

SPECIFICATION

SPEC. NO. : _____ REV : XB

DATE : _____

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

PRODUCT NO : KW-P60163

Product Number : KW-P60163

Product Description : RJ45 2x6 WITH GIGABIT TRANSFORMER W/ LED

1 SCOPE

1.1 Content

1.1.1 This specification covers performance, tests and quality requirements for **RJ45 2x6 WITH GIGABIT TRANSFORMER W/ LED**

2 APPLICABLE DOCUMENTS

The following documents form a part of this specification to the extent specified herein. Unless otherwise specified, latest edition of the specification applies. In the event of conflict between requirements of this specification and product drawing, product drawing shall take precedence.

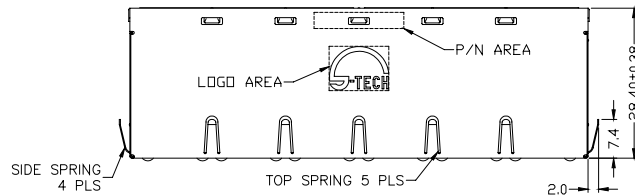
2.1 Commercial standards, specifications and report

2.1.1 MIL-STD-1344A

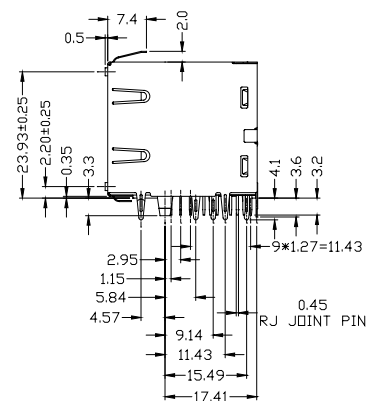
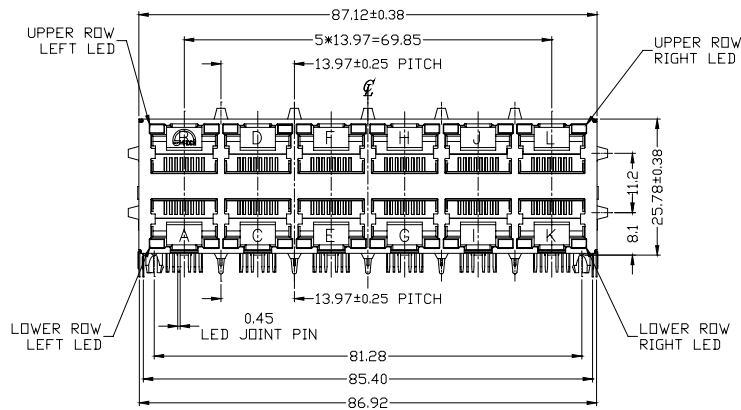
2.1.2 EIA-364

3 MECHANIC DIMENSIONS

3.1 Dimensions



GENERAL TOLERANCE
.X ±0.25
.XX ±0.13



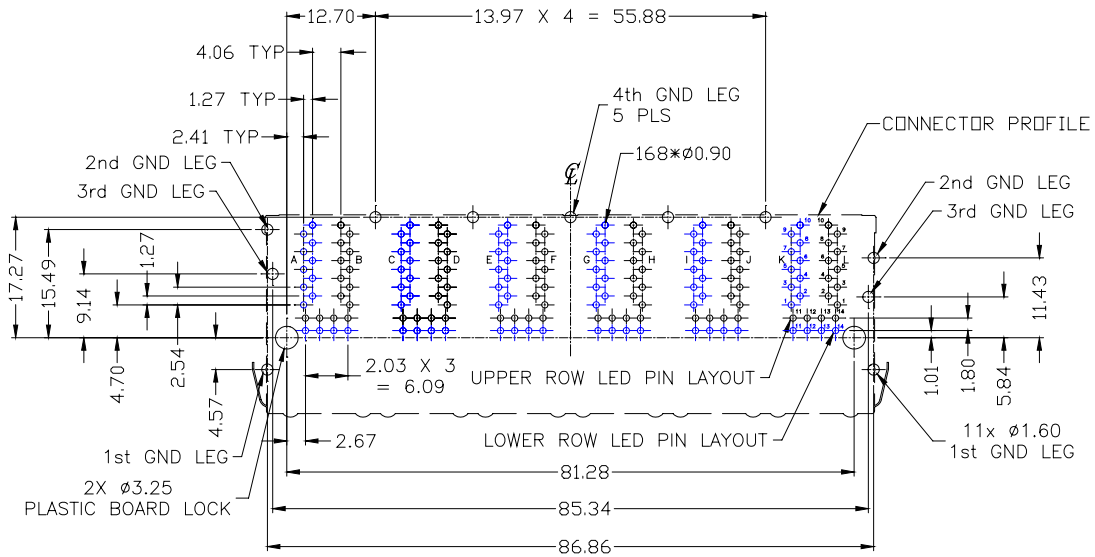
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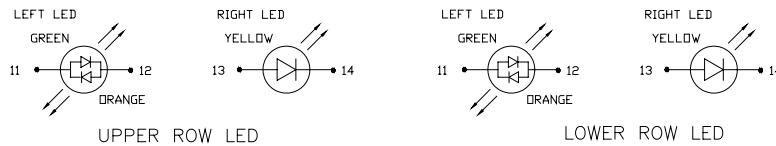
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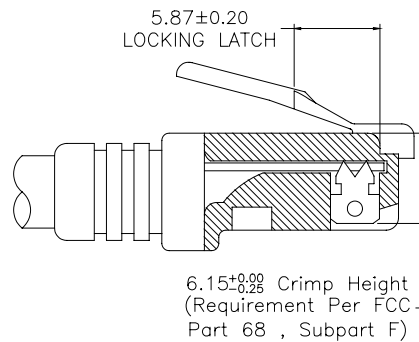
3.2 PCB Layout



RECOMMENDED PCB LAYOUT COMPONENT SIDE
ALL DIMENSION TOLERANCE ARE ± 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 : 30μ min. Gold

(b) Solder tail Area : 100μ min. Tin/Lead (9:1)

(c) Underplating : 30μ 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

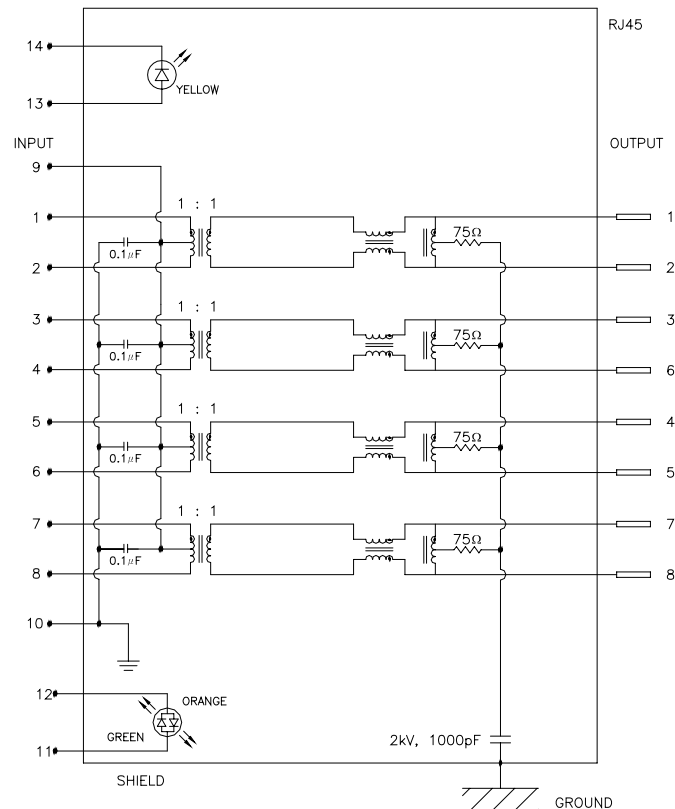
Product is designed to meet electrical, mechanical and environmental performance requirements specified in below table. All tests are performed at ambient environmental conditions per MIL-STD-1344A and EIA-364 unless otherwise specified.

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

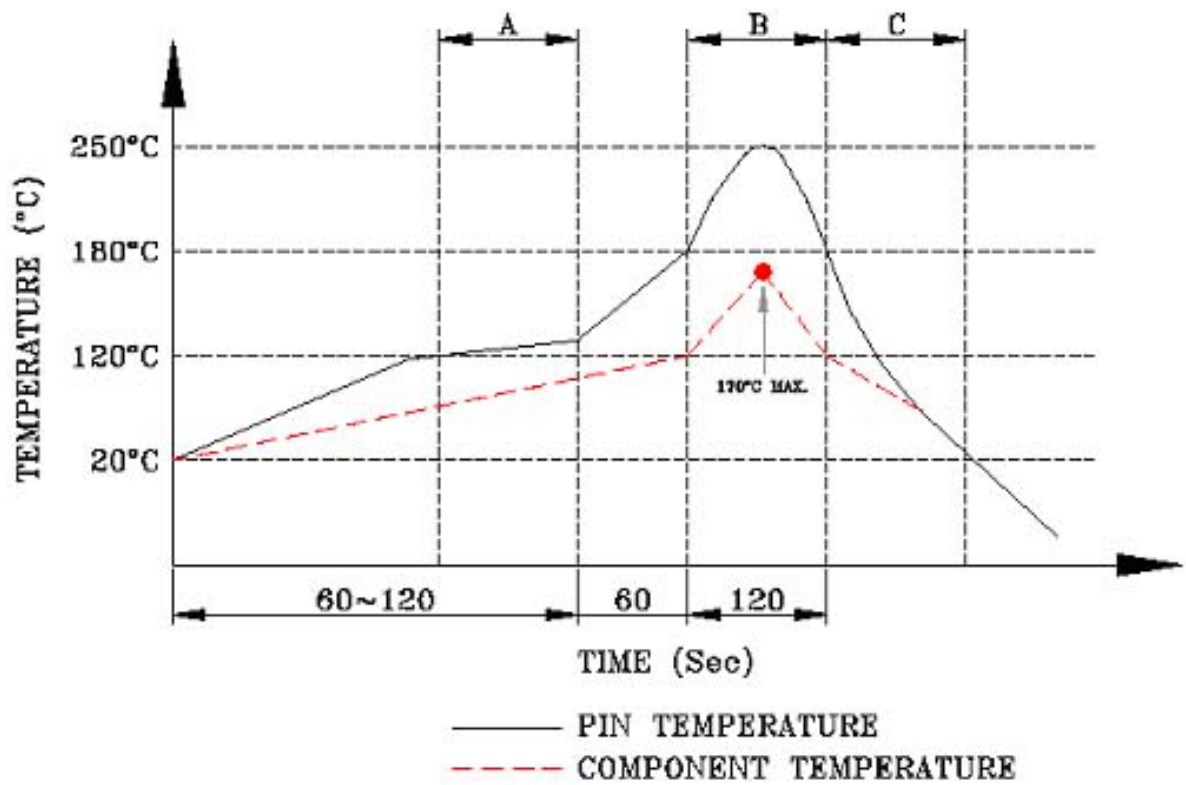
Input(1-2) to Output(1-2) : 1500VAC, 60sec

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

7.PROFILE OF WAVE SOLDERING



A. Preheating B. Soldering C. Gradual Cooling

SUGGESTED WAVE SOLDER

- (1) Tip Temperature : 250 ± 10
 - (2) Tip Temperature Time : 5 sec Max.
- * The melting point of Tin : 183