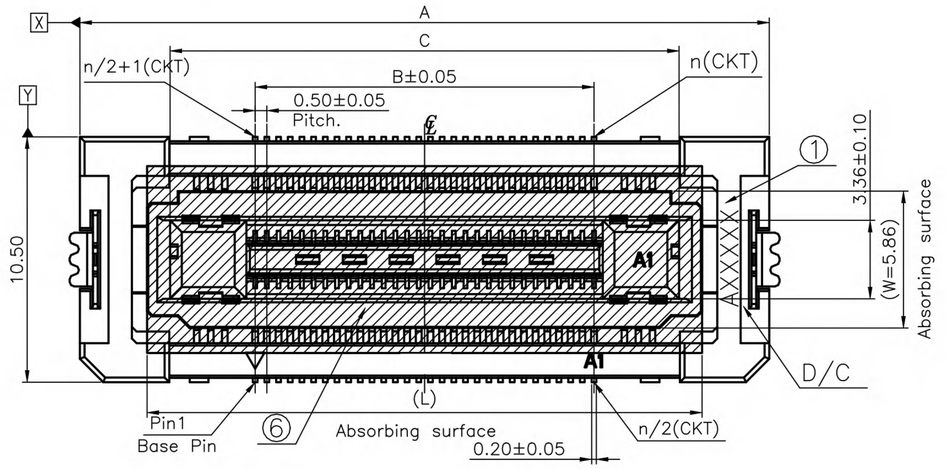
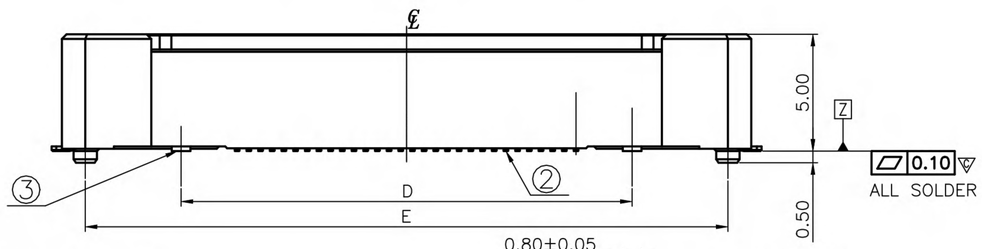
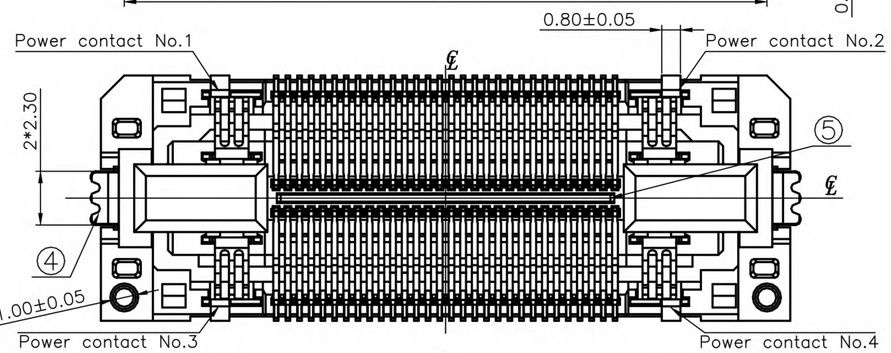
Halogen free

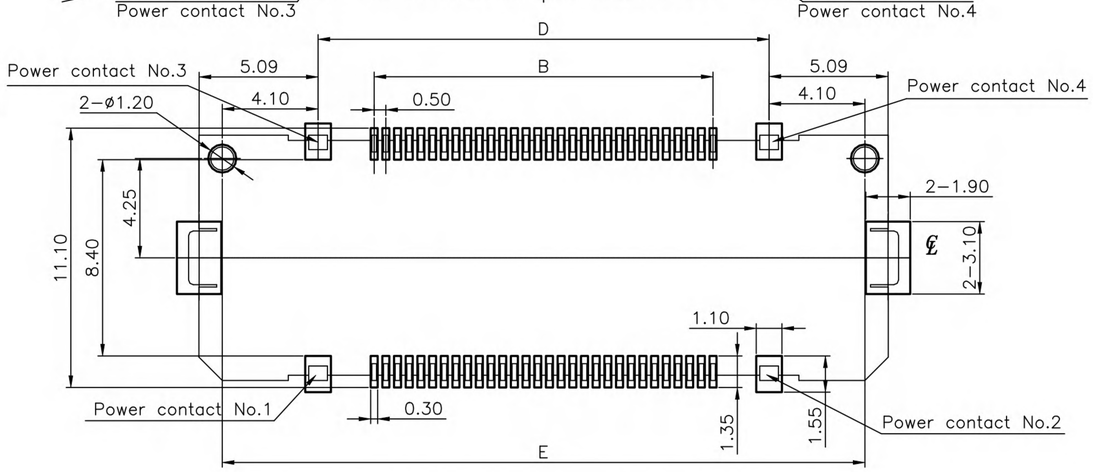
REV.	ECR/ECN No.	DESCRIPTION	DRAWN/DATE	CHECKED/DATE	APPROVLED/DATE
F	/	Add PIN No. of 30PIN	SH Chen 2022-09-26	May 2022-09-26	Rain 2022-09-26
G	/	Add mating height of SH13.0	SH Chen 2022-10-19	May 2022-10-19	Rain 2022-10-19

NO.	COMPONENTS	MATERIALS	SPECIFICATION:FINISH/COLOR	QTY.
1	HOUSING	GLASS FILLED LCP, UL94V-0	BLACK	1
2	SIGNAL CONTACT	COPPER ALLOY T=0.12mm	ALL OVER Ni UNDER PLATING:40u''~120u'' CONTACT AREA: Au 4u'' MIN. SOLDER AREA: Au 2u''Min.	N
3	POWER CONTACT	COPPER ALLOY T=0.20mm	ALL OVER Ni UNDER PLATING:40u''~120u'' CONTACT AREA: Au 4u'' MIN. SOLDER AREA: Au 2u''Min.	4
4	FIXING TAP	COPPER ALLOY T=0.30mm	ALL OVER Ni UNDER PLATING:40u''~120u'' SOLDER AREA: Au 2u''Min.	2
5	GROUND BAR	SUS T=0.30mm	N/A	1
6	MYLAR	THERMOSTABLE T=0.10mm	YELLOW	1

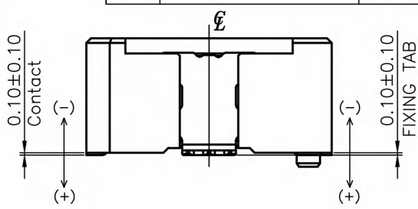


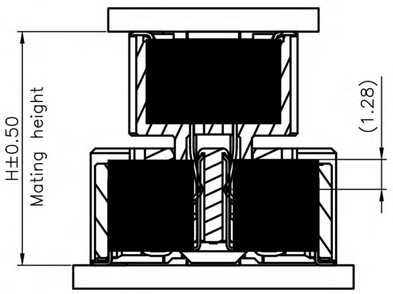






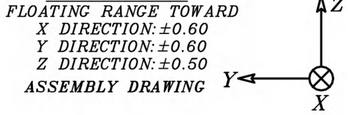
RECOMMENDED PCB SIZE(TOP SIDE)
GENERAL TOLERANCE:±0.05



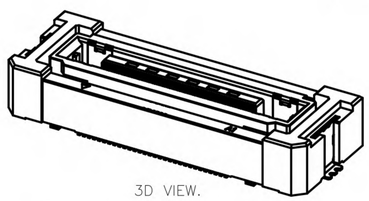


Mating Height List	H	PLUG PART No.
	8.00	B324 SERIES
	10.00	B322 SERIES
	13.00	B344 SERIES
	15.00	B326 SERIES
	20.00	B328 SERIES

SECTION X-X
FLOATING RANGE TOWARD
X DIRECTION:±0.60
Y DIRECTION:±0.60
Z DIRECTION:±0.50
ASSEMBLY DRAWING



NOTES:
1. BURRS OF CONTACT AREA ARE NOT ALOW.AND INTERPOSITION AREA SHOULD BE 0.03MM MAX.
2. "▽" MARK IS MARK IS CRIFICAL CHARACTERISTIC DIMENSION.
3. ALL MATERIAL MUST BE COMPLY RoHS.
4. D/C:AXXXXX
   - YEAR
   - MONTH
   - SHIFT
   - LINE
   - DAY
5. PLUG PART NO.: SEE MATING HEIGHT LIST
6. RECE. PART NO.: HRS-B329-1B7L1-112**-E100
   - PIN No.


3D VIEW.

DIMENSION LIST:

NO. OF POS.	A	B	C	D	E	L
20	19.50	4.50	11.78	9.30	17.50	13.75
30	22.00	7.00	14.28	11.80	20.00	16.25
40	24.50	9.50	16.78	14.30	22.50	18.75
60	29.50	14.50	21.78	19.30	27.50	23.75
80	34.50	19.50	26.78	24.30	32.50	28.75
A0(100)	39.50	24.50	31.78	29.30	37.50	33.75
B0(120)	44.50	29.50	36.78	34.30	42.50	38.75

UNLESS OTHERWISE SPECIFIED TOLERANCES			
X.	±0.30	X. °	± 5°
X.X	±0.25	X.X °	± 4°
X.XX	±0.20	X.XX °	± 3°
X.XXX	±0.15	X.XXX °	± 2°
LINEAR DIMS		ANGLES DIMS	
DWG NO.:	A-S0676		
MATERIAL	SEE NOTES		
FINISHED	SEE NOTES		

ANGLE OF PROJECTION

DOC TYP	Customer Drw	
DRAWN DATE	SH Chen 2022-10-19	
DESIGN DATE	SH Chen 2022-10-19	
CHECKED DATE	May 2022-10-19	
APPROVED DATE	Rain 2022-10-19	

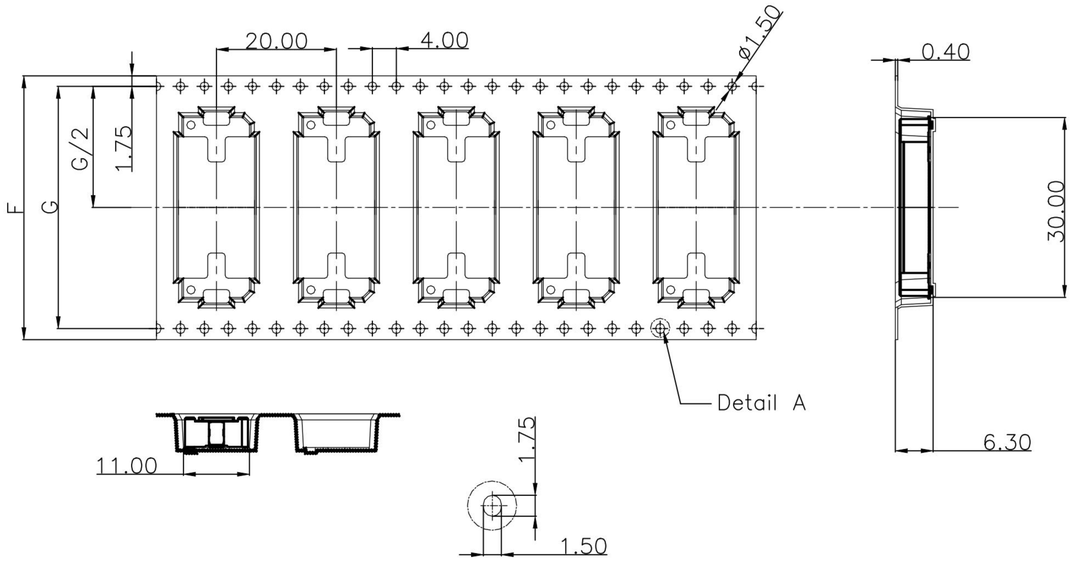
Horus Int. Electronics. Co., LTD.
Horustech Electronics. Co., LTD.

TITLE:
0.5mm Pitch Floating BTB Rec. connector

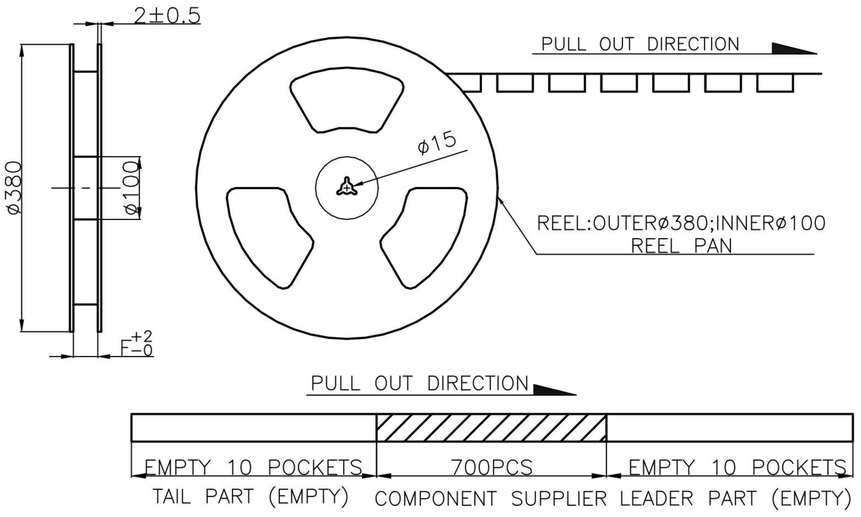
SIZE	PART NUMBER:	REV.
A4	HRS-B329-1B7L1-112**-E100	G

SCALE	4:1	UNIT : mm	SHEET 1 OF 2

PULL OUT DIRECTION



Detail A
SCALE 2:1

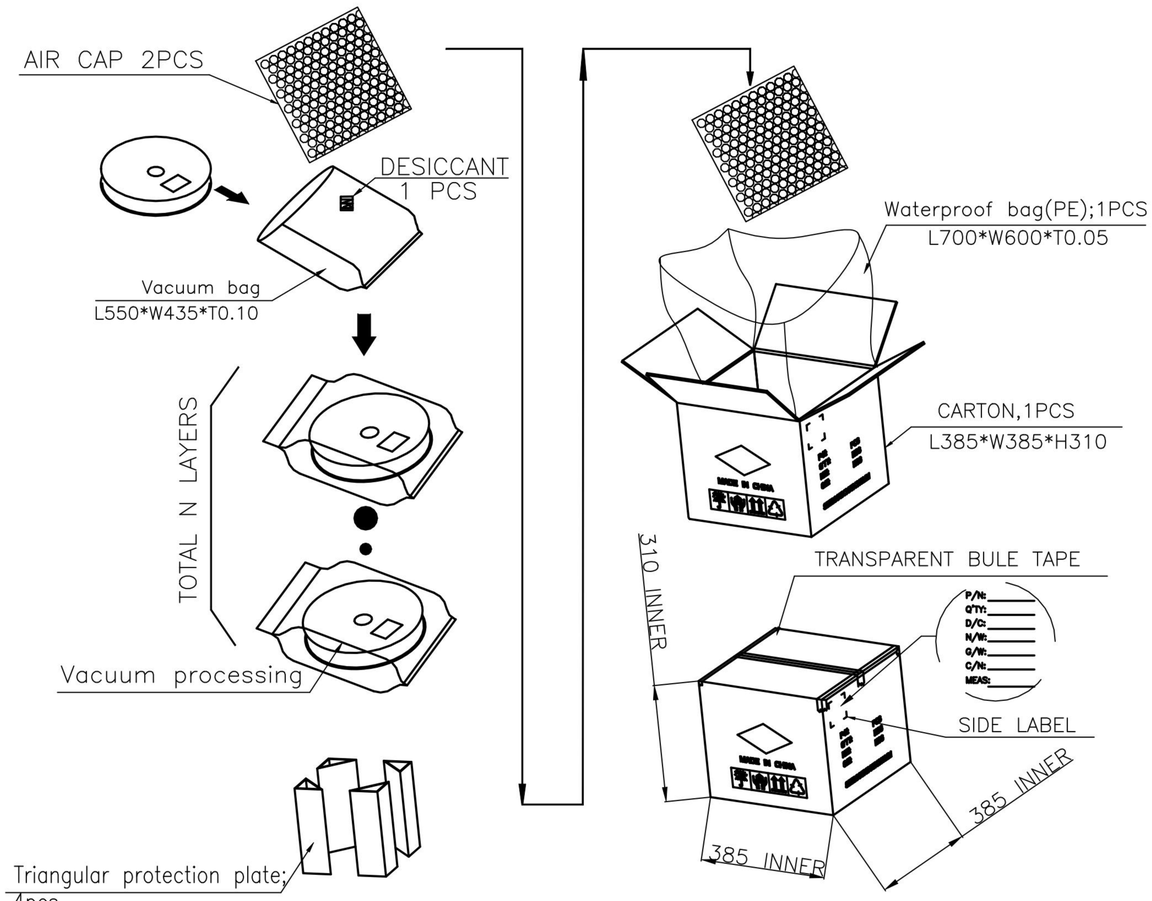


NOTES:

1. MATERIAL:
   - 1.1 CARRY TAPE:HIPS,T=0.50mm,CLEAR
   - 1.2 REEL:HIPS,BLUE.
   - 1.3 SHIM:PE,CLEAR.
2. PRIMARY PACKING:700PCS/REEL.
3. SECONDARY PACKING:"N"REELS/CARTON ("TOTAL"=N*700/CARTON).
4. PEELING RESISTANCE: 0.4N~1.4N(40~140gf);
   PEELING ANGLE: 165°~180°;
   PEELING SPEED: 300mm/minutes.

5. QTY LIST:

DIM \ NO.	20~60pin	80pin	100pin	120pin
F	44.00	56.00	56.00	72.00
G	40.40	52.40	52.40	68.40
N	6	5	5	4
TOTAL(PCS)	4200	3500	3500	2800



UNLESS OTHERWISE SPECIFIED TOLERANCES			
X.	±0.30	X. °	± 5°
X.X	±0.25	X.X °	± 4°
X.XX	±0.20	X.XX °	± 3°
X.XXX	±0.15	X.XXX °	± 2°
LINEAR DIMS		ANGLES DIMS	
DWG NO.: A-S0676			
MATERIAL	SEE NOTES		
FINISHED	SEE NOTES		

ANGLE OF PROJECTION

DOC TYP	Customer Drw	
DRAWN DATE	SH Chen	2022-10-19
DESIGN DATE	SH Chen	2022-10-19
CHECKED DATE	May	2022-10-19
APPROVED DATE	Rain	2022-10-19

Horus Int. Electronics. Co., LTD.
Horustech Electronics. Co., LTD.

TITLE:
0.5mm Pitch Floating BTB Rec. connector

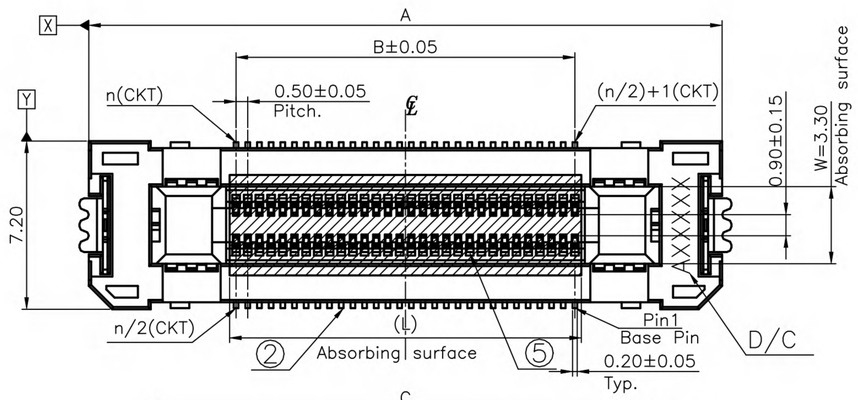
SIZE	PART NUMBER:	REV.
A4	HRS-B329-1B7L1-112**-E100	G

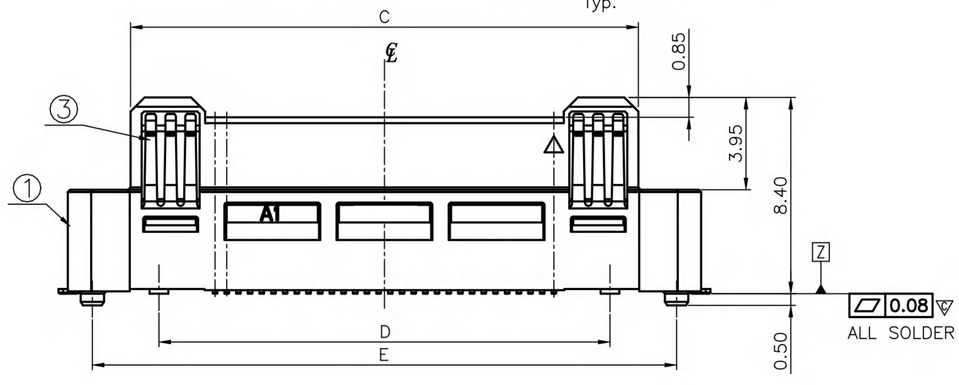
SCALE	1:1	UNIT : mm	SHEET 2 OF 2

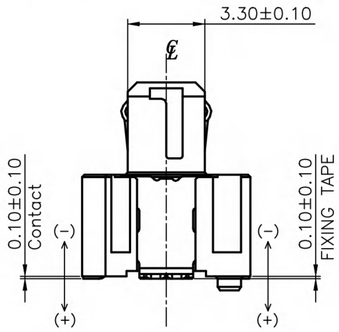
Halogen free

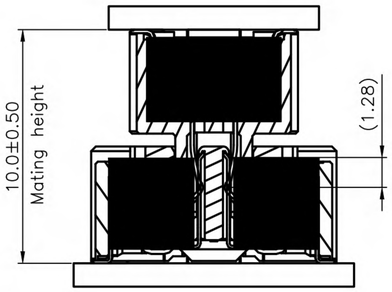
REV.	ECR/ECN No.	DESCRIPTION	DRAWN/DATE	CHECKED/DATE	APPROVLED/DATE
G	/	Mylar changed to yellow	SH Chen 2021-10-09	May 2021-10-09	Rain 2021-10-09

NO.	COMPONENTS	MATERIALS	SPECIFICATION:FINISH/COLOR	QTY.
1	HOUSING	GLASS FILLED LCP, UL94V-0	BLACK	1
2	SIGNAL CONTACT	COPPER ALLOY T=0.15mm	ALL OVER Ni UNDER PLATING:40u''~120u'' CONTACT AREA: Au 4u'' MIN. SOLDER AREA: Au 2u''Min.	N
3	POWER CONTACT	COPPER ALLOY T=0.20mm	ALL OVER Ni UNDER PLATING:40u''~120u'' CONTACT AREA: Au 4u'' MIN. SOLDER AREA: Au 2u''Min.	4
4	FIXING TAP	COPPER ALLOY T=0.20mm	ALL OVER Ni UNDER PLATING:40u''~120u'' SOLDER AREA: Au 2u''Min.	2
5	MYLAR	THERMOSTABLE T=0.10mm	YELLOW	1

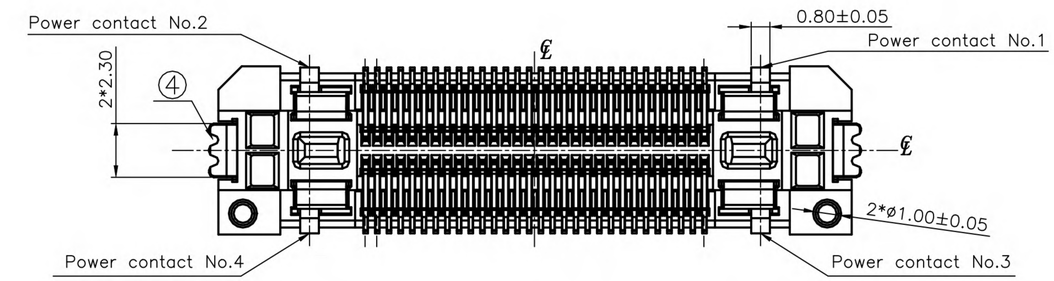


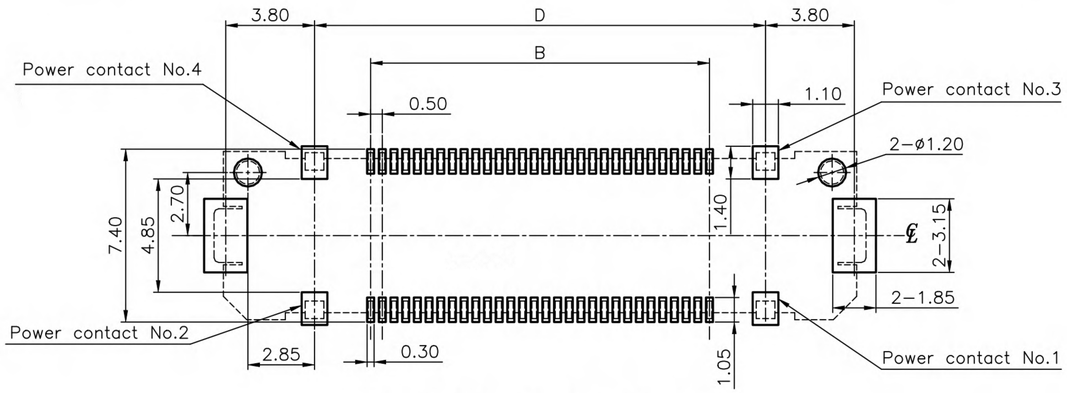






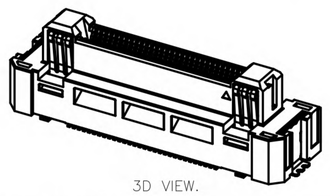
SECTION X-X
FLOATING RANGE TOWARD
X DIRECTION:±0.60
Y DIRECTION:±0.60
Z DIRECTION:±0.50
ASSEMBLY DRAWING





RECOMMENDED PCB SIZE(TOP SIDE)
GENERAL TOLERANCE:±0.05(PCB T=1.00mm)

NOTES:
1. BURRS OF CONTACT AREA ARE NOT ALOW.AND INTERPOSITION AREA SHOULD BE 0.03MM MAX.
2." ▽ " MARK IS CRIFICAL CHARACTERISTIC DIMENSION.
3. ALL MATERIAL MUST BE COMPLY RoHS.
4. D/C:AXXXXX
   - YEAR
   - MONTH
   - SHIFT
   - LINE
   - DAY
5. RECE. PART NO.:B321-1B7L1-112**-E100 SERIES
6. ALL DIMENSIONS SHALL BE MEASURED AT ROOM TEMPERATURE AFTER PRODUCT ASSEMBLY.
7. PLUG PART NO.:HRS-B322-1B7L1-112**-E100
   - PIN No.



3D VIEW.

DIMENSION LIST:

PIN No.	A	B	C	D	E	L
20	17.10	4.50	11.73	9.30	15.00	5.05
40	22.10	9.50	16.73	14.30	20.00	10.05
60	27.10	14.50	21.73	19.30	25.00	15.05
80	32.10	19.50	26.73	24.30	30.00	20.05
A0(100)	37.10	24.50	31.73	29.30	35.00	25.05
B0(120)	42.10	29.50	36.73	34.30	40.00	30.05

UNLESS OTHERWISE SPECIFIED TOLERANCES			
X.	±0.30	X. °	± 5°
X.X	±0.25	X.X °	± 4°
X.XX	±0.20	X.XX °	± 3°
X.XXX	±0.15	X.XXX °	± 2°
LINEAR DIMS		ANGLES DIMS	
DWG NO.:	A-S0624		
MATERIAL	SEE NOTES		
FINISHED	SEE NOTES		

ANGLE OF PROJECTION

DOC TYP	Customer Drw	
DRAWN	DATE	SH Chen 2021-10-09
DESIGN	DATE	SH Chen 2021-10-09
CHECKED	DATE	May 2021-10-09
APPROVED	DATE	Rain 2021-10-09

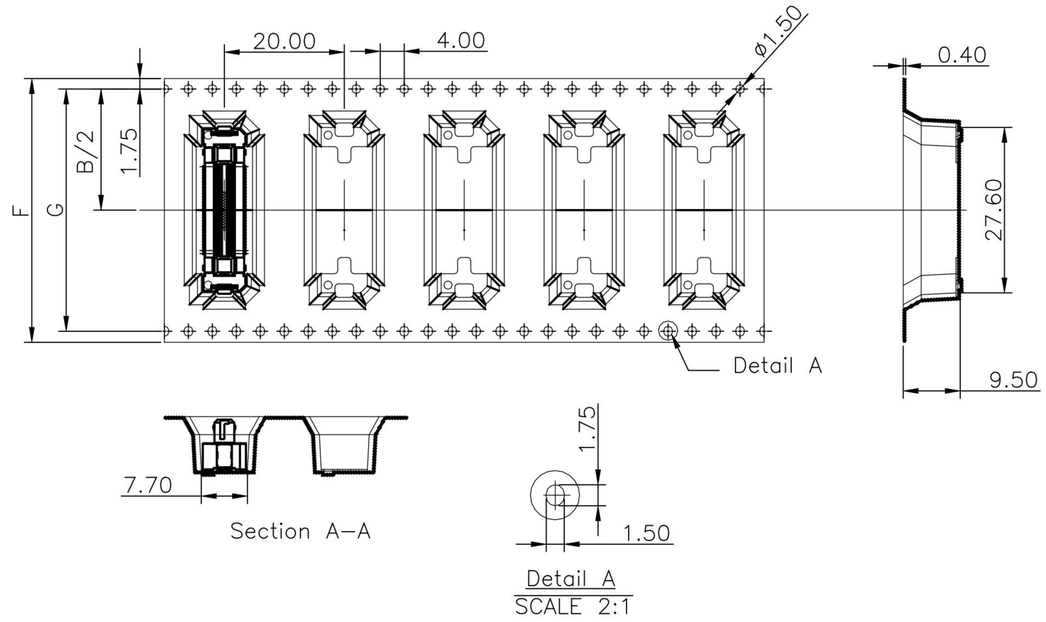
Horus Int. Electronics. Co., LTD.
Horustech Electronics. Co., LTD.

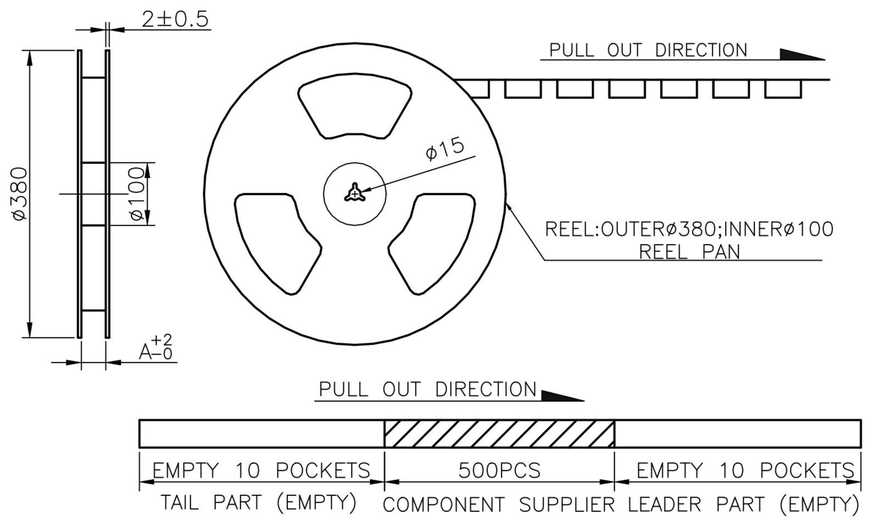
TITLE:
0.5mm Pitch Floating BTB Plug connector

SIZE	PART NUMBER:	REV.
A4	HRS-B322-1B7L1-112**-E100	G

SCALE	4:1	UNIT : mm	SHEET 1 OF 2

PULL OUT DIRECTION



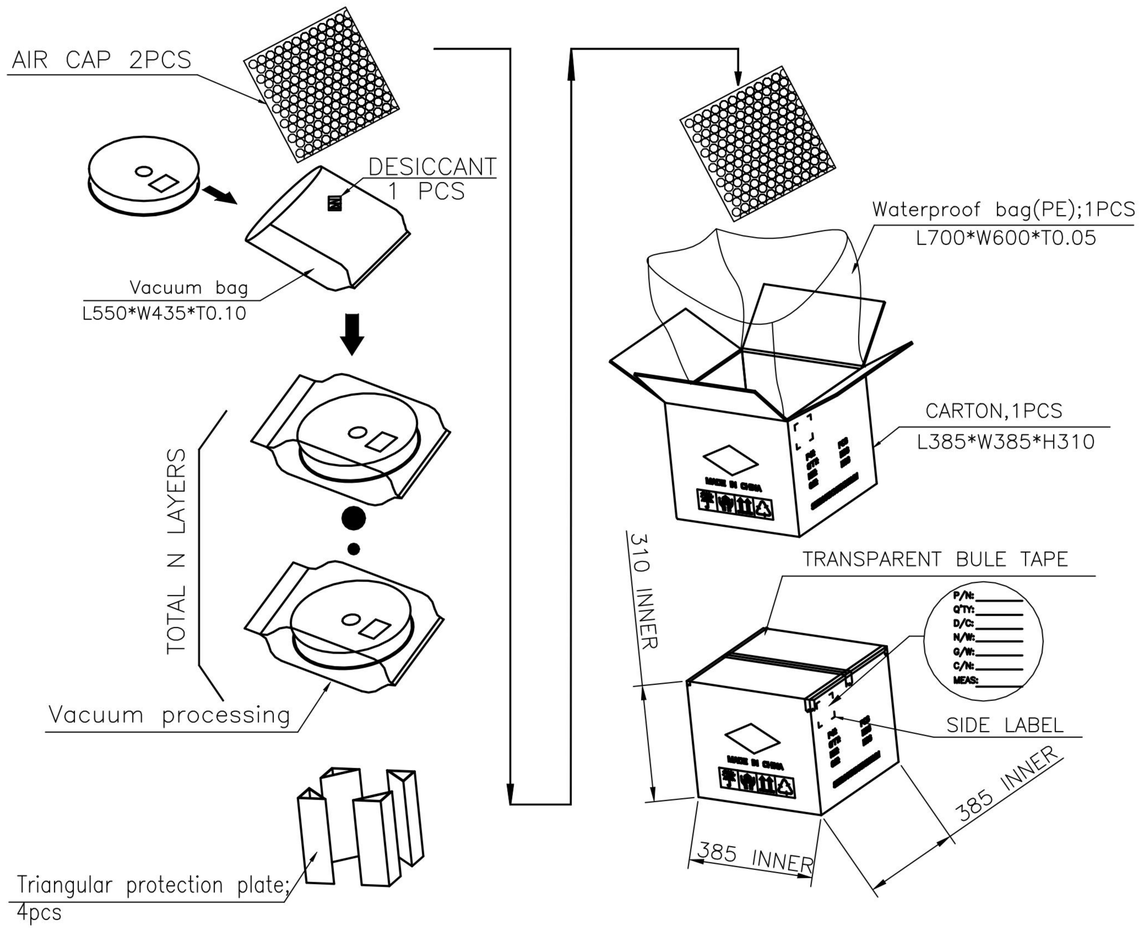


NOTES:

1. MATERIAL:
   - 1.1 CARRY TAPE:HIPS,T=0.50mm,CLEAR
   - 1.2 REEL:HIPS,BLUE.
   - 1.3 SHIM:PE,CLEAR.
2. PRIMARY PACKING:500PCS/REEL.
3. SECONDARY PACKING:"N"REELS/CARTON ("TOTAL"=N*500/CARTON).
4. PEELING RESISTANCE: 0.4N~1.4N(40~140gf);
   PEELING ANGLE: 165°~180°;
   PEELING SPEED: 300mm/minutes.

5. QTY LIST:

DIM \ NO.	20pin	40pin	60pin	80pin	100pin	120pin
F	44.00	44.00	44.00	52.00	52.00	72.00
G	40.40	40.40	40.40	50.40	50.40	68.40
N	6	6	6	5	5	4
TOTAL(PCS)	3000	3000	3000	2500	2500	2000



UNLESS OTHERWISE SPECIFIED TOLERANCES			
X.	±0.30	X. °	± 5°
X.X	±0.25	X.X °	± 4°
X.XX	±0.20	X.XX °	± 3°
X.XXX	±0.15	X.XXX °	± 2°
LINEAR DIMS		ANGLES DIMS	

ANGLE OF PROJECTION

DOC TYP	Customer Drw	
DRAWN	DATE	SH Chen 2021-10-09
DESIGN	DATE	SH Chen 2021-10-09
CHECKED	DATE	May 2021-10-09
APPROVED	DATE	Rain 2021-10-09

DWG NO.:	A-S0624
MATERIAL	SEE NOTES
FINISHED	SEE NOTES

Horus Int. Electronics. Co., LTD.
Horustech Electronics. Co., LTD.

TITLE: 0.5mm Pitch Floating BTB Plug connector

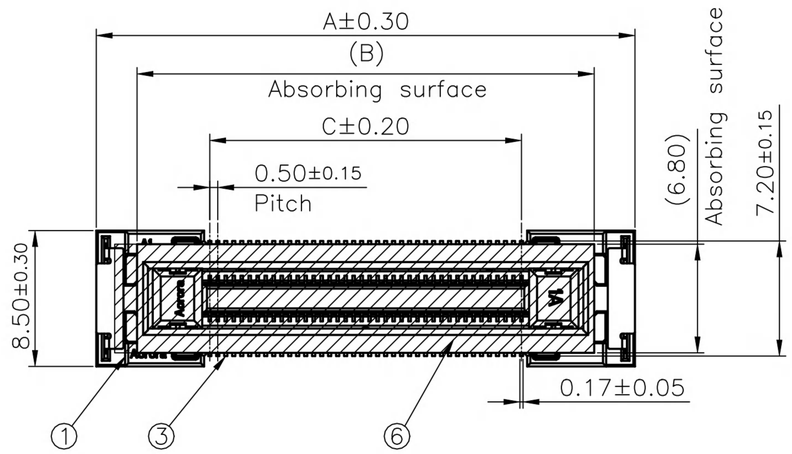
SIZE	PART NUMBER:	REV.
A4	HRS-B322-1B7L1-112**-E100	G

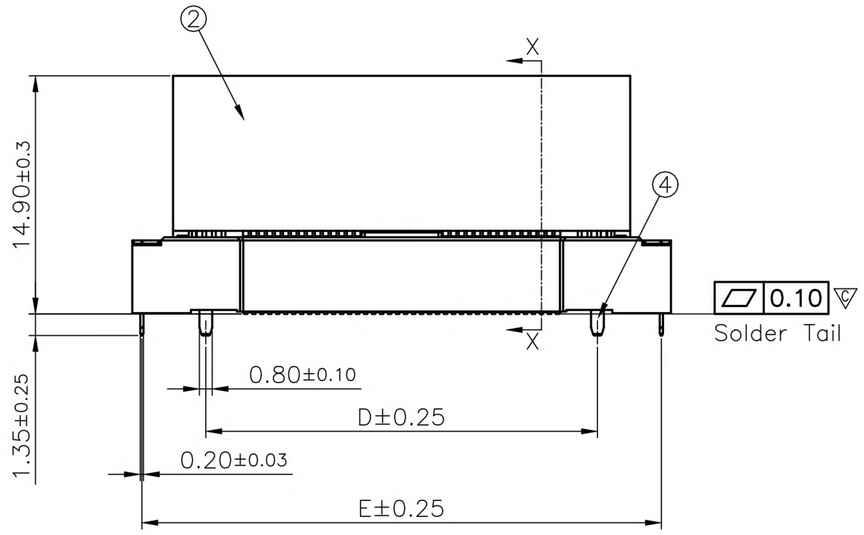
SCALE	1:1	UNIT : mm	SHEET 2 OF 2

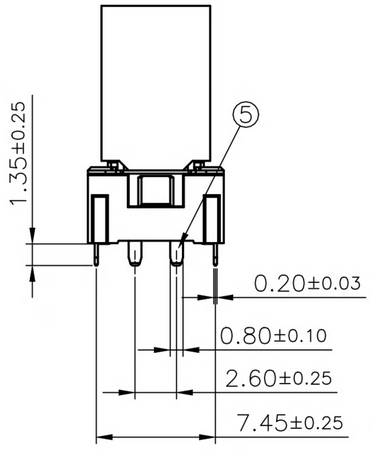
Halogen free

REV.	ECR/ECN No.	DESCRIPTION	DRAWN/DATE	CHECKED/DATE	APPROVLED/DATE
B	/	Add PIN No. of 90 and 140PIN	SH Chen 2023-03-27	Elven 2023-03-27	Rain 2023-03-27
C	/	Add PIN No. of 30PIN	SH Chen 2023-03-31	Elven 2023-03-31	Rain 2023-03-31
D	/	Add Mating Height 21.0	SH Chen 2023-05-17	Elven 2023-05-17	Rain 2023-05-17

NO.	COMPONENTS	MATERIALS	SPECIFICATION:FINISH/COLOR	QTY.
1	OUTER HOUSING	GLASS FILLED LCP UL94V-0	BLACK	1
2	INNER HOUSING	GLASS FILLED LCP UL94V-0	BLACK	1
3	SIGNAL CONTACT	COPPER ALLOY T=0.15mm	ALL OVER Ni UNDER PLATING:40u''~120u'' CONTACT AREA: Au 4u'' MIN. SOLDER AREA: Au 2u''Min.	N
4	POWER CONTACT	COPPER ALLOY T=0.20mm	ALL OVER Ni UNDER PLATING:40u''~120u'' CONTACT AREA: Au 4u'' MIN. SOLDER AREA: Au 2u''Min.	4
5	FIXING TAB	SUS T=0.20mm	ALL OVER Ni UNDER PLATING:40u''~120u'' SOLDER AREA: Au 2u''Min.	2
6	MYLAR	THERMOSTABLE T=0.10mm	YELLOW	1



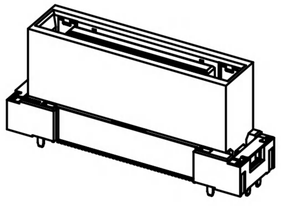




SECTION X-X

FLOATING RANGE TOWARD
X DIRECTION: ±0.80
Y DIRECTION: ±0.80
Z DIRECTION: ±0.60

ASSEMBLY DRAWING



H
18.00
20.00
21.00
22.00
24.00
25.00
26.00
28.00
30.00

Mating Height List

DIMENSION LIST:

PIN No.	A	B	C	D	E
20	18.70	13.60	4.50	9.50	17.50
30	21.20	16.10	7.00	12.00	20.00
40	23.70	18.60	9.50	14.50	22.50
60	28.70	23.60	14.50	19.50	27.50
80	33.70	28.60	19.50	24.50	32.50
90	36.20	31.10	22.00	27.00	35.00
A0(100)	38.70	33.60	24.50	29.50	37.50
B0(120)	43.70	38.60	29.50	34.50	42.50
D0(140)	48.70	43.60	34.50	39.50	47.50

NOTES:
1. BURRS OF CONTACT AREA ARE NOT ALOW.AND INTERPOSITION AREA SHOULD BE 0.03MM MAX.
2." ▽ " MARK IS CRIFICAL CHARACTERISTIC DIMENSION.
3. ALL MATERIAL MUST BE COMPLY RoHS.
4. PART NO.: HRS-B04R-3J1B1-AA180-1110
PIN No.:80PIN

UNLESS OTHERWISE SPECIFIED TOLERANCES			
X.	±0.30	X. °	± 5°
X.X	±0.25	X.X °	± 4°
X.XX	±0.20	X.XX °	± 3°
X.XXX	±0.15	X.XXX °	± 2°
LINEAR DIMS		ANGLES DIMS	

ANGLE OF PROJECTION

DWG NO.:	A-S0741	
MATERIAL	SEE NOTES	
FINISHED	SEE NOTES	

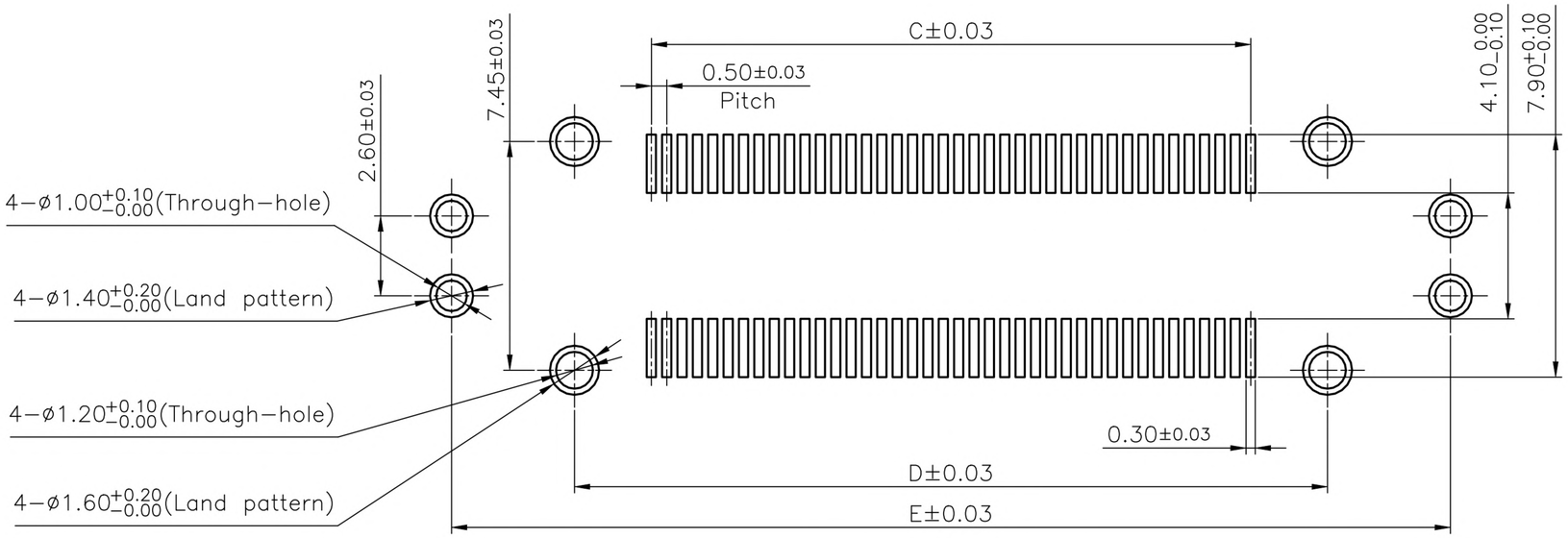
DOC TYP	Customer Drw	
DRAWN DATE	SH Chen 2023-05-17	
DESIGN DATE	SH Chen 2023-05-17	
CHECKED DATE	Elven 2023-05-17	
APPROVED DATE	Rain 2023-05-17	

Horus Int. Electronics. Co., LTD.
Horustech Electronics. Co., LTD.

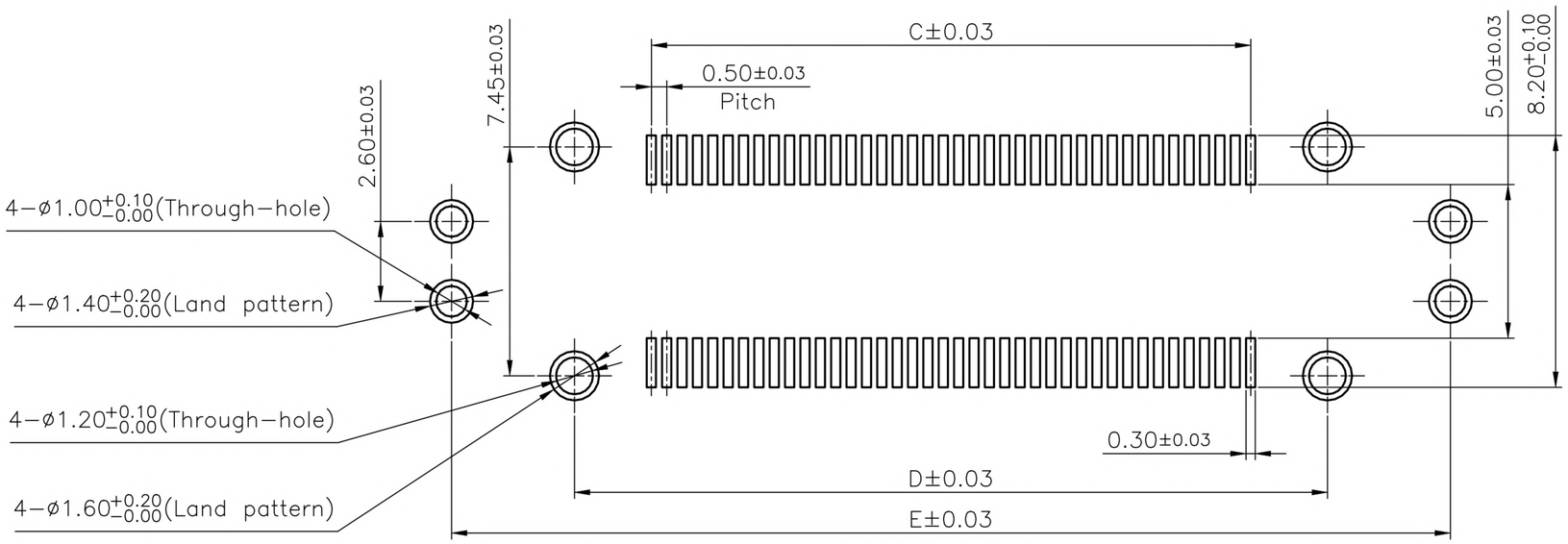
TITLE: 0.5mm Pitch Floating BTB Rece Conn.

SIZE	PART NUMBER:	REV.
A4	HRS-B04R-3J1B1-AA1**-1110	D

SCALE 2:1 | UNIT : mm | SHEET 1 OF 3



RECOMMENDED PCB SIZE
FOR COMMON DIFFERENTIAL PAIR 100ohm



RECOMMENDED PCB SIZE
FOR PCIe Gen4.0 85ohm

UNLESS OTHERWISE SPECIFIED TOLERANCES			
X.	±0.30	X. °	± 5°
X.X	±0.25	X.X °	± 4°
X.XX	±0.20	X.XX °	± 3°
X.XXX	±0.15	X.XXX °	± 2°
LINEAR DIMS		ANGLES DIMS	
DWG NO.:	A−S0741		
MATERIAL	SEE NOTES		
FINISHED	SEE NOTES		

ANGLE OF PROJECTION

DOC TYP	Customer Drw	
DRAWN	DATE	SH Chen 2023−05−17
DESIGN	DATE	SH Chen 2023−05−17
CHECKED	DATE	Elven 2023−05−17
APPROVED	DATE	Rain 2023−05−17

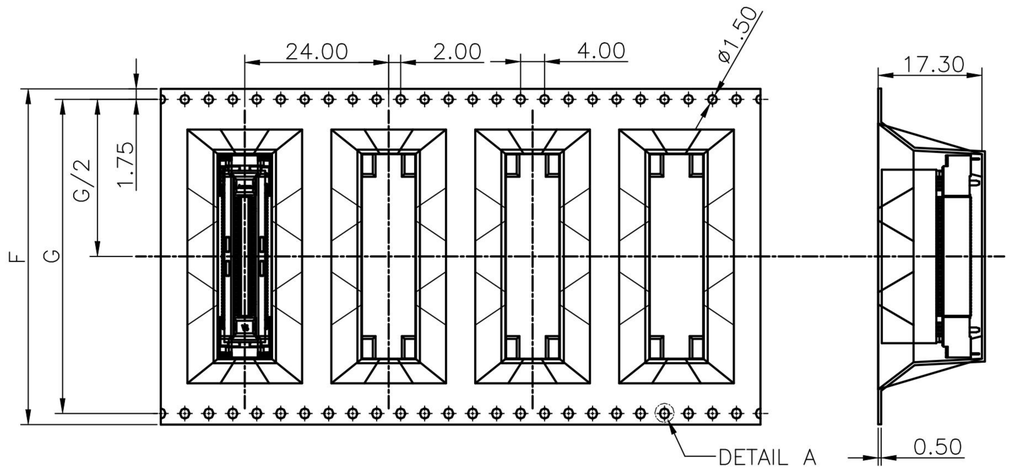
Horus Int. Electronics. Co., LTD.
Horustech Electronics. Co., LTD.

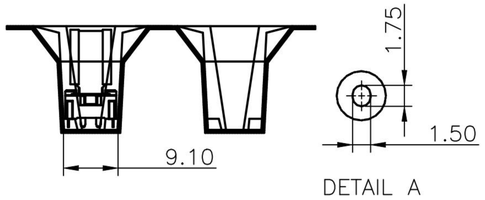
TITLE:
0.5mm Pitch Floating BTB Rece Conn.

SIZE	PART NUMBER:	REV.
A4	HRS-B04R-3J1B1-AA1**-1110	D

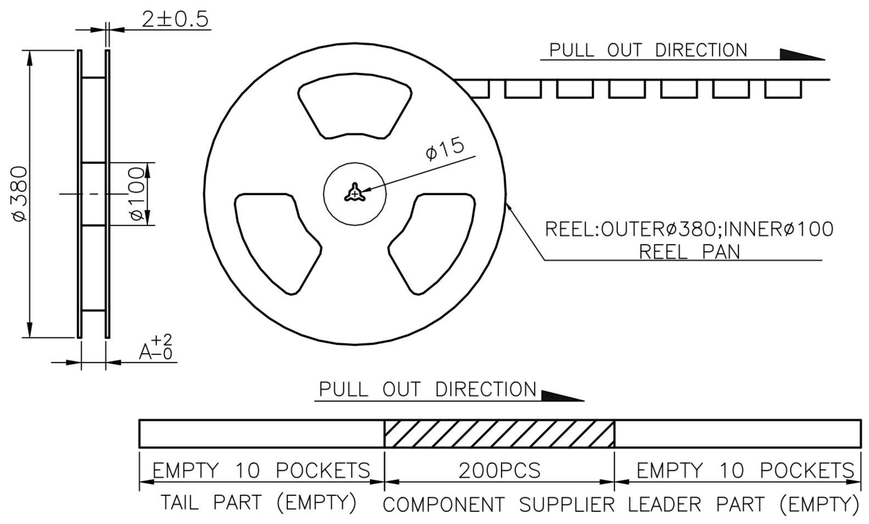
SCALE	4:1	UNIT : mm	SHEET 2 OF 3

PULL OUT DIRECTION





DETAIL A

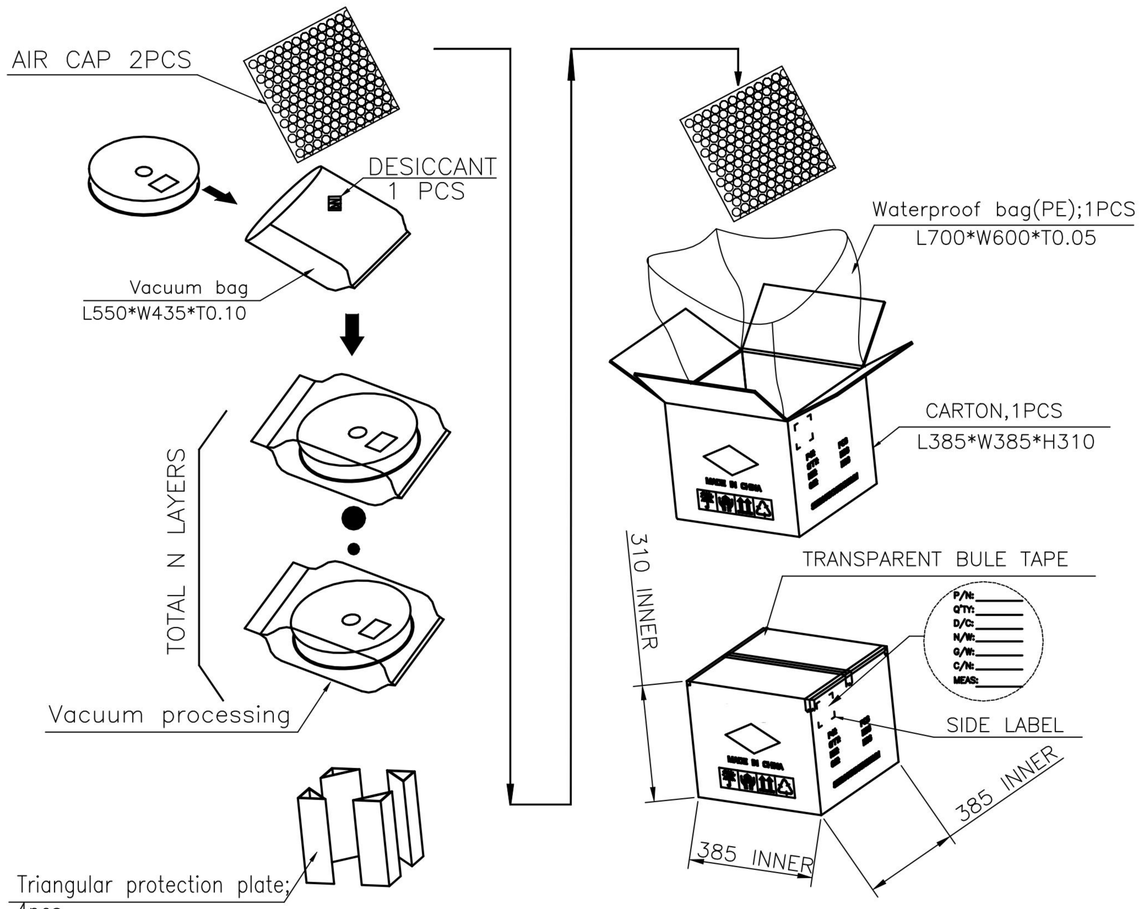


NOTES:

1. MATERIAL:
   - 1.1 CARRY TAPE:HIPS,T=0.50mm,CLEAR
   - 1.2 REEL:HIPS,BLUE.
   - 1.3 SHIM:PE,CLEAR.
2. PRIMARY PACKING:200PCS/REEL.
3. SECONDARY PACKING:"N"REELS/CARTON ("TOTAL"=N*200/CARTON).
4. PEELING RESISTANCE: 0.4N~1.4N(40~140gf);
   PEELING ANGLE: 165°~180°;
   PEELING SPEED: 300mm/minutes.

5. QTY LIST:

DIM \ NO.	20~50pin	60~90pin	100~140pin
F	44.00	56.00	72.00
G	40.40	52.40	68.40
N	6	5	4
TOTAL(PCS)	1200	1000	800



UNLESS OTHERWISE SPECIFIED TOLERANCES			
X.	±0.30	X. °	± 5°
X.X	±0.25	X.X °	± 4°
X.XX	±0.20	X.XX °	± 3°
X.XXX	±0.15	X.XXX °	± 2°
LINEAR DIMS		ANGLES DIMS	
DWG NO.:	A-S0741		
MATERIAL	SEE NOTES		
FINISHED	SEE NOTES		

ANGLE OF PROJECTION

DOC TYP	Customer Drw	
DRAWN DATE	SH Chen	2023-05-17
DESIGN DATE	SH Chen	2023-05-17
CHECKED DATE	Elven	2023-05-17
APPROVED DATE	Rain	2023-05-17

Horus Int. Electronics. Co., LTD.
Horustech Electronics. Co., LTD.

TITLE: 0.5mm Pitch Floating BTB Rece Conn.

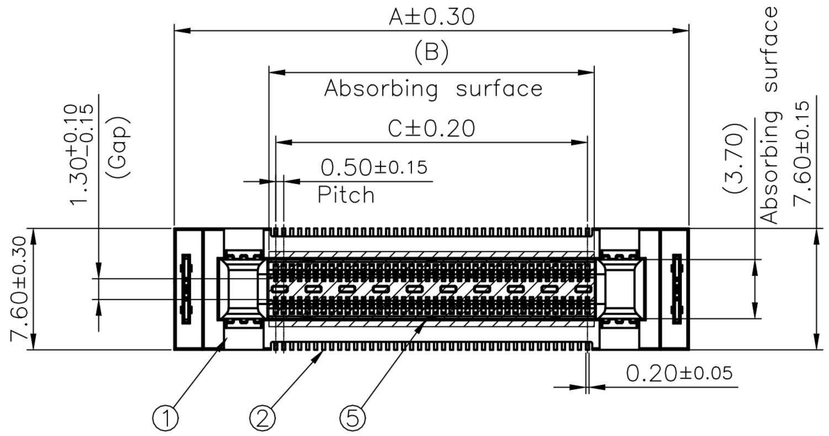
SIZE	PART NUMBER:	REV.
A4	HRS-B04R-3J1B1-AA1**-1110	D

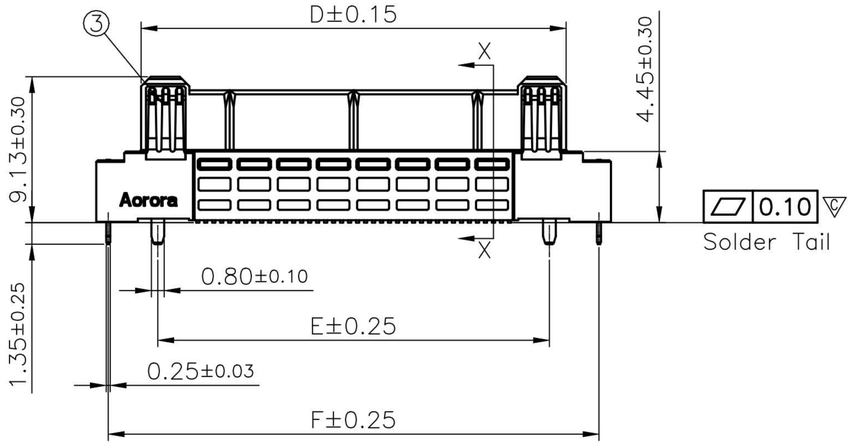
SCALE	1:1	UNIT : mm	SHEET 3 OF 3

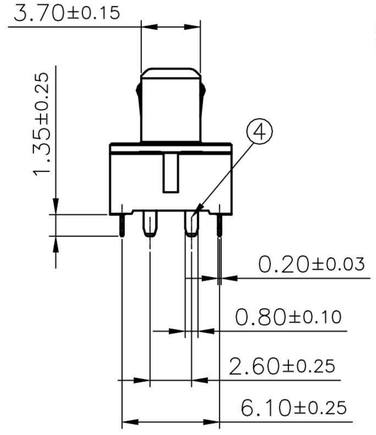
Halogen free

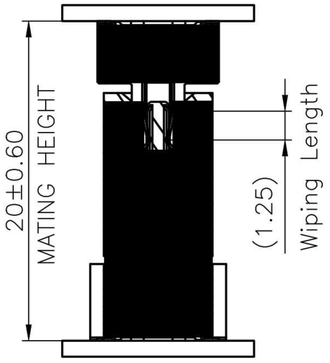
REV.	ECR/ECN No.	DESCRIPTION	DRAWN/DATE	CHECKED/DATE	APPROVLED/DATE
A	/	New Release	SH Chen 2023-10-08	Elven 2023-10-08	Rain 2023-10-08

NO.	COMPONENTS	MATERIALS	SPECIFICATION:FINISH/COLOR	QTY.
1	HOUSING	GLASS FILLED LCP UL94V-0	BLACK	1
2	SIGNAL CONTACT	COPPER ALLOY T=0.15mm	ALL OVER Ni UNDER PLATING:40u''~120u'' CONTACT AREA: Au 4u'' MIN. SOLDER AREA: Au 2u''Min.	N
3	POWER CONTACT	COPPER ALLOY T=0.20mm	ALL OVER Ni UNDER PLATING:40u''~120u'' CONTACT AREA: Au 4u'' MIN. SOLDER AREA: Au 2u''Min.	4
4	FIXING TAB	SUS304 T=0.25mm	ALL OVER Ni UNDER PLATING:40u''~120u'' SOLDER AREA: Au 2u''Min.	2
5	MYLAR	THERMOSTABLE T=0.10mm	YELLOW	1





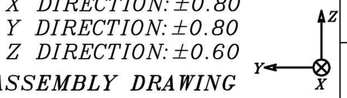




SECTION X-X

FLOATING RANGE TOWARD
X DIRECTION: ±0.80
Y DIRECTION: ±0.80
Z DIRECTION: ±0.60

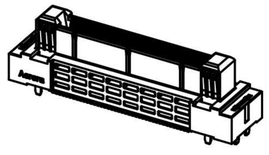
ASSEMBLY DRAWING



DIMENSION LIST:

PIN No.	A	B	C	D	E	F
10	14.70	2.85	2.00	9.09	7.00	13.20
20	17.20	5.35	4.50	11.59	9.50	15.70
30	19.70	7.85	7.00	14.09	12.00	18.20
40	22.20	10.35	9.50	16.59	14.50	20.70
50	24.70	12.85	12.00	19.09	17.00	23.20
60	27.20	15.35	14.50	21.59	19.50	25.70
70	29.70	17.85	17.00	24.09	22.00	28.20
80	32.20	20.35	19.50	26.59	24.50	30.70
90	34.70	22.85	22.00	29.09	27.00	33.20
A0(100)	37.20	25.35	24.50	31.59	29.50	35.70
B0(120)	42.20	30.35	29.50	36.59	34.50	40.70

NOTES:
1. BURRS OF CONTACT AREA ARE NOT ALOW.AND INTERPOSITIONAREA SHOULD BE 0.03MM MAX.
2." Ⓥ " MARK IS CRIFICAL CHARACTERISTIC DIMENSION.
3. ALL MATERIAL MUST BE COMPLY RoHS.
4. PART NO.: HRS-B06P-3G1B1-AA180-1110
   PIN No.: 80PIN



UNLESS OTHERWISE SPECIFIED TOLERANCES			
X.	±0.30	X. °	± 5°
X.X	±0.25	X.X °	± 4°
X.XX	±0.20	X.XX °	± 3°
X.XXX	±0.15	X.XXX °	± 2°
LINEAR DIMS		ANGLES DIMS	

ANGLE OF PROJECTION

DWG NO.:	A-S0877	
MATERIAL	SEE NOTES	
FINISHED	SEE NOTES	

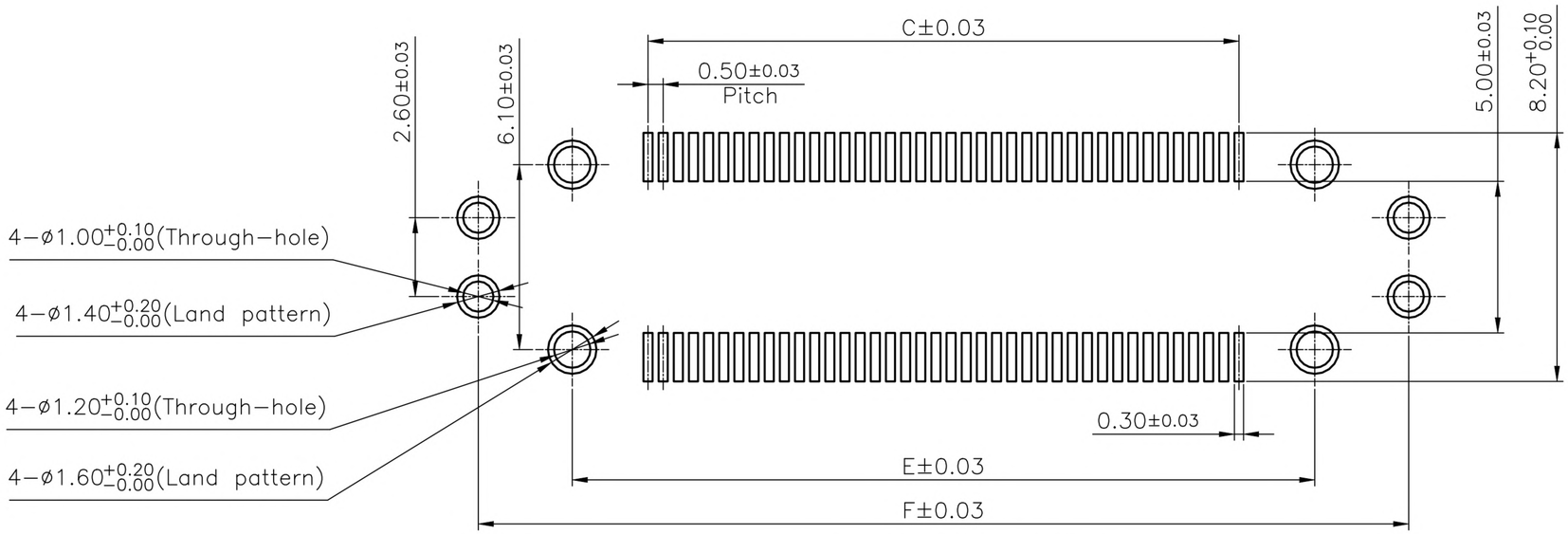
DOC TYP	Customer Drw	
DRAWN	DATE	SH Chen 2023-10-08
DESIGN	DATE	SH Chen 2023-10-08
CHECKED	DATE	Elven 2023-10-08
APPROVED	DATE	Rain 2023-10-08

Horus Int. Electronics. Co., LTD.
Horustech Electronics. Co., LTD.

TITLE:
0.5mm Pitch SH20 Floating BTB Plug Conn.

SIZE	PART NUMBER:	REV.
A4	HRS-B06P-3G1B1-AA1**-1110	A

SCALE	2:1	UNIT : mm	SHEET 1 OF 3



RECOMMENDED PCB SIZE

UNLESS OTHERWISE SPECIFIED TOLERANCES			
X.	±0.30	X. °	± 5°
X.X	±0.25	X.X °	± 4°
X.XX	±0.20	X.XX °	± 3°
X.XXX	±0.15	X.XXX °	± 2°
LINEAR DIMS		ANGLES DIMS	
DWG NO.:	A−S0877		
MATERIAL	SEE NOTES		
FINISHED	SEE NOTES		

ANGLE OF PROJECTION

DOC TYP	Customer Drw	
DRAWN	DATE	SH Chen 2023−10−08
DESIGN	DATE	SH Chen 2023−10−08
CHECKED	DATE	Elven 2023−10−08
APPROVED	DATE	Rain 2023−10−08

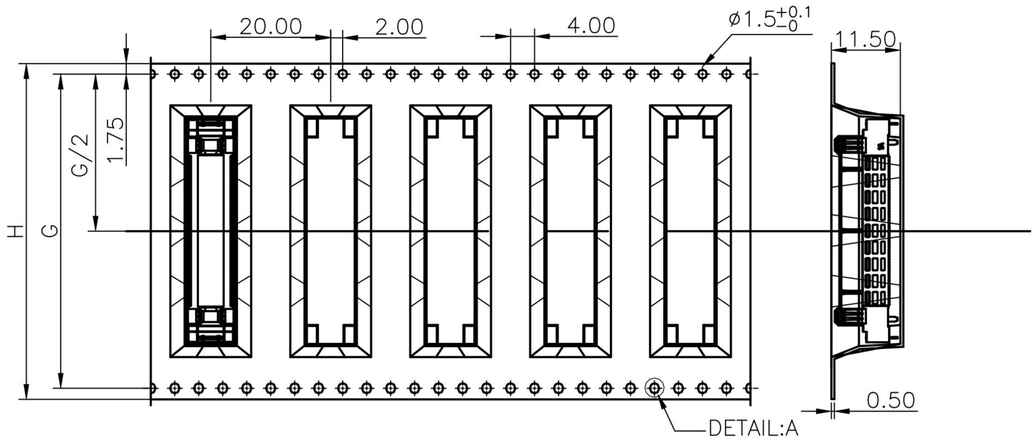
Horus Int. Electronics. Co., LTD.
Horustech Electronics. Co., LTD.

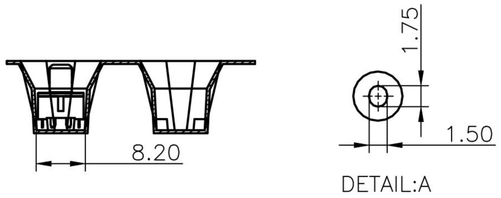
TITLE:
0.5mm Pitch SH20 Floating BTB Plug Conn.

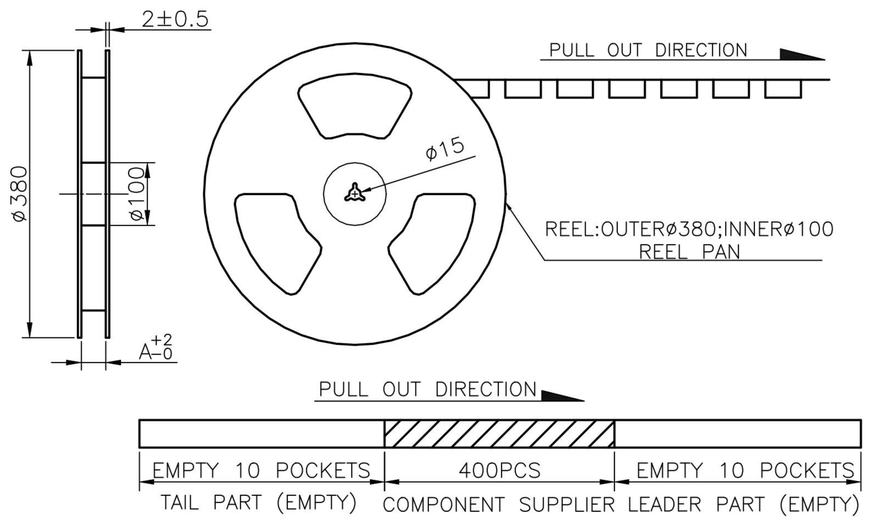
SIZE	PART NUMBER:	REV.
A4	HRS-B06P-3G1B1-AA1**-1110	A

SCALE	4:1	UNIT : mm	SHEET 2 OF 3

PULL OUT DIRECTION





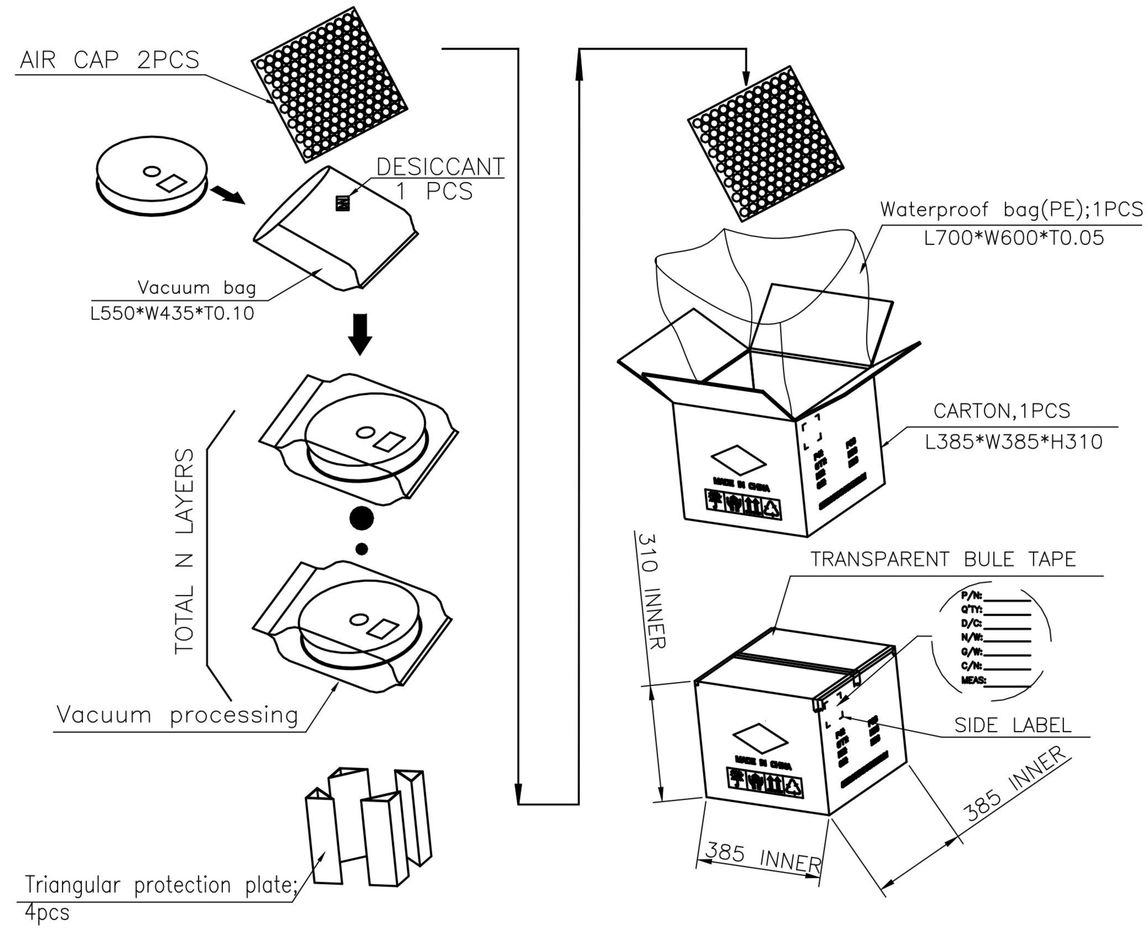


NOTES:

1. MATERIAL:
   - 1.1 CARRY TAPE:HIPS,T=0.50mm,CLEAR
   - 1.2 REEL:HIPS,BLUE.
   - 1.3 SHIM:PE,CLEAR.
2. PRIMARY PACKING:400PCS/REEL.
3. SECONDARY PACKING:"N"REELS/CARTON ("TOTAL"=N*400/CARTON).
4. PEELING RESISTANCE: 0.4N~1.4N(40~140gf);
   PEELING ANGLE: 165°~180°;
   PEELING SPEED: 300mm/minutes.

5. QTY LIST:

DIM \ NO.	10~50pin	60~100pin	120~140pin
H	44.00	56.00	72.00
G	40.40	52.40	68.40
N	6	5	4
TOTAL(PCS)	2400	2000	1600



UNLESS OTHERWISE SPECIFIED TOLERANCES			
X.	±0.30	X. °	± 5°
X.X	±0.25	X.X °	± 4°
X.XX	±0.20	X.XX °	± 3°
X.XXX	±0.15	X.XXX °	± 2°
LINEAR DIMS		ANGLES DIMS	
DWG NO.:	A-S0877		
MATERIAL	SEE NOTES		
FINISHED	SEE NOTES		

ANGLE OF PROJECTION

DOC TYP	Customer Drw	
DRAWN DATE	SH Chen	2023-10-08
DESIGN DATE	SH Chen	2023-10-08
CHECKED DATE	Elven	2023-10-08
APPROVED DATE	Rain	2023-10-08

Horus Int. Electronics. Co., LTD.
Horustech Electronics. Co., LTD.

TITLE:
0.5mm Pitch SH20 Floating BTB Plug Conn.

SIZE	PART NUMBER:	REV.
A4	HRS-B06P-3G1B1-AA1**-1110	A

SCALE	1:1	UNIT : mm	SHEET 3 OF 3

1. 适用范围 Scope

此作业规范适用于： 0.5mm Pitch 浮动板对板系列

This product specifications is applied for: 0.5mm pitch Floating board to board connector series

2. 关联规格 Related Specifications

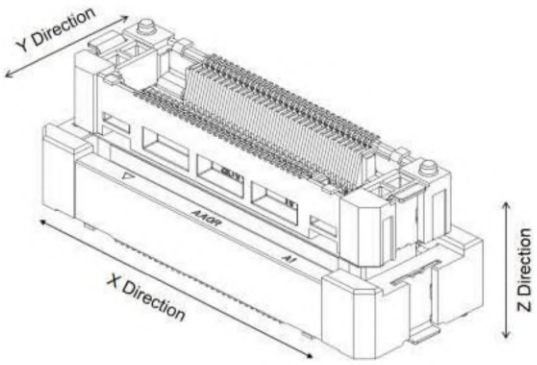
EIA-364 :电子连接器及接插件测试程序 Electronic connectors and sockets test procedure.

IEC 60068 :汽车电子试验规范 Automotive electronic test specification.

UL STD-94 :关于塑材设备零配件及器材阻燃性测试规范 Specification for fire resistance test of plastic material equipment, spare parts and equipment.

3. 构造，尺寸，材料 Structure, Dimensions and Materials

详见成品图 Refer to the drawing.



4. 移动量 Floating Range

本系列产品插拔时允许以下的浮动范围

Following are the floating range:

1) X 方向可移动量/ X Direction: ±0.6mm
2) Y 方向可移动量/ Y Direction: ±0.6mm
3) Z 方向可移动量/ Z Direction: ±0.5mm

5. 标准状态 Standard State

5.1 额定电压 Rating voltage: AC/DC 50V

5.2.1 信号额定电流 Signal Rating current: 0.5A(0.4A when all terminals are used as power supply)

5.2.2 电源额定电流 Power Rating current: 5A/PIN*4Power Pin

5.3 温湿度范围 Temperature and humidity range

5.3.1 使用温度 operating temperature：-55℃~+125℃;

5.3.2 使用湿度 operating humidity:25%~85%RH;

5.3.3 储存温度 storage temperature：-10℃~+40℃;

5.3.4 储存湿度 storage humidity range：75%RH.

本制品不含 SS-00259 和 RoHS 禁止使用的环境物质

THIS PRODUCT ALL MATERIAL MUST BE COMPLY WITH SS-00259 OR RoHS

6. 性能 Performance

6.1 构造 Structure

序号 NO.	项 目 Item	测试方法 Test Method	规格要求 Specifications
1	外观 Appearance	依照 EIA364-18 确认 Confirm in accordance with EIA 364-18.	无损坏 No physical damage

6.2 电气性能 Electrical Performance

序号 NO.	项 目 Item	测试方法 Test Method	规格要求 Specifications
1	接触阻抗 Contact Resistance	依照 EIA 364-23 测试。最大开放电压：20mV 以下,短路电流：1mA，周波数 1KHz. Comply with method EIA 364-23. Voltage: 20mV Max., current:1mA Max. , frequency: 1KHz	信号端 Signal terminal： 初始值 Initial：60mΩ Max. 测试后 After test :80mΩ Max. 电源端 Power terminal： 初始值 Initial：20mΩ Max. 测试后 After test :30mΩ Max.
2	绝缘阻抗 Insulation Resistance	依照 EIA 364-21C 测试。相邻端子间 DC 250V，60±5 秒 Comply with method EIA 364-21C. Apply DC 250V between next terminals for 60±5 seconds.	信号端 Signal terminal： 初始值 Initial：100MΩ Min. 测试后 After test :100 MΩ Min. 电源端 Power terminal： 初始值 Initial：1000MΩ Min. 测试后 After test :1000 MΩ Min.
3	耐电压 Dielectric withstanding voltage	依照 EIA 364-20 测试。相邻信号端子间 AC 250V，60±5 秒；电源端子间 600V，60±5 秒； Comply with method EIA 364-20. AC 250V between adjacent terminals, 60 ± 5 seconds ; AC 600V between power terminal, 60±5 seconds.	无击穿，无短路 No Breakdown， No short circuit.
4	温升测试 Temperature rise	依照 EIA 364-70 测试。 Comply with method EIA 364-70. 满足以下细节： The following details shall apply: （a）测试电流及环境温度：信号电流 0.5A @ 95±2℃. 电源电流 5A@95±2℃ （所有端子用于电源时为 0.4A） （a）Test current and ambient temperature : Signal current0.5A @ 95±2℃. Power current5A@ 95±2℃. (0.4A when all terminals are used as power supply) （b）测试持续时间：1 小时 （b）Test duration : 1 hour	Allowable Max temp:125℃ including T-Rise

本制品不含 SS-00259 和 RoHS 禁止使用的环境物质

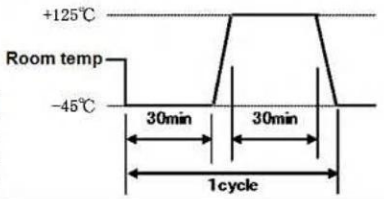
THIS PRODUCT ALL MATERIAL MUST BE COMPLY WITH SS-00259 OR RoHS

6.3 机械性能 Mechanical performance

序号NO.	项 目 Item	测试方法 Test Method	规格要求 Specifications
1	端子保持力 Terminal Retention Force	依 EIA 364-05B 测试。将端子 25mm/分匀速垂直从胶芯槽内拔出 Comply with method EIA 364-05B. Extract the terminal vertically from the housing at a rate of 25mm/minute.	1.0N/terminal Min.
2	插入力及拔出力 Insertion/extraction force	依 EIA 364-13B 测试。将焊板插座以 25mm/分匀速垂直从插头中拔出， Comply with method EIA 364-13B. The socket connector on boards shall be extracted vertically from the plug connector at the constant speed of 25mm/min.	初始值 Initial: 插入力 Insertion force: 1 N/PIN Max. 拔出力 Extraction force: 0.03N/PIN Min.
3	振动试验 Vibration test	依照 EIA 364-28E 测试。 Comply with method EIA 364-28E. 插座与插头焊板后嵌合，实验条件如下： The connector shall be mounted on the test PC Boards. 振动方向 vibration direction：X, Y, Z 振动加速 Vibration acceleration： 30.8m/s² 每个轴测试时间 Each axis test time： 8 测试电流 Test current：100mA 测试表格 Test table: Excitation: Broadband random vibration Test duration for each dimensional axis: 8 h Acceleration rms value: 30,8 m/s² Vibration profile Fehler! Verweisquelle konnte nicht gefunden werden. Frequency in Hz / Power spectral density in (m/s²)²/Hz: 5 / 0.884 10 / 20 55 / 6.5 180 / 0.25 300 / 0.25 360 / 0.14 1000 / 0.14 2000 / 0.14	试验中无 1μs 以上瞬断； Discontinuity: 1μs or less.
4	冲击试验 Shock test	依照 EIA 364-27B 测试。 Comply with method EIA 364-27B. 插座与插头焊板嵌合，按以下条件： Socket and plug connector mated on boards, according to the following conditions: Operating mode of DUT: Operating mode II.c Peak acceleration: 500 m/s² Temperature: RT Duration of pulse: 6 ms shock form: Half-sine Number of shocks per direction (±X, ±Y, ±Z): 10 Number of DUTs: 6	试验中无 1μs 以上瞬断； Discontinuity: 1μs or less.
5	微震腐蚀 Fretting corrosion	The connector shall be mounted on the test PC Board. 插座与插头焊板嵌合，按以下条件测试 - 0.5mm, 10Hz, 10 万次循环 Tested according to Continental requirement (B2B mating system (plug mated in socket)) - 0.5mm, 10Hz, 100 000 cycles	试验中无 1μs 以上瞬断； Discontinuity: 1μs or less.
6	插拔耐久性 Insertion/extraction endurance	依照 EIA 364-09 测试。插座和插头焊板后以 25mm/分的速度进行插入和拔出 100 次 Comply with method EIA 364-09. The socket and plug mated on boards and unmated 100 times at a speed of 25mm per minute	无明显外观不良 电气性能满足要求 No evidence of damage. The electrical performances should meet the spec. specified.

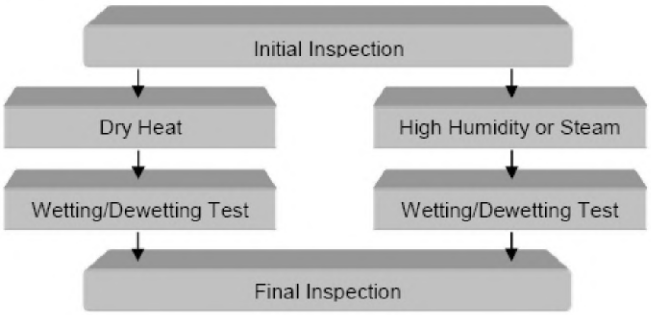
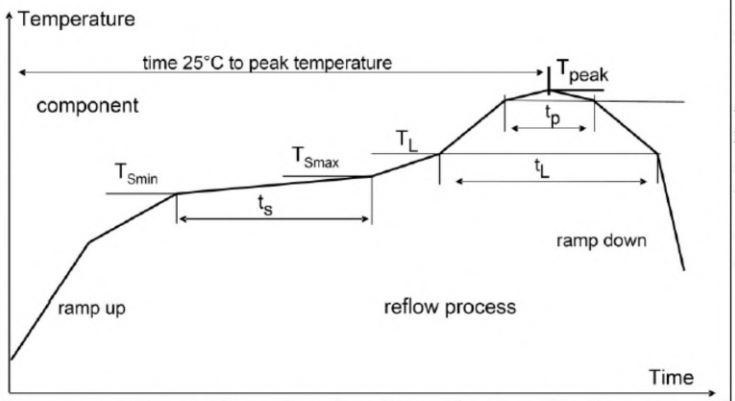
本制品不含 SS-00259 和 RoHS 禁止使用的环境物质
THIS PRODUCT ALL MATERIAL MUST BE COMPLY WITH SS-00259 OR RoHS

6.4 环境性能和其它 Environmental Performance and Others

序号 NO.	项 目 Item	测试方法 Test conditions	规格要求 Specifications
1	耐热性 Heat Resistance	依照 EIA 364-17 测试。插座与插头焊板嵌合，125±2℃中放置时间 1000H 后取出，1~2 小时常温放置后进行测试. Comply with method EIA 364-17. Socket and plug connector mated on boards and exposed in the heat chamber 125±2℃for 1000 hours. Then it shall be tested after being placed for 1~2 hours under room temperature.	无明显外观不良 电气性能满足要求 No evidence of damage. The electrical performances should meet the spec. specified.
2	耐湿性 Humidity	依照 EIA 364-31B 测试。 插座与插头焊板嵌合，温度 85±2℃，相对湿度 85%RH 环境放置 1500 小时 Comply with method EIA 364-31B. Socket and plug connector mated on boards and exposed in the humidity chamber 85±2℃, 85%RH for 1500 hours.	无明显外观不良 电气性能满足要求 No evidence of damage. The electrical performances should meet the spec. specified.
3	盐雾试验 Salt Spray test	依照 EIA 364-26B 测试。 插座与插头焊板嵌合，温度 35±2℃；盐水比重 5±1%喷雾试验，48h，试验后常温水洗干燥后进行测试。 Comply with method EIA 364-26B, Method II, Condition A. Socket and plug connector mated on boards, temperature:35±2℃, the proportion of salt water was 5±1%. 48 hours. Then it shall be tested at room temperature after washing and drying.	Appearance: No evident corrosion
4	冷热冲击试验 Thermal shock test	依照 EIA 364-32C, Condition I 测试。插座与插头焊板嵌合，温度-45° C - +125° C，1000 小时/最低和最高温保持 30 分钟一次循环。 Comply with method EIA 364-32C, Condition I. Socket and plug connector mated on boards and exposed -40° C - +125° C, 1000h/holding time 30min je tmin / tmax .  STEP / TEMP. (℃) / TIME (min.) 1 / -45 +0/-5 / 30 2 / -45 to +125 / 5max 3 / +125 +3/-0 / 30 4 / +125 to -45 / 5max	无明显外观不良 电气性能满足要求 No evidence of damage. The electrical performances should meet the spec. specified.
5	温度循环试验 Temperatur cycling	依照EIA 364-32C测试。插座与插头焊板嵌合，温度-55° C - +125° C，1500小时，速率4K/分钟，每温度保持30分钟。 Comply with method EIA 364-32C. Socket and plug connector mated on boards and exposed -55° C - +125° C, 1500H/4K/min / holding time 30min. It shall be measured the contact resistance after the test.	无明显外观不良 电气性能满足要求 No evidence of damage. The electrical performances should meet the spec. specified.
6	焊接性测试 Solderability test	依照 EIA 364-52 测试。按以下条件进行焊接性测试: Comply with method EIA 364-52. Solderability test according to the following condition. (a) Pre heating : 150~180° C, 60~120s (b) Soldering : 225° C min., 20±5s (c) Peak temp. : 230±3℃ (d) Solder : SAC305 96.5Sn / 3.0Ag / 0.5Cu (e) Paste : ALPHA OM-338.	粘锡面积大于 95% Actual soldered area must be more than 95% of the dipped area intended to be soldered.

本制品不含 SS-00259 和 RoHS 禁止使用的环境物质

THIS PRODUCT ALL MATERIAL MUST BE COMPLY WITH SS-00259 OR RoHS

序号 NO.	项 目 Item	测试方法 Test conditions	规格要求 Specifications
7	脱湿测试 De-Wetting test	After exposed to preconditioning environment, solderability of the connector shall be confirmed. Test based on the following flow chart. For preconditioning, the following details shall apply. [Dry heat ageing] (a) Standard : IEC 60068-2-20 Ageing 3b (b) Temperature : 155℃ (c) Soak time : 16h [Steam ageing] (a) Standard : IEC 60068-2-20 Ageing 1a or Ageing 1b (b) Temperature : Steam ageing (c) Soak time : 1h Test condition: (a) Soldering bath temp. : 260±5 ℃ (b) Dipping time : 5±0.5 sec. For Flow chart, the following details shall apply. 	A maximum of 5% of the termination area is allowed to be dewetted or dissolved.
8	焊锡耐热性 Resistance to soldering heat	依照 EIA 364-56A 测试。以下记条件进行焊锡耐热性试验: Comply with method EIA 364-56A. The pin header shall be tested resistance to soldering heat in the following condition. 条件/condition (1)回流焊/Reflow 适用回数/Applied number:3 回/twice 峰值温度:  Component Size / Ramp up to 150 °C / T_{Smin} / t_S / T_{Smax} / T_L / t_L / T_{peak}* / t_p** / T 25 °C to peak / Ramp down All / Min. 3.0 °C/sec / ≥190 °C / ≥110 sec / ≥200 °C / ≥217 °C / ≥90 sec / ≥260 °C / ≥40 sec*** / ≥300 sec / Min. 6.0 °C/sec	粘锡面积大于 95% 电气性能满足要求 Actual soldered area must be more than 95% of the dipped area intended to be soldered. The electrical performances should meet the spec. specified.

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THIS PRODUCT ALL MATERIAL MUST BE COMPLY WITH SS-00259 OR RoHS

7. 测试顺序表 Test Sequence

Test Description	Products qualification test sequence														
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	P
1. Appearance	1,4	1,3	1,4	1,6	1,6	1,6	1,6	1,6	1,10	1,6	1,6	1,6	1,3	1,3	1,4
2. Contact Resistance				3,5	3,5	3,5	3,5	3,5	3,7	3,5	3,5	3,5			2,5
3. Insulation Resistance									4,8						
4. Dielectric Withstanding Voltage									5,9						
5. Temperature rise	3														
6. Terminal Retention Force		2													
7. Insertion/extraction Force			3												
8. Vibration test				4											
9. Shock test					4										
10. Fretting corrosion						4									
11. Insertion/extraction endurance							4								
12. Heat Resistance								4							
13. Humidity									6						
14. Salt Spray test										4					
15. Thermal Shock test											4				
16. Humidity resistance(cycling)												4			
17. Solderability	2		2	2	2	2	2	2	2	2	2	2	2		
18. De-Wetting test														2	
19. Resistance to soldering heat															3
Sample Size	5	5	5	5	5	5	5	5	5	5	5	5	10	10	30

8. 包装 Packing

详见包装图。See the packaging drawing

9. 产品保质期 Term of a guarantee

从交货日起 1 年（1 year from delivery day）

10. 修改内容 Change content

版本 Rev.	改正日期 Modify date	改正内容 Modifications	Written by	Checked by
A	2021/04/12	New	SH Chen	May
B	2022/11/8	增加 13 合高料号	SH Chen	May
C	2023/1/11	增加所有端子用于电源时额定电流为 0.4A 的说明	SH Chen	May

本制品不含 SS-00259 和 RoHS 禁止使用的环境物质

THIS PRODUCT ALL MATERIAL MUST BE COMPLY WITH SS-00259 OR RoHS

操作方法 Handling method

1.使用注意事项/Attention of using connector

a.产品插入时，须慢慢垂直插入，不可倾斜、扭转。
When the connector is mating, connector shall not be twisted, and then mated it slowly.
b.严禁使用未焊板产品进行测试，会导致产品被破坏。
It is strictly forbidden to use unsoldered products for testing, which will cause the product to be damaged.
c.带有一定角度插入有卡顿现象时，请拔出后再重新插入。若直接插入会有胶屑产生。
Please do not be locked at an angle. When locked, please extraction and re-mated. The angle mating, occurs shavings.
d.产品两端嵌合的松紧度,确认两端嵌合轻松后水平插入。
After locate , Please mate connector where the molds fit loosely,after check the molds fit loosely , Push it straight.
e.拔出时，产品须垂直拔起。仅一端拔出，会损坏主体。
Please be pulled out straight. Pulling on one side, the mold is broken
f.装配连接器和 PCB 板时，不能只固定连接器;实际应用时，PCB 需在连接器附近用铆钉固定;
It shall not be held the connector only, when you are assembled for the connector and P.C.B.; When it shall be used the connector ,the P.C.B are held by the rivet certainty near mounting of the connector;
g.图 8 及图 9 所示指导角度，插入前不可大于此角度（未锁定）;
Guide Angle as shown in figure 8 and figure 9 ,not greater than this Angle before insertion (not locked)
h.指导角度是初始位置角度,不是装配角度
Guiding angle is initial location angle. It is not the angle to mate.
i.请在图 10,11 的角度下进行装配.
Please mate below the angle of the figure 10.11

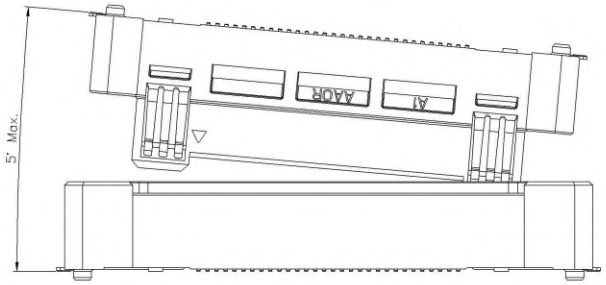


图 8/Fig8

初始角度
Guiding angle

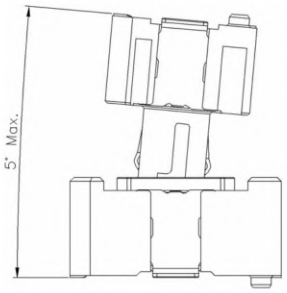


图 9/Fig9

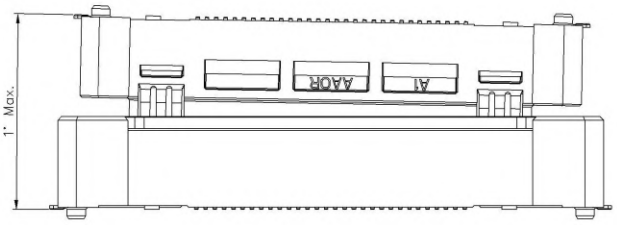


图 10/Fig.10

装配角度
Mating angle

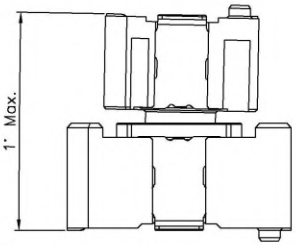


图 11/Fig.11

本制品不含 SS-00259 和 RoHS 禁止使用的环境物质
THIS PRODUCT ALL MATERIAL MUST BE COMPLY WITH SS-00259 OR RoHS

制 品 仕 样 书 Product specification		Part name	Pitch 0.50 SH10.0 Floating BTB connector series		
Horus Int. Electronics. Co., LTD. Horustech Electronics. Co., LTD.		Part No.	HRS-B329-1B7L1-112**-E100 HRS-B322-1B7L1-112**-E100 HRS-B324-1B7L1-112**-E100 HRS-B326-1B7L1-112**-E100 HRS-B328-1B7L1-112**-E100 HRS-B344-1B7L1-112**-E100		7/7
Document No.: IS.EQC.180	Date: 2023/1/11	Rev.: C	Written by: SH Chen	Checked by: May	Approved by: Rain

1.适用范围 Scope

此作业规范适用于： 0.5mm Pitch 浮动量 0.80mm 带电源 PIN 浮动板对板系列

This product specifications is applied for：0.5mm Pitch floating mount 0.80mm Power PIN floating BTB connector series

2. 关联规格 Related Specifications

EIA-364:电子连接器及接插件测试程序 Electrical Connector/Socket Test Procedures Including Environmental Classifications.

IEC 60068:汽车电子试验规范 Connectors For Electronic Equipment Tests And Measurements.

UL STD-94:关于塑材设备零配件及器材阻燃性测试规范 Specification for fire resistance test of plastic material equipment, spare parts and equipment.

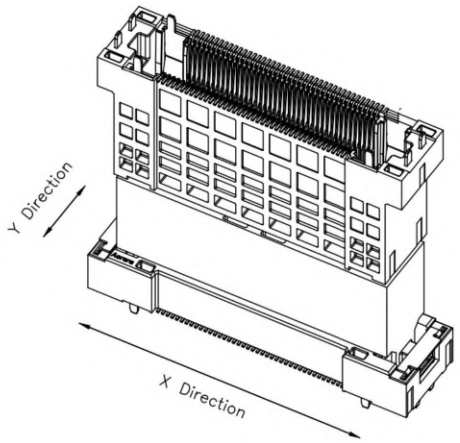
SAE/USCAR-2 REVISION6: 汽车电连接器系统性能规范 Performance Specification for Automotive Electrical Connector Systems

EN 60721: 电子设备连接器测试和测量 Connectors for electronic equipment Tests and measurements

IEC 60721-3-1: 环境条件分类 Classification of environmental conditions Part 3: Classification of groups of environmental parameters and their severities-Section 1: Storage

3.构造，尺寸，材料 Structure, Dimensions and Materials

详见成品图 Refer to the drawing.



4. 浮动量 Floating Range

本系列产品插拔时允许以下的浮动范围

Following are the floating range:

1) X 方向可浮动量/ X Direction: ±0.80mm
2) Y 方向可浮动量/ Y Direction: ±0.80mm
3) Z 方向可移动量/ Z Direction: ±0.60mm

5.标准状态 Standard State

5.1 额定电压 Rating voltage: AC/DC 50V

5.2.1 信号额定电流 Signal Rating current: 0.5A

5.2.2 电源额定电流 Power Rating current: 5A/PIN*4Power Pin

5.3 温湿度范围 Temperature and humidity range

5.3.1 使用温度 operating temperature：-55℃~+125℃(Including T-rise);

5.3.2 使用湿度 operating humidity:25%~85%RH;

5.3.3 储存温度 storage temperature：-10℃~+40℃;

5.3.4 储存湿度 storage humidity range：75%RH.

6.性能 Performance

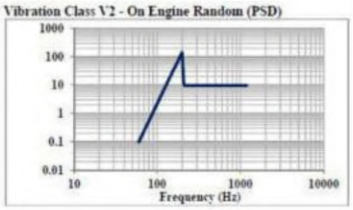
6.1 构造 Structure

序号 NO.	项 目 Item	测试方法 Test Method	规格要求 Specifications
1	外观 Appearance	依照 USCAR-2 5.1.8 确认 Confirm in accordance with USCAR-2 5.1.8.	无损坏 No physical damage

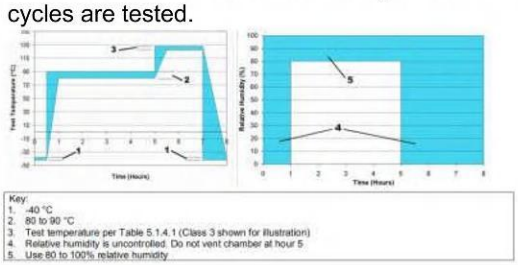
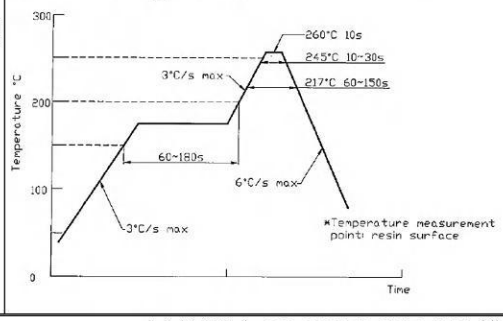
6.2 电气性能 Electrical Performance

序号 NO.	项 目 Item	测试方法 Test Method	规格要求 Specifications
1	干电路阻抗 Dry Circuit Resistance	依照 USCAR-2 5.3.1 测试。 最大直流电压：20mV 以下,最大测试电流：100mA. Comply with method USCAR-2 5.3.1. Test Voltage: 20mV DC Max., Test current:100mA Max.	Signal Terminal: Initial：70mΩ Max. After test :80mΩ Max. Power Terminal: Initial：20mΩ Max. After test :30mΩ Max.
2	电压降 Voltage Drop	依照 USCAR-2 5.3.2 测试。 TUT 的总连接电阻最大 70mΩ。 Comply with method USCAR-2 5.3.2 Total connection resistance for TUT 50m ohms max.	Voltage drop 50mV max.
3	绝缘阻抗 Insulation Resistance	依照 USCAR-2 5.5.1 测试。 相邻端子间 DC 250V，60±5 秒 Comply with method USCAR-2 5.5.1. Apply DC 250V between adjacent terminals for 60±5 seconds.	Signal Terminal: Initial：100MΩ Min. After test :100 MΩ Min. Power Terminal: Initial：1000MΩ Min. After test :1000 MΩ Min.
4	耐电压 Dielectric withstanding voltage	依照 EIA 364-20 测试。 相邻信号端子间 AC 250V, 60±5 秒。 Comply with method EIA 364-20. AC 250V between adjacent terminals, 60±5 seconds.	No evidence of arc-over, insulation breakdown, or excessive leakage current(1mA max).
5	温升测试 Temperature rise	依照 USCAR-2 5.3.3 测试。 信号端子测试电流 0.5A，电源端子测试电流 5A，测试温度 23±5℃，测试时间 1 小时。 Comply with method USCAR-2 5.3.3. Signal Terminal test current 0.5A, Power Terminal test current 5A, Test temperature 23±5℃, Test duration 1 hour.	T-rise not exceed 30℃

6.3 机械性能 Mechanical performance

序号 NO.	项 目 Item	测试方法 Test Method	规格要求 Specifications
1	端子保持力 Terminal Retention Force	依 EIA 364-05B 测试。将端子 25mm/分匀速垂直从胶芯槽内拔出 Comply with method EIA 364-05B.Extract the terminal vertically from the housing at a rate of 25mm/minute.	1.0N/terminal Min.
2	插入力及拔出力 Mating/Unmating force	依 USCAR-2 5.4.2 测试。将焊板连接器以 50mm/分匀速垂直插拔。 Comply with method USCAR-2 5.4.2. Mating and Unmating the connector on board vertically at a constant speed of 50mm/ min	Mating force: 0.4N Max./PIN Unmating force: 0.05N Min./PIN
3	振动试验 Vibration test	依照 USCAR-2 5.4.6 测试。 测试等级 Class V2 根据 USCAR-2 5.1.4.3。 每轴测试 8 小时，共 24 小时。 测试条件如下表： Comply with method USCAR-2 5.4.6. Test Class V2 with USCAR-2 5.1.4.3. Each axis test 8 hours, a total of 24 hours. Test table: **V2 - Random** F (Hz) / PSD[1] / PSD g^2/Hz 60.0 / 0.096 / 0.00100 200.0 / 144 / 1.50000 210.0 / 9.60 / 0.10000 1200.0 / 9.60 / 0.10000 g_{rms} / **119** / **12.1 g**  	试验中无 1μs 以上瞬断； Discontinuity: 1μs or less.
4	冲击试验 Shock test	依照 USCAR-2 5.4.6 测试。 测试等级 Class V2 根据 USCAR-2 5.1.4.3。 测试条件如下表： Comply with method USCAR-2 5.4.6. Test Class V2 with USCAR-2 5.1.4.3. Test table: ***TABLE 5.4.6.3A: SCHEDULE FOR SHOCK TESTING*** Vibration Class / Shocks per Axis / Wave Shape / Direction (±) / Duration (ms) / Acceleration (g) V1 / 10 / Half Sine Wave / Positive / 5 to 10 / 35 V2 / 10 / Half Sine Wave / Positive / 5 to 10 / 35 For V3, V4, V5 only: Perform Tests 1 and 2 / 1 / 132 x 6 = 792 / Half Sine Wave / Positive/Negative / 15 / 25 For V3, V4, V5 only: Perform Tests 1 and 2 / 2 / 3 x 6 = 18 / Half Sine Wave / Positive/Negative / 11 / 100	试验中无 1μs 以上瞬断； Discontinuity: 1μs or less.
5	插拔耐久性 Durability	依照 EIA 364-09 测试。 连接器焊板后以 25mm/分的速度进行插入和拔出 100 次 Comply with method EIA 364-09. The connector on board shall be mating and unmating 100 times at the speed of 25mm/minute.	无明显外观不良 电气性能满足要求 No evidence of damage. The electrical performances should meet the spec. specified.

6.4 环境性能和其它 Environmental Performance and Others

序号 NO.	项 目 Item	测试方法 Test conditions	规格要求 Specifications
1	冷热冲击试验 Thermal shock test	依照 USCAR-2 5.6.1 测试。测试等级 Class T3 根据 USCAR-2 5.1.4.1 连接器焊板嵌合,测试温度-55℃ ~ +125℃，30s 内完成温度转换，最低和最高温保持 30 分钟作为一次循环，共 100 次循环。 Comply with method USCAR-2 5.6.1. Class T3 with USCAR-2 5.1.4.1. Connector mating on board. The test temperature is -55℃ ~ +125℃, the temperature conversion is completed within 30 seconds, the lowest and the highest temperature is kept for 30 minutes as a cycle, total of 100 cycles.	无明显外观不良 电气性能满足要求 试验中无 1μs 以上瞬断； No evidence of damage. The electrical performances should meet the spec. specified. Discontinuity: 1μs or less.
2	温湿循环试验 Temperature cycling	依照USCAR-2 5.6.2测试。 测试等级Class T3 根据USCAR-2 5.1.4.1 连接器焊板嵌合,测试温度-55℃ ~ +125℃，依下图测试为一个循环，测40个循环。 Comply with method USCAR-2 5.6.2. Class T3 with USCAR-2 5.1.4.1. Connector mating on board. The test temperature is -55℃ ~ +125℃, The test as shown in the figure below is a cycle, and 40 cycles are tested.  Key: 1. -40 °C 2. 80 to 90 °C 3. Test temperature per Table 5.1.4.1 (Class 3 shown for illustration) 4. Relative humidity is uncontrolled. Do not vent chamber at hour 5 5. Use 80 to 100% relative humidity	无明显外观不良 电气性能满足要求 No evidence of damage. The electrical performances should meet the spec. specified.
3	高温暴露 High Temperature Exposure	依照USCAR-2 5.6.3测试。 测试等级Class T3 根据USCAR-2 5.1.4.1 连接器焊板嵌合,测试温度125℃，测试时间1008小时。 Comply with method USCAR-2 5.6.3. Class T3 with USCAR-2 5.1.4.1. Connector mating on board. The test temperature is 125℃, test time is 1008 hours.	无明显外观不良 电气性能满足要求 No evidence of damage. The electrical performances should meet the spec. specified.
4	耐焊接性 Resistance To Soldering Heat	依照 EIA 364-56 测试。在以下条件下，将连接器焊接在测试 PCB 上。回流焊进行 3 次。 Comply with method EIA 364-56.The connector shall be mounted on the test PCB on the following condition. Reflow soldering is carried out 3 times. 条件/condition Peak Temperature: 260±5°C, 10±1 sec Reflow Temperature: 150~220°C, 60~180 sec. Solder paste: Cookson Electronics Co.,Ltd ALPHA OM-338-PT 96.5Sn / 3.0Ag / 0.5Cu  	没有明显的物理或机械损伤。 There shall be no evidence of physical or mechanical damage.

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序号 NO.	项 目 Item	测试方法 Test conditions	规格要求 Specifications
5	焊接性测试 Solderability test	依照 EIA 364-52 测试。按以下条件进行焊接性测试： Comply with method EIA 364-52. Solderability test according to the following condition. a. Soldering Temperature: 245±3°C b. Test Duration: 5±0.5sec c. Solder: SAC305 96.5Sn / 3.0Ag / 0.5Cu d. Flux: ALPHA ROL1 IPC TEST FLUX.	实际粘锡面积大于 95% Actual soldered area must be more than 95% of the dipped area intended to be soldered.
6	盐雾测试 Salt Spray	依照 EIA 364-26 测试。 连接器焊板嵌合，按照以下条件进行盐雾测试： Comply with method EIA 364-26。 Connector mating on board. Salt Spray test according to the following condition. a. Salt Solution: 5±1% by weight b. Test temperature: 35±2°C c. Test duration: 48hours. d. Special Treatment : The measurement shall be conducted after the mated connector is mildly rinsed in running water to remove deposition of salt, followed by natural drying by placing it for 24 hours at room temperature.	没有明显的物理或机械损伤。 There shall be no evidence of physical or mechanical damage.

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7.测试顺序表 Test Sequence

Test Item	Test Group							
	A	B	C	D	E	F	G	H
1. Appearance	1,3,7	1,3	1,3	1,3	1,3	1,3	1,3	1,3
2. Dry Circuit Resistance	4,9	5,8, 10,13		4,6			5,8	
3. Voltage Drop	8	12	8				7	
4. Insulation Resistance			5,9					
5. Dielectric Withstanding Voltage			4,10					
6. Temperature rise								4
7. Terminal Retention Force					2			
8. Mating and Unmating Force		4,7					4	
8.Vibration test	6							
9. Shock test	5							
10. Durability		6						
11. Thermal shock		9	6					
12.Temperature cycling		11	7					
13. High Temperature Exposure							6	
14. Resistance to soldering heat	2	2	2	2			2	2
15. Solderability						2		
16. Salt Spray				5				
Sample Size	5	5	5	5	5	5	5	5

8.包装 Packing

详见包装图。See the packaging drawing

9.产品保质期 Term of a guarantee

从交货日起 1 年（1 year from delivery day）

10.修改内容 Change content

版本 **Rev.**	改正日期 **Modify date**	改正内容 Modifications	Written by	Checked by
A	2022/05/30	New Release	SH Chen	Rain
B	2022/08/22	Add Part Number	SH Chen	Rain
C	2023/05/17	Add Part Number	SH Chen	Rain

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操作方法 Handling method

1.使用注意事项/Attention of using connector

a.产品插入时，须慢慢垂直插入，不可倾斜、扭转。
When the connector is mating, connector shall not be twisted, and then mated it slowly.
b.严禁使用未焊板产品进行测试，会导致产品被破坏。
It is strictly forbidden to use unsoldered products for testing, which will cause the product to be damaged.
c.带有一定角度插入有卡顿现象时，请拔出后再重新插入。若直接插入会有胶屑产生。
Please do not be locked at an angle. When locked, please extraction and re-mated. The angle mating, occurs shavings.
d.产品两端嵌合的松紧度,确认两端嵌合轻松后水平插入。
After locate , Please mate connector where the molds fit loosely,after check the molds fit loosely , Push it straight.
e.拔出时，产品须垂直拔起。仅一端拔出，会损坏主体。
Please be pulled out straight. Pulling on one side, the mold is broken
f.装配连接器和 PCB 板时，不能只固定连接器;实际应用时，PCB 需在连接器附近用铆钉固定，铆钉与产品的距离建议小于 10.5mm。
如图 1,2
It shall not be held the connector only, when you are assembled for the connector and PCB.; When it shall be used the connector ,the PCB need to be fixed with rivets near the connector.The distance between the rivet and the product is recommended to be less than 10.5mm.As figure 1 and figure 2
g.图 3 及图 4 所示指导角度，插入前不可大于此角度（未锁定）；
Guide Angle as shown in figure 3 and figure 4 ,not greater than this Angle before insertion (not locked)
h.指导角度是初始位置角度,不是装配角度
Guiding angle is initial location angle. It is not the angle to mate.
i.请在图 5,6 的角度下进行装配；
Please mate below the angle of the figure 5 and figure 6.
j.组配时请勿撞击产品侧面，否则将导致产品损坏，如图 7；
Do not hit the side of the product when assembling, otherwise the product will be damaged.
k.请在图 8 角度下进行拔出。
Please unmating below the angle of the figure 8.

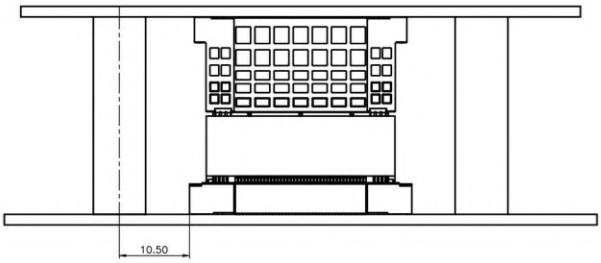

图 1/Fig1

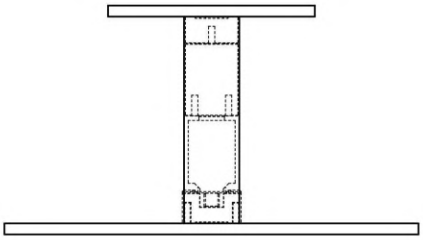

图 2/Fig2

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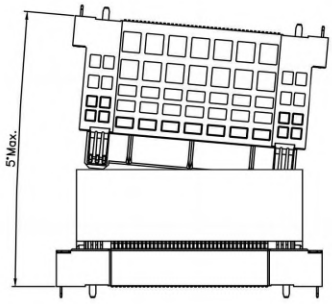

图 3/Fig3

初始角度
Guiding angle

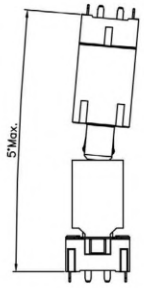

图 4/Fig4

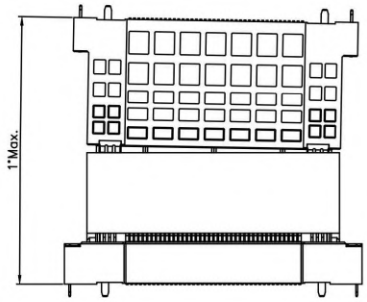

图 5/Fig.5

装配角度
Mating angle

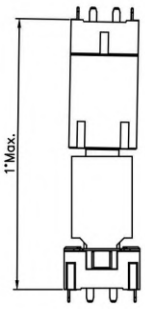

图 6/Fig.6

切勿撞击
No impact

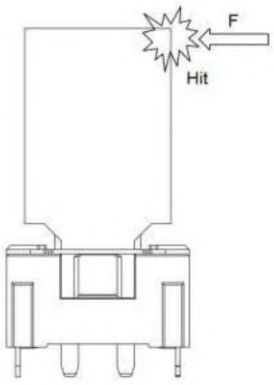

图 7/Fig.7

拔出角度
Unmating angle

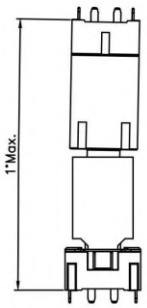

图 8/Fig.8

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制 品 仕 样 书 Product specification		Part name	0.5mm Pitch Floating mount 0.8mm Power PIN floating BTB connector series		
Horus Int. Electronics. Co., LTD. Horustech Electronics. Co., LTD.		Part No.	HRS-B04R-3J1B1-AA1**-1110 HRS-B04P-3J1B1-AA1**-1110 HRS-B06P-3G1B1-AA1**-1110 HRS-B07P-3K1B1-AA1**-1110 HRS-B13P-3N1B1-AA1**-1110	8/8	
Document No.：IS.EQC.217	Date: 2023/05/17	Rev.：C	Written by： SH Chen	Checked by： Elven	Approved by： Rain