

Product Specification

Product Name:	Golden Finger Signal Socket	
Product Model:	C0304050FG15SBHP1163	
Reed Name:	Golden finger terminal-20~26AWG -12.27mm-3A-/-ROHS	

The product completely meet ROHS requirement.

Contents

I. Edition Management.....	3
II. Product Specification.....	4
1. Scope.....	4
2. Reference Standard.....	4
3. Detailed Requirement.....	4
4. Electrical Performance	4
5. Mechanical Performance	4
6. Environment Ageing Test	5
7. Reliability	5
III. Test Sequence	6
IV. Product Naming Method & Material BOM Sheet.....	7
V. Product Drawing.....	8
VI. PCB Board Outline Dimensions.....	10
VII. Edition Revised Explanation.....	10

I. Edition Management

Edition	Made(revised)	Made(revised)by	Checked	Approved	Date	Remarks

II. Product Specification

1. Scope

The Specification applies to the golden finger signal socket of PCB with thickness 1.6mm.

2. Reference Standard

MIL-STD-202 Test Method : apply to electronics and electronic parts

MIL-STD-1344A Test Method : apply to electronic connectors

3. Detailed Requirement

3.1 Design & Manufacture

Product design、 manufacture、 physical dimensions must meet the requirement of drawing.

3.2 Materials & Plate Coat

a) Reed : phosphor bronze , C5210 , HV190-210 , other details referred to attached BOM list or assembled drawings

3.3 Main specification

a) Rating Voltage : 380V /DC

b) Rating Current : 3A/pin

c) Work Temperature : -55 -105

d) Storage Temperature : -55 -105 , Humidity : 15-85%RH

3.4 Appearance Requirement

Metal Parts : Surface clean and polishing , color of plate coat without obvious difference , no scratch、 no rusty erosion、 no skin rasping.

4. Electrical Performance

Item	Description	Test Method & Condition	Standard
4.1	Contact Resistance	Refer to MIL-STD-1344A standard of 3004.1;Use low level (Max 20mv , Min100mA)	Origin Value : 20 mΩ(Max) After test value : 30mΩ(Max)

5. Mechanical Performance

Item	Description	Test Method & Condition	Standard
5.1	Reed retention force	Refer to MIL-STD-1344A standard 2007.1 , withdraw reed parts from socket under the speed of 25mm/s	500gf/PIN(MIN)

5.2	Insert-Withdraw lifecycle	Use the matching PCB board to insert and withdraw it with 500times;pre-insert about5 times before test, Speed :insert-withdraw about15 times /minute	After500CYCinsert parts of reed without distortion , shell without damage , Contact Resistance \leq 30 m Ω , Insert-Withdraw force lose less than3% ,
5.3	Insert-Withdraw force between PCB board and signal socket	Refer to MIL-STD-1344A standard , Test the insert-withdraw force of signal socket used the matching PCB board	Insert-Withdraw force \leq 3kg

6. Environment Ageing Test

Item	Description	Test Condition	Standard
6.1	Heat humidity Test	Unassembled connectors referred to MIL-STD-1344AStandard,Model1,Condition B, Method 1002.2 : Temperature : 30°C+2°C , Humidity : 95 \pm 2% (RH) , Continuous Time : Conduct withstand voltage test immediately after 48hrs under 707V DC .	After test , the appearance of connector without distortion , cracks , dimensions without variation ,Contact Resistance less than 30m Ω , Insulate Resistance over 5000M Ω ,
6.2	High-Low Temperature Shock Test	Test of connectors must refer to the below methods:-40°C (30 minutes) ~ +70°C (30 minutes) , Recycle over 10 times	
6.3	Salt-Spray Test	Test of connectors must refer to GB/T2423.17 : Temperature : 35 \pm 2°C , Concentration of Salt water : 5 \pm 1% , Continuous time : 72H	Contact Resistance less than 50m Ω , Insulate Resistance over 5000M Ω , Plate Gold area permit \leq 5% square erosion
6.4	High Temperature Test	Test must refer to MIL-STD-1344A,Method 1005.1 , Testing under70°C with 96hrs	After test, shell without damage , Contact Resistance \leq 30 m Ω
	Low Temperature test	Testing under-40°C with 96 hrs , and then leave it in natural environment with 1hr , and then conduct test again	

7. Reliability

7.1	Shake test	Frequency 10 ~ 55-10HZ (Feature Level 2) ,Swing : 1.52mm through axis X/Y/Z , under accelerate speed of 50m/s ² with 30minutes	Instant Stop < 1 μ s , after test , structure without looseness , solder-loose , loose contact , mechanical damage , Contact Resistance \leq 30m Ω ,
7.2	Shock test	Pulse : Half-sinusoid ; Accelerate : 490m/s ² , X/Y/Z six views 3 times each Cycle : 11ms	

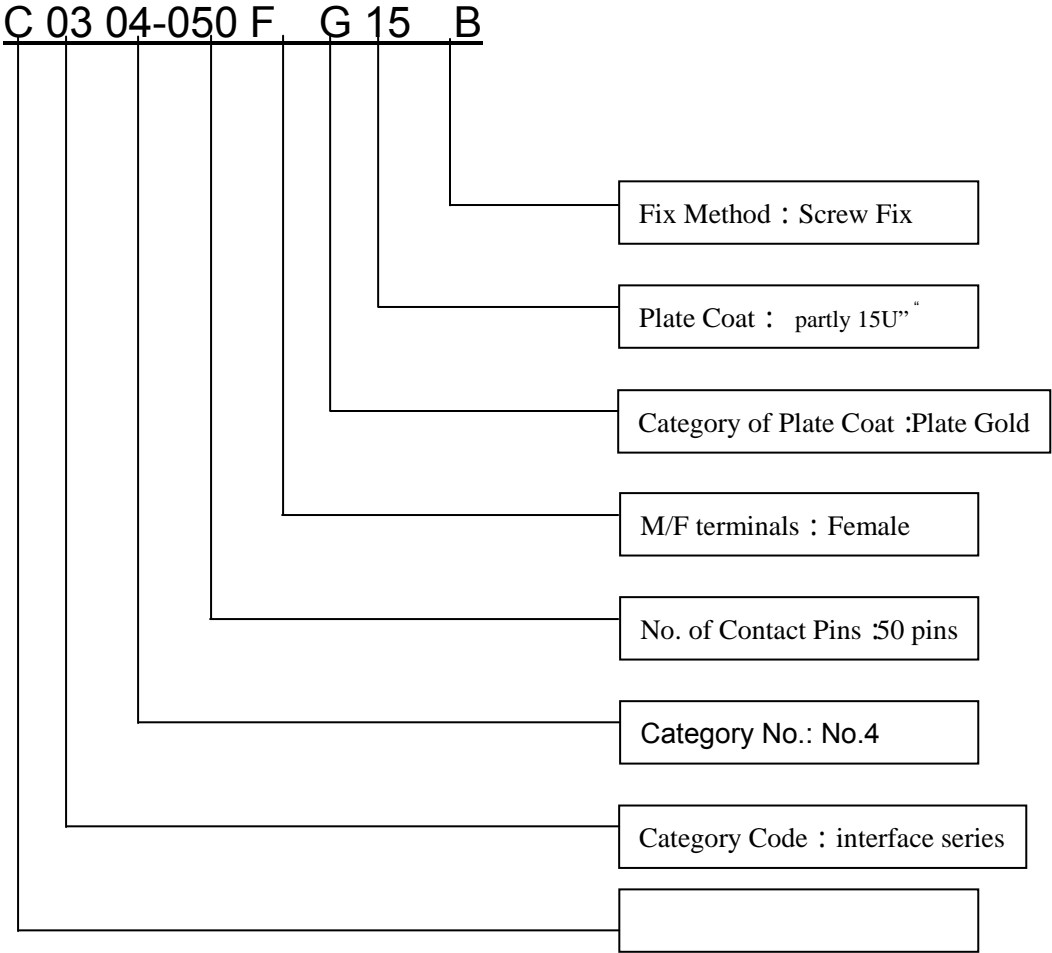
III. Test Sequence

Test Description		Test Group								
		A	B	C	D	E	F	G	H	I
		Test Sequence								
1	Product Test	1 , 9	1 , 9	1 , 9	1 , 9	1 , 9	1 , 9	1 , 9	1 , 9	1,9
2	Contact Resistance	4 , 8	2 , 6	2 , 6	2 , 6	2 , 6	2 , 6	2 , 6	2 , 6	2,6
3	Withstand Volt		4 , 8	4 , 8	4 , 8	4,8	4 , 8	4 , 8	4 , 8	4 , 8
4	Insulate Resistance		3 , 7	3 , 7	3 , 7	3,7	3 , 7	3 , 7	3 , 7	3 , 7
8	Heat & Humidity Test		5							
9	High-Low Temperature shock test			5						
10	High-Low Test				5					
11	Salt-Spray Test					5				
14	Shake Test								5	
15	Shock Test									5

Attached : All test excluding special requirements listed in above sheets are conducted under normal room temperature; choose test samples randomly from production line; 5 pcs sample out of each test group; can't repeatedly use the tested sample after test.

IV. Product Naming Method & Material BOM Sheet

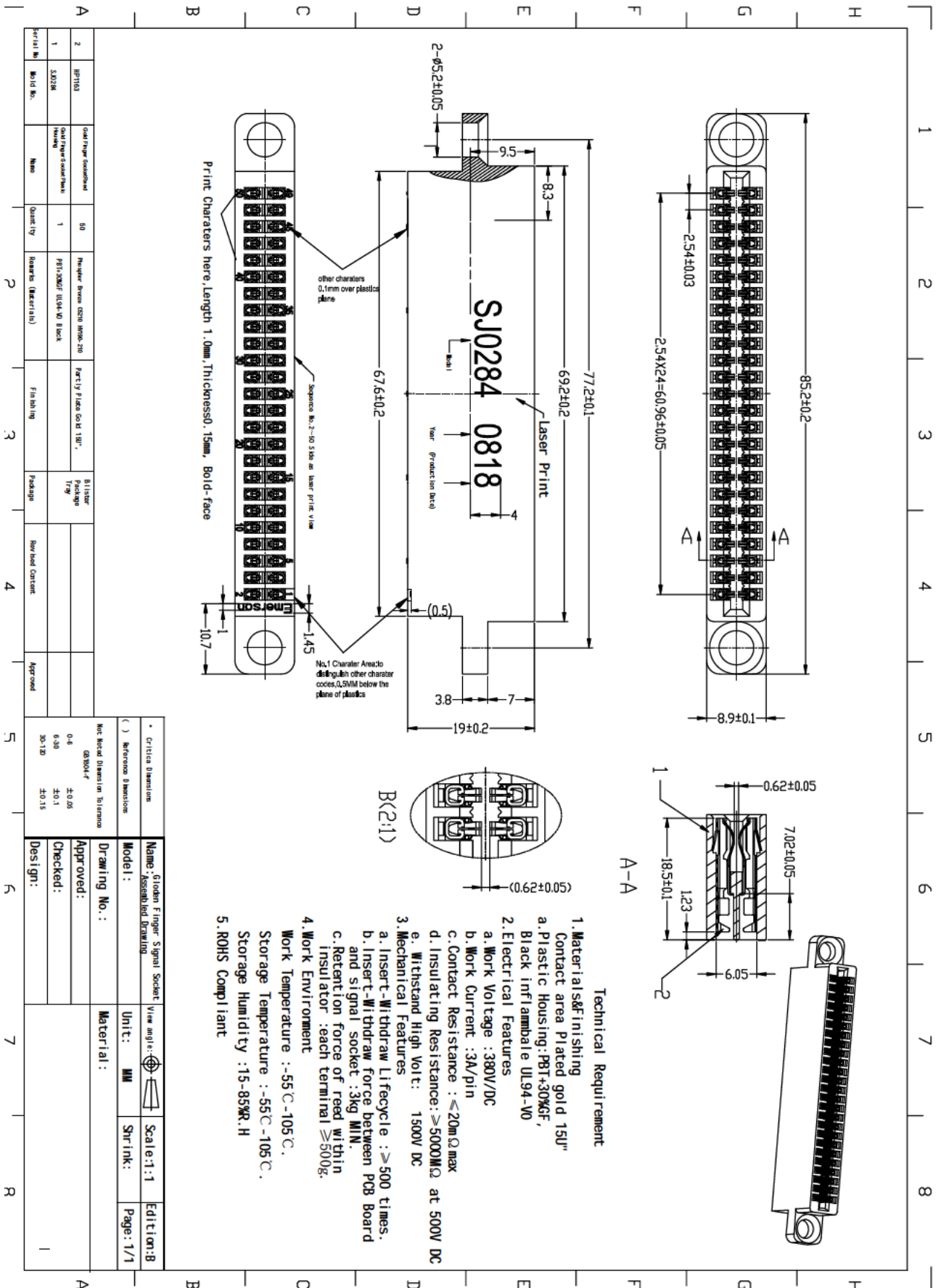
1. Naming Method : (Whole parts of connector)



2. Assembled Parts Model& Materials BOM Sheet

Parts Name	Model	Material Name	Brand Name	Quantity	UL
Reed	HP1163	Phosphor Copper	C5210	50	

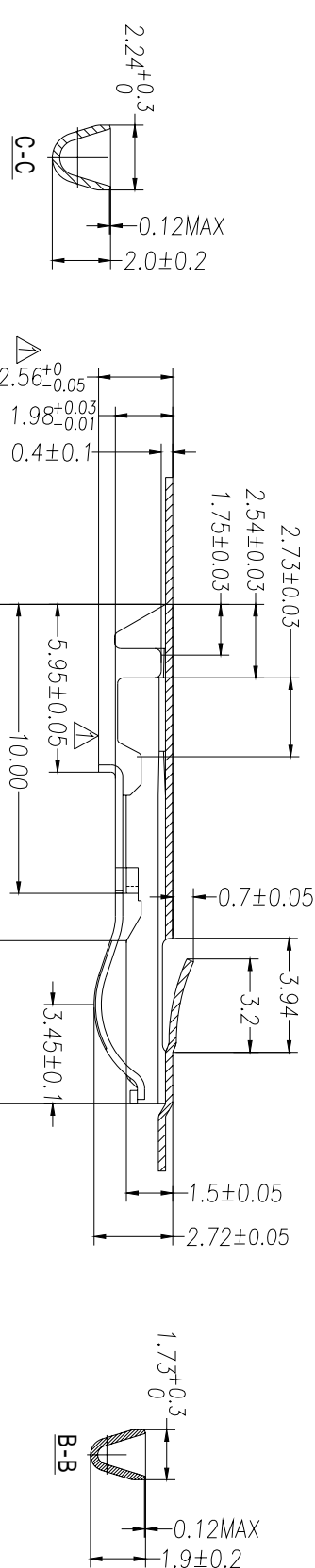
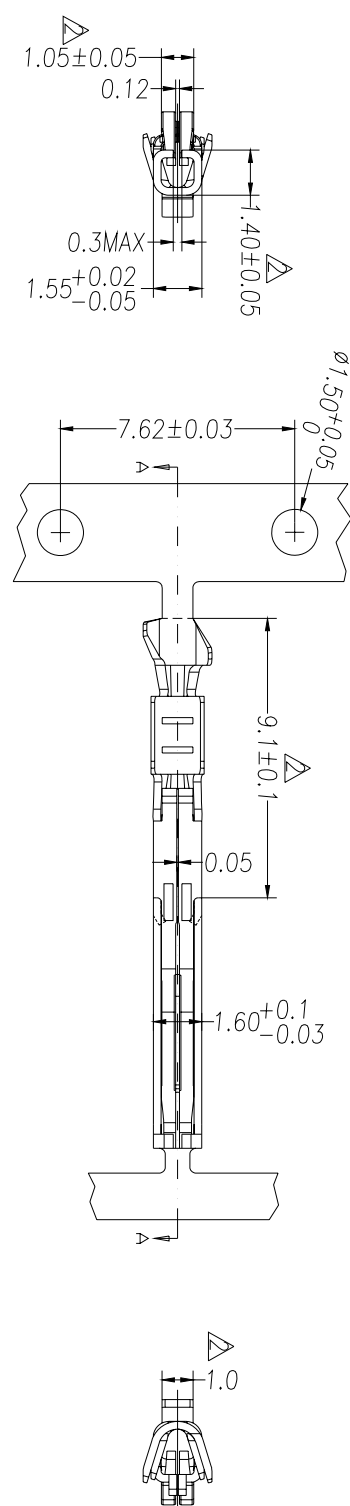
V. Product Drawing



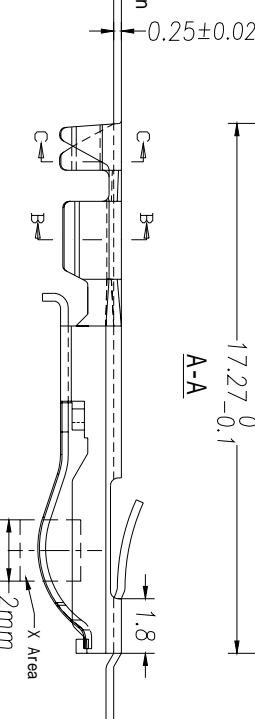
Part Id. No.	Material No.	Name	Quantity	Remarks (Remarks)	Finishing	Package	Rev lead Contain	Approved
1	SJ0284	Signal Socket	50	Header From: 0284 180-210	FACTORY FROM 0284 180-210	Blistar Package Tray		
2	SJ0284	Signal Socket	1	PBT-30%GF UL94-V0 Black				

Critical Dimensions		Reference Dimensions	
0.4	± 0.05	0.4	± 0.1
6.30	± 0.1	6.30	± 0.15
30.120	± 0.15		

Name: G10den Finger Signal Socket	View angle:	Scale: 1:1	Edition: 8
Model: Assembled Drawing	Unit: MM	Shrink:	Page: 1/1
Drawing No.:	Material:		
Checked:			
Design:			



Technical Requirement :
 1. Break Curve area come and go 45° easily breakdown
 2. Not Noted Circular angle 0.15,
 Contact area, solder area without burrs,
 other max burrs 0.02mm
 3. Max Sector 5/1000mm*, twist max 90° /2000mm,
 4. RoHS Compliant



Surface Requirement
 Burrs equal or less than 0.03;
 No distortion ,no scratch

Package Requirement:
 paper reel plastic bag blister tray reel
 others:

Revised Marks	Revised Content	Date	Approved

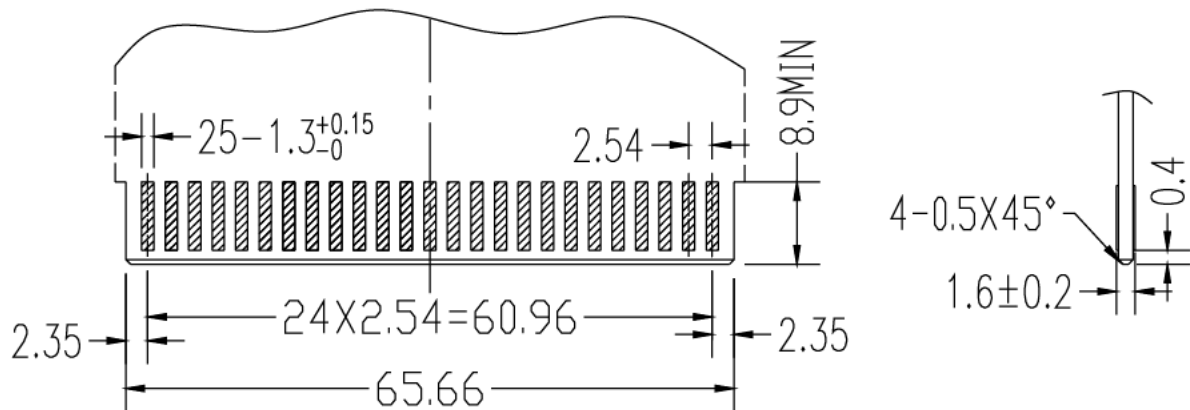
Material:
 Phosphor Bronze C5210 HV190-210
 0.25X26X1.62

Finishing: (Measure Points)
 1. X Area Plated Gold 0.38um
 2. others Plated Ni1.27um

GB1804-f	±0.05
0-6	±0.1
6-30	±0.15
30-120	±1.0

Name	Golden Finger Socket Reed	Client Product Name, Model and material no.
Model	HP1163	
Checked		Unit Scale
Approved		Page
Checked		Ratio
Approved		View Angle
Checked		First View Angle
Approved		Unit Scale
Checked		Page
Approved		Ratio
Checked		View Angle
Approved		Unit Scale
Checked		Page
Approved		Ratio
Checked		View Angle
Approved		Unit Scale
Checked		Page
Approved		Ratio
Checked		View Angle
Approved		Unit Scale
Checked		Page
Approved		Ratio
Checked		View Angle
Approved		Unit Scale
Checked		Page
Approved		Ratio
Checked		View Angle
Approved		Unit Scale
Checked		Page
Approved		Ratio
Checked		View Angle
Approved		Unit Scale
Checked		Page
Approved		Ratio
Checked		View Angle
Approved		Unit Scale
Checked		Page
Approved		Ratio
Checked		View Angle
Approved		Unit Scale
Checked		Page
Approved		Ratio
Checked		View Angle
Approved		Unit Scale
Checked		Page
Approved		Ratio
Checked		View Angle
Approved		Unit Scale
Checked		Page
Approved		Ratio
Checked		View Angle
Approved		Unit Scale
Checked		Page
Approved		Ratio
Checked		View Angle
Approved		Unit Scale
Checked		Page
Approved		Ratio
Checked		View Angle
Approved		Unit Scale
Checked		Page
Approved		Ratio
Checked		View Angle
Approved		Unit Scale
Checked		Page
Approved		Ratio
Checked		View Angle
Approved		Unit Scale
Checked		Page
Approved		Ratio
Checked		View Angle
Approved		Unit Scale
Checked		Page
Approved		Ratio
Checked		View Angle
Approved		Unit Scale
Checked		Page
Approved		Ratio
Checked		View Angle
Approved		Unit Scale
Checked		Page
Approved		Ratio
Checked		View Angle
Approved		Unit Scale
Checked		Page
Approved		Ratio
Checked		View Angle
Approved		Unit Scale
Checked		Page
Approved		Ratio
Checked		View Angle
Approved		Unit Scale
Checked		Page
Approved		Ratio
Checked		View Angle
Approved		Unit Scale
Checked		Page
Approved		Ratio
Checked		View Angle
Approved		Unit Scale
Checked		Page
Approved		Ratio
Checked		View Angle
Approved		Unit Scale
Checked		Page
Approved		Ratio
Checked		View Angle
Approved		Unit Scale
Checked		Page
Approved		Ratio
Checked		View Angle
Approved		Unit Scale
Checked		Page
Approved		Ratio
Checked		View Angle
Approved		Unit Scale
Checked		Page
Approved		Ratio
Checked		View Angle
Approved		Unit Scale
Checked		Page
Approved		Ratio
Checked		View Angle
Approved		Unit Scale
Checked		Page
Approved		Ratio
Checked		View Angle
Approved		Unit Scale
Checked		Page
Approved		Ratio
Checked		View Angle
Approved		Unit Scale
Checked		Page
Approved		Ratio
Checked		View Angle
Approved		Unit Scale
Checked		Page
Approved		Ratio
Checked		View Angle
Approved		Unit Scale
Checked		Page
Approved		Ratio
Checked		View Angle
Approved		Unit Scale
Checked		Page
Approved		Ratio
Checked		View Angle
Approved		Unit Scale
Checked		Page
Approved		Ratio
Checked		View Angle
Approved		Unit Scale
Checked		Page
Approved		Ratio
Checked		View Angle
Approved		Unit Scale
Checked		Page
Approved		Ratio
Checked		View Angle
Approved		Unit Scale
Checked		Page
Approved		Ratio
Checked		View Angle
Approved		Unit Scale
Checked		Page
Approved		Ratio
Checked		View Angle
Approved		Unit Scale
Checked		Page
Approved		Ratio
Checked		View Angle
Approved		Unit Scale
Checked		Page
Approved		Ratio
Checked		View Angle
Approved		Unit Scale
Checked		Page
Approved		Ratio
Checked		View Angle
Approved		Unit Scale
Checked		Page
Approved		Ratio
Checked		View Angle
Approved		Unit Scale
Checked		Page
Approved		Ratio
Checked		View Angle
Approved		Unit Scale
Checked		Page
Approved		Ratio
Checked		View Angle
Approved		Unit Scale
Checked		Page
Approved		Ratio
Checked		View Angle
Approved		Unit Scale
Checked		Page
Approved		Ratio
Checked		View Angle
Approved		Unit Scale
Checked		Page
Approved		Ratio
Checked		View Angle
Approved		Unit Scale
Checked		Page
Approved		Ratio
Checked		View Angle
Approved		Unit Scale
Checked		Page
Approved		Ratio
Checked		View Angle
Approved		Unit Scale
Checked		Page
Approved		Ratio
Checked		View Angle
Approved		Unit Scale
Checked		Page
Approved		Ratio
Checked		View Angle
Approved		Unit Scale
Checked		Page
Approved		Ratio
Checked		View Angle
Approved		Unit Scale
Checked		Page
Approved		Ratio
Checked		View Angle
Approved		Unit Scale
Checked		Page
Approved		Ratio
Checked		View Angle
Approved		Unit Scale
Checked		Page
Approved		Ratio
Checked		View Angle
Approved		Unit Scale
Checked		Page
Approved		Ratio
Checked		View Angle
Approved		Unit Scale
Checked		Page
Approved		Ratio
Checked		View Angle
Approved		Unit Scale
Checked		Page
Approved		Ratio
Checked		View Angle
Approved		Unit Scale
Checked		Page
Approved		Ratio
Checked		View Angle
Approved		Unit Scale
Checked		Page
Approved		Ratio
Checked		View Angle
Approved		Unit Scale
Checked		Page
Approved		Ratio
Checked		View Angle
Approved		Unit Scale
Checked		Page
Approved		Ratio
Checked		View Angle
Approved		Unit Scale
Checked		Page
Approved		Ratio
Checked		View Angle
Approved		Unit Scale
Checked		Page
Approved		Ratio
Checked		View Angle
Approved		Unit Scale
Checked		Page
Approved		Ratio
Checked		View Angle
Approved		Unit Scale
Checked		Page
Approved		Ratio
Checked		View Angle
Approved		Unit Scale
Checked		Page
Approved		Ratio
Checked		View Angle
Approved		Unit Scale
Checked		Page
Approved		Ratio
Checked		View Angle
Approved		Unit Scale
Checked		Page
Approved		Ratio
Checked		View Angle
Approved		Unit Scale
Checked		Page
Approved		Ratio
Checked		View Angle
Approved		Unit Scale
Checked		Page
Approved		Ratio
Checked		View Angle
Approved		Unit Scale
Checked		Page
Approved		Ratio
Checked		View Angle
Approved		Unit Scale
Checked		Page
Approved		Ratio
Checked		View Angle
Approved		Unit Scale
Checked		Page
Approved		Ratio
Checked		View Angle
Approved		Unit Scale
Checked		Page
Approved		Ratio
Checked		View Angle
Approved		Unit Scale
Checked		Page
Approved		Ratio
Checked		View Angle
Approved		Unit Scale
Checked		Page
Approved		Ratio
Checked		

VI. PCB Board Outline Dimensions



- Note: 1、 PCB Board Thickness: 1.6 ± 0.20
2、 Not noted tolerance ± 0.15

VII. Edition Revised Explanation

Edition B :Mainly Revised Contents as below:

- 1、 Assembled Part HP1163 Golden Ring Signal Socket Reed: Position "1", increase Curve Height.
- 2、 Assembled HP1163 Golden Ring Signal Socket Reed: Position "2", revised according to client sample.