

LED OPTION TABLE:

OPTION	FORWARD	REVERSE
G	GREEN	----
Y	YELLOW	----
R	RED	----
1	GREEN	ORANGE
2	YELLOW	ORANGE
3	GREEN	RED
4	YELLOW	RED
5	GREEN	YELLOW
6	YELLOW	GREEN
7	RED	GREEN
8	RED	YELLOW

Meets IEEE 802.3 Specification

RJ45 SPECIFICATION:

ELECTRICAL CHARACTERISTICS:

CURRENT RATING: 1.5 AMPS MAX.
 VOLTAGE RATING: 125VAC MAX.
 INSULATION RESISTANCE: 500VAC MEGAHOMS MINIMUM @ 500VDC.
 DIELECTRIC STRENGTH: 500VAC RMS 60Hz, 1 MIN.

LED'S CHARACTERISTICS:

POWER DISSIPATION: 80mW MAX.
 FORWARD CURRENT: 30mA MAX.
 FORWARD VOLTAGE: 2.2 VOLTS TYPICAL.
 REVERSE VOLTAGE: 5.0 VOLTS MAX.
 PEAR EMISSION WAVELENGTH:
 GREEN LED 568nm TYPICAL.
 YELLOW LED 589nm TYPICAL.

MECHANICAL CHARACTERISTICS:

MATING / UNMATING FORCES: 5 LBS. MAX.
 DURABILITY (MATING/UNMATING CYCLES): 1000 CYCLES
 OPERATING TEMPERATURE: 0° C TO + 70° C
 STORAGE TEMPERATURE: -40° C TO + 85° C
 CONNECTOR TO PCB INSERTION FORCE: < 8 LBS.

USB SPECIFICATION:

ELECTRICAL CHARACTERISTICS:

CONTACT CURRENT RATING: 1 AMP
 CONTACT RESISTANCE: 30 mOHMS MAX.
 DIELECTRIC WITHSTANDING VOLTAGE: 750 VAC RMS 60Hz, 1 MIN.
 INSULATION RESISTANCE: 1000 MOHMS MIN @ 500 VDC.

MECHANICAL CHARACTERISTICS:

CONTACT MATING FORCE: 34.3N (3.5kg) MAX.
 CONNECTOR UNMATING FORCE: 9.8N (1.0kg) MIN.
 DURABILITY: 1500 CYCLES.
 OPERATING TEMPERATURE: 0° C TO + 70° C

MATERIAL:

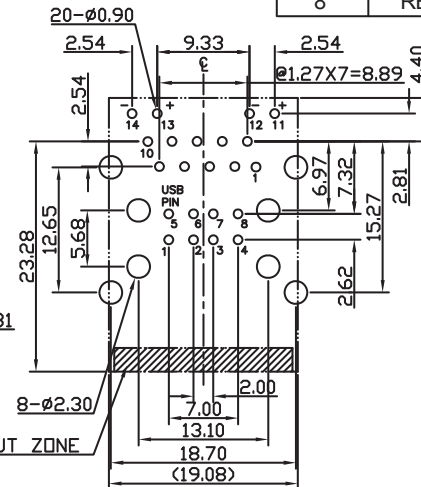
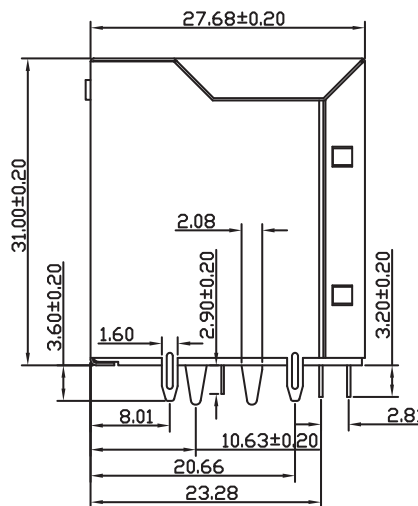
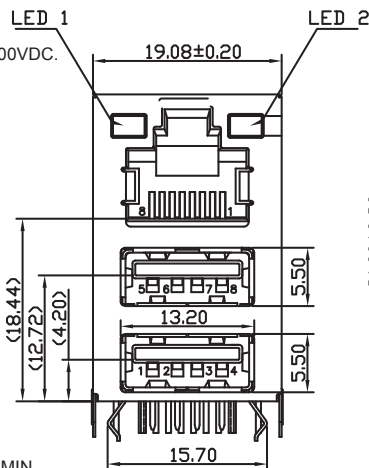
INSULATOR: Thermoplastic (UL-94V-O PBT+ 30% GF)
 CONTACT: 0.35mm Thickness Phosphor Bronze
 CONTACT PLATING: Nickel Underplate and Selective Gold in Mating Area

MECHANICAL:

DURABILITY: 750 Mating Cycles Min.
 2--1. MATING/UNMATING FORCE: 5 LBS MAXIMUM.
 2--2. DURABILITY (MATING/UNMATING CYCLES): 1000 CYCLES
 2--3. OPERATING TEMPERATURE: 0°C TO +70°C.
 STORAGE TEMPERATURE: -40°C TO +85°C
 2--4. CONNECTOR TO PCB INSERTION FORCE: < 8 LBS.

USB

NO.	NAME	MATERIAL	FINISH	QTY	REMARK
1	Housing	P.B.T.	Black	1	
2	Pin Term.	Phos. Bronze	Gold-Tin Plated	8	NI:1~5u, TIN:3u, GOLD:1~3u
3	Shell	Brass, 0.3mm	Tin Plated	1	TIN:2~3u
4	Shell	Brass, 0.3mm	Nickel Plated	1	NI:2~3u
5	Shell	SPCC, 0.3mm	Nickel Plated	1	NI:2~3u



TRACE KEEP OUT ZONE

PC Board Layout
Component Side Shown

HOW TO ORDER:

A 3 0 1 2 - U 2 S - N 0 0 - 8 0 0 - G Y - Z

LED 1: LED 2:
CHOOSE OPTION
FROM TABLE

**RoHS
COMPLIANT**

SELECTIVE PLATING:

- 6 - Au CONTACT AREA/TIN TAIL
- 7 - 15u" Au CONTACT AREA/TIN TAIL
- 8 - 30u" Au CONTACT AREA/TIN TAIL
- 9 - 50u" Au CONTACT AREA/TIN TAIL

Rev	Issued	Drawn	Checked	Approved	Date
0	Issued	A.M.	S.M.	S.M.	02/02/04
A	Updated for RoHS Compliance	B.S.	S.M.	S.M.	10/10/07

SMP TECHNOLOGY, INC.

RJ45 / USB, With Transformer Type 8, With LED, Shielded

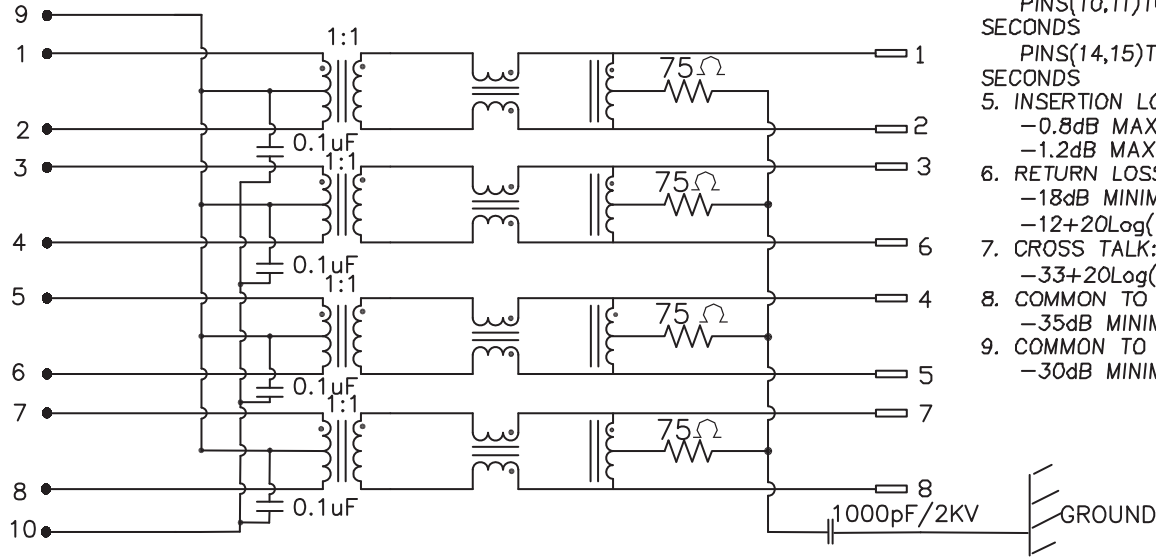
SCALE:n/a

Gigabit Ethernet Application

TOL. DEC. .XX +/- 0.30 .XX +/- 0.25 .XXX +/- 0.13 ANGLE +.45 / -.15 UNIT: mm

P/N: A3012 - U2S - N00 - 800 - GY - Z

TRANSFORMER TYPE 8



1. TR: (100KHz, 0.1V)
PINS: (10,11): (J1,J2)=1:1±3%; (12,13): (J3,J6)=1:1±3%
PINS: (14,15): (J4,J5)=1:1±3%; (16,17): (J7,J8)=1:1±3%
2. LX: (100KHz, 100mV, 8mA, DC Bias)
PINS: (J1,J2), (J3,J6), (J4,J5), (J7,J8)=350uH MINIMUM
3. DCR:
PINS: (10,11), (12,13), (14,15), (16,17)= 1.5 OHMS MAXIMUM
PINS: (J1,J2), (J3,J6), (J4,J5), (J7,J8)=1.2 OHMS MAXIMUM
4. HIPOT:
PINS(10,11)TO(J1,J2), (12,13)TO(J3,J6)=1500VAC FOR 60 SECONDS
PINS(14,15)TO(J4,J5), (16,17)TO(J7,J8)=1500VAC FOR 60 SECONDS
5. INSERTION LOSS:
-0.8dB MAXIMUM AT 0.1MHz TO 100MHz;
-1.2dB MAXIMUM AT 100MHz TO 120MHz
6. RETURN LOSS:
-18dB MINIMUM AT 0.5MHz TO 40MHz;
-12+20Log(f/80MHz)dB MINIMUM AT 40MHz TO 100MHz
7. CROSS TALK:
-33+20Log(f/100MHz)dB MINIMUM AT 0.1MHz TO 100MHz
8. COMMON TO DIFFERENTIAL MODE REJECTION:
-35dB MINIMUM AT 100KHz TO 100MHz
9. COMMON TO COMMON MODE REJECTION:
-30dB MINIMUM AT 100KHz TO 100MHz

HOW TO ORDER:

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RoHS
COMPLIANT

Rev	Drawn	Checked	Approved	Date
0	A.M.	S.M.	S.M.	12/11/03
A	B.S.	S.M.	S.M.	10/10/07

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Pg: 2 of 2