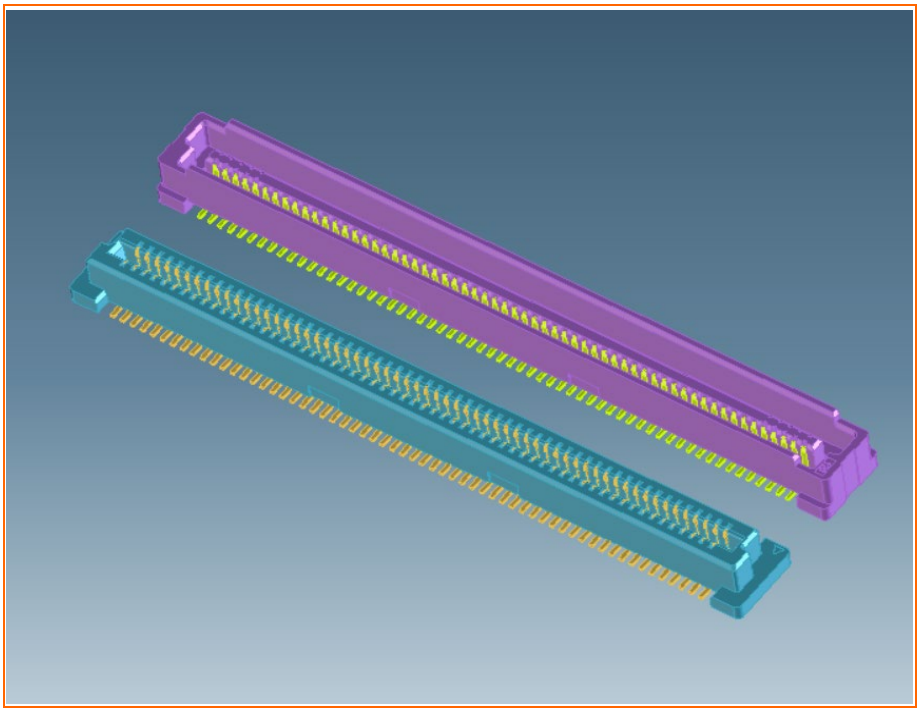
Product Specification

深圳臺華達科技有限公司

SHENZHEN THD Electronics Co., Ltd.



Product.No

THD0837M-xxBV-GF
THD0812F-xxBV-GF

Pitch=0.8mm,BTB Connector

A	Release
Rev.	Description

Approved Signatures

■Prepared By : JIM	■Date: 2016.06.28
■Checked By : JIM	■Date: 2016.06.28
■Approved By : 黄德进	■Date: 2016.06.28

■Scope

This specification covers the 0.8 mm Pitch BTB Connector THD0837 & 0812 series.

■Ordering information

THD0837M - xx BV - GF (❶ ❷ ❸ ❹)

THD0812F - xx BV - GF (❶ ❷ ❸ ❹)

❶	Series name：THD0837 THD0812 M: BTB CONNECTOR PLUG ASSEMBLY F: BTB CONNECTOR RECEPTACLE ASSEMBLY	❹	Plating： GF= 1μ"~3μ" Gold Flash G3= 3μ" Gold over Nickel G5= 5μ" Gold over Nickel SN= Tin(Lead Free) over Nickel
❷	Number of contacts：40 TO 200		
❸	Contact type：Vertical		

■Rating

Item	Standard
Voltage Rating(Max.)	100V AC
Current Rating(Max.)	0.5A DC
Operating Temperature Range	-25°C ~ +85°C (Including terminal temperature rise)

■Material

Housing	Terminal	Plating
LCP (UL94V-0)	Copper alloy	Au over Nickel
Color：BEIGE		

■Performance

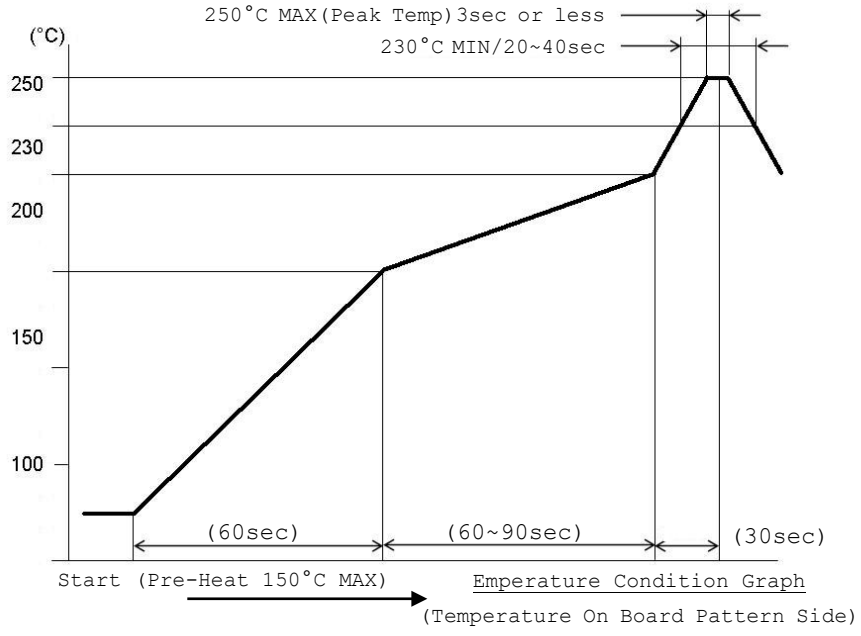
Item	Test Condition	Specification
Contact Resistance	Mate The sample connectors, measure by dry circuit, 20mV Max., 100mA Max. (EIA-364-23)	60 mΩ Max.
Insulation Resistance	Unmated The sample connectors，apply 500V DC between adjacent terminal or ground. (EIA-364-21)	500 MΩ Min.
Dielectric Strength	Unmated The sample connectors，Apply 500 V AC for 1minute Test between adjacent circuit of unmated connector. (EIA-364-20)	No Breakdown
Mating Force	Load shall be applied on each at a speed of 25±3mm/minute as shown below then pin retention force shall be measured.	Per pin x0.9N max.
Unmating Force	Measure force necessary to mate assemblies at maximum rate of 12.5mm per minute.	Per pin x 0.1N Min.
Withdrawal force of termial	Each termial shall be pulled at speed of 12.5mm per minute form the housing.The withdrawal shall be measured force when the terminal is extracted.	0.4N Min./ Per pin
Durability	Mate The sample connectors should be mounted in the tester and fully mated and unmated the number of 30cycles specified at the rate of 25±3 mm/min. (EIA-364-09)	50 cycles

Vibration	Mate connectors and subject to the following vibration conditions for period of 2 hours in each of 3 mutually perpendicular axes passing DC 1mA during the test.Amplitude:1.5mm P-P frequency:10~55~10 Hz in 1 minute (EIA-364-28 Condition I)	Appearance	No Damage
		Contact Resistance	90 mΩ Max.
		Discontinuity	1 μsec Max.
Shock	Mate The sample connectors shall and subject to the following shock condition.3 times of shocks shall be applied for each 6 directions along 3 mutually perpendicular axes, passing DC 1mA current during the test.(Total of 18 shocks) Peak value490m/s^2{50G} (EIA-364-27, test condition A)	Appearance	No Damage
		Contact Resistance	90 mΩ Max.
		Discontinuity	1 μsec Max.
Salt Spray	Mate The sample connectors shall expose to the following salt mist conditions. Upon completion of the exposure period, salt deposits shall be removed by a gentle wash or dip in running water, after which the specified NaCl solution Concentration:5±1% Spray time:24hours Ambient temperature:35±2℃ (EIA-364-26,Test condition B)	Appearance	No Damage
		Contact Resistance	900 mΩ Max.

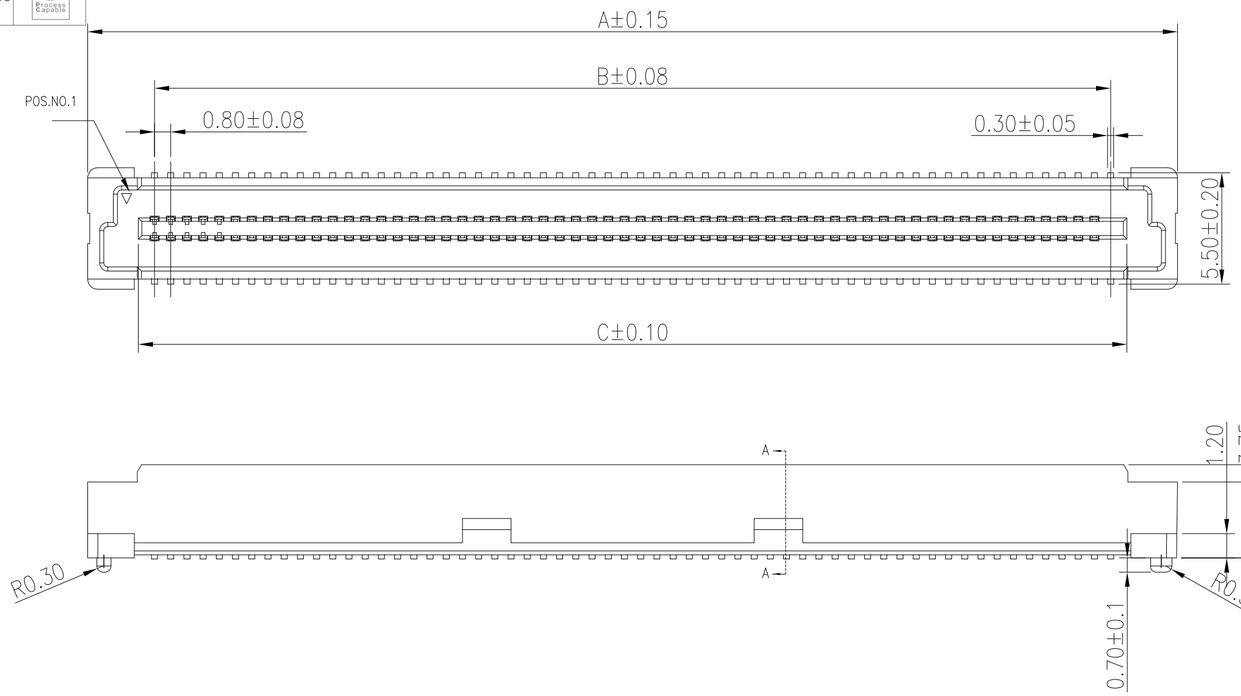
Item	Test Condition	Specification	
Heat Resistance	Mate The sample connectors shall expose to 85±2 ℃ for 96 hours. Upon completion of the exposure period, the test specimens shall be conditioned at ambient room condition for 1to2 hours, after which the specified measurements shall be performed.	Appearance	No Damage
		Contact Resistance	90 mΩ Max.
Cold Resistance	Mate The sample connectors shall expose to -25±2 ℃ for 96 hours. Upon completion of the exposure period, the test specimens shall be conditioned at ambient room condition for 1to2 hours, after which the specified measurements shall be performed.	Appearance	No Damage
		Contact Resistance	90 mΩ Max.
Humidity	Mate The sample connectors shall expose to 40±2℃ relative humidity 90~95% for 96 hours. Upon completion of the exposure period, the test specimens shall be conditioned at ambient room condition for 1to2 hours, after which the specified measurements shall be performed.	Appearance	No Damage
		Contact Resistance	90 mΩ Max.
		Dielectric Strength	No Breakdown
		Insulation Resistance	500 MΩ Min.

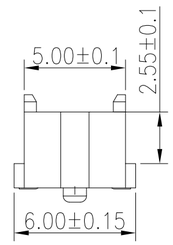
Temperature Rise	Mate plug and measure the temperature rise of contact when the maximum AC rated current is passed.	Temperature rise	30°C Max.
Temperature Cycling	A connector shall and subject to the following condition for 5 cycles .Upon completion of the exposure period, the test specimens shall be conditioned at ambient room condition for 1to2 hours, after which the specified measurements shall be performed. 1cycle a)-25±3℃,30 minutes b) +85±3℃,30 minutes (Transit time shall be with in 3 minutes) (EIA-364-31, Test condition A)	Appearance	No Damage
		Contact Resistance	90 mΩ Max.
Solderability	Mate The sample connectors shall expose to the following salt mist conditions. Upon completion of the exposure period, salt deposits shall be removed by a gentle wash or dip in running water, after which the specified NaCl solution Concentration:5±1% Spray time:24hours Ambient temperature:35±2℃ (EIA-364-26,Test condition B)	Solder Wetting	95% of immersed area must show no voids, pin holes.
Resistance to Soldering	When reflowing refer to Infrared reflow condition *Soldering iron method* 0.2mm from terminal tip and fitting nail tip. Soldering time : 5 seconds Max. Solder temperature : 370 ~ 400°C	Appearance	No Damage

■Recommended Temperature Profile



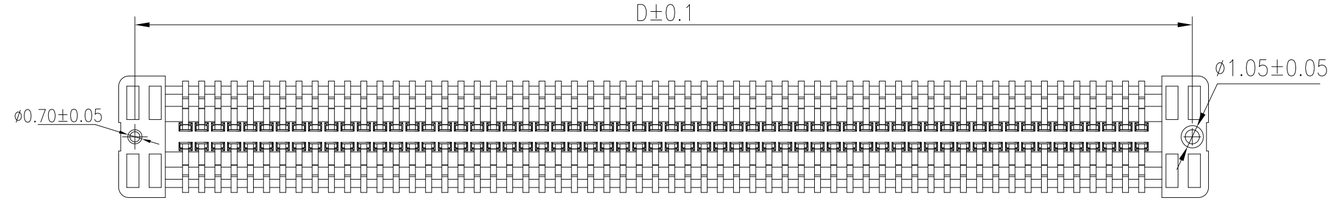
RoHS Compliant 2011/65/EU

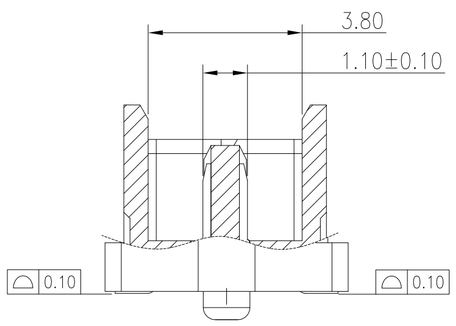




NOTES:

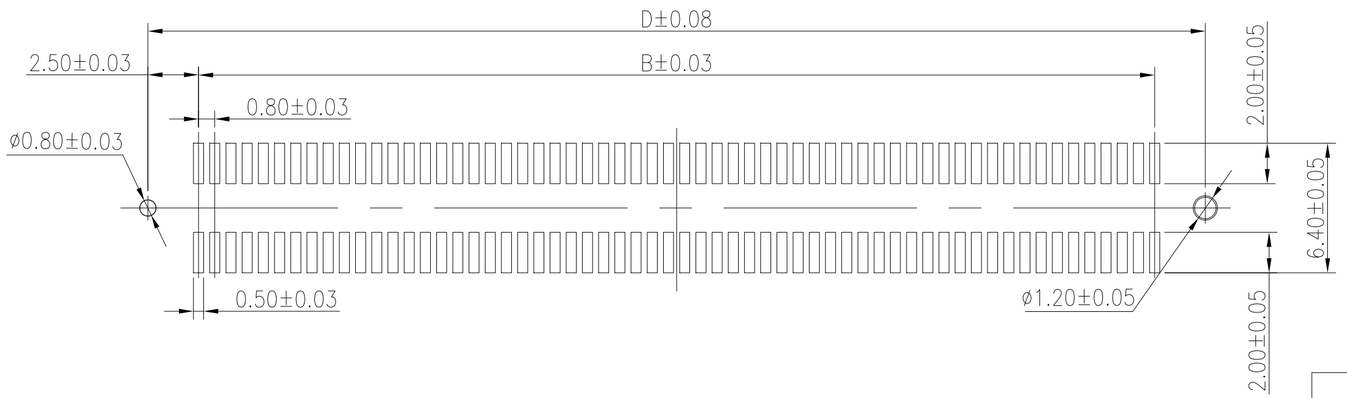
1. HUOSING: LCP HIGH-TEMP THERMOPLASTIC UL94V-0 COLOR:BEIGE
2. TERMINAL:PHOSPHOR BRONZE
   PLATING:1μ''GOLD FLASHOVERALL 50~100μ''NICKEL UNDER PLATED.
3. VOLTAGE:100VAC
4. CURRENT RATING: 0.5 A
5. INSULATION RESISTANCE: 500MΩ
6. DIELECTRIC WITHSTANDING VOLTAGE: 500 VAC
7. CONNECTOR MATING FORCE:90GF MAX.
8. TEMPERATURE RATING:-40℃ TO+125℃
9. CODING INFORMATION:THD0837M-xxBV-GF
   - PLATING: G:GOLD FLASH
   - PIN
   - PLUG
   - 0.8 BTB
     HEIGHT: 5.0H
   - THD BTB CONNECTOR SERIES





SECTION: A-A
SCALE 2:1

NO.of contacts	Dimensions			
	A.	B.	C.	D.
40	21.80	15.20	16.80	20.20
60	29.80	23.20	24.80	28.20
70	33.80	27.20	28.80	32.20
80	37.80	31.20	32.80	36.20
84	39.40	32.80	34.40	37.80
100	45.80	39.20	40.80	44.20
120	53.80	47.20	48.80	52.20
140	61.80	55.20	56.80	60.20
160	69.80	63.20	64.80	68.20
180	77.80	71.20	72.80	76.20
200	85.80	79.20	80.80	84.20



RECOMMENDED P.C.BOARD LAYOUT

REV.	REVISIONS	CHK	DATE
X1	Prototype	JIM	2012/05/10

GENERAL TOLERANCE UNLESS OTHERWISE SPECIFIED

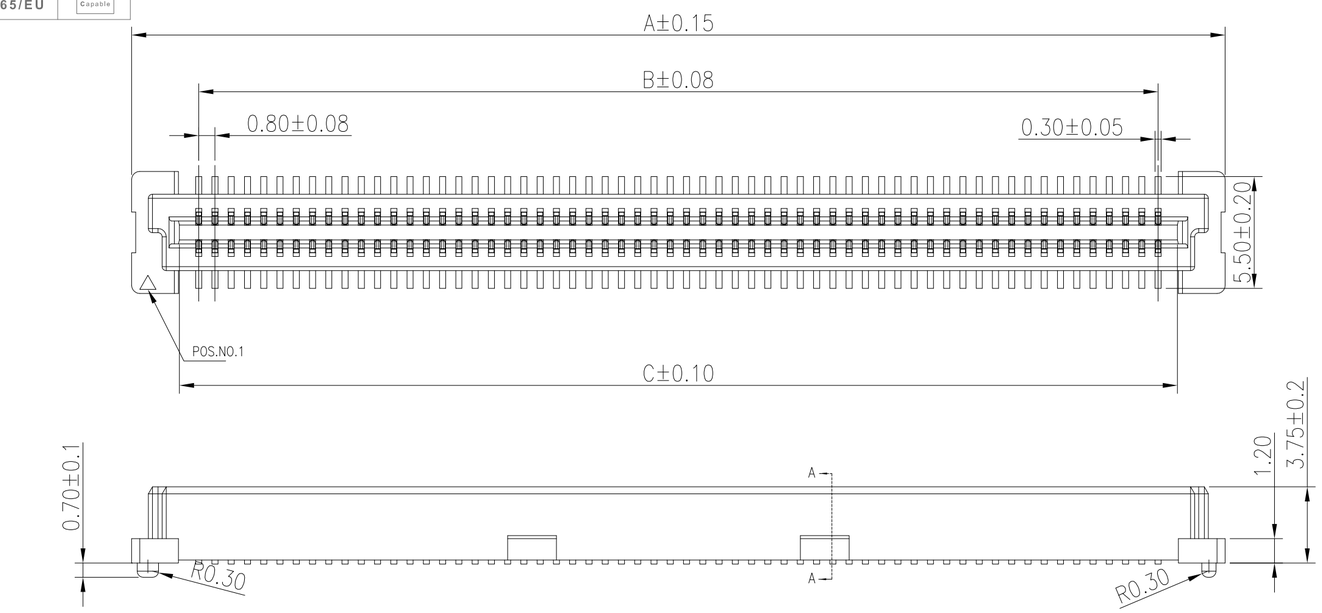
X.X	±0.35
X.XX	±0.25
X.XXX	±0.15
ANG.	±3°

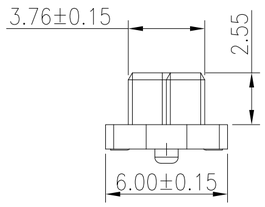
深圳市臺華達科技有限公司
SHENZHENSHI THD ELECTRONICS CO., LTD.

DRAWN	Kavin 2016.06.28
CHECKED	胡文 2016.06.28
APPROVED	黄德进 2016.06.28
PART NO.	THD0837M-xxBV-GF
TITLE :	0.8mm PITCH BTB CONNECTOR PLUG ASSEMBLY 5.0H TYPE
SHEET	1/1
UNIT	MM
SCALE	1:1
SIZE	A4
REV	X1

RoHS Compliant 2011/65/EU

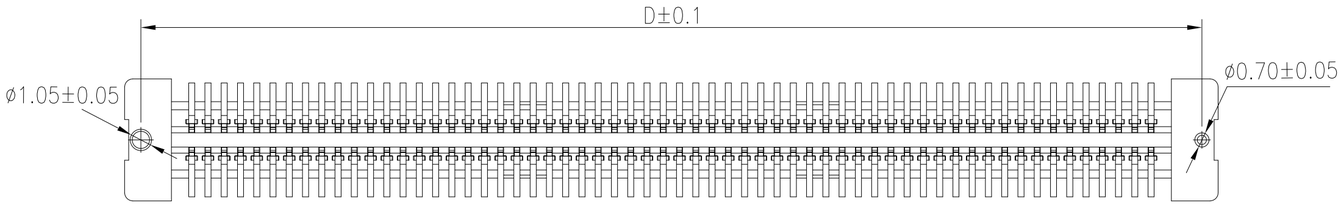
Pb Capable

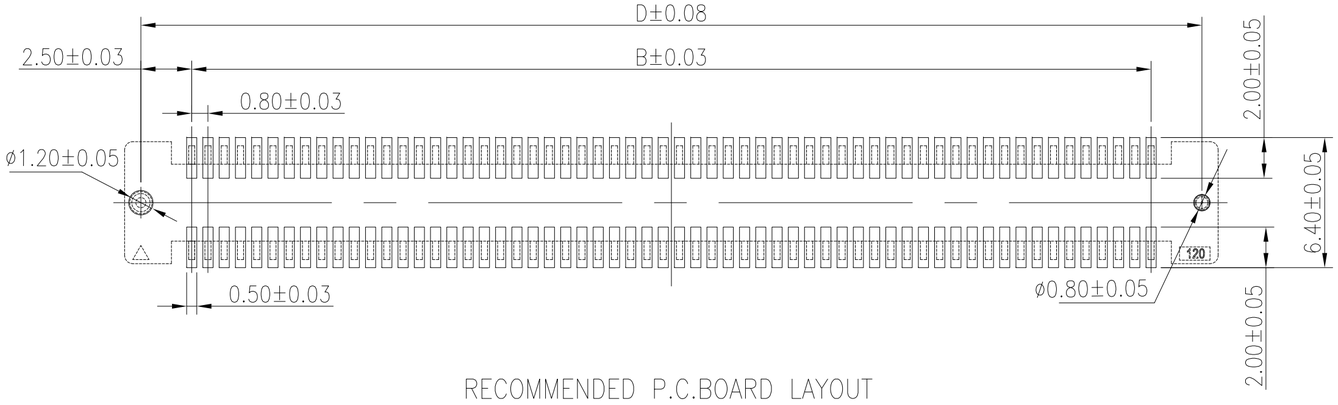




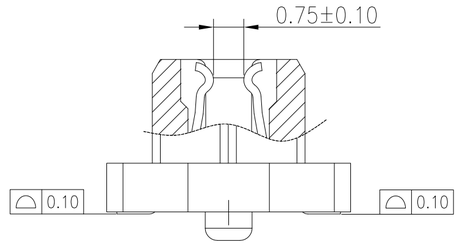
NOTES:

1. HUOSING: LCP HIGH-TEMP THERMOPLASTIC UL94V-0 COLOR:BEIGE
2. TERMINAL:PHOSPHOR BRONZE
   PLATING:1μ''GOLD FLASHOVERALL 50~100μ''NICKEL UNDER PLATED.
3. VOLTAGE:100VAC
4. CURRENT RATING: 0.5 A
5. INSULATION RESISTANCE: 500MΩ
6. DIELECTRIC WITHSTANDING VOLTAGE: 500 VAC
7. CONNECTOR MATING FORCE:90GF MAX.
8. TEMPERATURE RATING:-40℃TO+125℃
9. CODING INFORMATION:THD0812F-xxBV-GF
   - THD BTB CONNECTOR SERIES
   - 0.8 BTB HEIGHT: 5.0H
   - RECEPTACLE
   - PIN
   - PLATING: G:GOLD FLASH





RECOMMENDED P.C.BOARD LAYOUT



SECTION: A-A
SCALE 2:1

NO.of contacts	Dimensions			
	A.	B.	C.	D.
40	21.80	15.20	16.80	20.20
60	29.80	23.20	24.80	28.20
70	33.80	27.20	28.80	32.20
80	37.80	31.20	32.80	36.20
84	39.40	32.80	34.40	37.80
100	45.80	39.20	40.80	44.20
120	53.80	47.20	48.80	52.20
140	61.80	55.20	56.80	60.20
160	69.80	63.20	64.80	68.20
180	77.80	71.20	72.80	76.20
200	85.80	79.20	80.80	84.20

REV.	REVISIONS	CHK	DATE

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SHENZHENSHI THD ELECTRONICS CO., LTD.

GENERAL TOLERANCE UNLESS OTHERWISE SPECIFIED

X.X	±0.30
X.XX	±0.25
X.XXX	±0.15
ANG.	±2°

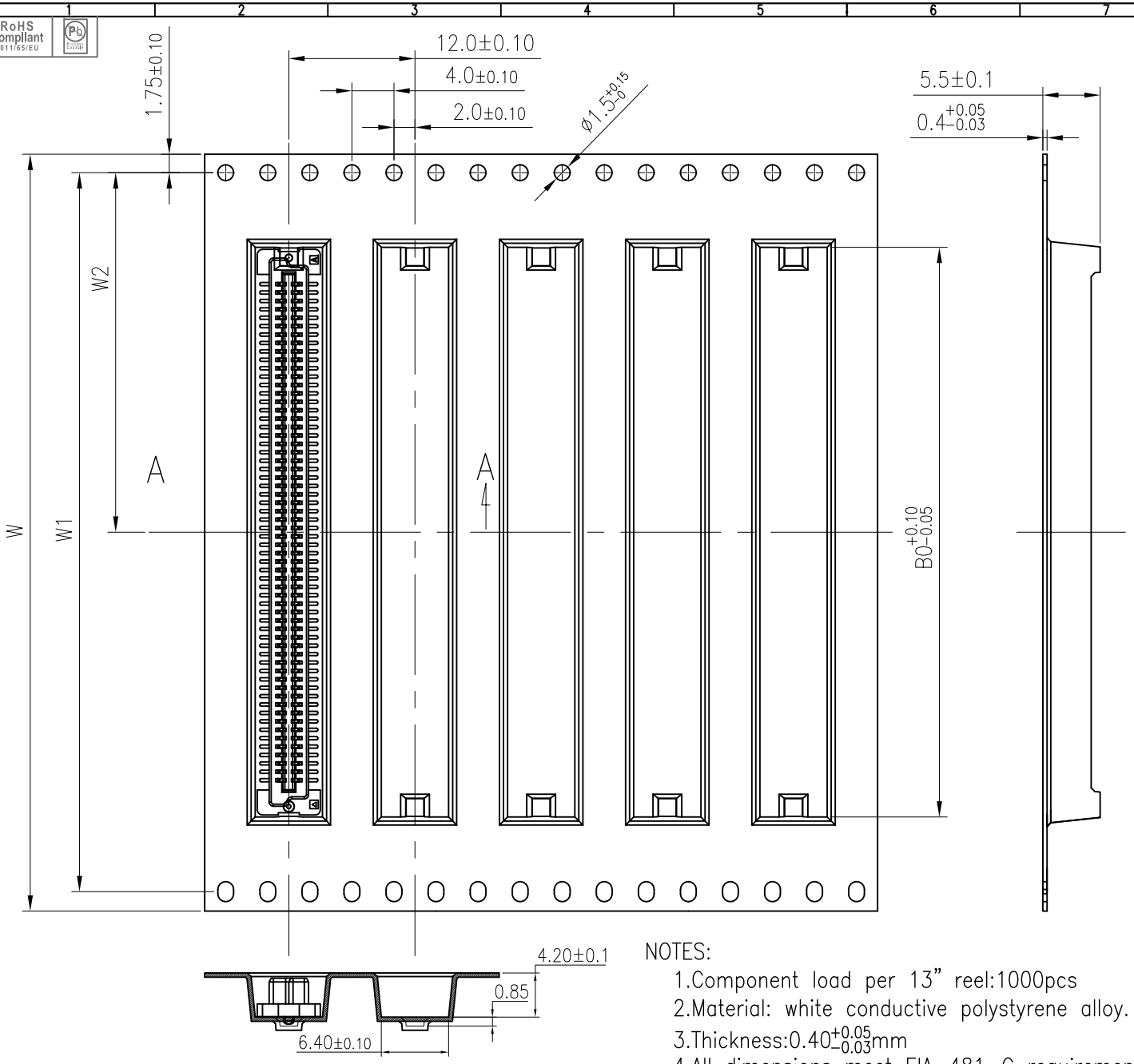
DRAWN: Kavin 2016.06.28
CHECKED: 胡文 2016.06.28
APPROVED: 黄德进 2016.06.28

PART NO. THD0812F-xxBV-GF

TITLE: 0.8mm PITCH BTB CONNECTOR RECEPTACLE ASSEMBLY 5.0H TYPE

SHEET: 1/1 | UNIT: mm | SCALE: 1:1 | SIZE: A4 | REV: X1

RoHS Compliant 2011/65/EU



SECTION A–A

NOTES:

1. Component load per 13" reel:1000pcs
2. Material: white conductive polystyrene alloy.
3. Thickness:0.40$^{+0.05}_{-0.03}$mm
4. All dimensions meet EIA-481-C requirements

0.8PH	B0	W	W1	W2
40	22.20	44	40.4	20.2
42	23.00			
44	23.80			
46	24.60			
48	25.40			
50	26.20			
52	27.00			
54	27.80			
56	28.60			
58	29.40			
60	30.20			
62	31.00			
64	31.80			
66	32.60	56	52.4	26.2
68	33.40			
70	34.20			
72	35.00			
74	35.80			
76	36.60			
78	37.40			
80	38.20			
82	39.00			
84	39.80			
86	40.60			
88	41.40			
90	42.20			
92	43.00			
94	43.80			
96	44.60	72	68.4	34.2
98	45.40			
100	46.20			
102	47.00			
104	47.80			
106	48.60			
108	49.40			
110	50.20			
112	51.00			
114	51.80			
116	52.60			
118	53.40			
120	54.20			
122	55.00			
124	55.80			
126	56.60			
128	57.40			
130	58.20			
132	59.00			
134	59.80			
136	60.60			
138	61.40			
140	62.20			
142	63.00			
144	63.80			
146	64.60	88	84.4	42.2
148	65.40			
150	66.20			
152	67.00			
154	67.80			
156	68.60			
158	69.40	88	84.4	42.2
160	70.20			
162	71.00			
164	71.80			
166	72.60			
168	73.40			
170	74.20			
172	75.00			
174	75.80			
176	76.60	104	100.4	50.2
178	77.40			
180	78.20			
182	79.00			
184	79.80			
186	80.60			
188	81.40			
190	82.20			
192	83.00			
194	83.80			
196	84.60			
198	85.40			
200	86.20			

REV.	REVISIONS	CHK	DATE

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SHENZHENSHI THD ELECTRONICS CO., LTD.

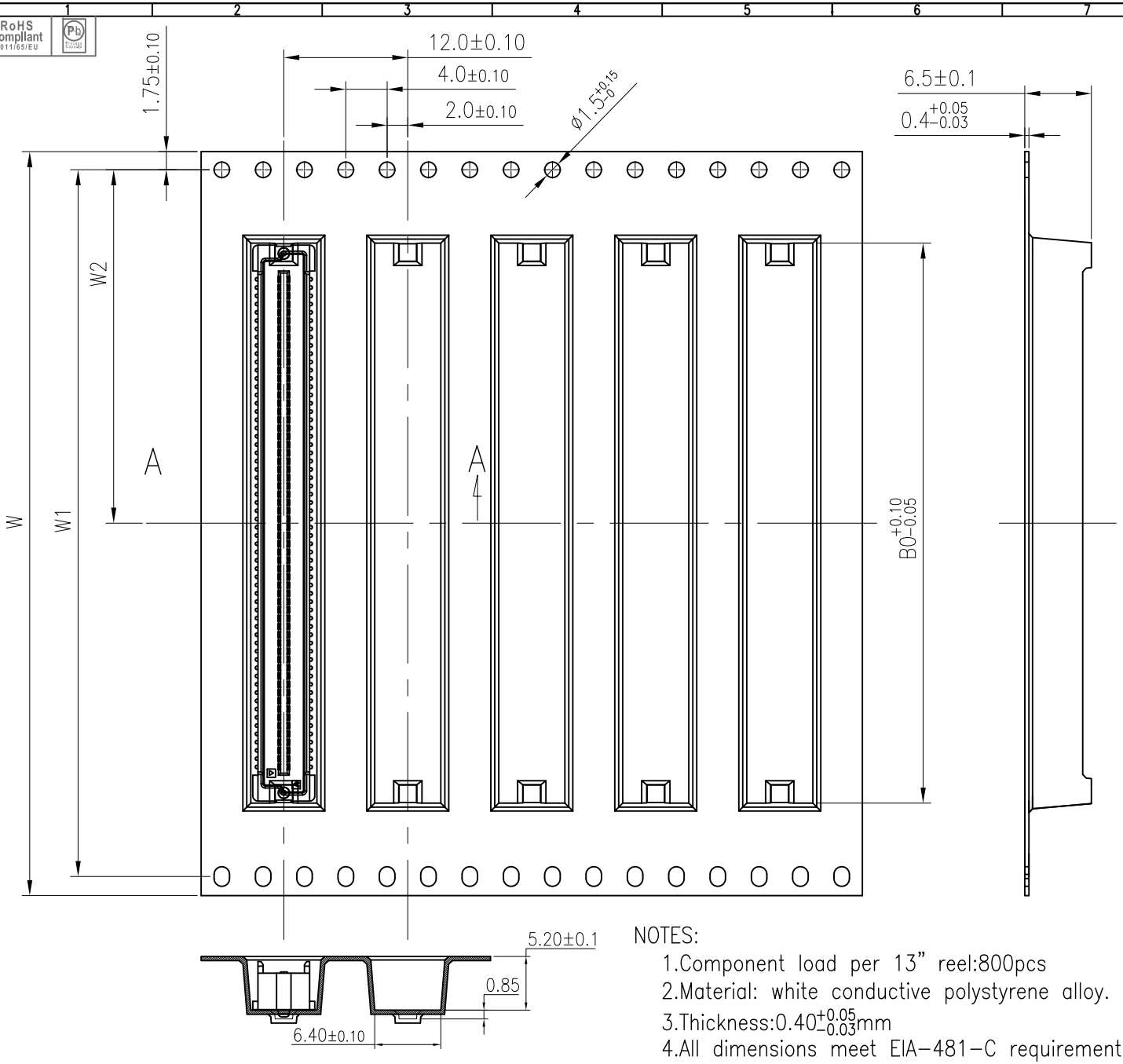
GENERAL TOLERANCE UNLESS OTHERWISE SPECIFIED

X.X	±0.35
X.XX	±0.25
X.XXX	±0.15
ANG.	±3°

DRAWN: Kavin 2019.11.02
CHECKED: 胡文 2019.11.02
APPROVED: 黄德进 2019.11.02
SHEET: 1/1

PART NO. THD0812-xxx-xxx
TITLE: THD0812 BTB SERIES CARRIER (臺--FEMALE)
UNIT: mm | SCALE: 1:1 | SIZE: A4 | REV: X1

RoHS Compliant 2011/65/EU



SECTION A–A

NOTES:

1. Component load per 13" reel:800pcs
2. Material: white conductive polystyrene alloy.
3. Thickness:0.40$^{+0.05}_{-0.03}$mm
4. All dimensions meet EIA-481-C requirements

0.8PH	B0	W	W1	W2
40	22.20	44	40.4	20.2
42	23.00			
44	23.80			
46	24.60			
48	25.40			
50	26.20			
52	27.00			
54	27.80			
56	28.60			
58	29.40			
60	30.20			
62	31.00			
64	31.80			
66	32.60	56	52.4	26.2
68	33.40			
70	34.20			
72	35.00			
74	35.80			
76	36.60			
78	37.40			
80	38.20			
82	39.00			
84	39.80			
86	40.60			
88	41.40			
90	42.20			
92	43.00			
94	43.80			
96	44.60	72	68.4	34.2
98	45.40			
100	46.20			
102	47.00			
104	47.80			
106	48.60			
108	49.40			
110	50.20			
112	51.00			
114	51.80			
116	52.60			
118	53.40			
120	54.20			
122	55.00			
124	55.80			
126	56.60			
128	57.40			
130	58.20			
132	59.00			
134	59.80			
136	60.60			
138	61.40			
140	62.20			
142	63.00			
144	63.80			
146	64.60	88	84.4	42.2
148	65.40			
150	66.20			
152	67.00			
154	67.80			
156	68.60			
158	69.40	88	84.4	42.2
160	70.20			
162	71.00			
164	71.80			
166	72.60			
168	73.40			
170	74.20			
172	75.00			
174	75.80			
176	76.60	104	100.4	50.2
178	77.40			
180	78.20			
182	79.00			
184	79.80			
186	80.60			
188	81.40			
190	82.20			
192	83.00			
194	83.80			
196	84.60			
198	85.40			
200	86.20			

REV.	REVISIONS	CHK	DATE

深圳市臺華達科技有限公司
SHENZHENSHI THD ELECTRONICS CO., LTD.

GENERAL TOLERANCE UNLESS OTHERWISE SPECIFIED

X.X	±0.35
X.XX	±0.25
X.XXX	±0.15
ANG.	±3°

DRAWN:	Kavin	2019.11.02
CHECKED:	胡文	2019.11.02
APPROVED:	黄德进	2019.11.02
SHEET:	1/1	

PART NO. THD0837-xxx-xxx

TITLE: THD0837 BTB SERIES CARRIER (公座--MALE)

UNIT:	SCALE:	SIZE:	REV:
mm	1:1	A4	X1