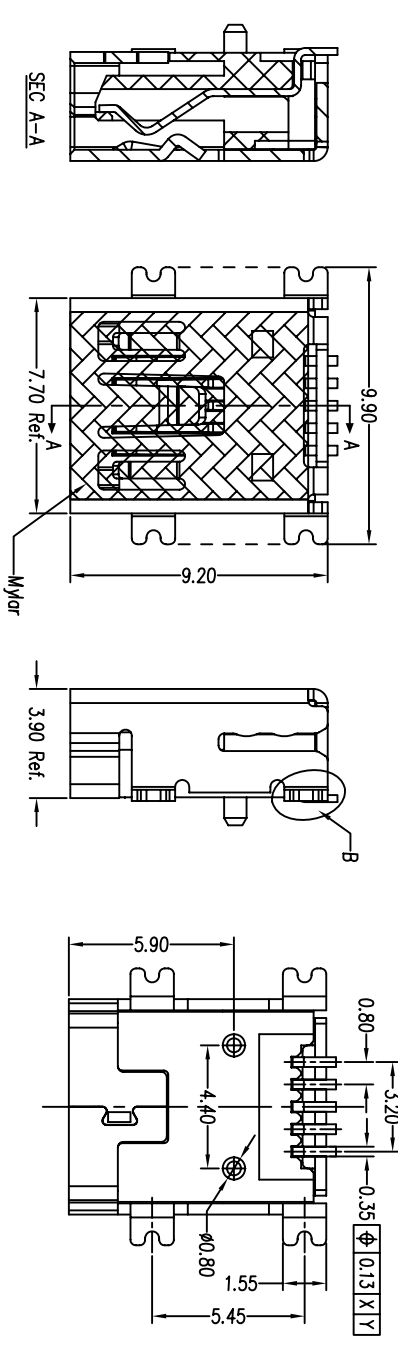
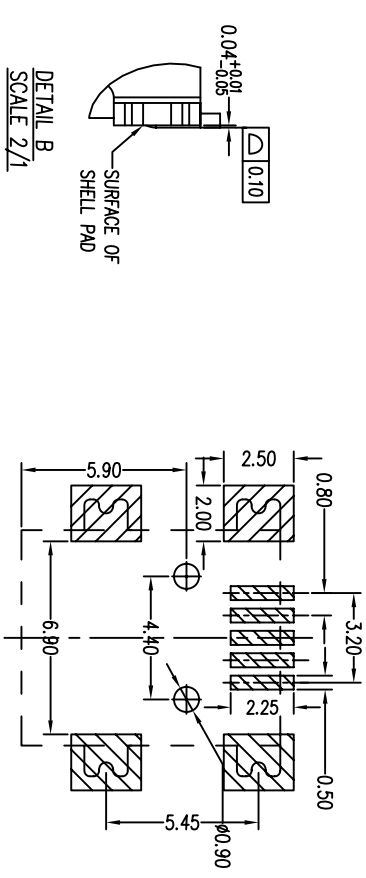
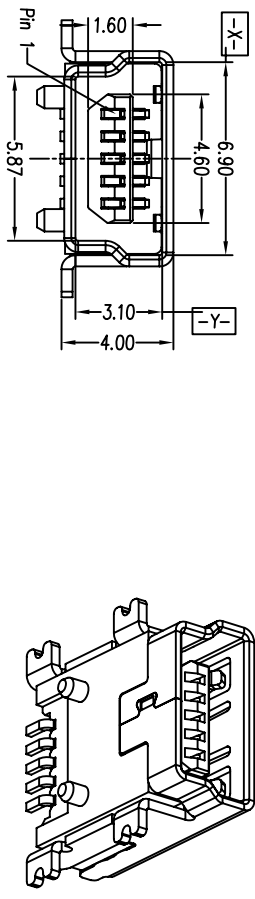


REV	DESCRIPTION	DATE	DRAWN	APPROVE



Specification  
 \*Electrical Characteristics:  
 Contact Current Rating: 0.5 Amperes.  
 Dielectric Withstanding Voltage: AC500V r.m.s.  
 Insulation Resistance: 1000 MΩ Minimum.  
 Contact Resistance: 40 mΩ Maximum.  
 \*Environmental:  
 Operating Temperature: -20°C~+60°C.  
 \*Material:  
 Insulator: HI-Temp Plastic UL 94V-0 Rated.  
 Contact: Copper Alloy(t=0.15mm).  
 Shell: Stainless Steel(t=0.15mm).  
 Spring: Copper Alloy(t=0.20mm).



DETAIL B  
SCALE 2/1

RECOMMENDED PCB LAYOUT

張數	1/1	單位	MM	日期	山旗电子(香港)实业有限公司	
日期		角法	MM	公差		
製圖	JACK.YU	版本	A	圖號	MINI USB 5P	
審核		比例	1:2	圖號	ST-USB-002A	
核准		客戶圖		料號		

# Sungtech

*COMTEK ELECTRONICS CO., LTD.*

## PRODUCT SPECIFICATION

### PRODUCT NAME

MINI USB

### SPECIFICATION NUMBER

**DOC. NO.:**

**AUTHOR:**

**DATE:**

**REV.: A**

**APPROVED**

**SIGNED:**

**DATE:**

**CHECKED**

**SIGNED:**

**DATE:**

## CONTENTS

Section	Description	Page
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2.0	Applicable Documents and Specifications	2
3.0	Ratings	2
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## 1.0 SCOPE

This document contains general suntech requirements, qualification requirements, and those specific electrical and mechanical requirements.

## 2.0 APPLICABLE DOCUMENTS AND SPECIFICATIONS

See drawings and any other sections of this specification for the relevant reference documents. In cases where the product specification differs from the product drawings, the product drawings take precedence.

## 3.0 RATINGS

3.1.Rated Current	AC 0.5A
3.2.Rated Voltage	AC 5V
3.3.Operating Temperature Range	-0°C to +50°C
3.4.Storage Temperature Range	-20°C to +85°C
3.5.Nominal Temperature Rating	+20°C

## 4.0 MATERIAL SPECIFICATIONS

4.1. Plastic body: LCP.

4.2. Shell: Phosphor Bronze

Tin Plating

4.3.Contact: Phosphor Bronze

Solder area: Tin

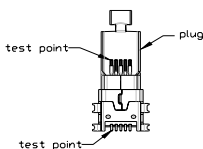
Contact area: Au 5u"

## 5.0 EXAMINATION OF PRODUCT

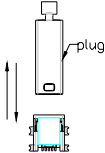
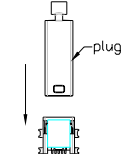
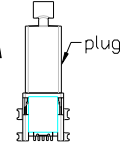
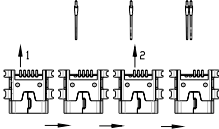
<u>Item</u>	<u>Test Condition</u>	<u>Requirement</u>
5.1. Examination of product (Outward Appearance Structure)	EIA364-18 Shall be confirmed with eyes by using magnifying glass 5x.	1. Outward Appearance shall be good without such injurious problem

## 6.0 ELECTRICAL PERFORMANCE SPECIFICATIONS

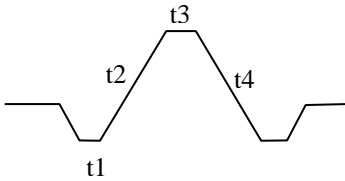
<u>Item</u>	<u>Test Condition</u>	<u>Requirement</u>
6.1. Low Level Contact Resistance	EIA 364-23 Mated connector with dry circuit of 20mV, 100mA max.	50mΩ (Max)
6.2. Insulation Resistance	EIA 364-21 Unmated connector with 500VDC between adjacent contacts.	100MΩ (Min.)
6.3. Dielectric Withstanding Voltage	EIA 364-20 Unmated connector with 100VAC for 1 minute between adjacent contacts.	0.5mA(Max.) leakage of current
6.4 Contact Capacitance	EIA 364-30 Unmated connector with 2pF between adjacent contacts	2pF(Max.)



## 7.0 MECHANICAL PERFORMANCE SPECIFICATIONS

<u>Item</u>	<u>Test Condition</u>	<u>Requirement</u>
7.1.Durability	EIA 364-09 Mate contacts at rate of 200 cycles per hour max. to 5,000 cycles.	Shall meet visual requirement, show no physical damage.
		
7.2. Random Vibration	EIA 364-28 Test condition V Test Letter A .Subject mated connectors to 5.35G's rms. 15 minutes in each of 3 mutually perpendicular planes.	No discontinuities of 1 $\mu$ sec or longer duration. Shall meet visual requirement, show no physical damage.
7.3.Insertion Force	EIA 364-13 Measure force necessary to mate assemblies at rate of 12.5mm/min (max.)	35N (Max.)
		
7.4.Extraction Force	EIA 364-13 Measure force necessary to mate assemblies at rate of 12.5mm/min (max.)	1N (Min.)
		
7.5.Physical Shock	EIA 364-27 Test condition A Subject mated connectors to 50G's half-sine shock pulses of 1ms duration.3 shocks in each direction applied along 3 mutually perpendicular planes, 18 total shock	1. No discontinuities of 1 $\mu$ sec or longer duration. 2. Shall meet visual requirement, show no physical damage.
7.6.Retention force	Measured by pulling the pin and adjacent pin which have been inserted into the plastic body at the speed of 0.2 mm/s .	3 N (Min.) for each pin.
		

## 8.0 ENVIRONMENTAL PERFORMANCE SPECIFICATIONS

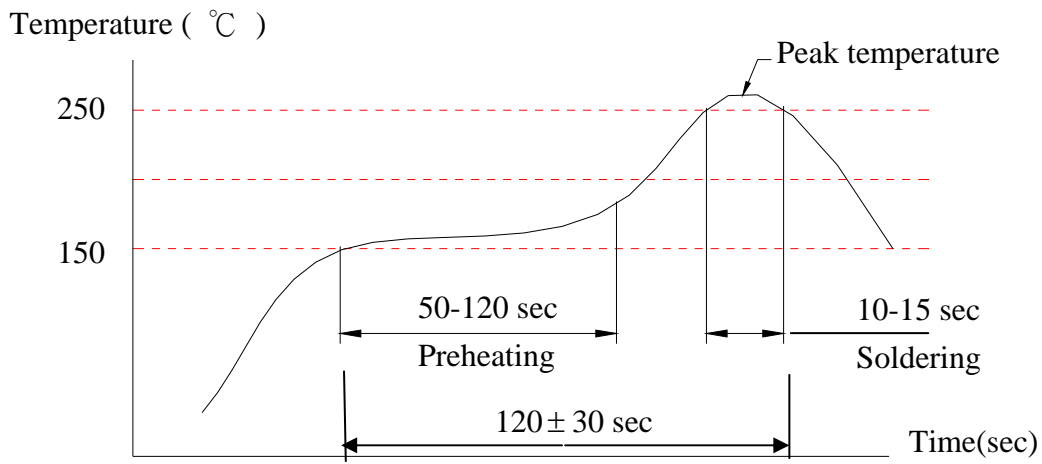
<u>Item</u>	<u>Test Condition</u>	<u>Requirement</u>																				
8.1. Thermal shock	EIA 364-32 Test condition I	Shall meet visual requirement, show no physical damage.																				
	<table border="1"> <thead> <tr> <th>Stage</th> <th>Temp</th> <th>Time</th> </tr> </thead> <tbody> <tr> <td>t1</td> <td>-55°C</td> <td>15~30 min</td> </tr> <tr> <td>t2</td> <td>-55~+8</td> <td>5 min</td> </tr> <tr> <td>t3</td> <td>5°C</td> <td>15~30 min</td> </tr> <tr> <td>t4</td> <td>+85°C</td> <td>5 min</td> </tr> <tr> <td></td> <td>+85~-5</td> <td>5 min</td> </tr> <tr> <td></td> <td>5°C</td> <td></td> </tr> </tbody> </table> <p>Test time: 10 cycle</p>		Stage	Temp	Time	t1	-55°C	15~30 min	t2	-55~+8	5 min	t3	5°C	15~30 min	t4	+85°C	5 min		+85~-5	5 min		5°C
Stage	Temp	Time																				
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t3	5°C	15~30 min																				
t4	+85°C	5 min																				
	+85~-5	5 min																				
	5°C																					
8.2. Humidity Life	EIA 364-31 Test condition A Method III (See the following figure. Follow step1 to step7a.) Subject mated connectors to 168 hours (7 complete cycle)	Shall meet visual requirement, show no physical damage.																				
8.3. Solderability	EIA 364-52 After one hour steam aging.	The surface of the portion to be soldered shall at least 95% covered with new solder coating, as specified in Category 2 ( 1.0 hour±5minutes ).																				
8.4. Solder Heat Resistance	See the following figure.	No degradation in performance of physical damages after test.																				

## 8.0 ENVIRONMENTAL PERFORMANCE SPECIFICATIONS

Peak temperature: 260°C

Soldering temperature: 250°C

Preheating temperature: 150-175°C



SOLDERING TEMPERATURE/TIME PROFILE

## 9.0 PACKING

Tape & Reel