

# SPECIFICATION

SPEC. NO. : \_\_\_\_\_ REV : XB

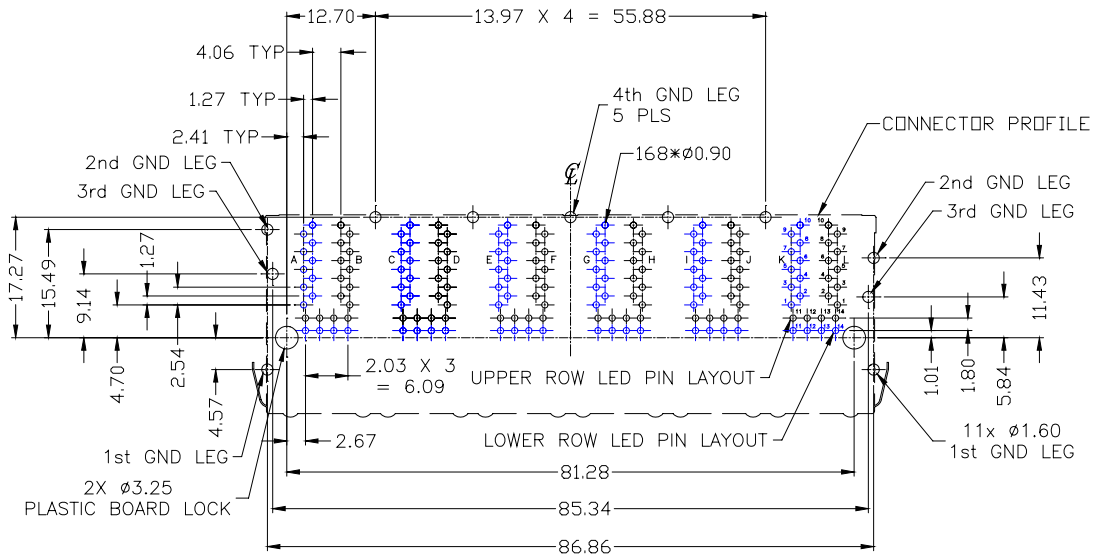
DATE : \_\_\_\_\_

PRODUCT NAME : RJ45 2x6 WITH GIGABIT TRANSFORMER  
W/LED

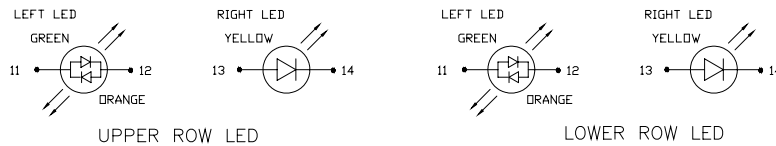
PRODUCT NO : KW-P60163



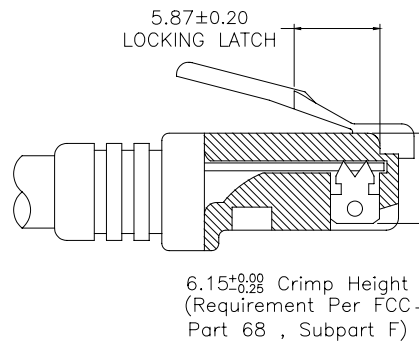

### 3.2 PCB Layout



RECOMMENDED PCB LAYOUT COMPONENT SIDE  
ALL DIMENSION TOLERANCE ARE  $\pm 0.05$  UNLESS OTHERWISE SPECIFIED



### 4 RECOMMENDED PLUG DIMENSION



### 5 REQUIREMENTS

#### 5.1 Design and Construction

5.1.1 Product shall be of design, construction and physical dimensions specified on applicable product drawing.

#### 5.2 Materials and Finish

##### 5.2.1 Contact :

5.2.1.1 RJ Contact : Phosphor Bronze , Thickness=0.30mm

Finish : ( a ) Contact Area : 30 $\mu$ ” min. Gold

( b ) Solder tail Area : 100 $\mu$ ” min. Tin/Lead (9:1)

( c ) Underplating : 30 $\mu$ ” min. Nickel over all

5.2.1.2 RJ Joint Contact : Brass , Thickness=0.30mm  
Finish : 100μ” min. Tin/Lead (9:1) over 50μ” min. Nickel

5.2.1.3 LED Joint Contact : Brass , Thickness=0.30mm  
Finish : 100μ” min. Tin/Lead (9:1) over 50μ” min. Nickel

5.2.1 Plastic Part :

5.2.1.1 Housing : Thermoplastic , PA6T , Black , UL94 V-0  
Manufacturer : Mitsui Chemicals Inc., UL FILE No. : E52579

5.2.1.2 Insert : Thermoplastic , PBT , Black , UL94 V-0  
Manufacturer : Nan Ya Plastics Corp. , UL FILE No. : E130155

5.2.1.3 Spacer : Thermoplastic , PBT , Black , UL94 V-0  
Manufacturer : Mitsui Chemicals Inc.  
UL FILE No. : E52579

5.2.1.4 Cover : Thermoplastic , PBT , Black , UL94 V-0  
Manufacturer : Nan Ya Plastics Corp.  
UL FILE No. : E130155

5.2.2 Shell

5.2.2.1 Front Shell : Stainless , SUS 304-1/2H , Thickness=0.20mm , Pre-soldering

5.2.2.2 Back Shell : Stainless , SUS 304-1/2H , Thickness=0.20mm , Pre-soldering

5.2.2.3 Grounding Shell : Stainless , SUS 304-1/2H , Thickness=0.20mm

5.2.3 Transformer PCB

5.2.3.1 Material : FR4, Thickness=1.00mm

5.2.3.2 Four Layer PCB

5.3 Performance and Test Description

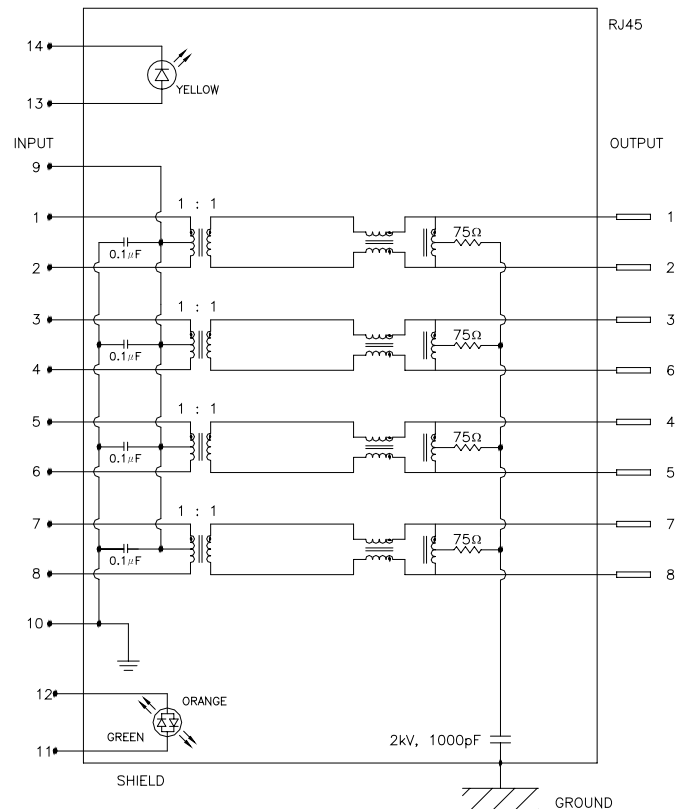
Product is designed to meet electrical, mechanical and environmental performance requirements specified in below table. All tests are performed at ambient environmental conditions per MIL-STD-1344A and EIA-364 unless otherwise specified.

5.4 Packaging and Packing

All parts shall be packaged and packed to protect against physical damage, corrosion and deterioration during shipment and storage.

## 6 ELECTRICAL CHARACTERISTICS

### 6.1 Schematic



### 6.2 Transmitter filter & Receiver filter

Type : Balance low pass 100 impedance

Insertion loss : 1~100 MHz -1.0dB MAX.

Return loss : 1~30 MHz -18dB MIN. load 100

30~60 MHz -16dB MIN. load 100

60~80 MHz -12dB MIN. load 100

80~100 MHz -10dB MIN. load 100

### 6.3 Common Mode Rejection

@ 1~100 MHz -30dB MIN.

### 6.4 Cross Talk

@ 1~100 MHz -25dB MIN.

### 6.5 Inductance @ 100KHz, 0.1V, 8mA DC BIAS

Input(1-2), Input(3-4) : 350µH MIN.

Input(5-6), Input(7-8) : 350µH MIN

### 6.6 HiPot TEST

Input(1-2) to Output(1-2) : 1500VAC, 60sec

Input(3-4) to Output(3-6) : 1500VAC, 60sec

Input(5-6) to Output(4-5) : 1500VAC, 60sec

Input(7-8) to Output(7-8) : 1500VAC, 60sec

