



**THE DATASHEET OF  
RB1-125BAG1A**



# APPROVAL SHEET

To : \_\_\_\_\_

Spec No. : \_\_\_\_\_ Date : \_\_\_\_\_

UDE P/N Customer P/N  
RBI-125BAG1A \_\_\_\_\_

Description : **RJ45 1x1 w/ Transformer 10/100Base-T**  
**w/ LED**

RoHS Compliant

	Approved	Checked	Prepared
Name Date			

# U D E

*U.D. Electronic Corp.*

11F.-1, No.58, Tongde 11th St., Taoyuan City, Taoyuan Hsien , Taiwan

TEL : +886-3-3568600

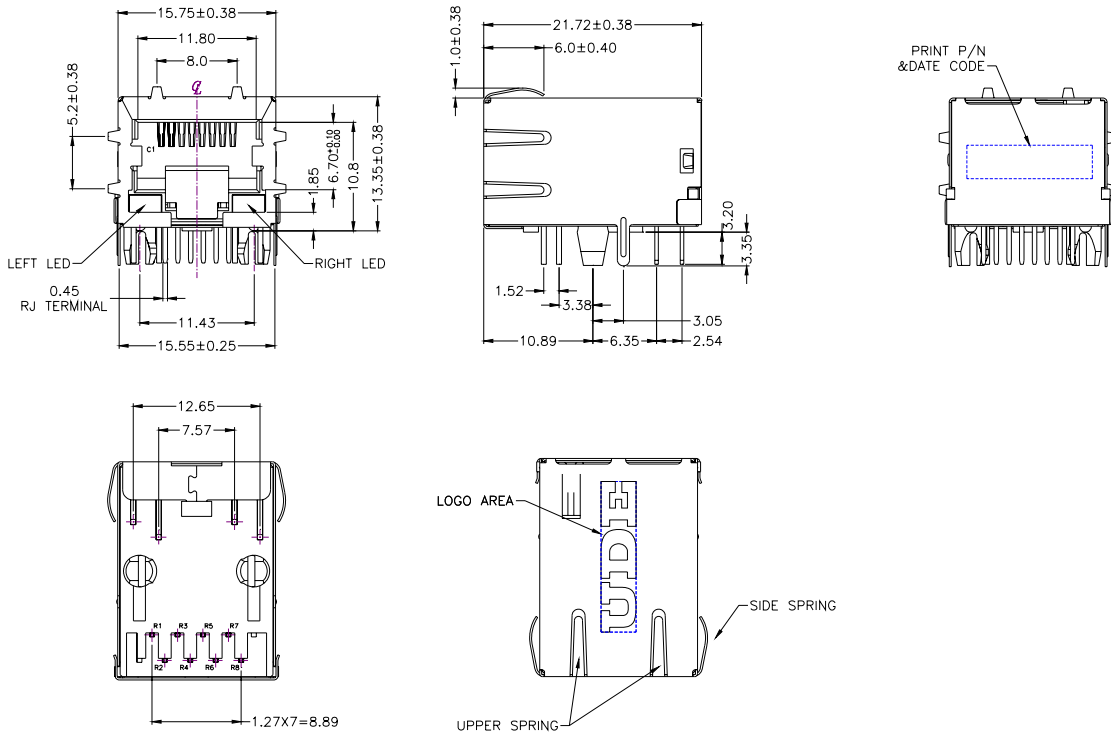
FAX : +886-3-3560611

Rev : **XA**

Update Date : **2008/1/10**

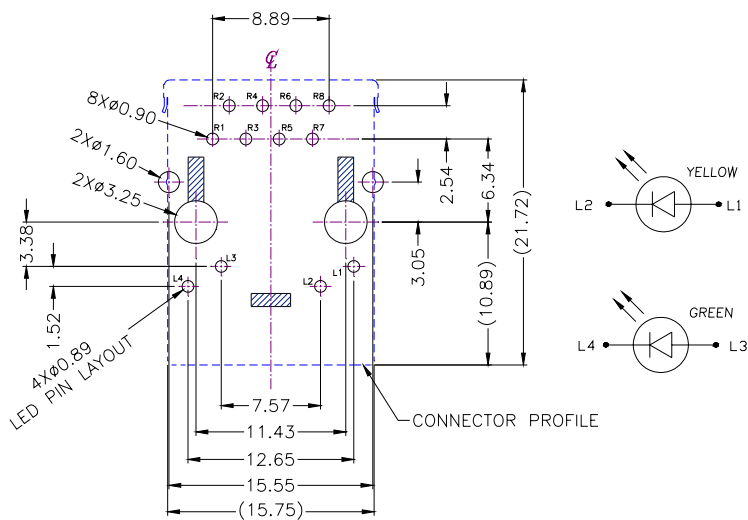
## 1. MECHANIC DIMENSIONS

### 1.1 Dimensions



General Tolerance : .X     :±0.25  
                           .XX    :±0.13

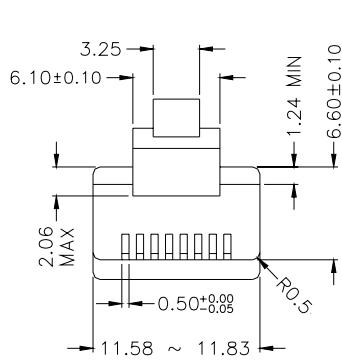
### 1.2 PCB Layout



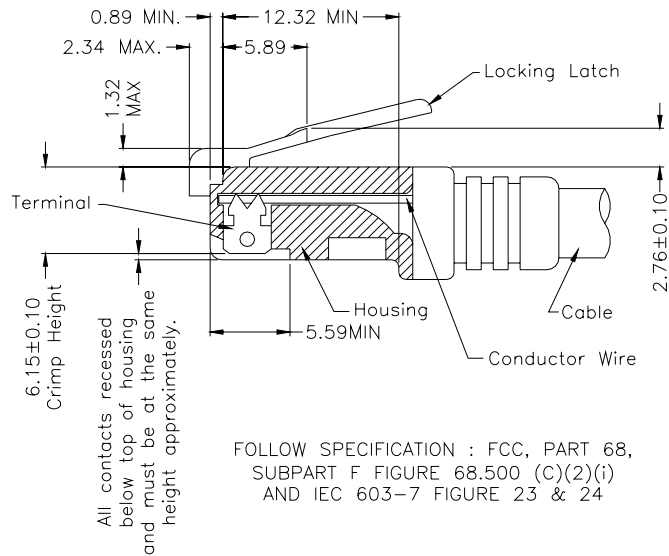
RECOMMENDED PCB LAYOUT  
 COMPONENT SIDE  
 ALL DIMENSION TOLERANCE ARE ±0.05mm  
 UNLESS OTHERWISE SPECIFIED

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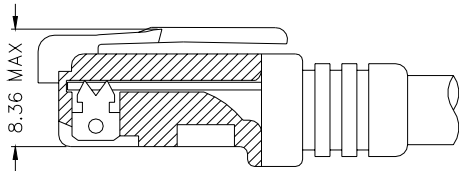
### 1.3 RJ PLUG SPECIFICATION



- \* There must be no damage to housing or locking latch. There must be no nicks or cuts in cable.
- \* Durability : 750 cycles generally



FOLLOW SPECIFICATION : FCC, PART 68, SUBPART F FIGURE 68.500 (C)(2)(i) AND IEC 603-7 FIGURE 23 & 24



FOLLOW SPECIFICATION : FCC, PART 68, SUBPART F FIGURE 68.500 (C)(2)(ii)

STANDARD MODULAR PLUG ASSEMBLY

## 2. REQUIREMENTS

### 2.1. Design and Construction

Product shall be of design, construction and physical dimensions specified on applicable

### 2.2. Materials

#### 2.2.1. Terminal Parts :

2.2.1.1. RJ Terminal : Phosphor Bronze , Thickness=0.30mm

Finish : ( a ) Contact Area : Gold Flash

( b ) Solder tail Area : 100μ” min. Tin

( c ) Underplating : 50~100μ” Nickel over all

2.2.1.2. Input Terminal : Brass , Thickness=0.35mm

Finish : 100μ” min. Tin over 50~100μ” min. Nickel

2.2.1.3. Link Terminal : Brass , Thickness=0.25mm

Finish : 100μ” min. Tin over 50~100μ” min. Nickel

#### 2.2.2. Plastic Parts :

2.2.2.1. Housing : High temp. Thermoplastic, Black

UL FILE No. : E47960

Grade : TE250F6

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Flame Class : UL94 V-0

2.2.2.2. Coil Case : High temp. Thermoplastic , Black

UL FILE No. : E47960

Grade : TE250F6

Flame Class : UL94 V-0

2.2.3. Shell Parts :

2.2.3.1. Front Shell : Stainless, Thickness=0.20mm

2.2.3.2. Back Shell : Stainless, Thickness=0.20mm

Grounding Leg : Pre-soldering

2.3. Operating and Storage Temperature

2.3.1. Operating Temperature : 0 TO +70

2.3.2. Storage Temperature : -40 TO +85

2.4. RJ45 specifications:

2.4.1. Insulation Resistance: 500MΩMin

2.4.2. Dielectric Withstanding Voltage: 1000VAC Min

2.5. 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.

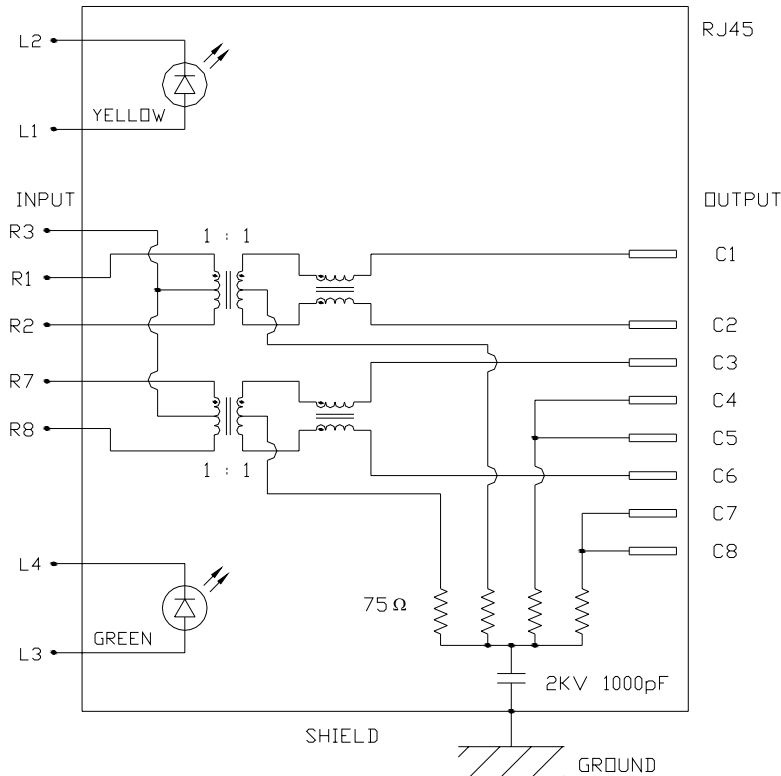
2.6. Packaging and Packing

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

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### 3. ELECTRICAL CHARACTERISTICS

#### 3.1. Schematic



#### 3.2. Transmitter filter & Receiver filter

Type : Balance low pass 100Ω impedance

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

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

30~60 MHz -16dB MIN. load 100Ω

60~80 MHz -12dB MIN. load 100Ω

#### 3.3. Common Mode Rejection

@ 1~100 MHz -30dB MIN.

#### 3.4. Cross Talk

@ 1~100 MHz -30dB MIN

#### 3.5. INDUCTANCE @ 100KHz, 0.1V, 8mA DC BIAS

Input(R1-R2), Input(R7-R8) : 350μH MIN.

#### 3.6. HiPot TEST

Input(R1-R2) to Output(C1-C2) : 1500VAC, 60sec or 2250VDC, 60sec

Input(R7-R8) to Output(C3-C6) : 1500VAC, 60sec or 2250VDC, 60sec

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4. ORDER INFORMATION

R B 1 - 1 X X X XXX X  
A B C D E

A: LED Code

	Left LED		Right LED	
	-L3/+L4	+L3/-L4	-L1/+L2	+L1/-L2
0	w/o	w/o	w/o	w/o
1	Green		Yellow	
2		Green		Yellow
3	Green		Green	Yellow
4	Yellow		Green	
5		Green	Yellow	Green
6	Green	Orange	Yellow	
7	Yellow		Green	Orange
8	Yellow		Orange	Green
9	Green	Orange	Green	

B : Spring & Logo Code

	SPRING					
	W/ ALL DIM A=1.0	W/O ALL	TOP ONLY DIM A=1.0	W/ ALL DIM A=2.0	TOP ONLY DIM A=2.0	
LOGO	W/O	0	1	2	3	4
	W/	5	6	7	8	9

C : GP code

SIDE LEG \ BOARD LOCK OR POST	NONE GREEN PRODUCT		GREEN PRODUCT	
	BOARD LOCK	POST	BOARD LOCK	POST
REAR SIDE LEG	1	4	B	F
FRONT SIDE LEG	2	5	C	G

D : Schematic type

AG1 : AG1 Circuit

E : Plating Code

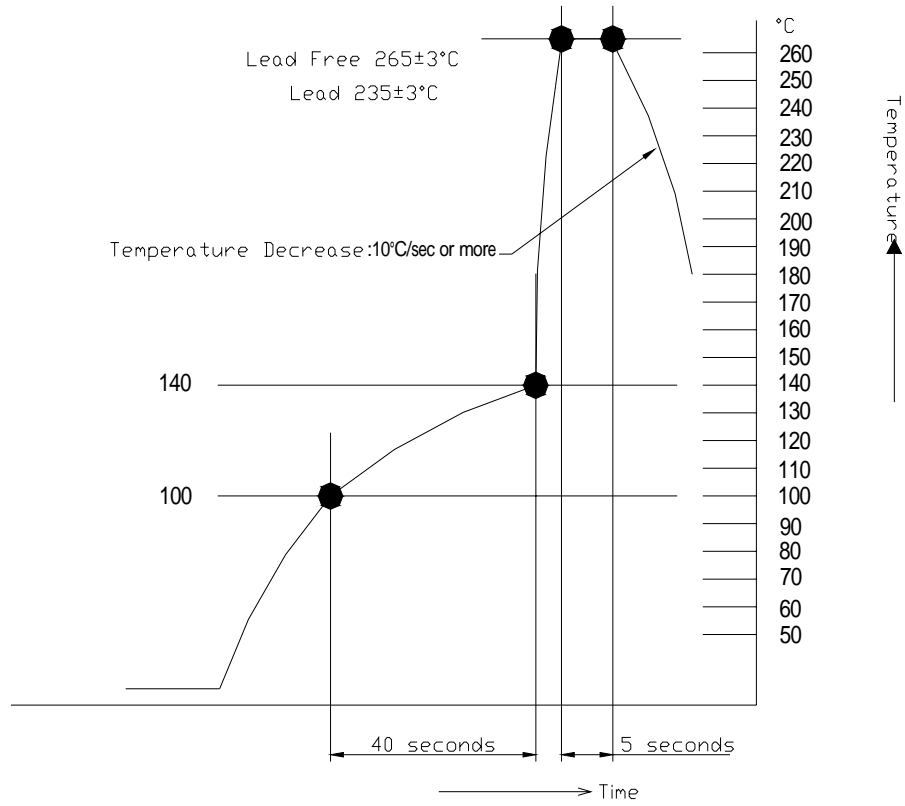
RJ terminal contact area

A: gold flash

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Dipping temperature profile

(Note) The measuring point for the specified temperature shall be on the soldered part of the leads



## Looking for pricing, stock, or lifecycle information?

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-  [WIZnet Information](#)

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