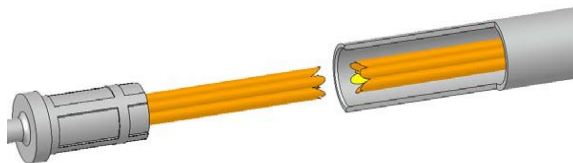


CHSB series rectangular plastic shell electrical connector

1 Main features

- 1) The contact piece adopts brush type contact piece
- 2) Contact spacing 1.778mm×1.524mm
- 3) Plug-in life up to 100,000 times



2 Main technical performance

Mechanical life	10 000 times
Operating temperature	-65°C~+125°C
Rated operating current	2A
Insulation resistance	Normal temperature≥5000MΩ
Dielectric withstand voltage	Sea level: AC 750V; Altitude 21336 meters: AC 250V
Random vibration	GJB1217 Method 2005 Condition V, Letter H Frequency 50~2000Hz, power spectral density 0.6g ² /Hz, 3 vertical directions, 4h in each direction
Influence	GJB1217 Method 2004 Condition G, acceleration 980m/s ²
Damp	GJB1217 Method 1002, Type II
Differential data transfer rate	6.25Gbps

3 Connector Model Nomenclature

Series title	CHSB-	M	4-	03D	M	2	3	5	P
Product type	M: Plug mounted on the motherboard D: socket mounted on the daughter board								
Contact arrangement	Number of rows of contact arrangement								
Number of contacts	03D, 05D, 07D, 10D, 13D								
Brush wire gold plating thickness	M: Gold plated 1.27μm								
Contact Termination Form	0: 90° bend printed board (only for socket) 2: Direct printed board (only for plug)								
Contact tail pin protruding height	1: Dimension E is 2.29mm 2: Dimension E is 3.05mm 3: Dimension E is 3.81mm 4: Dimension E is 4.57mm								
Contact Termination Partial Plating	2: Gold-plated, nickel-plated in the middle 5: Tinned, nickel plated in the middle								
Attachment form	No characters: without attachments P: Identification guide pin G: Guide pin guide sleeve								

Model naming example

1) The user orders a CHSB plug, the contact piece is a straight printed circuit board, 3 pairs of differential pairs, the brushed wire is gold-plated $1.27\mu\text{m}$, and the tail end of the contact piece is tinned, and the protruding insulator is high. The degree is 3.81mm, without accessories, and the order model is CHSB-M4-03DM235.

2) The user orders a CHSB socket. The contact piece is a curved printed circuit board with 3 pairs of differential pairs, the brushed wire is gold-plated $1.27\mu\text{m}$, and the tail end of the contact piece is tinned, and the protruding insulator is high. The degree is 3.81mm, without accessories, and the order model is CHSB-D4-03DM035.

4 Product size

4.1 Size table

Table 1 Size Summary Table

Contact arrangement	03D	05D	07D	10D	13D
size A	34.92	43.82	52.70	70.48	88.26
size C	27.305	36.195	45.085	62.865	80.645

4.2 Direct printed board plug CHSB-M4-XXDM2XX

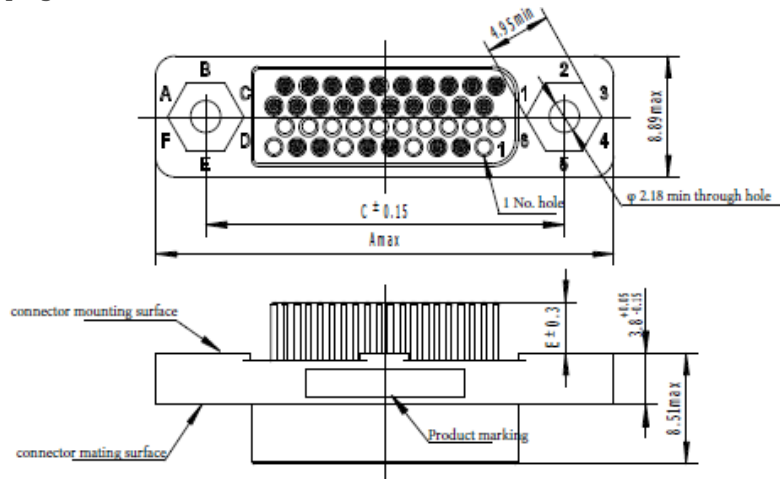
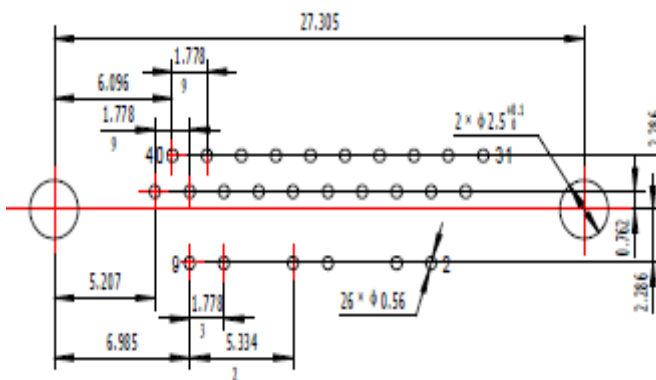
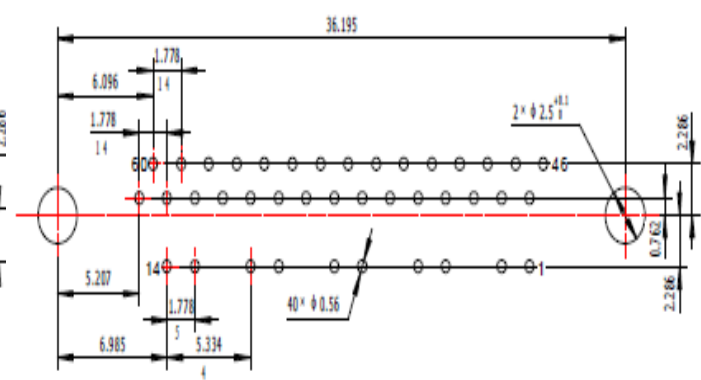


Figure 1 Dimensions of the direct printed board plug (without tolerance ± 0.1)

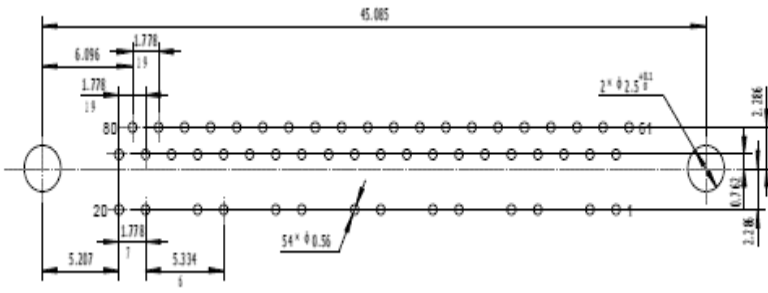
03D Contact



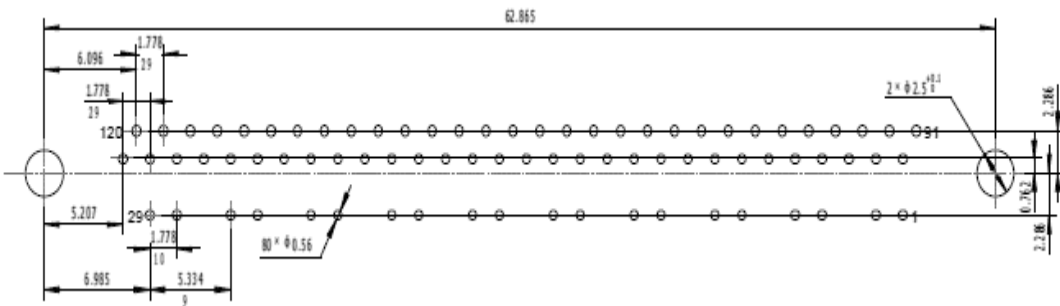
05D Contact



07D Contact



10D Contact



13D Contact

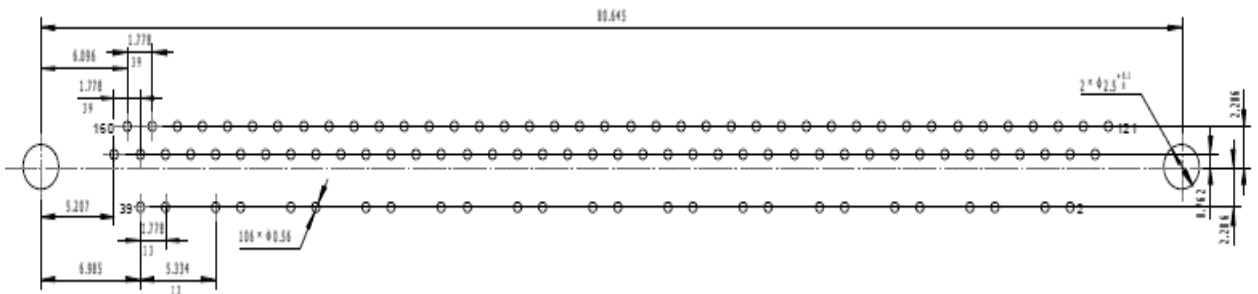
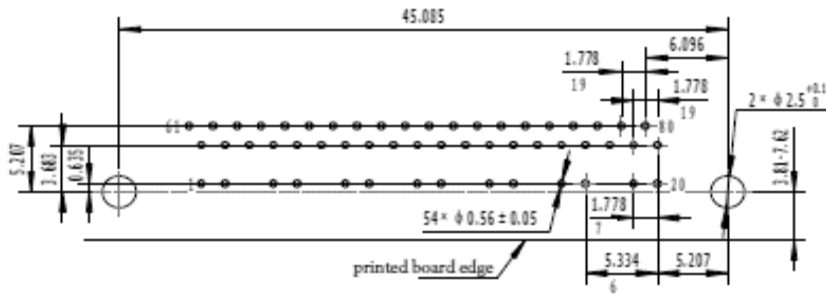
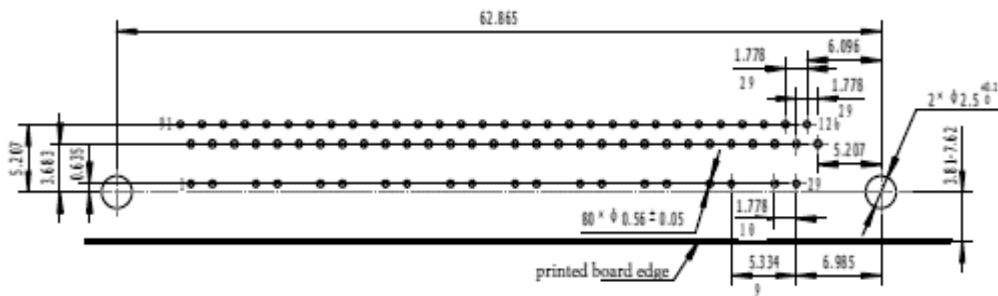


Figure 2 Recommended opening size of the direct printed board plug printed board (not noted with tolerance ± 0.05)

07D Contact



10D Contact



13D Contact

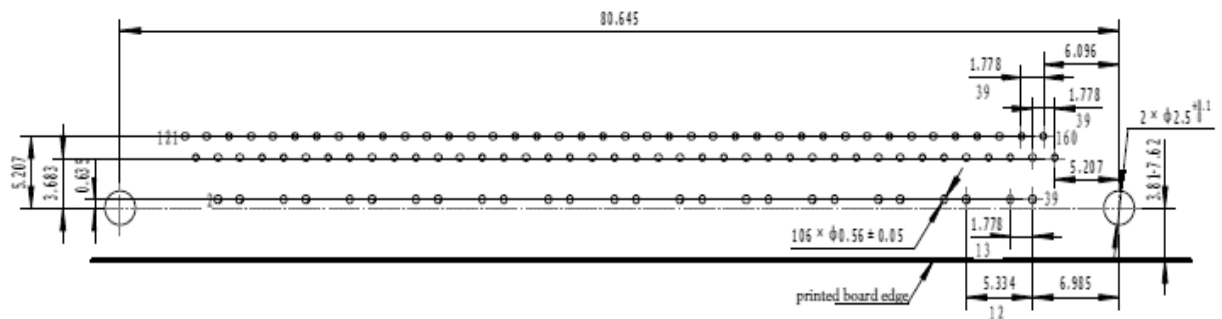
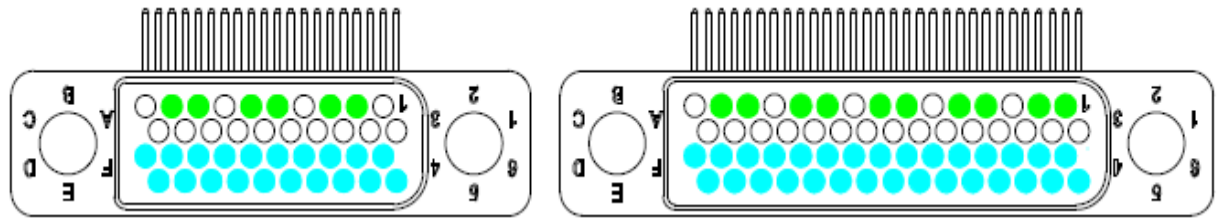


Figure 4 Recommended opening size of the PCB socket for the curved PCB

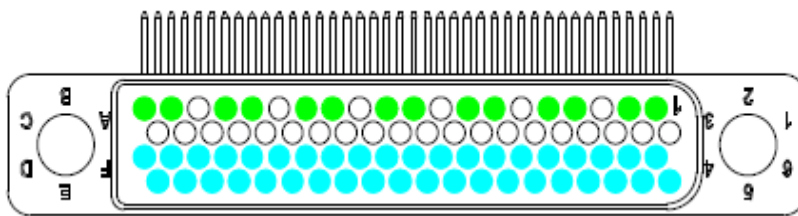
5 Contact Definition

The recommended contact definition of the connector is shown in the figure below, the view is the mating surface of the socket on the bent printed board, and the differential characteristic impedance is 100Ω.

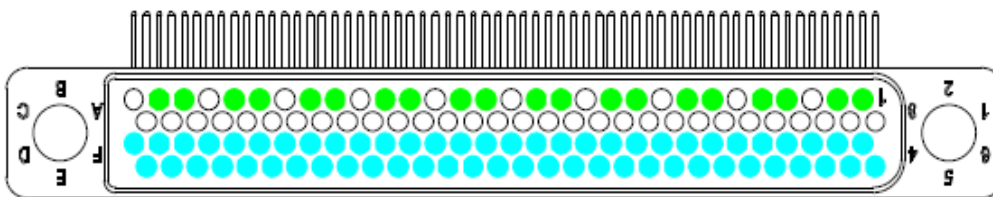


03D Contact (3 differential pairs)

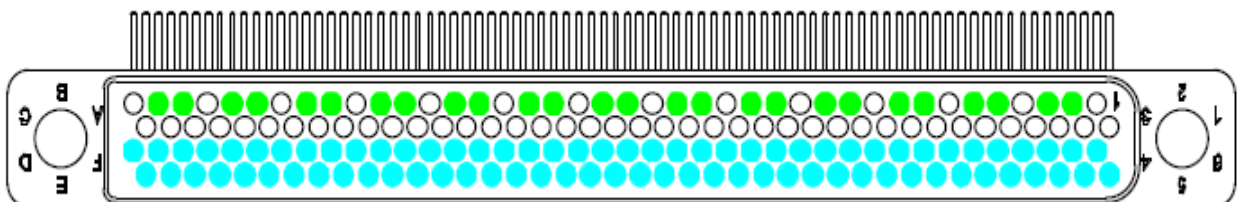
05D Contact (5 differential pairs)



07D Contact (7 differential pairs)



10D contacts (10 differential pairs)



13D contacts (13 differential pairs)

- Differential pair, characteristic impedance 100Ω
- No contacts
- Low frequency contact

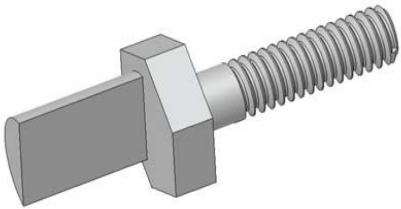
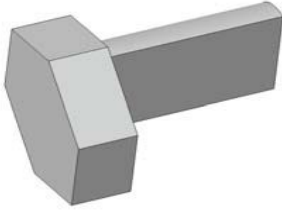
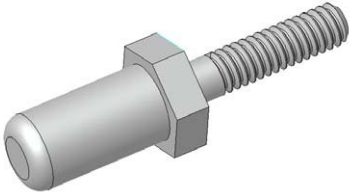
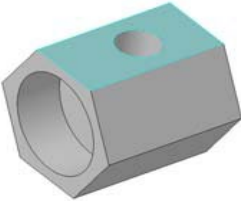
Figure 5 Connector Contact Definition

6 Accessories and installation

6.1 Accessories

When the end of the connector model is marked with P and G, each set of connectors is equipped with mounting accessories, or you can choose to order the mounting accessories separately, see the table below for details.

Table 2 Connector Accessories Table

Order model	Name	Main accessories (2 in quantity)	Remark
CHSB-M4-P1	Plug Identification Guide Pin Assembly		Supplied with P when the product model number ends with P Other supporting parts: Nut M2, conforming to GB/T6170, quantity 2 Spring Washer 2, conforming to GB/T93, quantity 2
CHSB-D4-P1	Socket Identification Guide Pin Assembly		When the end of the product model is P, it comes with a set of accessories. Other matching parts: Nut M2 conforms to GB/T6170, quantity 2 Spring Washer 2 conforms to GB/T93, quantity 2 Screw M2*16 in accordance with GB/T818, quantity 2
CHSB-M4-G1	Plug guide pin		When the end of the product model is G, it comes with a set of accessories. Other matching parts: Nut M2, conforming to GB/T6170, quantity 2 Spring Washer 2, conforming to GB/T93, quantity 2
CHSB-D4-G1	Socket guide parts		When the end of the product model is G, it comes with a set of accessories. Other matching parts: Nut M2 conforms to GB/T6170, quantity 2 Spring Washer 2 conforms to GB/T93, quantity 2 Screw M2*16 in accordance with GB/T818, quantity 2

6.2 Installation

Connectors enable electrical connections between vertical printed boards.

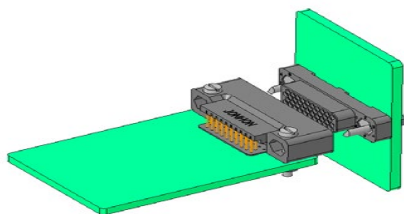


Figure 6 Connector Mating

The installation of accessories and connectors is divided into two forms: identification guide pin type and guide pin guide sleeve type.

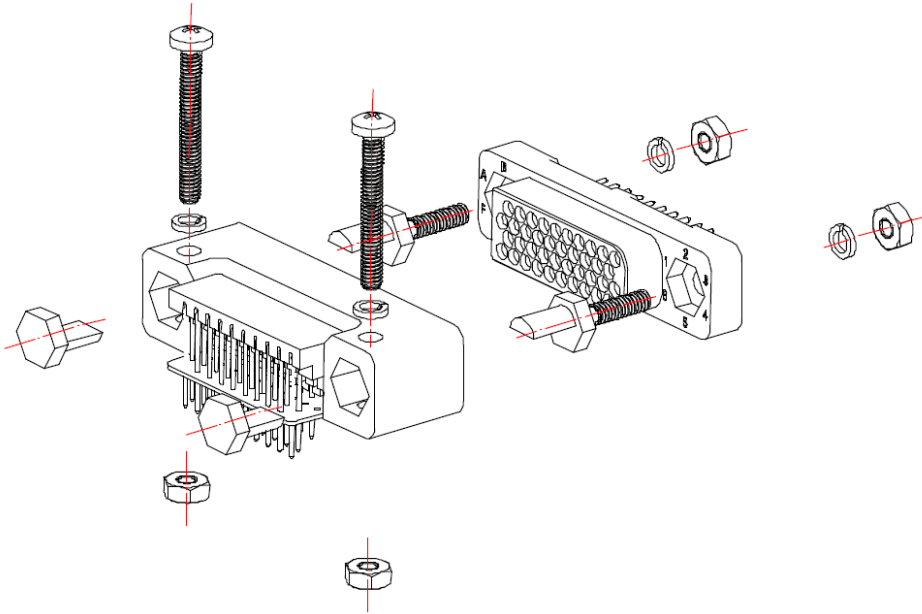


Figure 7 Identifying the guide pin type

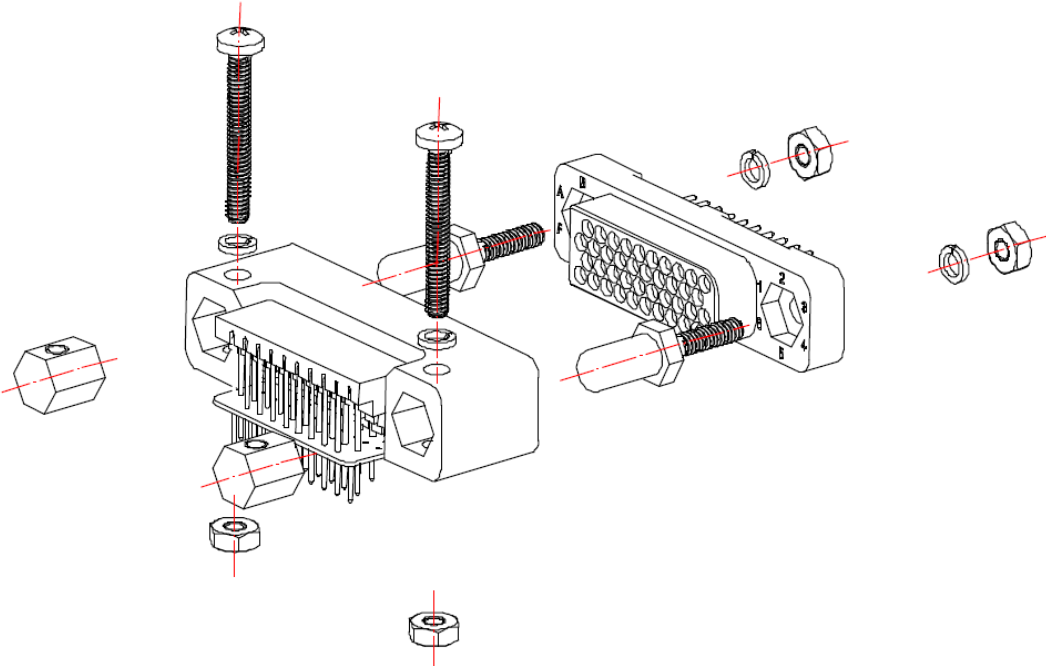


Figure 8 Guide pin guide bush type