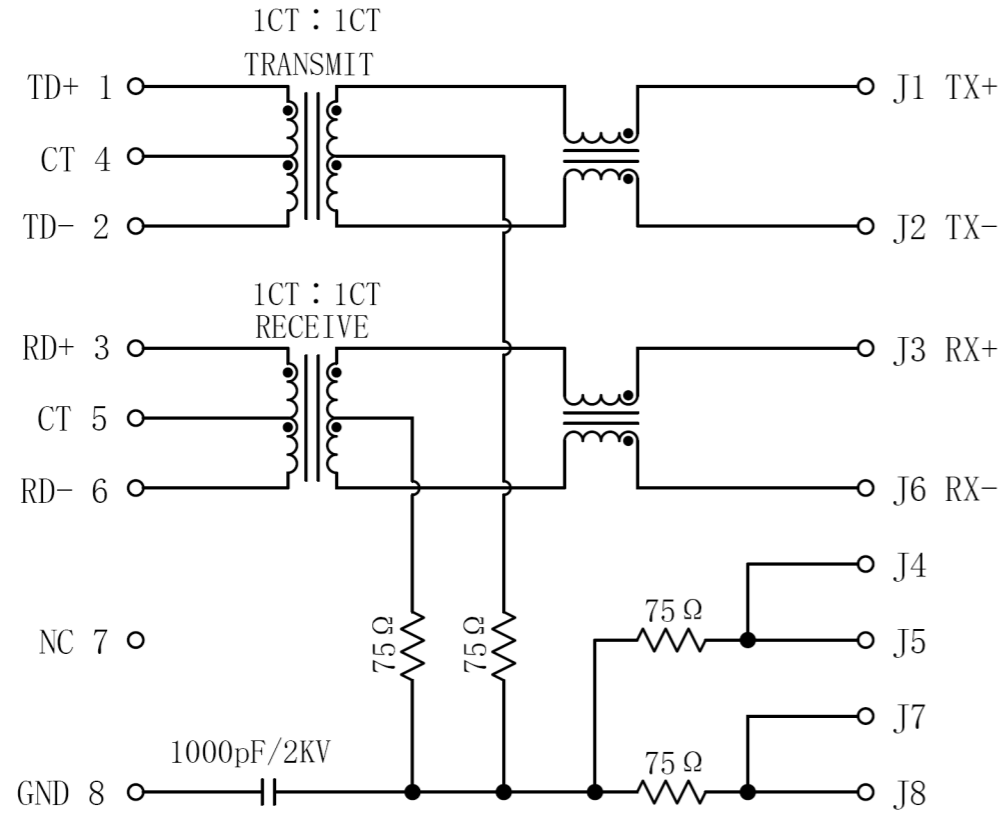
1. Designed to support application, such as SOHO (ADSL modems), LAN-on-Motherboard (LOM), hub and Switches.
2. Meets IEEE802.3 specification.
3. Connector Materials:
 Housing: Thermoplastic PBT+30%G.F UL94V-0
 Contact: Phosphor Bronze C5210R-EH Thickness=0.35mm
 Pins: Brass C2680R-H Thickness=0.35mm
 Shield: SUS 304-1/2H Thickness=0.2mm
 Contact plating: Gold 30 micro-inches min. In contact area.
4. Wave solder tip temperature: 250°C, 5 Sec.
5. UL Certified.

X:X ±0.30	APPD:	Toby Electronics Ltd sales@toby.co.uk
X:XX ±0.25	CHKD:	
X:XXX ±0.05	DR: TOM	TITLE: RJ45 Connector with 10/100 Base-T Integrated Magnetics Tab Down
ANGLES ±1°	UNIT: mm	PART NO.: VSIMJL-88-CC-SB1-GY
	SCALE: 2/1	SHEET: 2/2
	REV: A	DWG NO.: LP08121237

Schematic:

REV.	ECN NO.	DESCRIPTION	DATE	APPD
A	REL		2008-12-12	

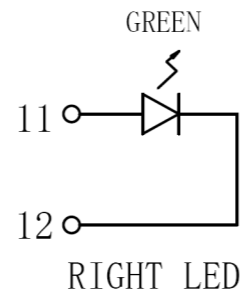
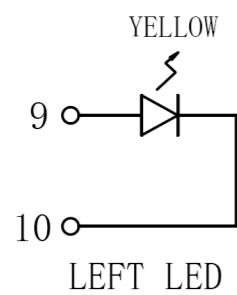
PC BOARD CONNECTIONS



RJ45 CONNECTOR

ELECTRICAL SPECIFICATIONS @25°C

- Turn Ratio($\pm 2\%$):
TX=1CT:1CT RX=1CT:1CT
- Inductance OCL: 350uH MIN
@100KHz/0.1V 8mA DC Bias
- Insertion Loss:
1-100MHz:-1.0dB MAX
- Return Loss(dB MIN):
1-30MHz: -18 30-60MHz:-15
60-80MHz: -12 80-100MHz:-10
- Cross talk(dB MIN):
30MHz: -40 60MHz: -35
100MHz:-30
- Common Mode Rejection(dB MIN):
30MHz: -40 60MHz: -35
100MHz:-30
- Hipot Test: 1500Vrms
- Operating Temperature Range: 0°C to 70°C.



Emitting Color	λ_p (nm)	V _F @I _F =20mA	I _R @V _R =5V
GREEN	565	1.8~2.6V	10 μ A max
YELLOW	585	1.8~2.6V	10 μ A max

X:X ± 0.30	APPD:	Toby Electronics Ltd sales@toby.co.uk		
X:XX ± 0.25	CHKD:			
X:XXX ± 0.05	DR: TOM	TITLE: RJ45 Connector with 10/100 Base-T Integrated Magnetics Tab Down		
ANGLES $\pm 1^\circ$	UNIT: mm	PART NO.: VSIMJL-88-CC-SB1-GY		
	SCALE: 2/1	SHEET: 1/2	REV: A	DWG NO.: LP08121237