

# APPROVAL SHEET

To :

Customer P/N :

UDE P/N : RB1-125BAG1A

Description : RJ45 1X1 Tab Down  
Through Hole  
10/100Base-T  
Contact Area : Gold Flash  
LED:L-Green; R-Yellow



Spec No.      Update Date  
RB1111-00      2009/8/27

Approved	Checked	Prepared



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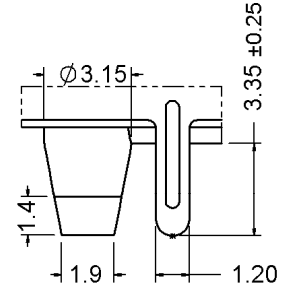
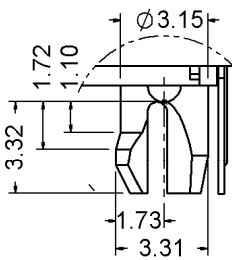
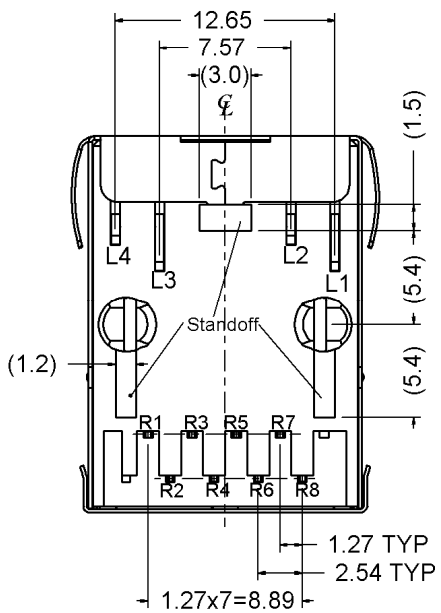
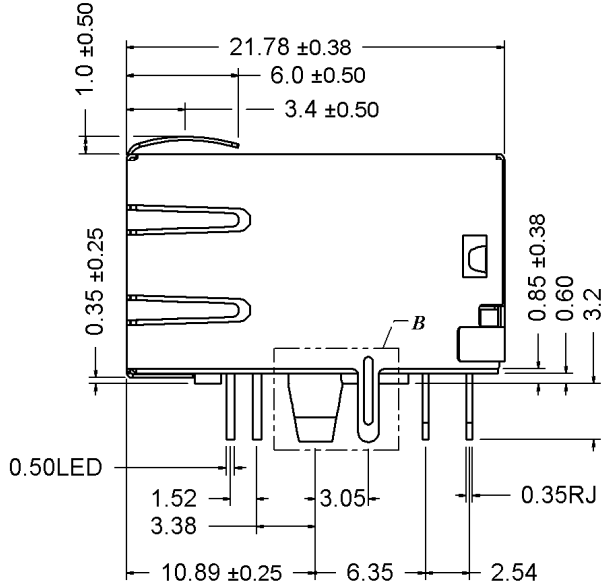
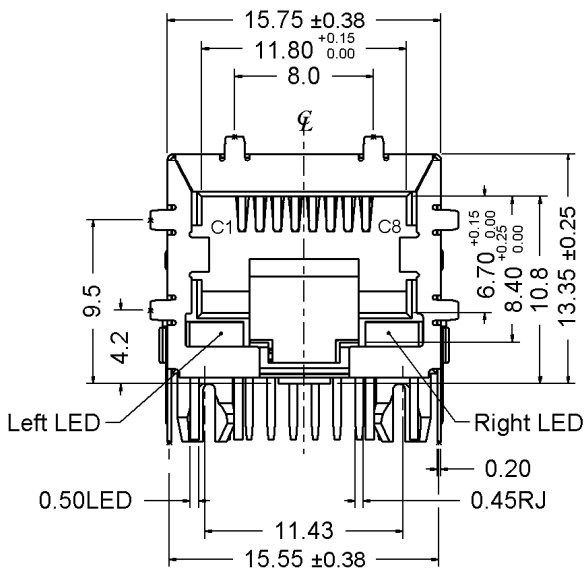
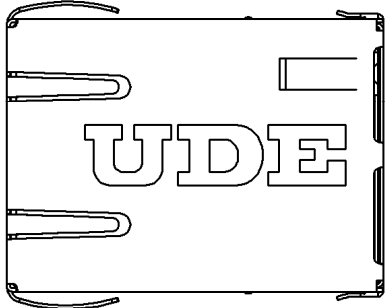
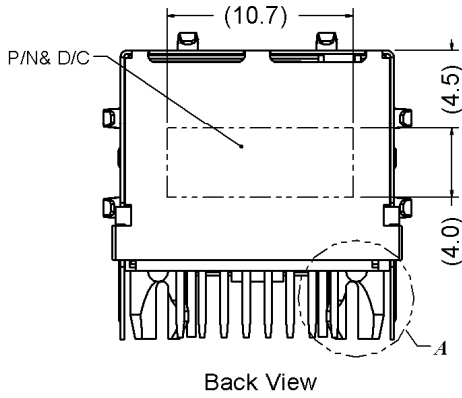
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<http://www.ude-corp.com/>

1. MECHANICAL DIMENSION

1.1 Product Dimension

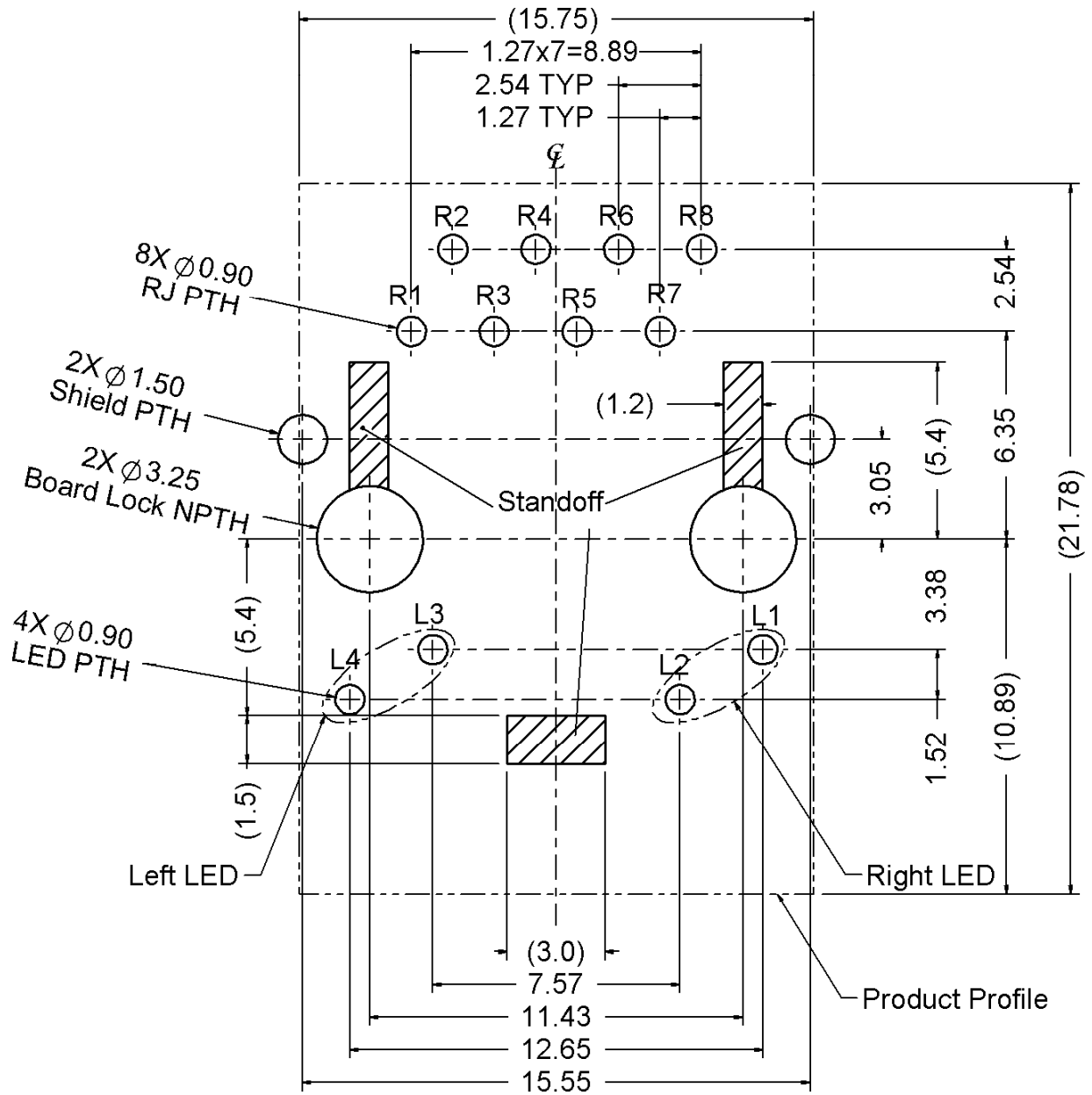
General Tolerance	X.X : ± 0.25
	X.XX : ± 0.13
	X.XXX : ± 0.08



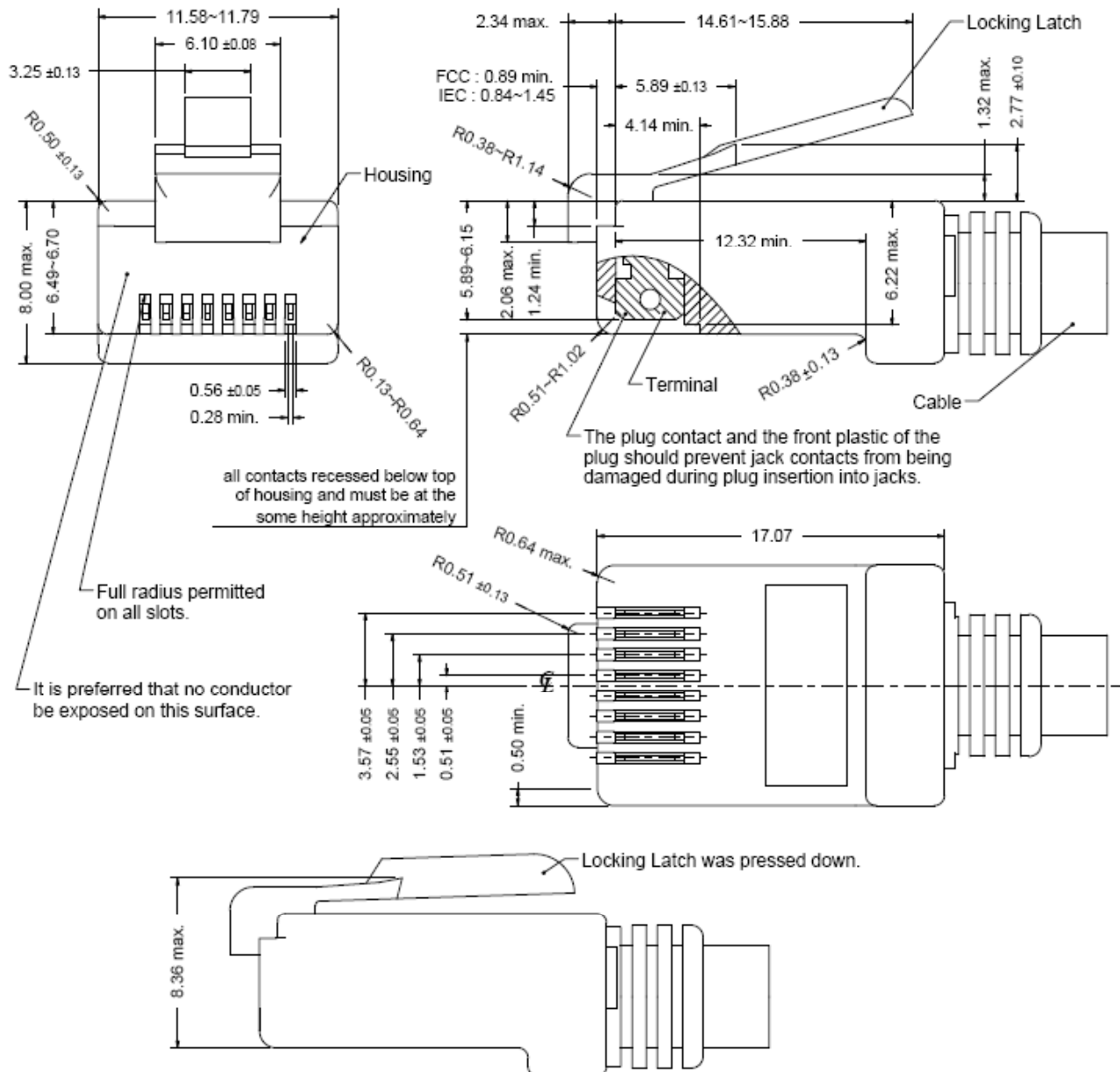
1.2 Recommended PCB Layout

Component Side of Board

All dimension tolerance are  $\pm 0.05\text{mm}$  unless otherwise specified



## 1.3 Standard RJ45 Plug Specification



- All dimensions follow :

FCC subpart F, 68,500, Figure (C)(2)(i) & (C)(2)(ii) & (C)(3)(i)

IEC 60603-7

- All plugs must be meeting the requirements of plug Go & No-Go gauge.

Gauge follow : FCC subpart F, 68,500, Figure (C)(4)(i) & (C)(5)(i)

- There must be no damage to Housing and Locking Latch.

- There must be no nicks and cuts in cable.

- Durability : 750 cycles generally

## 2. REQUIREMENTS

### 2.1 Design and Construction

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

### 2.2 Material

#### 2.2.1 Terminal Parts (Underplating : 30 $\mu$ " min. Nickel overall)

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

Finish : Contact Area :Gold Flash

2.2.1.2 Input Terminal : Brass, Thickness=0.35mm

Finish : 100 $\mu$ " min. Tin

2.2.1.3 Case Terminal : Brass, Thickness=0.30mm

Finish : 100 $\mu$ " min. Tin

#### 2.2.2 Plastic Parts <UL94V-0>

2.2.2.1 Housing : High Temperature Thermoplastic, Black

2.2.2.2 Case : High Temperature Thermoplastic, Black

#### 2.2.3 Shield Parts : Stainless, Thickness=0.20mm, Pre-soldering

### 2.3 Operating and Storage Temperature

Operating Temperature : 0°C to +70°C

Storage Temperature : -40°C to +85°C

### 2.4 RJ45 specifications

Insulation Resistance 500MΩ min.

Insertion force with the latch depressed 22N max

Removal force with the latch depressed 44N max

Locking Force of Plug Latch : 50N min. @ 60+/-5 sec

Durability : 2500 cycles

### 2.5 Performance and Test Description

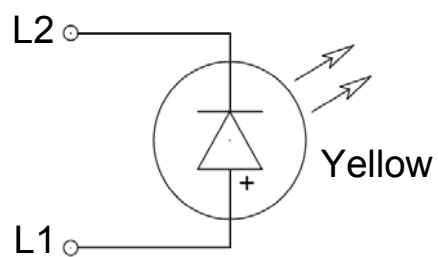
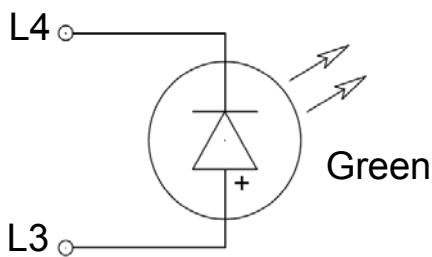
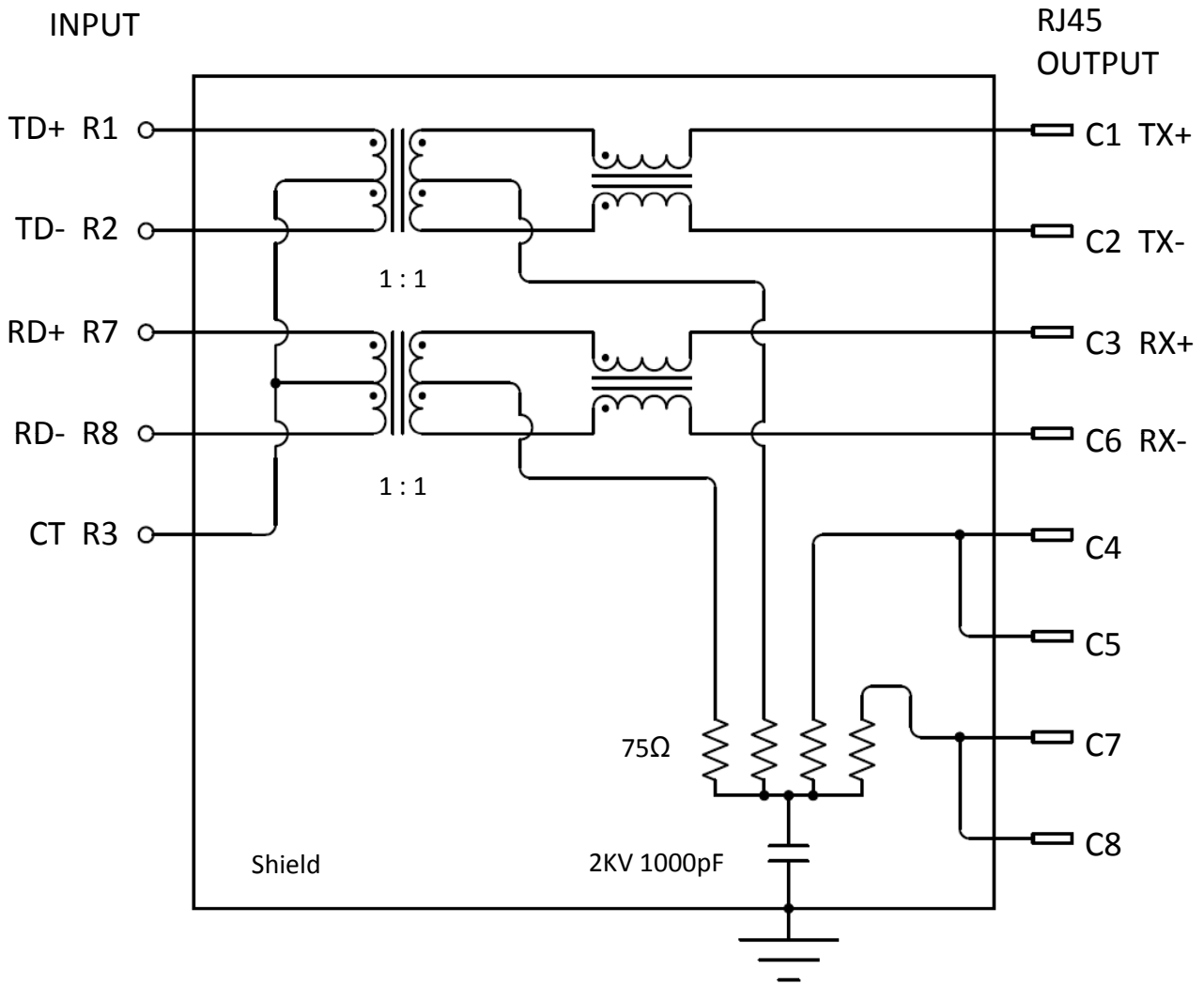
Product is designed to meet electrical, mechanical and environmental performance requirements specified in below table. All tests are performed at ambient environmental conditions per MIL-STD-1344A and EIA-364 unless otherwise specified.

### 2.6 Packaging and Packing

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

### 3. ELECTRICAL CHARACTERISTICS

#### 3.1 Schematic



Emitting Color	$\lambda_p$ (nm)	$V_f @ I_f=20mA$	$I_r @ V_r=5V$
Green	565	1.7 ~2.6 V	10 $\mu$ A max.
Yellow	585	1.7 ~2.6 V	10 $\mu$ A max.

### 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

30~60MHz -16dB min. load 100Ω

60~80MHz -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) : 350 μH min.

### 3.6 HiPot Test

Input(R1-R2) To Output(C1-C2) : 1500Vac 60s or 2250Vdc 60s

Input(R7-R8) To Output(C3-C6) : 1500Vac 60s or 2250Vdc 60s



4. ORDER INFORMATION

R B 1 - 1 2 5B AG1 A  
 A B C D

A. LED Code :

L-Green; R-Yellow. <Refer to Schematic of LED>

B. Mechanical Code :

w/ UDE Logo, w/ all Spring, Rear side Leg, Board Lock

C. Schematics Code :

AG1 : AG1 circuit

D. Plating Code :

Underplating	30 $\mu$ " min. Nickel overall	
Solder Tail	100 $\mu$ " min. Bright Tin	100 $\mu$ " min. Matted Tin
Contact Area	<p><b><u>A : Gold Flash</u></b></p> <p>C : 6 <math>\mu</math> " gold</p> <p>B : 10 <math>\mu</math> " gold</p> <p>D : 15 <math>\mu</math> " gold</p> <p>F : 30 <math>\mu</math> " gold</p> <p>G : 50 <math>\mu</math> " gold</p>	<p>1 : Gold Flash</p> <p>6 : 6 <math>\mu</math> " gold</p> <p>2 : 15 <math>\mu</math> " gold</p> <p>3 : 30 <math>\mu</math> " gold</p> <p>4 : 50 <math>\mu</math> " gold</p>

### 5. DIPPING TEMPERATURE PROFILE

Note :

The measuring point for the specified temperature shall be on the soldered part of the lead.

