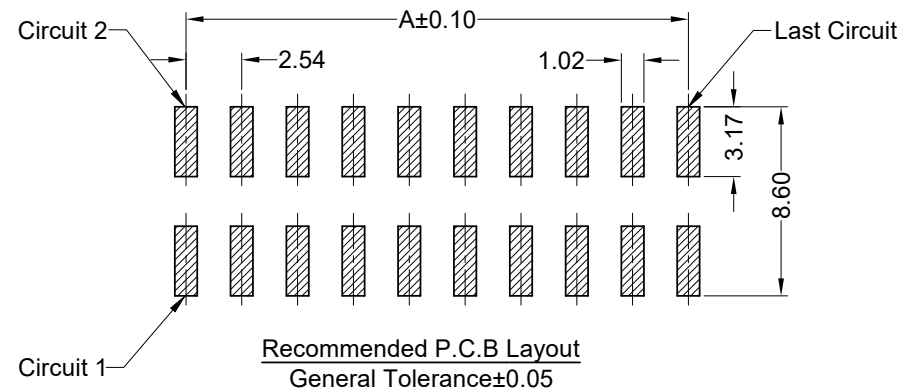
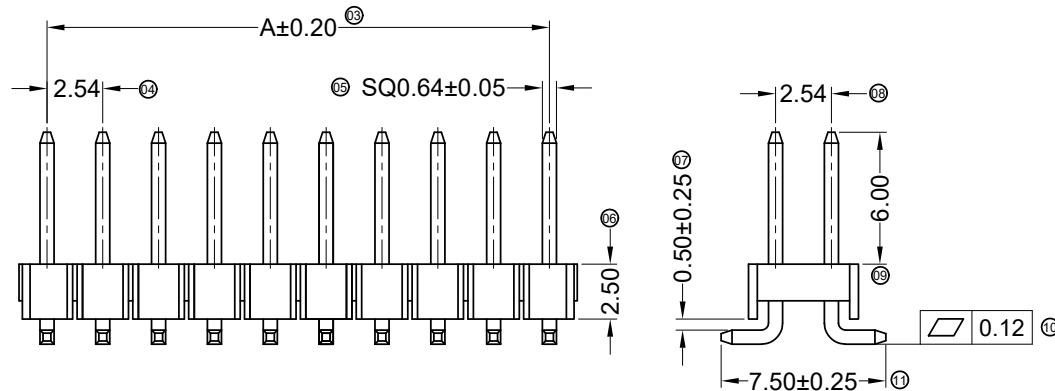
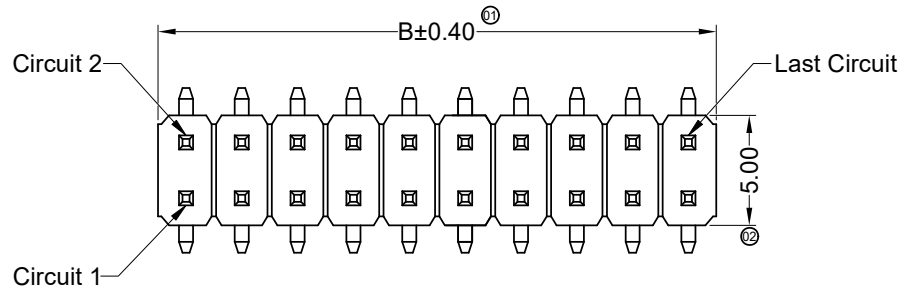


RoHS

This products can apply to the HRS Doc NO. QA-3-04-005  
of Environmental&Material Management Rules



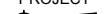
#### Specifications :

- Voltage rating: 250V AC / DC
- Current rating: 3A AC / DC
- Withstanding voltage: 800V AC/minute
- Temperature range: -40°C~+105°C
- Insulation resistance: ≥1000MΩ
- Contact resistance: ≤20mΩ
- After environmental testing: ≤30mΩ
- Material(Pin): Brass

HRS-6501 W V S - 2\*XX X-XX V01 XX - 02  
① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩

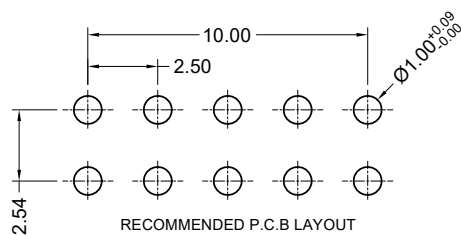
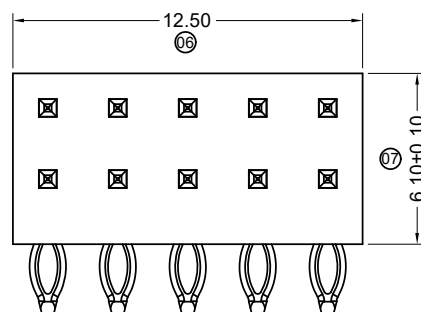
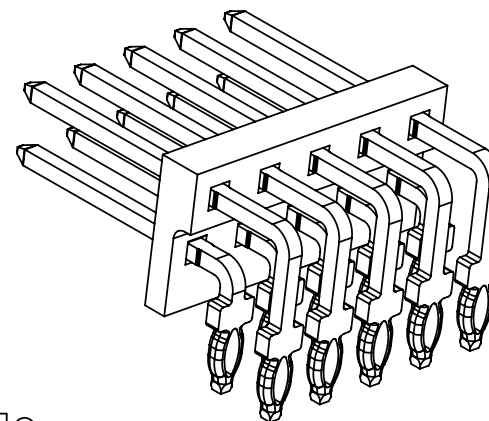
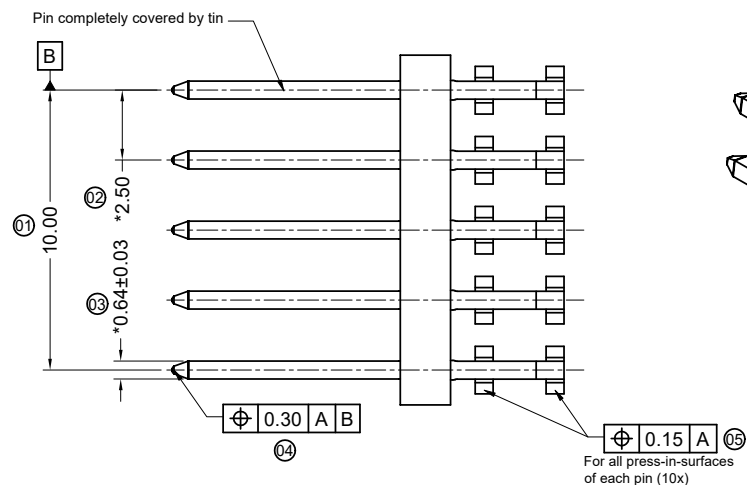
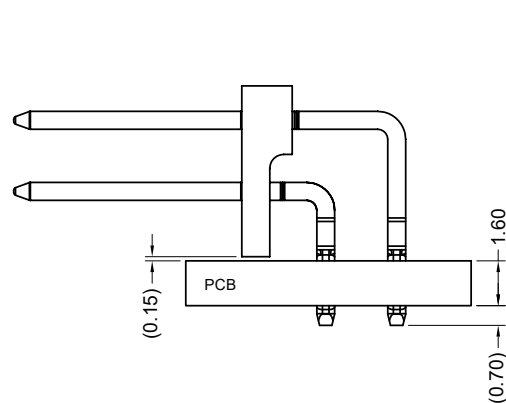
- ① Series No.  
② Category: W-wafer  
③ Connector Type: V- Straight 180°  
④ Mounting Type: S-SMT  
⑤ Row No.-Pin No Per Row: 2\*XX-2\*02P~2\*40P  
⑥ Special No.: Blank-Ordinary  
⑦ Material: 6T-PA6T 94V-0 ; 9T-PA9T 94V-0  
⑧ Plating Code: V01- Gold Flash  
⑨ Color: Blank-Black Color  
⑩ 02-6.00/2.50/7.50

| Poles | Dimensions(mm) |       | Poles | Dimensions(mm) |       | Poles | Dimensions(mm) |        |
|-------|----------------|-------|-------|----------------|-------|-------|----------------|--------|
|       | A              | B     |       | A              | B     |       | A              | B      |
| 2*02  | 2.54           | 5.08  | 2*15  | 35.56          | 38.10 | 2*28  | 68.58          | 71.12  |
| 2*03  | 5.08           | 7.62  | 2*16  | 38.10          | 40.64 | 2*29  | 71.12          | 73.66  |
| 2*04  | 7.62           | 10.16 | 2*17  | 40.64          | 43.18 | 2*30  | 73.66          | 76.20  |
| 2*05  | 10.16          | 12.70 | 2*18  | 43.18          | 45.72 | 2*31  | 76.20          | 78.74  |
| 2*06  | 12.70          | 15.24 | 2*19  | 45.72          | 48.26 | 2*32  | 78.74          | 81.28  |
| 2*07  | 15.24          | 17.78 | 2*20  | 48.26          | 50.80 | 2*33  | 81.28          | 83.82  |
| 2*08  | 17.78          | 20.32 | 2*21  | 50.80          | 53.34 | 2*34  | 83.82          | 86.36  |
| 2*09  | 20.32          | 22.86 | 2*22  | 53.34          | 55.88 | 2*35  | 86.36          | 88.90  |
| 2*10  | 22.86          | 25.40 | 2*23  | 55.88          | 58.42 | 2*36  | 88.90          | 91.44  |
| 2*11  | 25.40          | 27.94 | 2*24  | 58.42          | 60.96 | 2*37  | 91.44          | 93.98  |
| 2*12  | 27.94          | 30.48 | 2*25  | 60.96          | 63.50 | 2*38  | 93.98          | 96.52  |
| 2*13  | 30.48          | 33.02 | 2*26  | 63.50          | 66.04 | 2*39  | 96.52          | 99.06  |
| 2*14  | 33.02          | 35.56 | 2*27  | 66.04          | 68.58 | 2*40  | 99.06          | 101.60 |

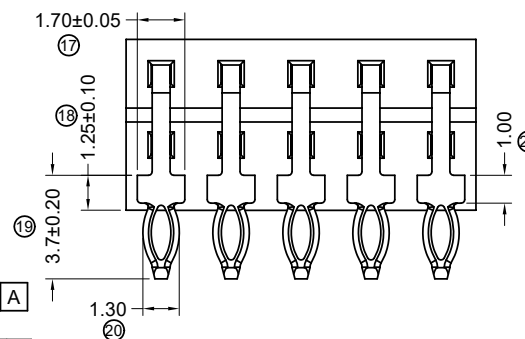
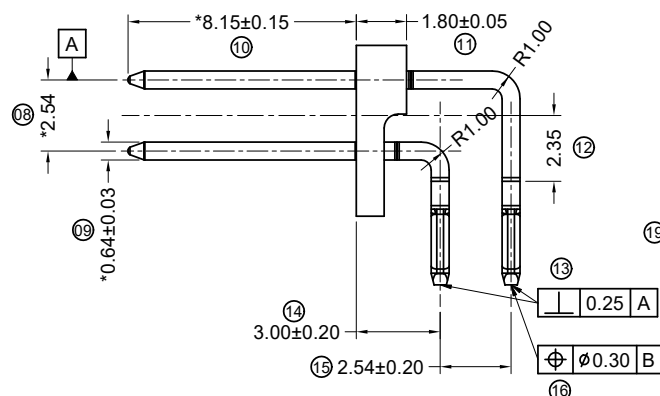
|            |     |               |                      |        |          |                                                                                                  |                                                                                                                                                                        |          |       |            |                                        |              |              |          |                 |
|------------|-----|---------------|----------------------|--------|----------|--------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|-------|------------|----------------------------------------|--------------|--------------|----------|-----------------|
|            |     |               |                      |        |          | GENERAL TOLERANCE                                                                                | <div>Horus Int. Electronics. Co., LTD.<br/>Horustech Electronics. Co., LTD.</div> |          |       |            | PART NO.<br>HRS-6501WVS-2*XX-XXV01-02  |              |              |          |                 |
|            |     |               |                      |        |          | .X ±0.30                                                                                         |                                                                                                                                                                        |          |       |            | TITLE<br>2.54 mm Pin Header connectors |              |              |          |                 |
|            |     |               |                      |        |          | .XX ±0.20                                                                                        |                                                                                                                                                                        |          |       |            |                                        |              |              |          |                 |
|            |     |               |                      |        |          | .XXX ±0.10                                                                                       |                                                                                                                                                                        |          |       |            |                                        |              |              |          |                 |
| 2020/03/16 | B   | EN20200316005 | Update Drawing Frame | Mandy  | Robing   | X.° ±2°                                                                                          | APPROVAL                                                                                                                                                               | CHECK    | DRAWN | DATE       |                                        |              |              |          |                 |
| DATE       | REV | ECN NO.       | DESCRIPTION          | MODIFY | APPROVAL | PROJECT<br> | Robing                                                                                                                                                                 | Alan qin | Mandy | 2019/12/07 | UNIT<br>mm                             | SCALE<br>1:1 | SHEET<br>1/1 | REV<br>B | NUMBER<br>A-013 |

RoHS

This products can apply to the HRS Doc NO. QA-3-04-005  
of Environmental&Material Management Rules



RECOMMENDED P.C.B LAYOUT  
(TOLERANCE:±0.05)



Electrical properties  
Starting current 4.5A for 3s  
Nominal Current 650mA

Temperature properties:  
Storage temperature: -40°C ~ +90°C  
Operating temperature -40°C ~ +80°C  
Functional temperature: -20°C ~ +60°C

Mechanical properties  
Push out force from plastic before temperature treatment:  
Upper row >= 24N  
Lower row >= 10N  
Assembly force into PCB of each pin: <= 110N  
Push out force from PCB of each pin: >= 20N

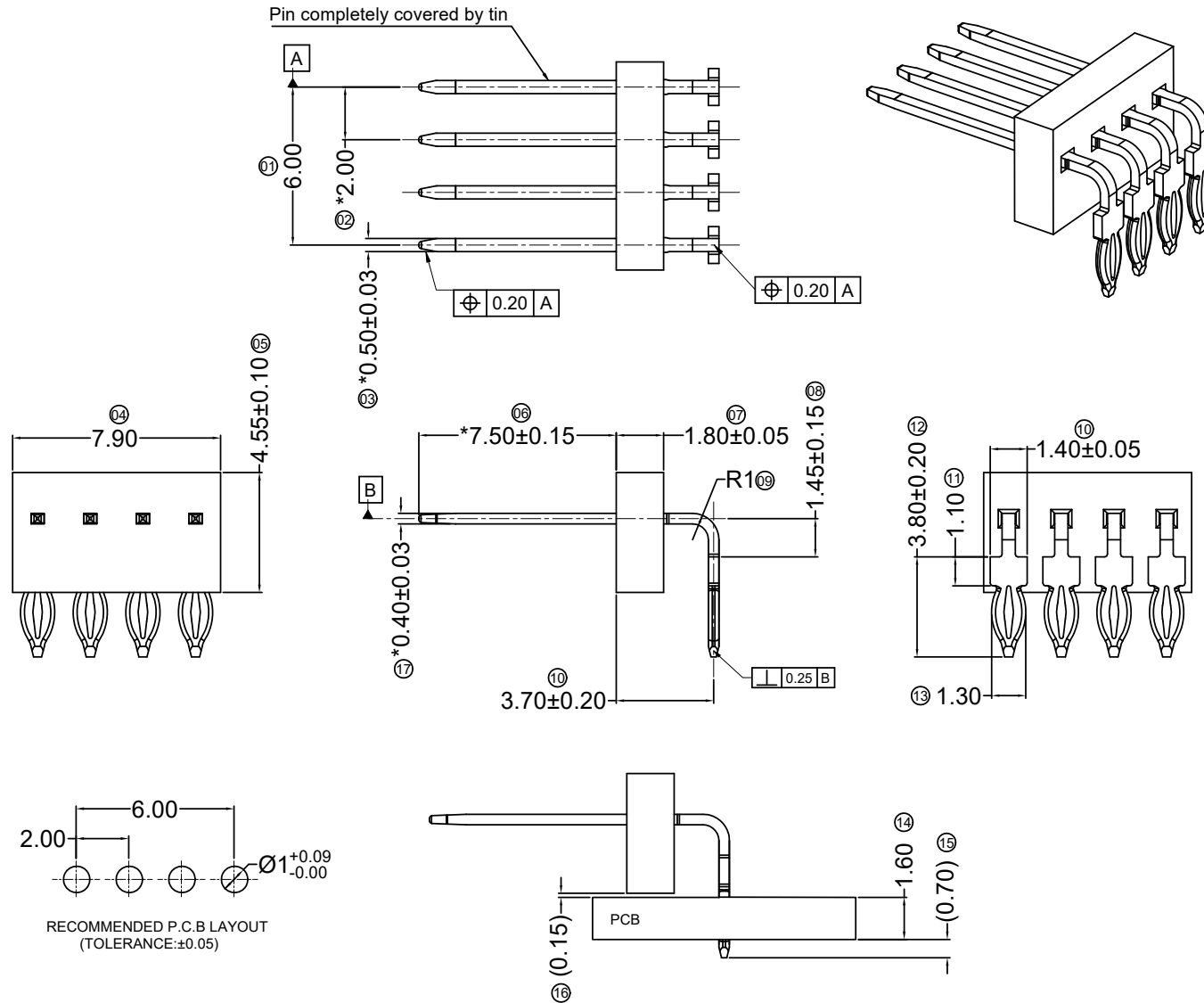
Plating:  
0.4-1.5µm Sn over 0.8-1.3µm Ni  
Surface: Matt

Material:  
Plastic: PA4T UL94V-0, Black color.  
Metal: Cu-Alloy

|            |     |               |                      |          |          |                                                                                                  |                                                                                                                                                                         |        |          |            |                                                 |       |       |     |        |
|------------|-----|---------------|----------------------|----------|----------|--------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|----------|------------|-------------------------------------------------|-------|-------|-----|--------|
|            |     |               |                      |          |          | GENERAL TOLERANCE                                                                                | <div>Horus Int. Electronics. Co., LTD.<br/>Horus Int. Electronics. Co., LTD.</div> |        |          |            | PART NO.<br>HRS-6503WR-2*05Y-4TSWBKR            |       |       |     |        |
|            |     |               |                      |          |          | .X ±0.30                                                                                         |                                                                                                                                                                         |        |          |            | TITLE<br>Pin Header 2 rows 10Pins 90° Press-Fit |       |       |     |        |
|            |     |               |                      |          |          | .XX ±0.20                                                                                        |                                                                                                                                                                         |        |          |            |                                                 |       |       |     |        |
|            |     |               |                      |          |          | .XXX ±0.10                                                                                       |                                                                                                                                                                         |        |          |            |                                                 |       |       |     |        |
| 2020/03/16 | B   | EN20200316004 | Update Drawing Frame | Alan qin | Robing   | X.* ±2"                                                                                          | APPROVAL                                                                                                                                                                | CHECK  | DRAWN    | DATE       | UNIT                                            | SCALE | SHEET | REV | NUMBER |
| DATE       | REV | ECN NO.       | DESCRIPTION          | MODIFY   | APPROVAL | PROJECT<br> | Robing                                                                                                                                                                  | Joshua | Alan_qin | 2017/08/25 | mm                                              | 1:1   | /     | B   | A-000  |

RoHS

This products can apply to the HRS Doc NO. QA-3-04-005  
of Environmental&Material Management Rules

**Electrical Properties**

- Starting current 4.5A for 3s
- Nominal Current 650mA
- Temperature properties:
- Storage temperature: -40°C ~ +90°C
- Operating temperature -40°C ~ +80°C
- Functional temperature: -20°C ~ +60°C
- Mechanical Properties
- Push out force from plastic before temperature treatment:  $\geq 10N$
- Assembly force into PCB of each pin:  $\leq 110N$  (Goal to achieve  $\leq 100N$ )
- Push out force from PCB of each pin:  $\geq 20N$
- Plating:
- 0.4-1.5 $\mu m$  Sn over 0.8-1.3 $\mu m$  Ni
- Surface: Matte
- Material:
- Plastic: PA4T UL94V-0, Black color.
- Metall: Cu-Alloy

HRS-4603 W R X-04 Y - 4T SW BK R  
① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩

- ① Series No.  
② Category: W - wafer  
③ Connector Type: R - Right Angle 90°  
④ Mounting Type: Dip - Vacant Code  
⑤ Row No.-Pin No: 04-4Pin  
⑥ Special code: Y - fish-eye welding - free construction  
⑦ Plastic material: 4T - PA4T 94V0 HF  
⑧ Plating Code: SW - Ni32~52u", Matt-Tin 16~60Uu"  
⑨ Color: BK- Black;  
⑩ Packing: R - Reel;

|           |     |               |                      |        |          |                                                                                                  |  |   |  |                                                                                                                                                                         |        |          |            |                                                |       |       |     |        |
|-----------|-----|---------------|----------------------|--------|----------|--------------------------------------------------------------------------------------------------|--|---|--|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|----------|------------|------------------------------------------------|-------|-------|-----|--------|
|           |     |               |                      |        |          | GENERAL TOLERANCE                                                                                |  |   |  | <div>Horus Int. Electronics. Co., LTD.<br/>Horus Int. Electronics. Co., LTD.</div> |        |          |            | PART NO.<br>HRS-4603WR-04Y-4TSWBKR             |       |       |     |        |
|           |     |               |                      |        |          | .X ±0.30                                                                                         |  |   |  |                                                                                                                                                                         |        |          |            | TITLE<br>Pin Header 1 rows 4Pins 90° Press-Fit |       |       |     |        |
|           |     |               |                      |        |          | .XX ±0.20                                                                                        |  |   |  |                                                                                                                                                                         |        |          |            |                                                |       |       |     |        |
|           |     |               |                      |        |          | .XXX ±0.10                                                                                       |  |   |  |                                                                                                                                                                         |        |          |            |                                                |       |       |     |        |
| 2020.7.22 | B   | ER20200722001 | Update Drawing Frame | YYting | Robing   | X.° ±2°                                                                                          |  |   |  | APPROVAL                                                                                                                                                                | CHECK  | DRAWN    | DATE       | UNIT                                           | SCALE | SHEET | REV | NUMBER |
| DATE      | REV | ECN NO.       | DESCRIPTION          | MODIFY | APPROVAL | PROJECT<br> |  |   |  | Robing                                                                                                                                                                  | YYting | Alan_qin | 2017/08/25 | mm                                             | 1:1   | 1/1   | B   | A-000  |
| 1         |     | 2             |                      | 3      |          | 4                                                                                                |  | 5 |  | 6                                                                                                                                                                       |        | 7        |            | 8                                              |       |       |     |        |

RoHS

This products can apply to the HRS Doc NO. QA-3-04-005  
of Environmental&Material Management Rules

### Specifications :

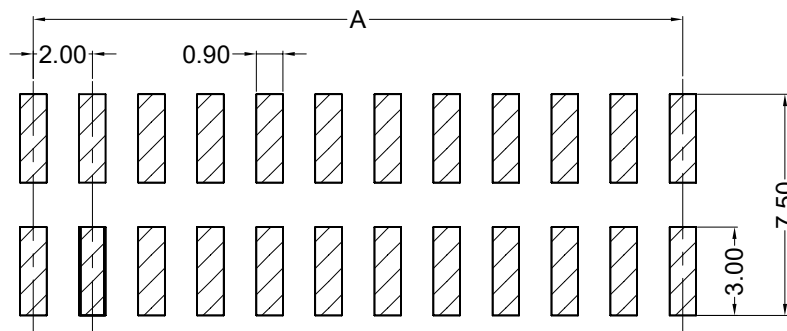
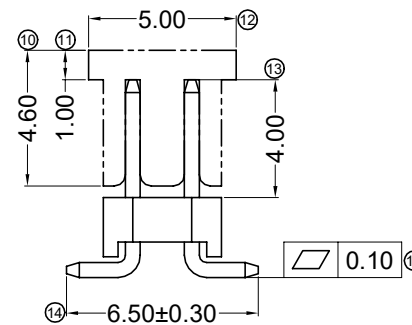
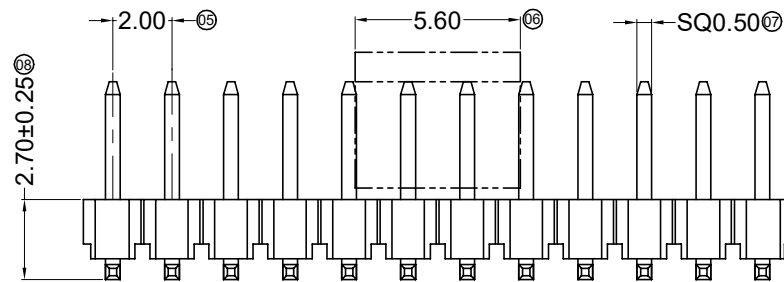
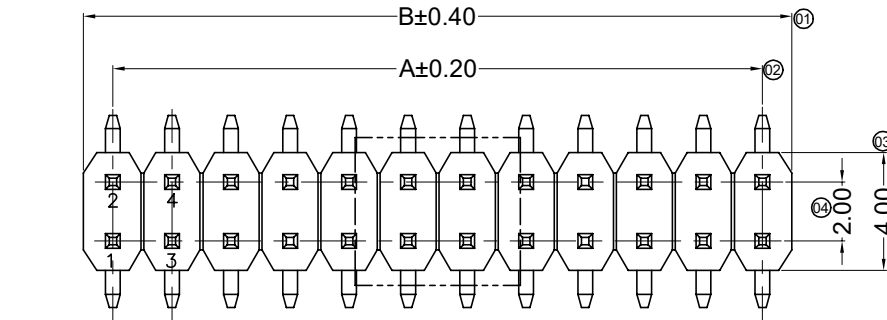
- Voltage rating: 250V AC / DC
- Current rating: 2A AC / DC
- Withstanding voltage: 500V AC/minute
- Temperature range: -40°C~+105°C
- Insulation resistance:  $\geq 1000\text{M}\Omega$
- Contact resistance:  $\leq 20\text{m}\Omega$
- After environmental testing:  $\leq 30\text{m}\Omega$
- Material(CAP): PA6T Black Halogen Free
- Mates With HRS-4601FX

HRS-4601 W V S - 2\*XX HF- 6T XX XX C-05

① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩ ⑪

- ① Series No.
- ② Category: W-Wafer
- ③ Connector Type: V- 180°
- ④ Mounting Type: S-SMT
- ⑤ Row No.-Pin No.: 2\*XX-Double Row
- ⑥ HF-Halogen Free
- ⑦ Material: 6T-PA6T 94V-0
- ⑧ Plating Category: V01-All Area Gold Flash; Ni 50u" Min.
- ⑨ Color: Black-Black Color
- ⑩ C-With CAP
- ⑪ 05-4.00/2.00/6.50

| Poles | Dimensions (mm) |       | Poles | Dimensions (mm) |       | Poles | Dimensions (mm) |       |
|-------|-----------------|-------|-------|-----------------|-------|-------|-----------------|-------|
|       | A               | B     |       | A               | B     |       | A               | B     |
| 2*02  | 2.00            | 4.00  | 2*15  | 28.00           | 30.00 | 2*28  | 54.00           | 56.00 |
| 2*03  | 4.00            | 6.00  | 2*16  | 30.00           | 32.00 | 2*29  | 56.00           | 58.00 |
| 2*04  | 6.00            | 8.00  | 2*17  | 32.00           | 34.00 | 2*30  | 58.00           | 60.00 |
| 2*05  | 8.00            | 10.00 | 2*18  | 34.00           | 36.00 | 2*31  | 60.00           | 62.00 |
| 2*06  | 10.00           | 12.00 | 2*19  | 36.00           | 38.00 | 2*32  | 62.00           | 64.00 |
| 2*07  | 12.00           | 14.00 | 2*20  | 38.00           | 40.00 | 2*33  | 64.00           | 66.00 |
| 2*08  | 14.00           | 16.00 | 2*21  | 40.00           | 42.00 | 2*34  | 66.00           | 68.00 |
| 2*09  | 16.00           | 18.00 | 2*22  | 42.00           | 44.00 | 2*35  | 68.00           | 70.00 |
| 2*10  | 18.00           | 20.00 | 2*23  | 44.00           | 46.00 | 2*36  | 70.00           | 72.00 |
| 2*11  | 20.00           | 22.00 | 2*24  | 46.00           | 48.00 | 2*37  | 72.00           | 74.00 |
| 2*12  | 22.00           | 24.00 | 2*25  | 48.00           | 50.00 | 2*38  | 74.00           | 76.00 |
| 2*13  | 24.00           | 26.00 | 2*26  | 50.00           | 52.00 | 2*39  | 76.00           | 78.00 |
| 2*14  | 26.00           | 28.00 | 2*27  | 52.00           | 54.00 | 2*40  | 78.00           | 80.00 |



Recommended P.C.B Layout  
General Tolerance  $\pm 0.05$

### GENERAL TOLERANCE

.X  $\pm 0.30$

.XX  $\pm 0.20$

.XXX  $\pm 0.10$

X.°  $\pm 2^\circ$

PROJECT



Horus Int. Electronics Co., LTD.

Horus Int. Electronics Co., LTD.

APPROVAL

CHECK

DRAWN

DATE

PART NO.

HRS-4601WVS-2\*XXHF-6TXXXXC-05

TITLE

2.00 mm Pin Header connectors

UNIT

mm

SCALE

1:1

SHEET

1/1

REV

A

NUMBER

A-213

DATE

REV

ECN NO.

DESCRIPTION

MODIFY

APPROVAL

PROJECT



Mali

2020/06/23