

REV.	ECN NO.	DESCRIPTION	DRAW	APPD.	DATE
A	---	新版本发行	SHI	DMX	2018.05.09
B	---	调整尺寸公差	SHI	ZYA	2019.08.09

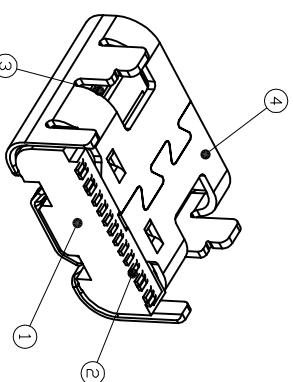
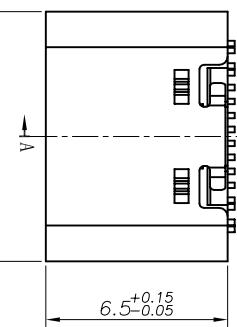
$0.20\pm 0.05(16X)$

6.5 ± 0.05

2.05

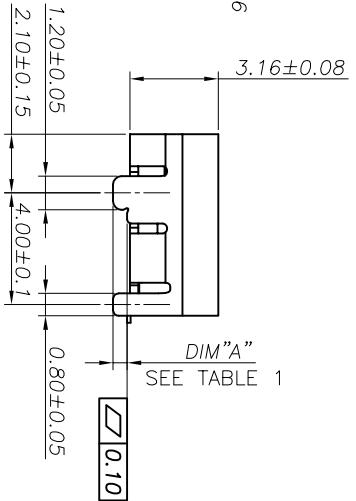
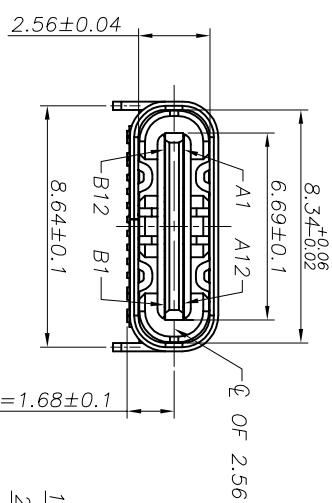
6.65

A

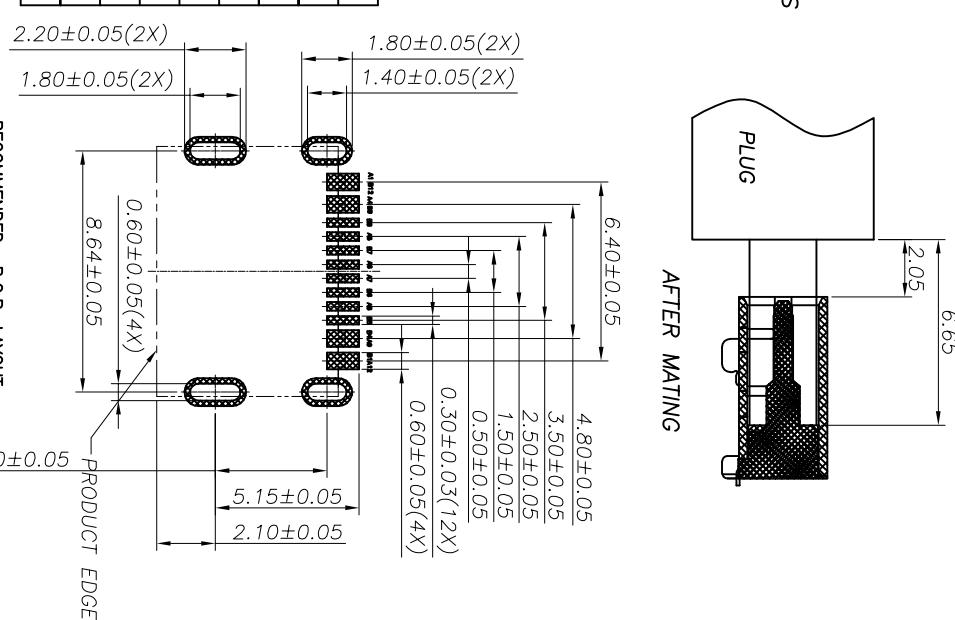


USB TYPE-C PIN ASSIGNMENTS

PIN NUMBER	SIGNAL NAME
A1	GND
A4	VBUS
A5	CC1
A6	Dp1
A7	Dn1
A8	SBU1
A9	VBUS
A12	GND
B1	GND



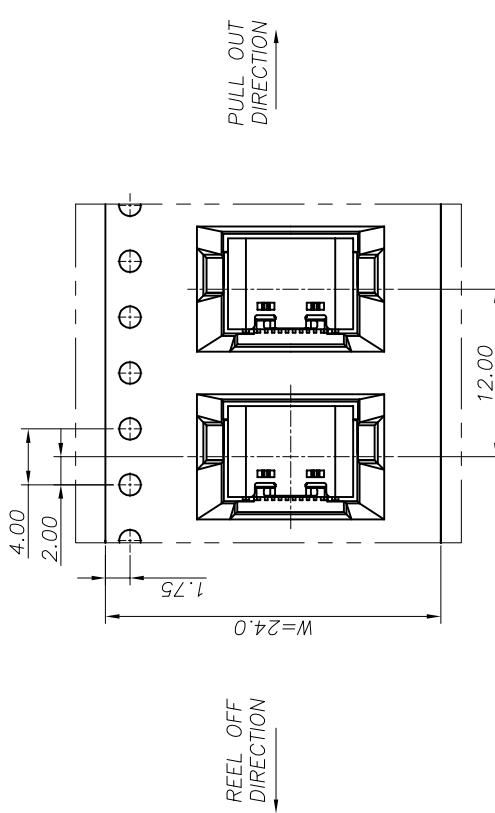
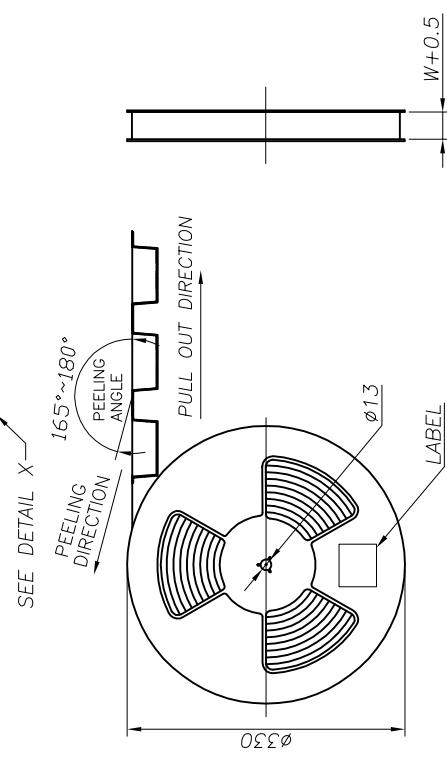
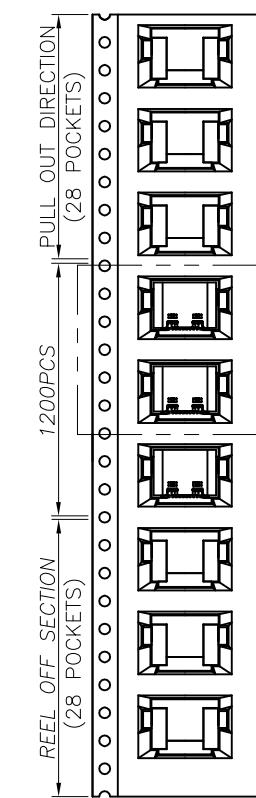
PIN NUMBER	SIGNAL NAME
B12	GND
B9	VBUS
B8	SBU2
B7	Dn2
B6	Dp2
B5	CC2
B4	VBUS
B1	GND



SECTION:A-A

TOLERANCE	NAME(INTENDED USE) CUSTOMER DRAWING	SAVINN ELECTRONIC TECHNOLOGY CO.,LTD PART NO.	TITLE: USB CF 16PIN(L=6.5) TOP MOUNT
XX ± 0.30	X: $\pm 2^\circ$	PART NO.	
.XX ± 0.20	X: $\pm 1^\circ$	USB-TC16H22	
.XXX ± 0.10	XX: ± 0.5	APPD: ZYA	DRAWG NO. 0141-0372
UNITS mm			
MATERIAL	CHED: TANG	SCALE 1:1	REV. B
FINISH	DRAW: SHI		

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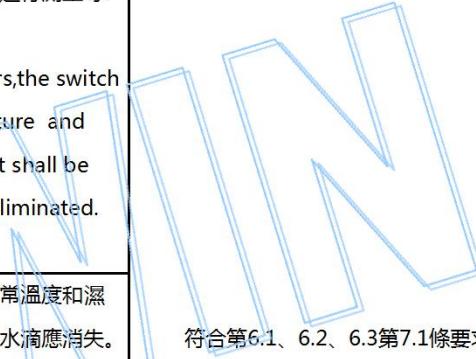
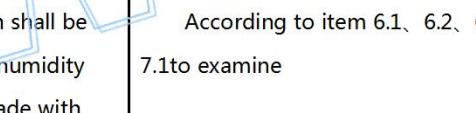
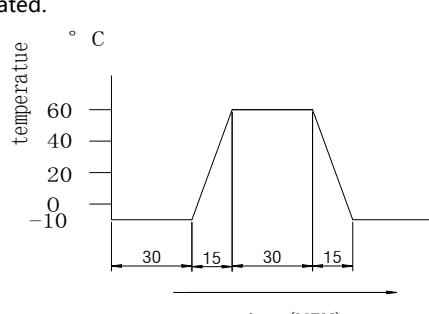
NOTE:

- 1.MATERIAL SPECIFICATION:
1.HOUSING:HIGH TEMPERATURE RESISTANT PLASTIC,UL94 V-0.
- 2.CONTRACTS:COPPER ALLOY
- 3.MID PLATE: STAINLESS STEEL
- 4.FRONT SHELL: STAINLESS STEEL
- 2.PLATING SPECIFICATION:
2-1.CONTRACTS:
Ni 50μ" MIN. UNDER PLATED OVER ALL.
Au PLATED ON THE FUNCTIONAL AREA OF CONTACT.
(GOLD PLATING THICKNESS FOLLOW THE P/N)
PLATING SPECIFICATIONS OF THE SOLDER AREA FOLLOW THE P/N
- 2-2.FRONT SHELL:
Ni 30μ" MIN. UNDER PLATED OVER ALL.
- 2-3.MID PLATE:
CLEAR ONLY
- 3.MECHANICAL PERFORMANCE,
3-1.INSERTION FORCE: 0.5~2.0kgf.
3-2.REMOVAL FORCE: 0.8kgf~2.0kgf.
3-3.DURABILITY: 10000 CYCLES.
- 4.ELECTRICAL PERFORMANCE:
4-1. CURRENT RATING:5.0A
VOLTAGE RATING:5.0V
- 4-2. LLCR:
VBUS & GND PINS AND OTHER PINS: 40mΩ/PIN MAX.
SHIELD: 50mΩ/MAX.
LLCR MAX. CHANGE OF ALL PINS: 10mΩ.
- 4-3. INSULATION RESISTANCE: 100MΩ MIN
- 4-4. DIELECTRIC WITHSTAND VOLTAGE,AC 100V FOR 1 MINUTE.
5. ENVIRONMENTAL PERFORMANCE:
OPERATING TEMPERATURE: -25°C~+85°C.
- 6.IR REFLOW:
THE PEAK TEMPERATURE ON THE BOARD SHALL
BE MAINTAINED FOR 10 SECONDS AT 260°C.

TOLERANCE	NAME(INTENDED USE)	CUSTOMER DRAWING	SANWIN ELECTRONIC TECHNOLOGY CO.,LTD
X.X	±0.30	X. ± 2°	PART NO.
.XX	±0.20	X. ± 1°	USB-CF-16PIN(-6.5) TOP MOUNT
XXX	±0.10	XX. ± 0.5°	DRAWING NO. 0141-0372
UNITS	mm	APPD: ZYA	MATERIAL: TANG
FINISH		CHED: TANG	SCALE: SHEET REV. B
		DRAW: SHI	1:1 2/2 B
			7

產品規格書 SPECIFICATION				檔編號No. :	頁數Page	
產品類別Type:	TYPE-C 母座连接器 TYPE-C FEMALE CONNECTOR			Prepared	Checked	Approved
產品系列Series:	USB-TC16H22	版本Version:	0	郭 金林	冯 乐	周 永安
產品編號Part No.:	USB-TC16H22	日期Date:	2018/5/7			
1. 通則 General Characteristics:						
1.1 應用範圍 Application range: 此產品規格書適用於TYPE-C 连接器USB-TC16H22。 This product specification is applied to the USB-TC16H22 TYPE-C Connector.						
1.2 使用環境條件 Acclimatization: 使用溫度範圍 Operating Temperature rang:-25°C ~ +85°C 保存溫度範圍 Preservative Temperature:-30 ~ 80°C						
1.3 測試條件Test Conditions: 若沒有特別說明，則試驗條件如下： Unless otherwise specified, the atmospheric for marking measurements and tests are as follows: 溫 度 Temperature:20±2°C 相對濕度 Relative Humidity:45 ~ 85% 氣 壓 Air pressure:86 ~ 106Kpa 如對判定產生疑義，則試驗按以下條件進行： However, if the decision based on the measurements suspicion conditions, the following conditions shall be employed: 溫 度 Temperature:20±2°C 相對濕度 Relative Humidity:65±5% 氣 壓 Air pressure:86 ~ 106Kpa						
2. 外觀和安裝尺寸 Appearance & Mounting Dimensions:						
2.1 外觀 Appearance: 產品外觀良好，無破損、銹蝕、裂紋和鍍層缺陷。 The switch shall have good finishing, and no rust, crack plating defects.						
2.2 安裝尺寸Mounting dimensions: 應符合產品設計要求，詳見成品圖。 Should comply with the design requirements of products, see the finished product drawing.						
3. 回路方式 Circuit Mode:						
4. 額定負荷及壽命 Rating and Ooerating life.						
額定負荷 Rated load:DC 5V,5A Max 機械壽命 Mechanical life:10,000次						
5. 操作力operating force : 插入力0.5-2.0Kgf ,拔出力0.8-2.0Kgf .						
6 電氣性能Electrical Characteristics						
專案Item	測試條件Test Conditions			標準Criteria		
6.1 接觸電阻 Contact Resistsnce	以1A 5VDC或者1KHz±200Hz(20mv max,50mA MAX)採用電壓降法測量。 Shall be measure at 1KHz±200Hz(20mv Max,50mA Max) or 1A 5V DC by voltage drop method.			常態Normal 40mΩ以下 40mΩ max 氣候及壽命試以後After climate and life test. 50mΩ 以下 50mΩ max		

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產品系列Series:	USB-TC16H22	版本Version:	0	郭 金林	冯 乐 周 永安
產品編號Part No.:	USB-TC16H22	日期Date:	2018/5/7		
6.2 絕緣阻抗 Insulation Resistance	在相互絕緣的所有端子之間及各接線端子與外露的非載流金屬零件之間加載100VDC ,持續時間60±5S. 100V DC Voltage is applied between each pair of terminals and between the terminal and the metalframe for 60±5S.				常態Normal 100MΩ 氣候及壽命試以後After climate and life test. 10MΩ 以上 10MΩ min
6.3 抗電強度 Dielectric strength	在相互絕緣的所有接線端子之間加載100V (50 ~ 60Hz 洩漏電流2mA)的交流電，各接線端子與外殼或非 載流金屬零件之間加載100V(50 ~ 60Hz洩漏電流 2mA)交流電，持續時間60±5S. AC 100V(50-60Hz)2mA alternate current load is applied between open terminals connected with wires or 100V (50-60Hz), 2mA Alternate current loa for 60±5S.				無擊穿和飛弧現象 The switch without dielectric breakdown and fly arc phenomenon.
7 機械性能 Mechanical Characteristics					
專案Item	測試條件 Test method				標準Criteria
7.1 振動 Vibration Proof	<p>連接器採用常規安裝方法牢固地安裝在實驗設備上，按下述參數進行實驗：</p> <ol style="list-style-type: none"> 1) 振頻：10~55Hz 2) 振幅：1.5mm 3) 振動變化速率：10~55~10Hz大約1分鐘 4) 變頻方法：線形方式 5) 振動方向：三個互相垂直的方向，其中一個方向為操作元件運動的方向。 <p>Connector shall be secured to a testing machine by a normal mounting device and method.,Switch shell be measured after following test:</p> <ol style="list-style-type: none"> 1)Vibration frequency range:10 ~ 55Hz 2) Total amplitude:1.5mm 3)Sweep ratio:10 ~ 55 ~ 10Hz,Approx 1 minute, 4)Method of changing the sweep vibration frequency linear, 5)Direction of vibration:Three perpendicular directions includng actuating direction. 				符合第6.1、6.2、6.3第7.1條要求。 According to item 6.1、6.2、6.3 and 7.1to examine

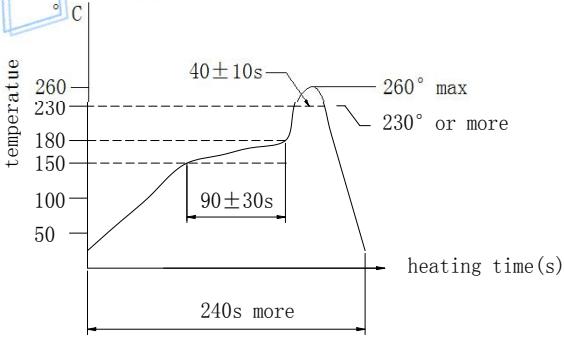
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8 耐候試驗 Weather Proof Characteristics						
專案Item	測試條件 Test method			標準Criteria		
8.1 高溫 Hot Proof	試件在 $80\pm2^{\circ}\text{C}$ 的溫控箱內保持96小時，然後在正常溫度和濕度下恢復1小時，並在此後的1小時內對試件進行測量，水滴應消失。 After testing at $80\pm2^{\circ}\text{C}$ for 96 hours, the switch shall be allowed to stand under normal temperature and humidity conditions for 1 hour and measurement shall be made with 1 hour after that, water drops shall be eliminated.					
8.2 恒定濕熱 Moisture Resistance	試件在 $60\pm2^{\circ}\text{C}, 90\sim95\%$ RH的溫控箱內保持96小時，然後在正常溫度和濕度下恢復1小時，並在此後的1小時內對試件進行測量。水滴應消失。 After testing at $60\pm2^{\circ}\text{C}, 90\sim95\%$ RH for 96 hours, the switch shall be allowed to stand under normal temperature and humidity conditions for 1 hour and measurement shall be made with 1 hour after that, Water drops shall be eliminated.					
8.3 低溫 Cold Proof	試件在 $-40\pm2^{\circ}\text{C}$ 的溫控箱內保持96小時，然後在正常溫度和濕度下恢復1小時，並在此後的1小時內對試件進行測量，水滴應消失。 After testing at $-40\pm2^{\circ}\text{C}$ for 96 hours, the switch shall be allowed to stand under normal temperature and humidity conditions for 1 hour and measurement shall be made with 1 hour after that, water drops shall be eliminated.			符合第6.1、6.2、6.3第7.1條要求。 According to item 6.1、6.2、6.3 and 7.1to examine		
8.4 溫度轉換 Temperature Cycling	試件按下述試驗條件試驗5個迴圈，然後在正常溫度和濕度下恢復1小時，並在此後的1小時內對試件進行測量，水滴應消失。 After 5 cycles of following conditions, the switch shall be allowed to stand under normal temperature and humidity conditions for 1 hour after that, Water drops shall be eliminated.					

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產品編號Part No.:	USB-TC16H22	日期Date:	2018/5/7	金林	乐	永安

9 耐久性試驗 Durability Characteristics

專案Item	測試條件 Test method	標準Criteria
9.1 壽命試驗 Operating Life	1)在不帶負荷的條件下，在壽命測試設備上連續轉換10,000次， 頻率：12-15次/分鐘。 1)10,000 cycles of operation shall be performed continuously cycles without load at a rate of 12-15 cycles per minute.	插入力0.5-3.5Kgf ,拔出力0.8-3.5Kgf . 其餘符合第6.1、6.2、6.3、7.1 條 Etceteras according to item 6.1, 6.2, 6.3 ,7.1 to examine.

10. 焊接Soldering

專案Item	測試條件 Test method	標準Criteria
10.1 耐焊接熱 Solder Heat Resistance	試件在下述條件下進行試驗： 1) 焊接溫度:260±5°C ; 2) 焊接時間 : 5±1S; 3) 熔錫面積 : PCB板厚度的一半 (PCB : t=1.6) 。 Specimen shall be checked in the following conditions test: 1)Soldering temperature:260±5°C ; 2)Soldering time:5±1S; 3)Soldering area : 1/2 of PCB board thickness(PCB:t=1.6).	無機械和電氣損傷 The switch shall be free from mechanical and electrical damage.
10.2 回流焊 Reflow Soldering		外觀無裂開、鬆動等異常現象，滿足於電氣性能。 Without deformation of frame or excessive looseness of terminals , Electrical performance shall be satisfied.
10.3 可焊性 Solderability	焊接溫度 : 245±5°C Solder temperature: 245 ±5°C. 浸漬時間 : 3 ±0.5S Dipping time: 3 ±0.5 second.	超過90%的浸漬覆蓋焊接。 More than 90% of the dipping covered by solder.

11 .Other Precautions其他注意事项：

(1) 进行焊接过程中，不可以使用溶剂或类似品清洗开关

Following the soldering process, do not try to clean the switch with a solvent or the like.

(2) 交货后保证开关处于封密状态并库存时间90天以下

Please have the products keep in close status and the storage time is 90 days guaranty after delivering the goods at most.

(3) 保存产品仓库:温度25±5°C , 相对湿度小于85%范围

Keep products warehouse: temperature of 25 + / - 5 °C, relative humidity is less than 85%