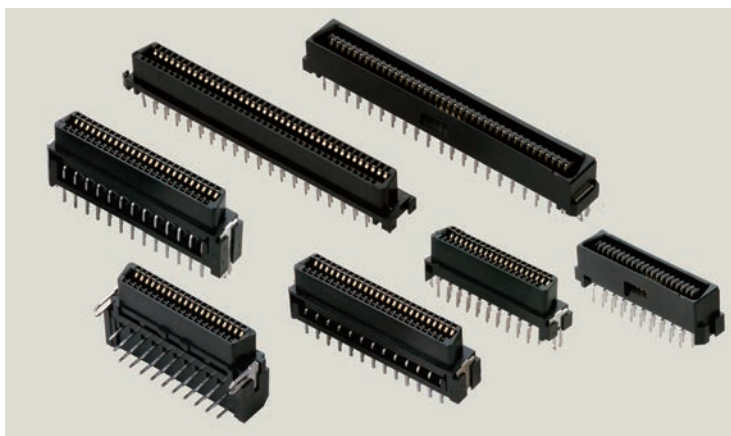


Board to Board Half Pitch Connector

DHB Series



FEATURE

1. Two different length contact tails are designed to insert into PCB holes easily.
2. The board lock pin type and non board lock type which has each 4 kinked contact tails at both ends to fasten on the PCB temporarily are available.
3. A variety of stacking heights from 10mm to 20mm, and key slot to prevent diagonal inserting are available on various usages.
4. DHB plug connectors can be mated with the flat cable connector DHD series connectors.
5. Lead Free

SPECIFICATIONS

Rated Voltage	250V AC (r.m.s.)
Rated Current	0.5A / Contact
Dielectric Withstanding Voltage	500V AC (r.m.s.) / 1 minute
Insulation Resistance	500M Ω min. at 500V DC
Contact Resistance	35m Ω max.



MATERIAL/FINISH

Item	Material / Finish
Contact	Copper Alloy / Contact Area : Au over Ni Plating Tail Area : Sn-Ag over Ni Plating
Block or Housing	PBT Resin (UL94V-0) / Black
Locator	PBT Resin (UL94V-0) / Black
Board Lock Pin	Copper Alloy / Sn-Ag over Ni Plating
Holding Pin(Stacking Type)	Copper Alloy / Ni Plating

© Specifications and/or dimensions in this catalogue are subject to change without notice.
Your catalogue checking the latest specifications with our drawings would be highly appreciated.

▶ Instruction of Handling

《Washing Connector》

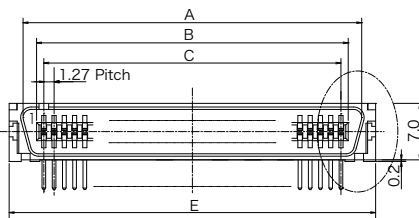
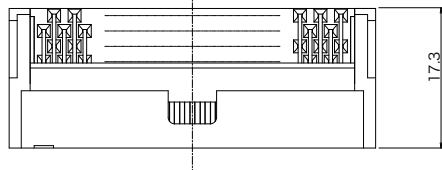
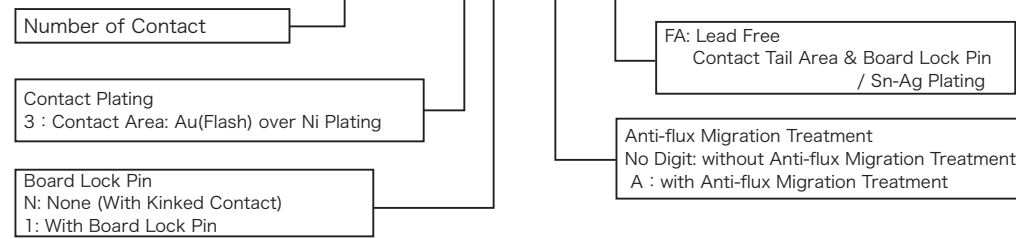
- Organic Solvent Washing
IPA (Isopropyl Alcohol)
- Water-base Cleaning Agent Washing
When you use the water-base cleaning agent,
please choose the washing chemicals according to the application table
which is informed by chemical manufacturer.
And please be careful to not leave the connector with water left.
- Attention of washing
If the flux and washing chemicals are left on the connector,
it may cause the deterioration of the electrical performance.
Please rinse them out completely.

《Attention of handling connector》

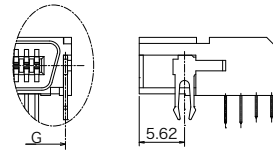
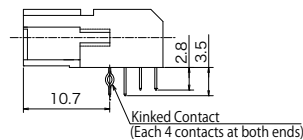
1. Allowable gap of mating
The effective contact length of this connector is 1.4mm (min.).
The allowable gap between plug and receptacle is 0.5mm(max.)
2. This connector does not have lock mechanism on PCB.
It can not be fastened on PCB by this connector only.
Please fasten this connector on the PCB in other methods.
3. Attention of soldering
 - 1) While you solder this connector, the flux may be stucked to the contact.
Since it may cause contact failure, please wash the connector
by above methods.
 - 2) When this connector is mounted on the edge of PCB, the flux may be stucked
on the interface.
Please prevent the interface from the flux by taping the interface.
4. Anti-flux migration treatment
We can offer the anti-flux migration treatment to reduce the flux migration
to the contact.
5. The torsional insertion or withdrawal may be cause damage of connector.

▶ Right Angle Plug Connector

DHB-PA50-R131NA-FA

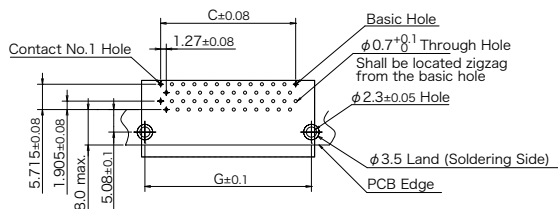


without Board Lock Pin

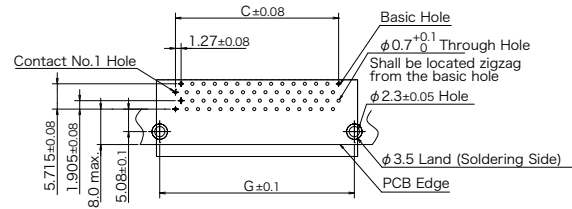


with Board Lock Pin

30,34,50 Contacts



20,40,68,80,100,120 Contacts

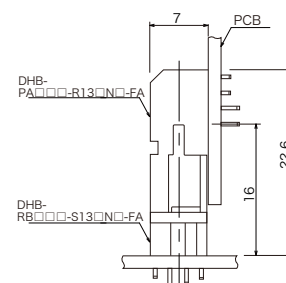
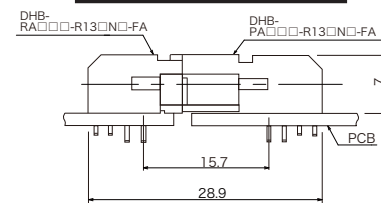


(When the connector is without board lock pins, $\phi 2.3$ through hole and dimension G are not necessary.)

Recommended PCB Mounting Dimensions (Connector Mounting Side)

Applicable PCB Thickness : $1.6^{+0.19}_{-0.10}$ (with Board Lock Pin)
: 1.6 ± 0.19 (without Board Lock Pin)

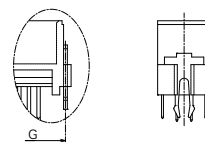
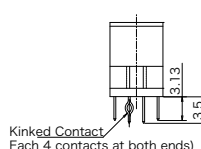
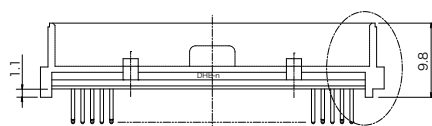
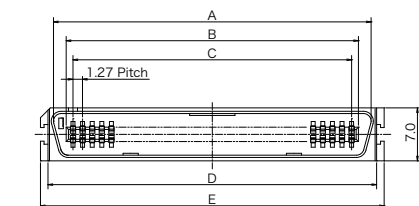
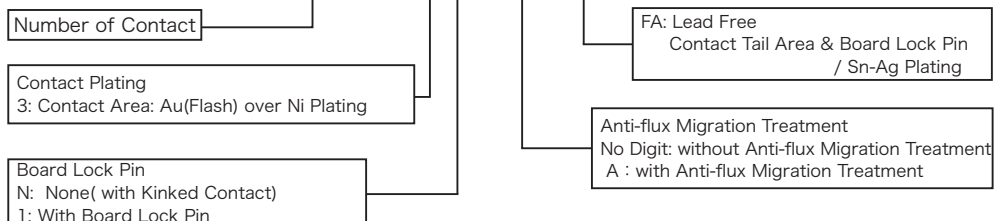
Mating Dimensions



Number of Contact	A	B	C	E	G
20	16.58	13.23	$9 \times 1.27 = 11.43$	20.03	18.54
30	22.93	19.58	$14 \times 1.27 = 17.78$	26.38	24.89
34	25.47	22.12	$16 \times 1.27 = 20.32$	28.92	27.43
40	29.28	25.93	$19 \times 1.27 = 24.13$	32.73	31.24
50	35.63	32.28	$24 \times 1.27 = 30.48$	39.08	37.59
68	47.06	43.71	$33 \times 1.27 = 41.91$	50.51	49.02
80	54.68	51.33	$39 \times 1.27 = 49.53$	58.13	56.64
100	67.38	64.03	$49 \times 1.27 = 62.23$	70.83	69.34
120	80.08	76.73	$59 \times 1.27 = 74.93$	83.53	82.04

▶ Straight Plug Connector

DHB-PB50-S131NA-FA

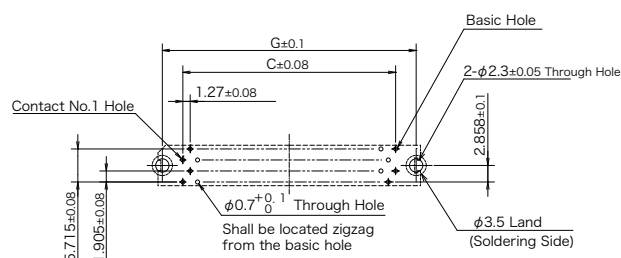
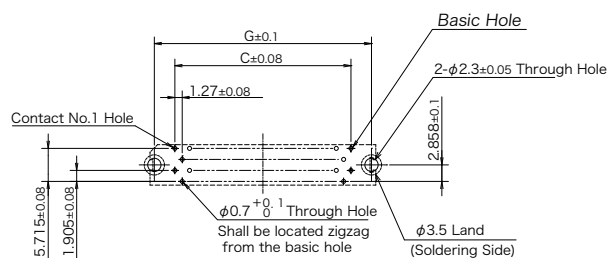


without Board Lock Pin

with Board Lock Pin

26,30,34,50 Contacts

20,40,68,80,100,120 Contacts



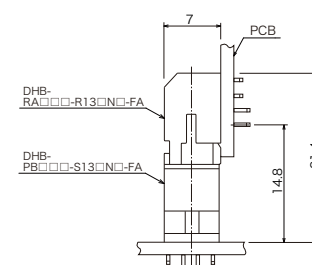
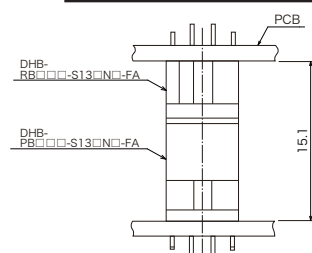
(When the connector is without board lock pins, φ2.3 through hole and dimension G are not necessary.)

Recommended PCB Mounting Dimensions (Connector Mounting Side)

Applicable PCB Thickness : 1.6^{+0.19}_{-0.10}(with Board Lock Pin)
: 1.6±0.19 (without Board Lock Pin)

Mating Dimensions

Number of Contact	A	B	C	D	E	G
20	16.58	13.23	9×1.27=11.43	18.04	20.03	18.54
26	20.39	17.04	12×1.27=15.24	21.85	23.84	22.35
30	22.93	19.58	14×1.27=17.78	24.39	26.38	24.89
34	25.47	22.12	16×1.27=20.32	26.93	28.92	27.43
40	29.28	25.93	19×1.27=24.13	30.74	32.73	31.24
50	35.63	32.28	24×1.27=30.48	37.09	39.08	37.59
68	47.06	43.71	33×1.27=41.91	48.52	50.51	49.02
80	54.68	51.33	39×1.27=49.53	56.14	58.13	56.64
100	67.38	64.03	49×1.27=62.23	68.84	70.83	69.34
120	80.08	76.73	59×1.27=74.93	81.54	83.53	82.04



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▶ Right Angle Receptacle Connector

DHB-RA50-R131NA-FA

Number of Contact

Contact Plating

3: Contact Area: Au(Flash) over Ni Plating

Board Lock Pin

N: None(with Kinked Contact)

1: With Board Lock Pin

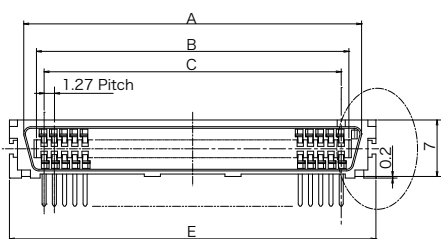
FA: Lead Free

Contact Tail Area & Board Lock Pin
/ Sn-Ag Plating

Anti-flux Migration Treatment

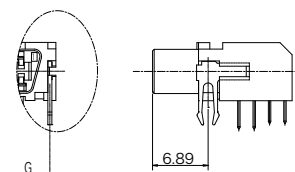
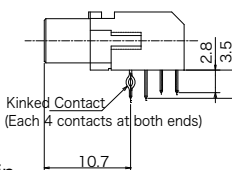
No Digit: without Anti-flux Migration Treatment

A : with Anti-flux Migration Treatment



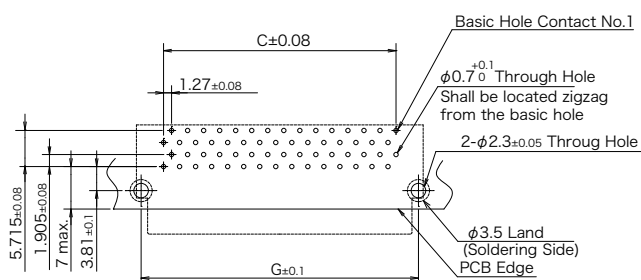
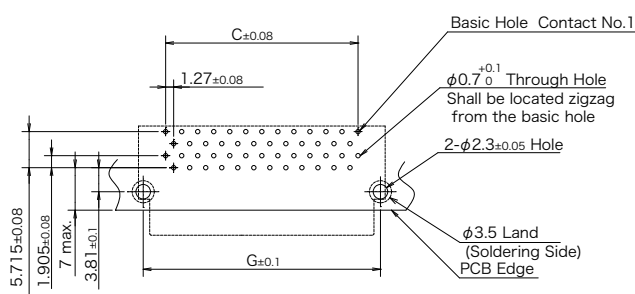
without Board Lock Pin

30,34,50 contacts



with Board Lock Pin

20,40,68,80,100,120 contacts

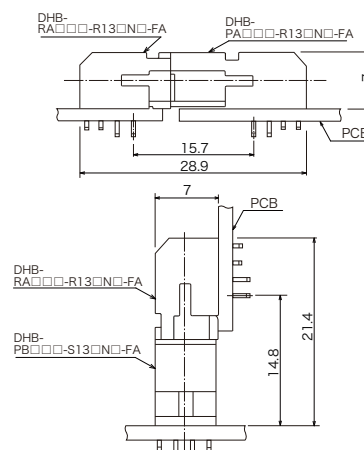
(When the connector is without board lock pins, $\phi 2.3$ through hole and dimension G are not necessary.)

Recommended PCB Mounting Dimensions (Connector Mounting Side)

Applicable PCB Thickness : $1.6^{+0.19}_{-0.10}$ (with Board Lock Pin)
: 1.6 ± 0.19 (without Board Lock Pin)

Mating Dimensions

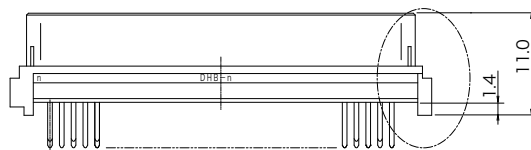
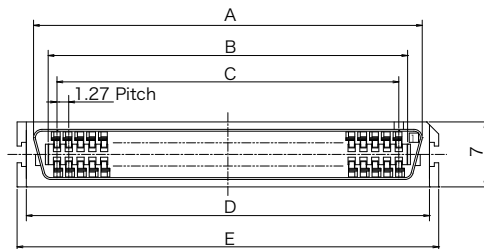
Number of Contact	A	B	C	E	G
20	16.48	13.33	$9 \times 1.27 = 11.43$	20.03	18.54
30	22.83	19.68	$14 \times 1.27 = 17.78$	26.38	24.89
34	25.37	22.22	$16 \times 1.27 = 20.32$	28.92	27.43
40	29.18	26.03	$19 \times 1.27 = 24.13$	32.73	31.24
50	35.53	32.38	$24 \times 1.27 = 30.48$	39.08	37.59
68	46.96	43.81	$33 \times 1.27 = 41.91$	50.51	49.02
80	54.58	51.43	$39 \times 1.27 = 49.53$	58.13	56.64
100	67.28	64.13	$49 \times 1.27 = 62.23$	70.83	69.34
120	79.98	76.83	$59 \times 1.27 = 74.93$	83.53	82.04



► Straight Receptacle Connector

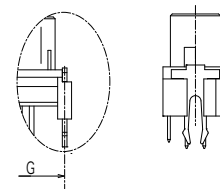
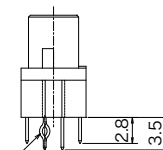
DHB-RB50-S131NA-FA

Number of Contact

Contact Plating
3: Contact Area: Au(Flash) over Ni PlatingBoard Lock Pin
N: None(with Kinked Contact)
1: With Board Lock PinFA: Lead Free
Contact Tail Area & Board Lock Pin
/ Sn-Ag PlatingAnti-flux Migration Treatment
No Digit: without Anti-flux Migration Treatment
A : with Anti-flux Migration Treatment

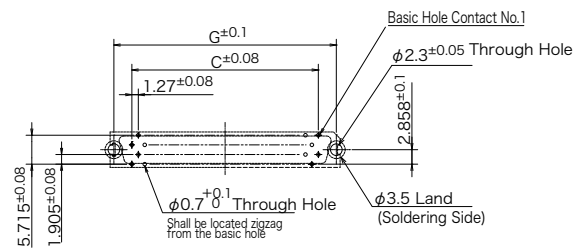
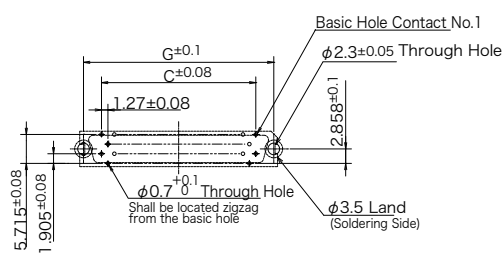
without Board Lock Pin

30,34,50 Contacts

Kinked Contact
(Each 4 contacts at both ends)

with Board Lock Pin

20,40,68,80,100,120 Contacts

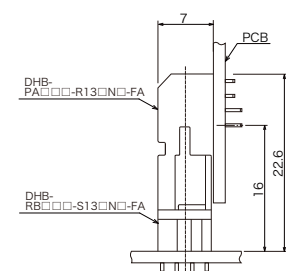
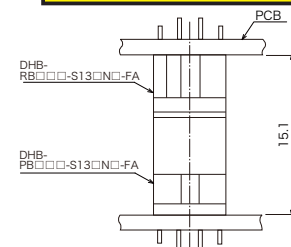


(When the connector is without board lock pins, φ2.3 through hole and dimension G are not necessary.)

Recommended PCB Mounting Dimensions (Connector Mounting Side)

Applicable PCB Thickness : $1.6^{+0.19}_{-0.10}$ (with Board Lock Pin)
: 1.6 ± 0.19 (without Board Lock Pin)

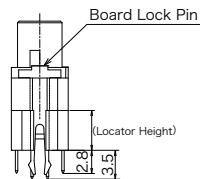
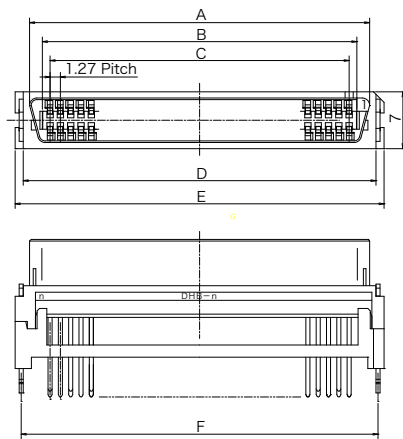
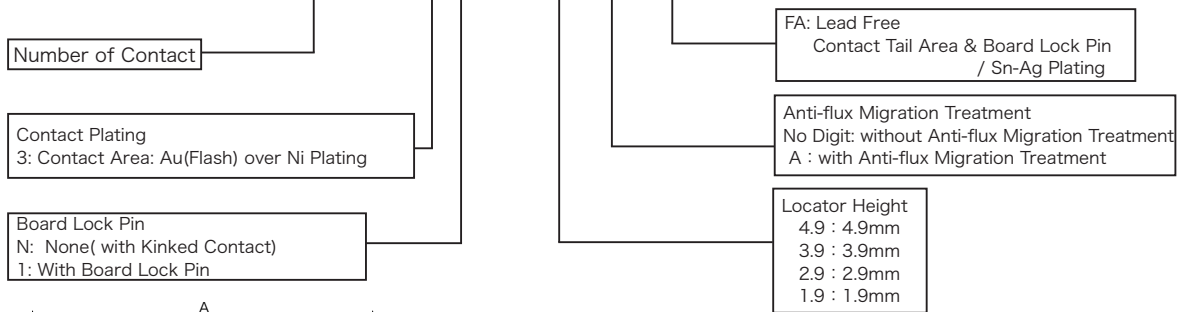
Mating Dimensions



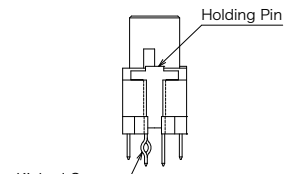
Number of Contact	A	B	C	D	E	G
20	16.48	13.33	9×1.27=11.43	18.04	20.03	18.54
30	22.83	19.68	14×1.27=17.78	24.39	26.38	24.89
34	25.37	22.22	16×1.27=20.32	26.93	28.92	27.43
40	29.18	26.03	19×1.27=24.13	30.74	32.73	31.24
50	35.53	32.38	24×1.27=30.48	37.09	39.08	37.59
68	46.96	43.81	33×1.27=41.91	48.52	50.51	49.02
80	54.58	51.43	39×1.27=49.53	56.14	58.13	56.64
100	67.28	64.13	49×1.27=62.23	68.84	70.83	69.34
120	79.98	76.83	59×1.27=74.93	81.54	83.53	82.04

▶ Stacking Receptacle Connector

DHB-RD30-S131N-4.9A-FA

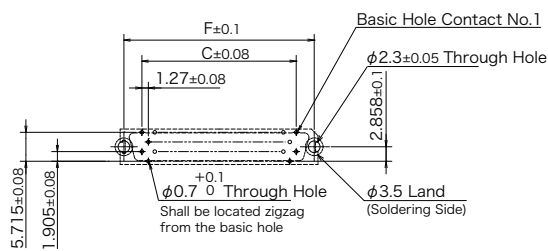


with Board Lock Pin

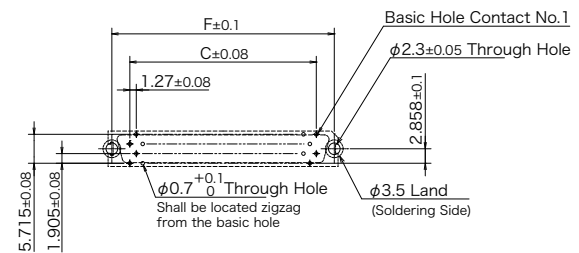


without Board Lock Pin

30,34 Contacts



20,40,80,100 Contacts



(When the connector is without board lock pins, $\phi 2.3$ through hole and dimension F are not necessary.)

Recommended PCB Mounting Dimensions (Connector Mounting Side)

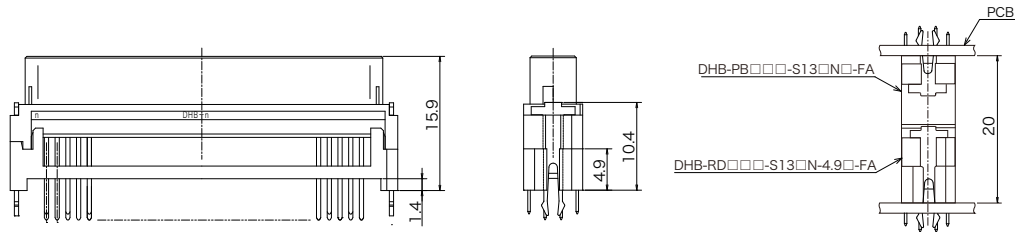
Applicable PCB Thickness : $1.6^{+0.19}_{-0.10}$ (with Board Lock Pin)
: 1.6 ± 0.19 (without Board Lock Pin)

Number of Contact	A	B	C	D	E	F
20	16.48	13.33	$9 \times 1.27 = 11.43$	18.04	20.03	18.54
30	22.83	19.68	$14 \times 1.27 = 17.78$	24.39	26.38	24.89
34	25.37	22.22	$16 \times 1.27 = 20.32$	26.93	28.92	27.43
40	29.18	26.03	$19 \times 1.27 = 24.13$	30.74	32.73	31.24
80	54.58	51.43	$39 \times 1.27 = 49.53$	56.14	58.13	56.64
100	67.28	64.13	$49 \times 1.27 = 62.23$	68.84	70.83	69.34

▶ Locator Height and Stacking Height

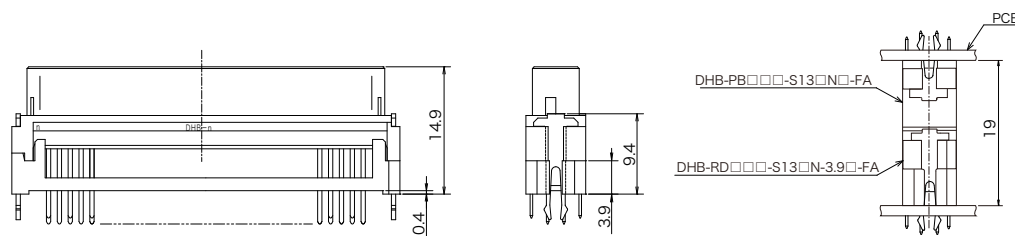
DHB-RD □□□ -S13 □ N-4.9 □ -FA

Stacking Height



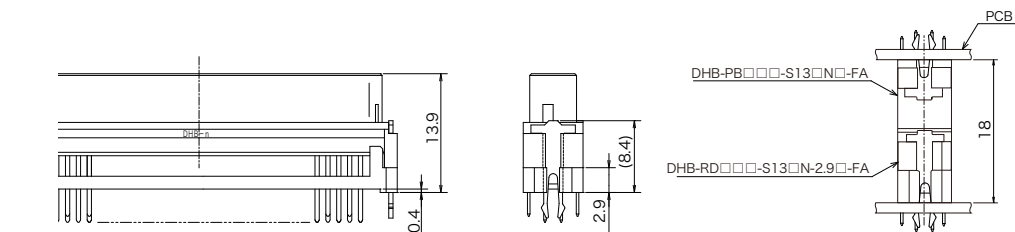
DHB-RD □□□ -S13 □ N-3.9 □ -FA

Stacking Height



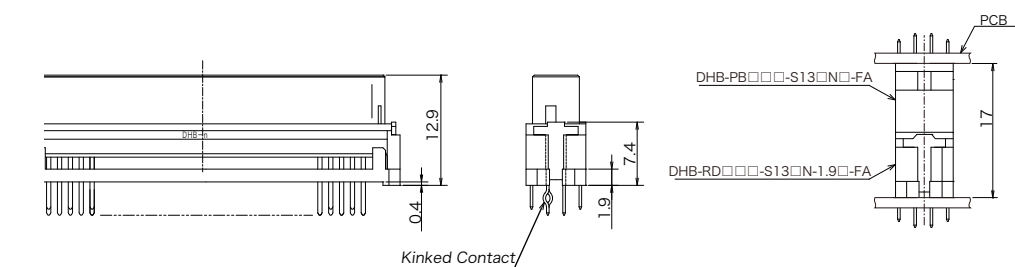
DHB-RD □□□ -S13 □ N-2.9 □ -FA

Stacking Height



DHB-RD □□□ -S13 □ N-1.9 □ -FA

Stacking Height



► Low Profile Plug Connector

DHB-PK50-S131NA-FA

Number of Contact

Contact Plating

3: Contact Area: Au(Flash) over Ni Plating

Board Lock Pin

N: None(with Kinked Contact)

1: With Board Lock Pin

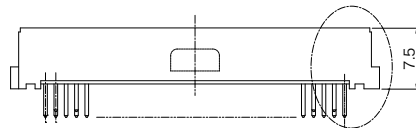
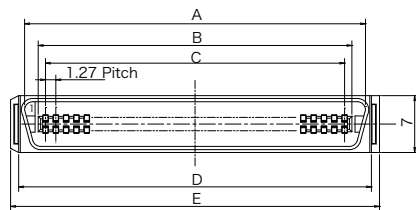
FA: Lead Free

Contact Tail Area & Board Lock Pin
/ Sn-Ag Plating

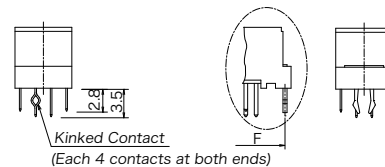
Anti-flux Migration Treatment

No Digit: without Anti-flux Migration Treatment

A : with Anti-flux Migration Treatment



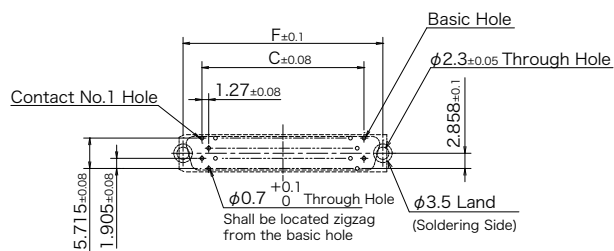
without Board Lock Pin



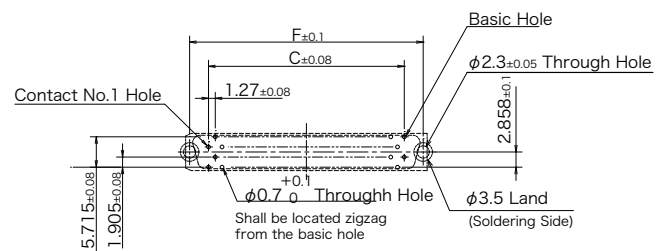
with Board Lock Pin

3

30,50 Contacts



40,80,100 Contacts

(When the connector is without board lock pins, $\phi 2.3$ through hole and dimension F are not necessary.)

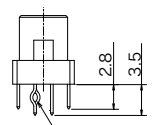
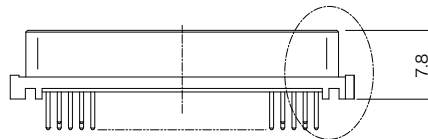
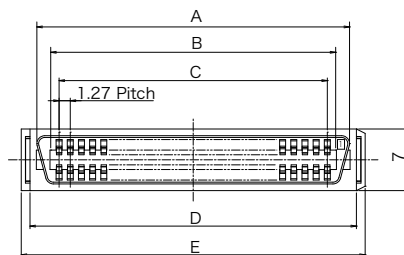
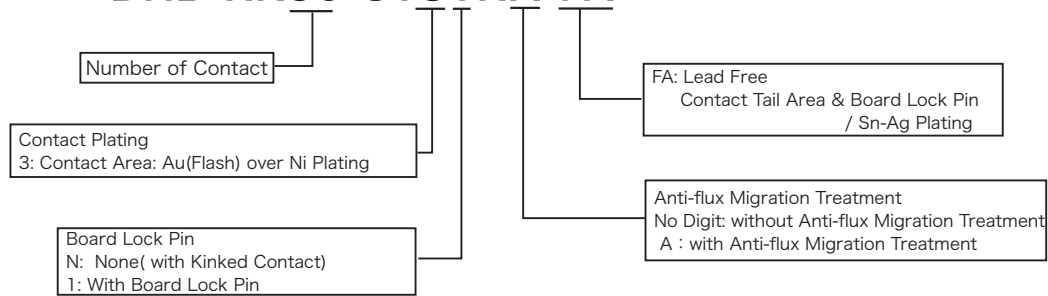
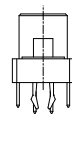
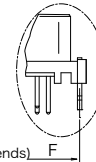
Recommended PCB Mounting Dimensions (Connector Mounting Side)

Applicable PCB Thickness : $1.6^{+0.19}_{-0.10}$ (with Board Lock Pin)
: 1.6 ± 0.19 (without Board Lock Pin)

Number of Contact	A	B	C	D	E	F
30	22.93	19.58	$14 \times 1.27 = 17.78$	24.39	26.38	24.89
40	29.28	25.93	$19 \times 1.27 = 24.13$	30.74	32.73	31.24
50	35.63	32.28	$24 \times 1.27 = 30.48$	37.09	39.08	37.59
80	54.68	51.33	$39 \times 1.27 = 49.53$	56.14	58.13	56.64
100	67.38	64.03	$49 \times 1.27 = 62.23$	68.84	70.83	69.34

► Low Profile Receptacle Connector

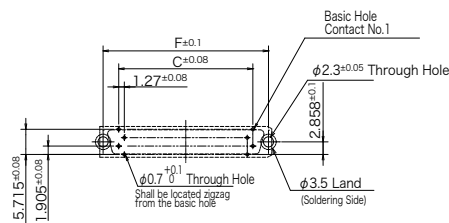
DHB-RK50-S131NA-FA

Kinked Contact
(Each 4 contacts at both ends)

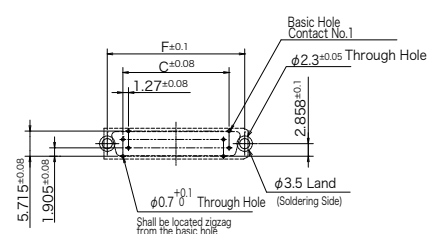
without Board Lock Pin

with Board Lock Pin

30,50 Contacts



40,80,100 Contacts



(When the connector is without board lock pins, $\phi 2.3$ through hole and dimension F are not necessary)

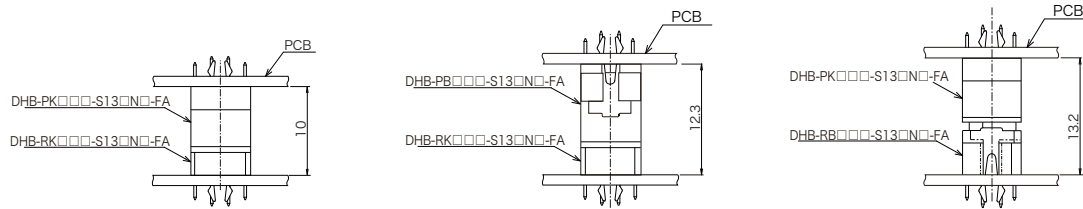
Recommended PCB Mounting Dimensions (Connector Mounting Side)

Applicable PCB Thickness : $1.6^{+0.19}_{-0.10}$ (with Board Lock Pin)
: 1.6 ± 0.19 (without Board Lock Pin)

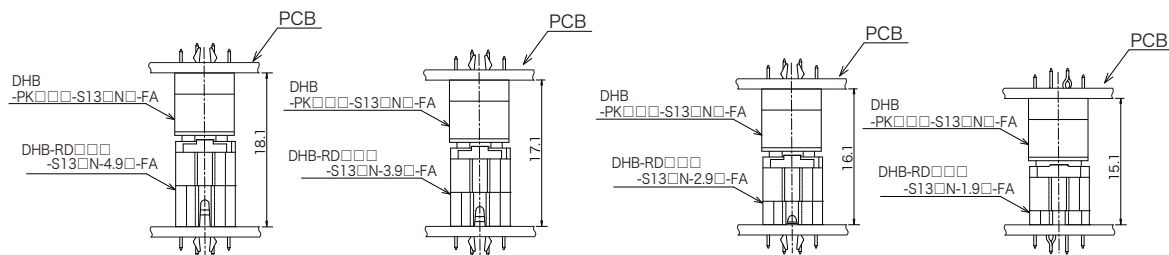
Number of Contact	A	B	C	D	E	F
30	22.83	19.68	$14 \times 1.27 = 17.78$	24.39	26.38	24.89
40	29.18	26.03	$19 \times 1.27 = 24.13$	30.74	32.73	31.24
50	35.53	32.38	$24 \times 1.27 = 30.48$	37.09	39.08	37.59
80	54.58	51.43	$39 \times 1.27 = 49.53$	56.14	58.13	56.64
100	67.28	64.13	$49 \times 1.27 = 62.23$	68.84	70.83	69.34

▶ Connector Mating Dimensions

Mating Dimensions with Standard Receptacle Type

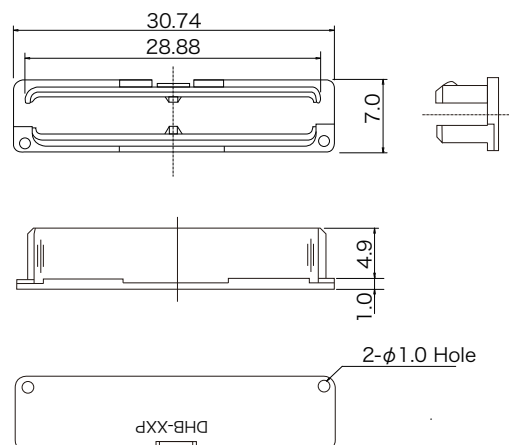


Mating Dimensions with Stacking Receptacle Type



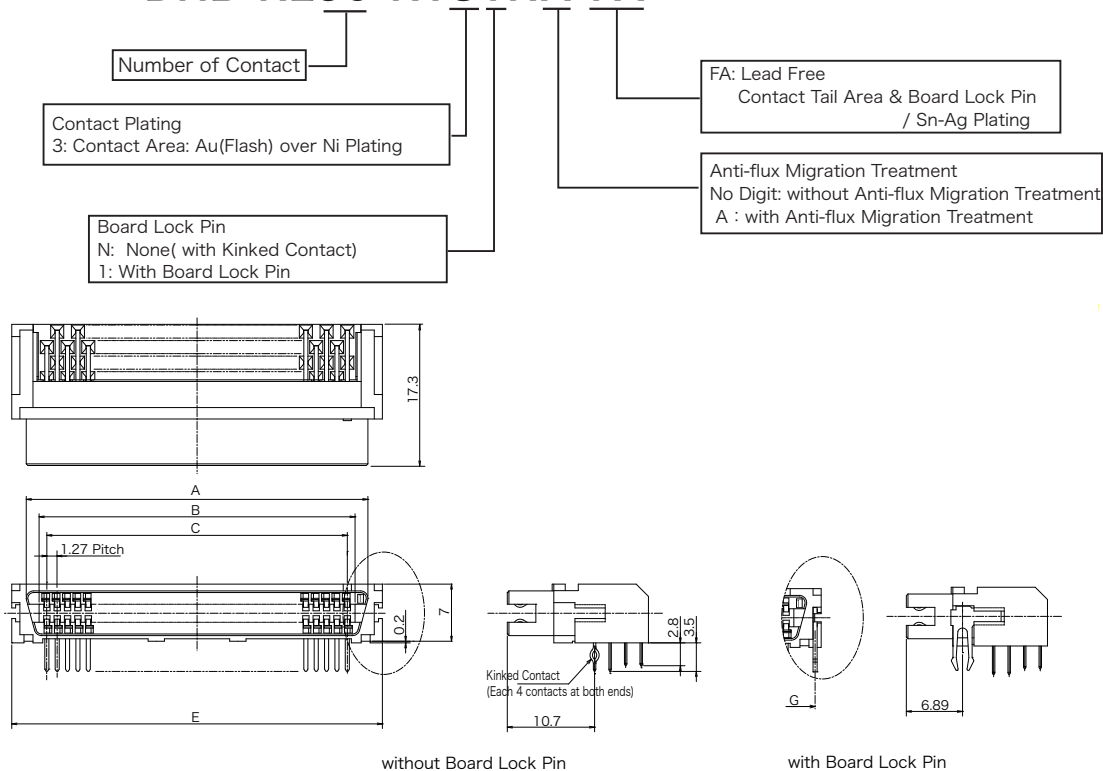
▶ Dust Cover (For DHB-PA,PB Type)

DHB-40PB-404



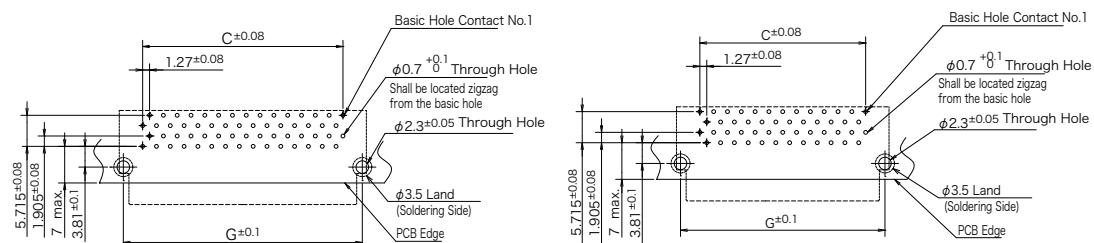
▶ Right Angle Receptacle Connector(with Slot)

DHB-RL50-R131NA-FA



40 Contacts

50 Contacts



(When the connector is without board lock pins, φ2.3 through hole and dimension G are not necessary.)

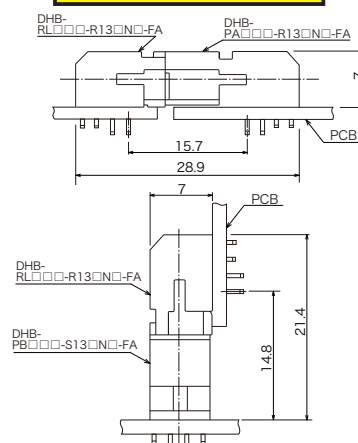
Recommended PCB Mounting Dimensions (Connector Mounting Side)

Applicable PCB Thickness : 1.6^{+0.19}_{-0.10}(with Board Lock Pin)
: 1.6±0.19 (without Board Lock Pin)

Number of Contact	A	B	C	E	G
40	29.18	26.03	19×1.27=24.13	32.73	31.24
50	35.53	32.38	24×1.27=30.48	39.08	37.59

※ The difference between standard type and slot type is the slots(depth:3.5mm) which is arranged at both sides of the housing. The housing size and mounting dimensions are common.

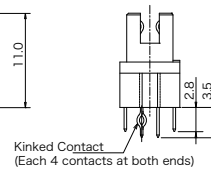
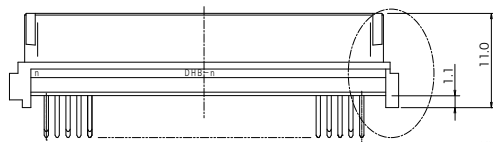
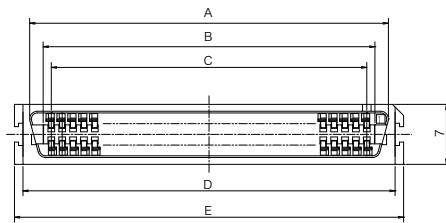
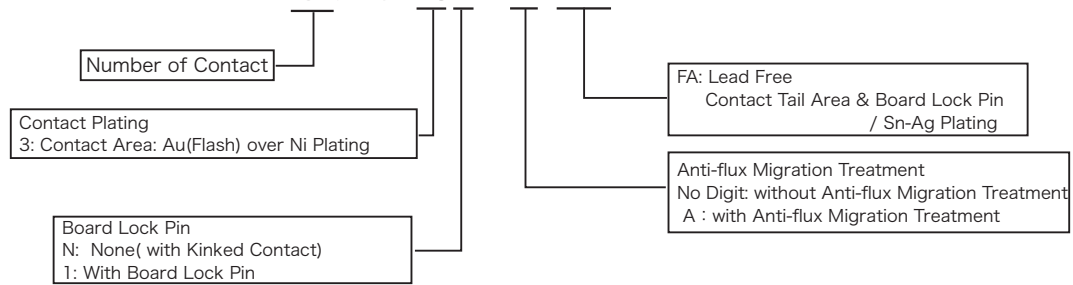
Mating Dimensions



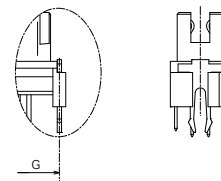
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Your catalogue checking the latest specifications with our drawings would be highly appreciated.

►Straight Receptacle Connector (with Slot)

DHB-RM80-S131NA-FA

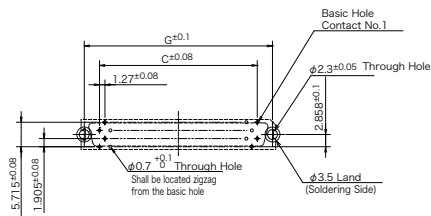


without Board Lock Pin



with Board Lock Pin

80,120 Contacts

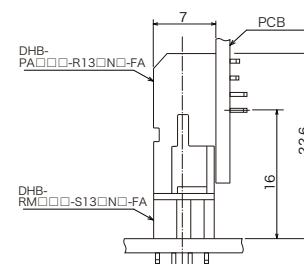
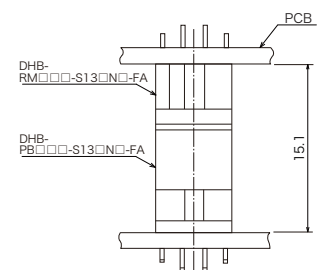


(When the connector is without board lock pins, φ2.3 through hole and dimension G are not necessary.)

Recommended PCB Mounting Dimensions (Connector Mounting Side)

Applicable PCB Thickness : 1.6^{+0.19}_{-0.10}(with Board Lock Pin)
: 1.6±0.19 (without Board Lock Pin)

Mating Dimensions



Number of Contact	A	B	C	D	E	G
80	54.58	51.43	39×1.27=49.53	56.14	58.13	56.64
120	79.98	76.83	59×1.27=74.93	81.54	83.53	82.04

※ The difference between standard type and slot type is the slots(depth:3.5mm) which is arranged at both sides of the housing. The housing size and mounting dimensions are common.

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