

NCBA series

2 mm Pitch Hard Metric Connectors

Outline

NCBA series of 2 mm pitch hard-metric connectors have been developed to meet electrical and mechanical performance requirements, and to support systems required in the telecommunications, data transmission, and computers industries, etc.

Features

- These connectors are built with 2 mm pitch hard-metric contacts complying with IEC917 (DIN43355) and IEC61076-4-101 international standards.
- High-density systems can be achieved with a minimum waste of space.
- Supports a wide variety of applications such as high-speed data transmission.
- Compatible with NCB series connectors

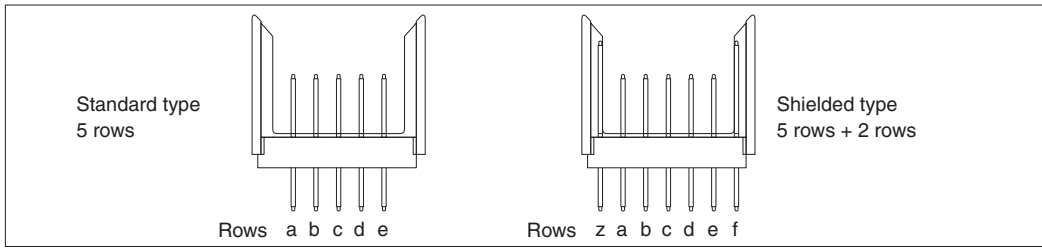
Electrical Characteristics

Rated voltage	250V AC (r.m.s.)
Rated current	1.5 A
Insulation resistance	Over 10000 megohms at 100V DC
Dielectric withstanding voltage	750V AC (r.m.s.)
Contact resistance	25 milliohms or less

Document Disclaimer

- When placing orders with us, minimum order quantities are set for every product.
- Be sure to contact us before starting preliminary design of PCBs using our connectors.
- The specifications and information shown in the catalog are subject to change without notice.

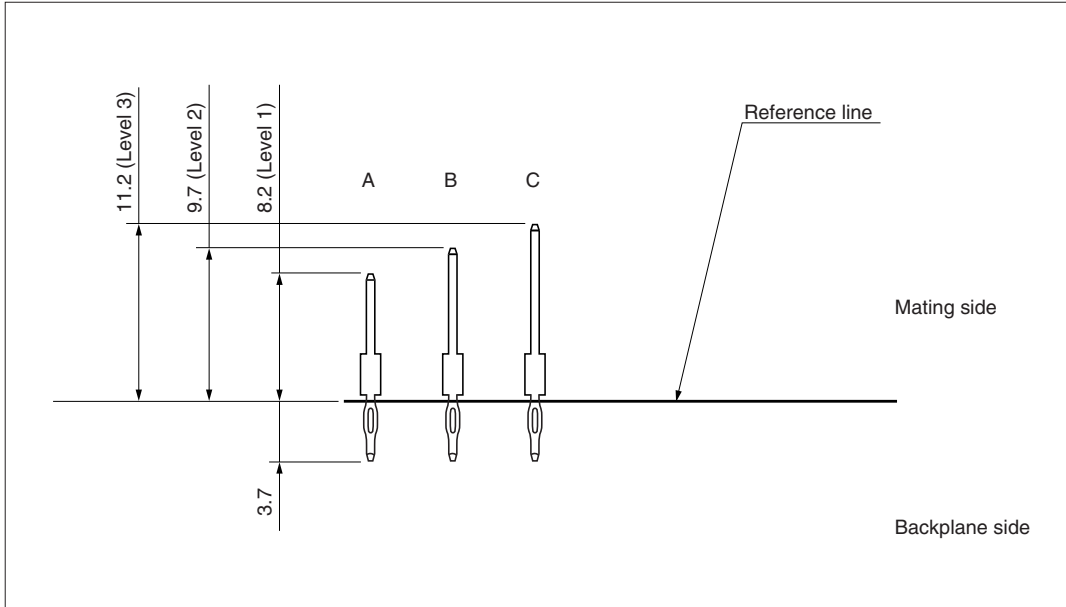
Contact arrangements (for backplane mounted male connectors)



Contact types (for backplane mounted male connectors)

Contacts in each row can be selected from those shown below for required performance.

- The "z" and "f" rows use only "C" contacts at level 3 for shielding.
- It is recommended that the same name contacts are used in each row.

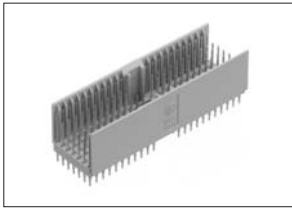


Contact arrangements (for backplane mounted male connectors)

	Backplane mounted Male Connectors	Daughter-board mounted Female Connectors
	<p>These connectors are available in three types, A, B, and C. The type A incorporates a center mating guide and key mechanisms. Type B is an open-end connector. The type C incorporates the mating guide at one side. These connectors are also available in two types: a standard type and a shielded type. Pins are aligned in 7 rows: the "z" row and "a" - "f" rows. All the pins aligned in the "z" and "f" rows are used as shield pins.</p>	<p>These connectors are available in three types, A, B, and C, mating with the same type of the backplane mounted male connector. These connectors are also available in two types: a standard type and a shielded type. The shielded type connector incorporates two shield plates, one each at the upper and lower ends. When the shielded type connector is used, the pins of the male connector are aligned in the "f" rows, and are connected to the pins of the female connector aligned in the "f" rows through the shield plates.</p>
A type	NCBA-()K110SMPGTA()+	NCBA-K110LFPGT+ (standard type)
		NCBA-SUK110LFPGT+ (shielded type)
B type 125 contacts	NCBA-()125SMPGT()+	NCBA-125LFPGT+ (standard type)
		NCBA-SU125LFPGT+ (shielded type)
B type 110 contacts	NCBA-()110SMPGT()+	NCBA-110LFPGT+ (standard type)
		NCBA-SU110LFPGT+ (shielded type)
C type	NCBA-()A55SMPGTA()+	NCBA-A55LFPGT+ (standard type)
		NCBA-SUA55LFPGT+ (shielded type)

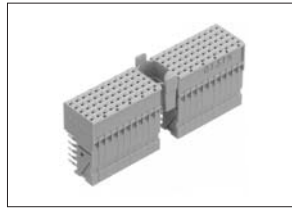
The A, B and C types comply with IEC standard.

Product List



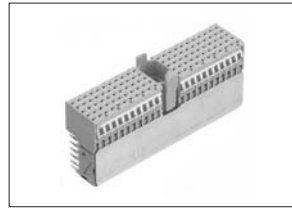
A-type, 110-contact backplane mounted male connector
NCBA-()K110SMPGTA()+

J-34
NCBA series...4



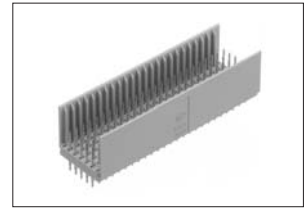
A-type, 110-contact daughter-board mounted female connectors (standard type)
NCBA-K110LFPGT+

J-35
NCBA series...5



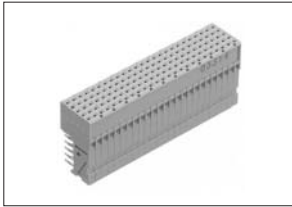
A-type, 110-contact daughter-board mounted female connector (shielded type)
NCBA-SUK110LFPGT+

J-36
NCBA series...6



B-type, 125-contact backplane mounted male connector
NCBA-()125SMPGT()+

J-37
NCBA series...7



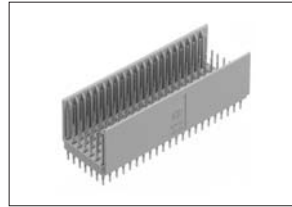
B-type, 125-contact daughter-board mounted female connectors (standard type)
NCBA-125LFPGT+

J-38
NCBA series...8



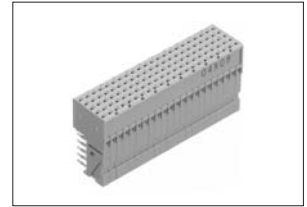
B-type, 125-contact daughter-board mounted female connector (shielded type)
NCBA-SU125LFPGT+

J-39
NCBA series...9



B-type, 110-contact backplane mounted male connector
NCBA-()110SMPGT()+

J-40
NCBA series...10



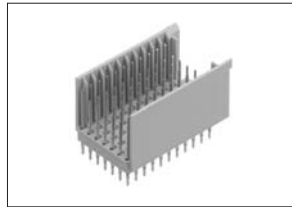
B-type, 110-contact daughter-board mounted female connector (standard type)
NCBA-110LFPGT+

J-41
NCBA series...11



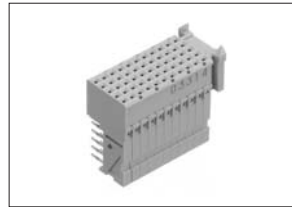
B-type, 110-contact daughter-board mounted female connectors (shielded type)
NCBA-SU110LFPGT+

J-42
NCBA series...12



C-type, 55-contact backplane mounted male connector
NCBA-()A55SMPGTA()+

J-43
NCBA series...13



C-type, 55-contact daughter-board mounted female connectors (standard type)
NCBA-A55LFPGT+

J-44
NCBA series...14



C-type, 55-contact daughter-board mounted female connectors (shielded type)
NCBA-SUA55LFPGT+

J-45
NCBA series...15

A-type, 110-contact backplane mounted male connector
NCBA-()K110SMPGTA()+

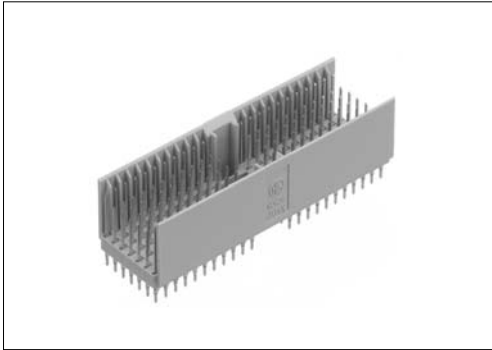
2 mm pitch connector

For PCB

Straight Press-in

IEC917/IEC61076-4-101

RoHS



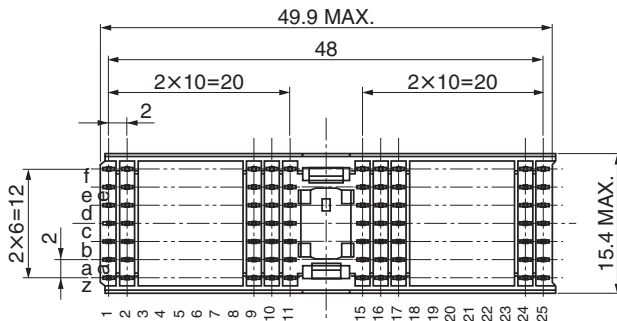
● Configuration of product Part No.

NCBA- () K 110 SMP G T A ()+

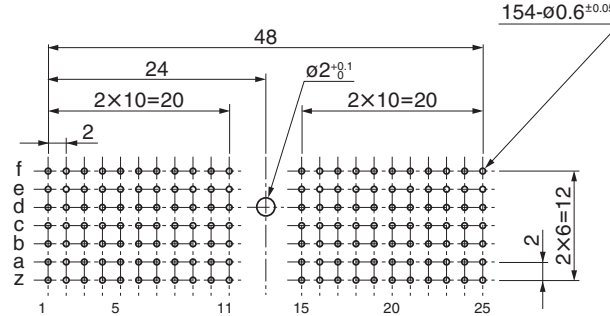
① ② ③ ④ ⑤ ⑥ ⑦ ⑧

- ① Series name
- ② "z" and "f" rows
Blank: None
C : Provided
- ③ Type
K: With polarity key (for A type)
- ④ No. of contacts ("a" - "e" rows): 110
- ⑤ Type of contact
SMP: Straight plug (male) press-in
- ⑥ Contact plating
G: Min 0.76 μm Gold plate
- ⑦ Boss (location peg)
A: With boss
- ⑧ Serial No. of contact arrangement

Note: This figure shows a shield type male connector as a typical example. Male connectors without shield can be provided.

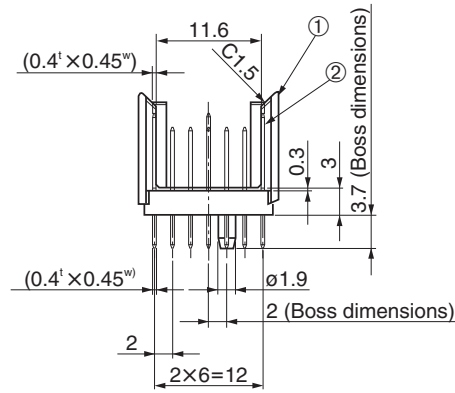
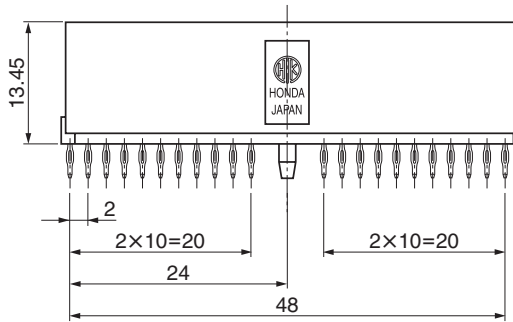


(Hole diameter: $0.7^{+0.025}$ mm, 25μm or more copper plating)



Recommended PCB layout
Board thickness: t = 1.6-5.5 mm

The "z" and "f" are not required for connectors without shield.



● Pin arrangements and pin length dimensions on mating side (Ex.)

Other pin arrangements are also available, please contact us.

Part No.	NCBA-CK110SMPGTA11+	Part No.	NCBA-CK110SMPGTA53+
	<p>Pin arrangements on contact side</p>		<p>Pin arrangements on contact side</p>

● Components

- ① Insulator
- ② Contacts

Mating connectors: NCBA-SUK110LFPGTA+, NCBA-K110LFPGT+

NCB-SK110LFPG, NCB-K110LFPG, NCB-SUK110LFPG

A-type, 110-contact daughter-board mounted female connectors (standard type)
NCBA-K110LFPGT+

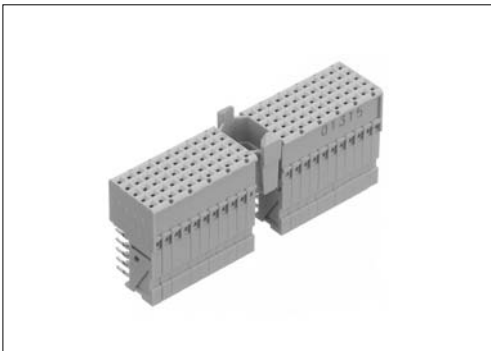
2 mm pitch connector

For PCB

Right-angle Press-in

IEC917/IEC61076-4-101

RoHS

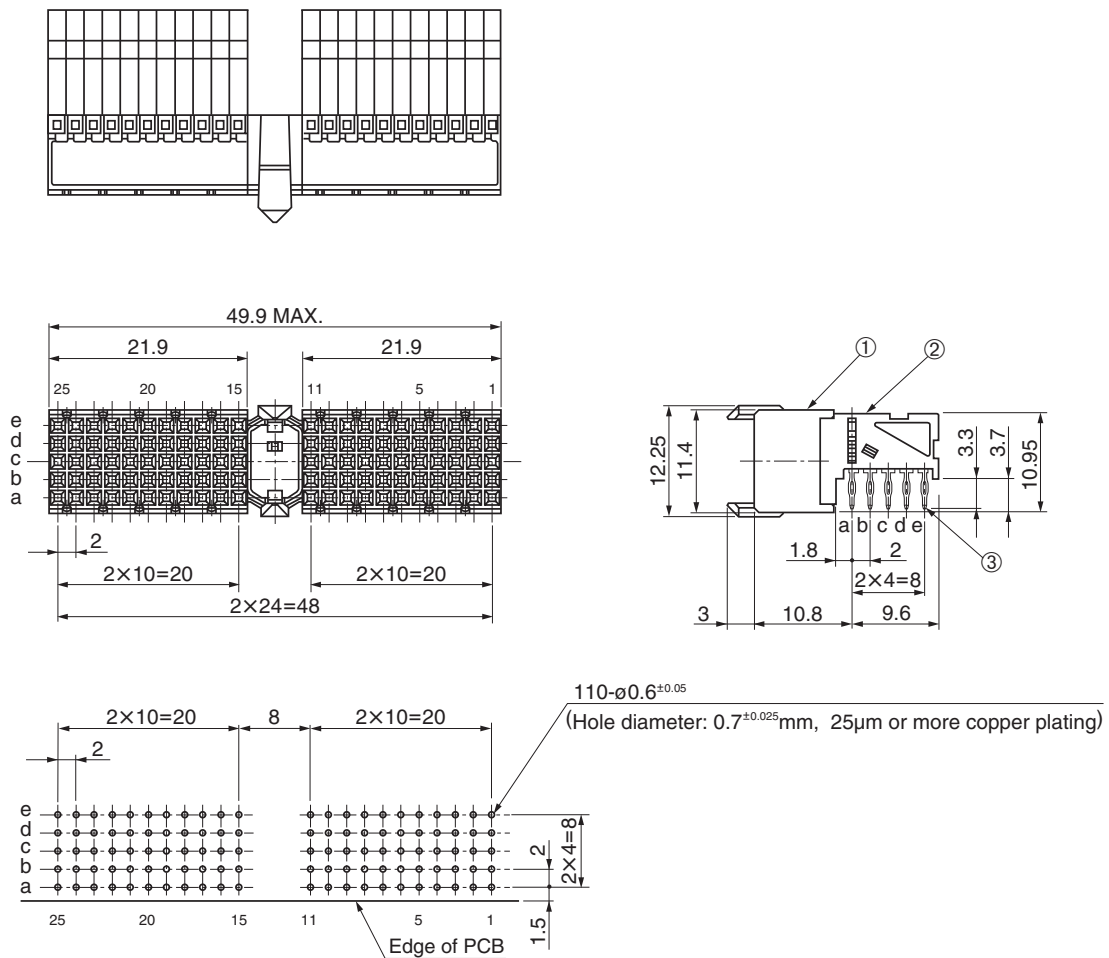


● Configuration of product Part No.

NCBA- K 110 LFP G T+

① ② ③ ④ ⑤

- ① Series name
- ② Type
K: With polarity key (A type)
- ③ No. of contacts: 110
- ④ Type of contact
LFP: Right-angle jack (female) press-in
- ⑤ Contact plating
G: Min. 0.76 μm Gold plate



● Components

①	Insulator A
②	Contacts
③	Insulator B

Recommended PCB layout
Board thickness: t = 1.6

Mating connectors: NCBA-K110SMPGTA(+)
 NCB-K110SMPGA(-)

A-type, 110-contact daughter-board mounted female connector (shielded type)
NCBA-SUK110LFPGTA+

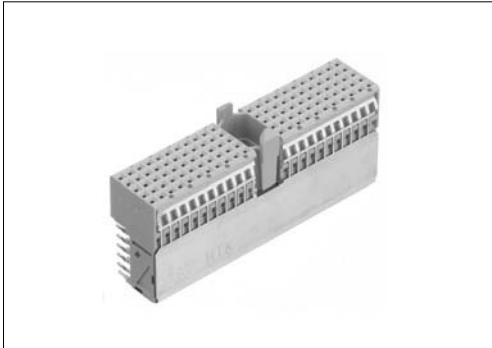
2 mm pitch connector

For PCB

Right-angle Press-in

IEC917/IEC61076-4-101

RoHS

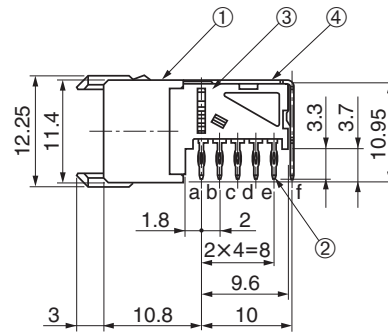
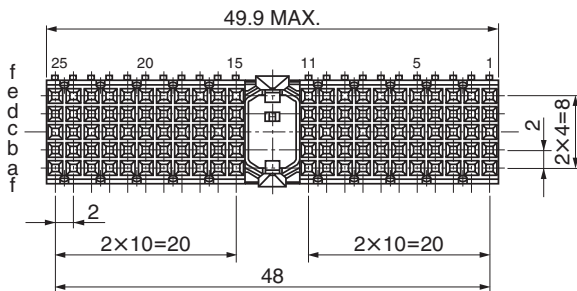
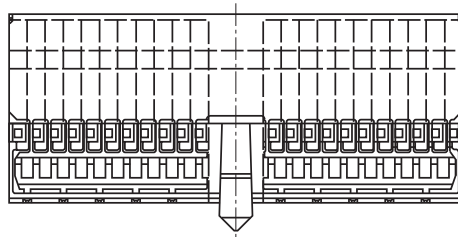


● Configuration of product Part No.

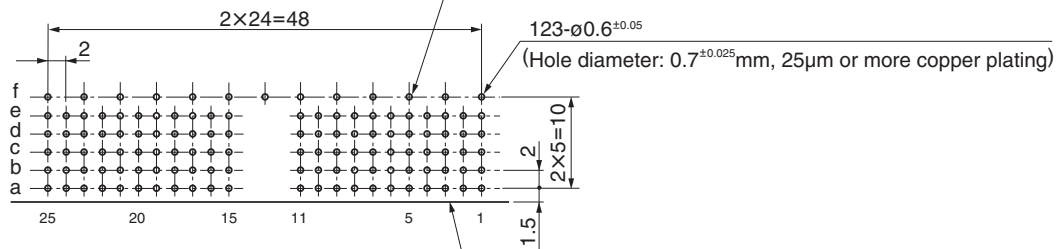
NCBA- SU K 110 LFP G T A+

① ② ③ ④ ⑤ ⑥

- ① Series name
- ② Shield plate
SU: With on the upper side
- ③ Type
K: With polarity key (A type)
- ④ No. of contacts: 110
- ⑤ Type of contact
LFP: Right-angle jack (female) press-in
- ⑥ Contact plating
G: Min. 0.76 μm Gold plate



Holes in "f" row are located at odd numbered lines for tails of shield plate (upper)



● Components

①	Insulator A
②	Contacts
③	Insulator B
④	Shield plate (upper)

Recommended PCB layout
 Board thickness: t = 1.6

Mating connectors: NCBA-()K110SMPGTA()+

NCB-()K110SMPGA()

B-type, 125-contact backplane mounted male connector
NCBA-()125SMPGT()+

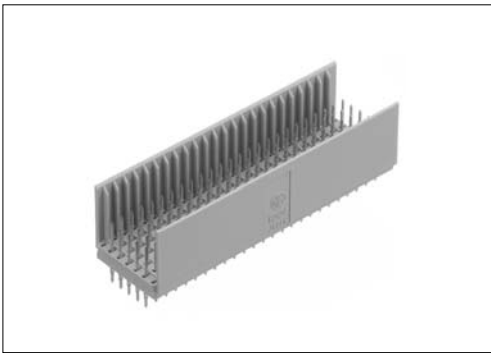
2 mm pitch connector

For PCB

Straight Press-in

IEC917/IEC61076-4-101

RoHS



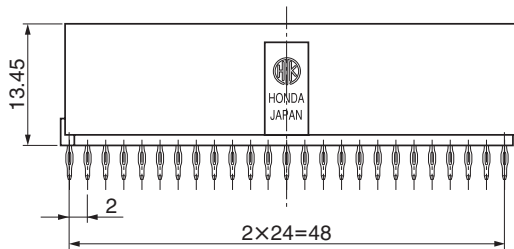
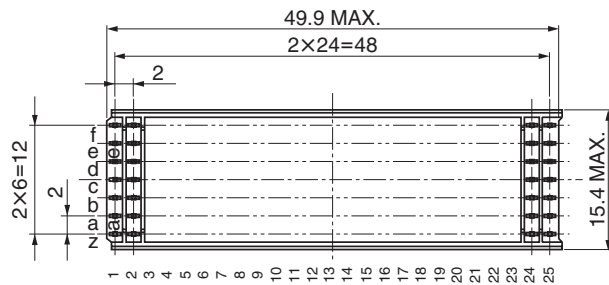
● Configuration of product Part No.

NCBA- () 125 SMPGT ()+

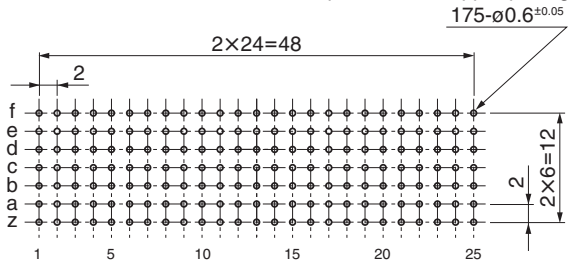
① ② ③ ④ ⑤ ⑥

- ① Series name
- ② "z" and "f" rows
Blank: None
C : Provided
- ③ No. of contacts ("a" – "e" rows): 125
- ④ Type of contact
SMP: Straight plug (male) press-in
- ⑤ Contact plating
G: Min. 0.76 μm Gold plate
- ⑥ Serial No. of contact arrangement

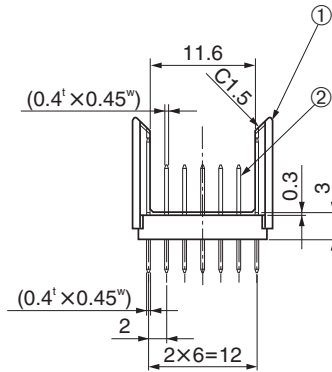
Note: This figure shows a shield type male connector as a typical example. Male connectors without shield can be provided.



(Hole diameter: 0.7^{±0.025}mm, 25μm or more copper plating)



Recommended PCB layout
Board thickness: t = 1.6-5.5 mm
 The "z" and "f" are not required for connectors without shield.

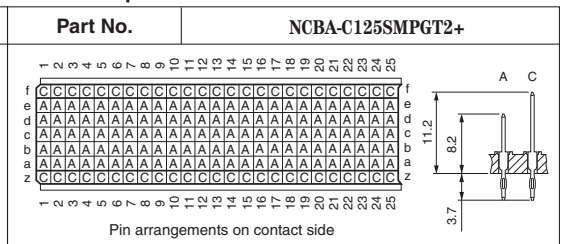
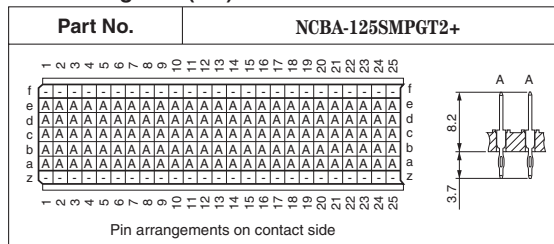


● Pin arrangements and pin length dimensions on mating side (Ex.)

Other pin arrangements are also available, please contact us.

● Components

- ① Insulator
- ② Contacts



Mating connectors: NCBA-125LFPGT+, NCBA-SU125LFPGT+

NCB-125LFPG, NCB-SU125LFPG, NCB-S125LFPG

B-type, 125-contact daughter-board mounted female connectors (standard type)
NCBA-125LFPGT+

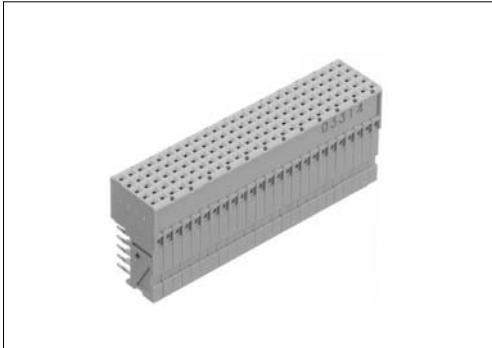
2 mm pitch connector

For PCB

Right-angle Press-in

IEC917/IEC61076-4-101

RoHS

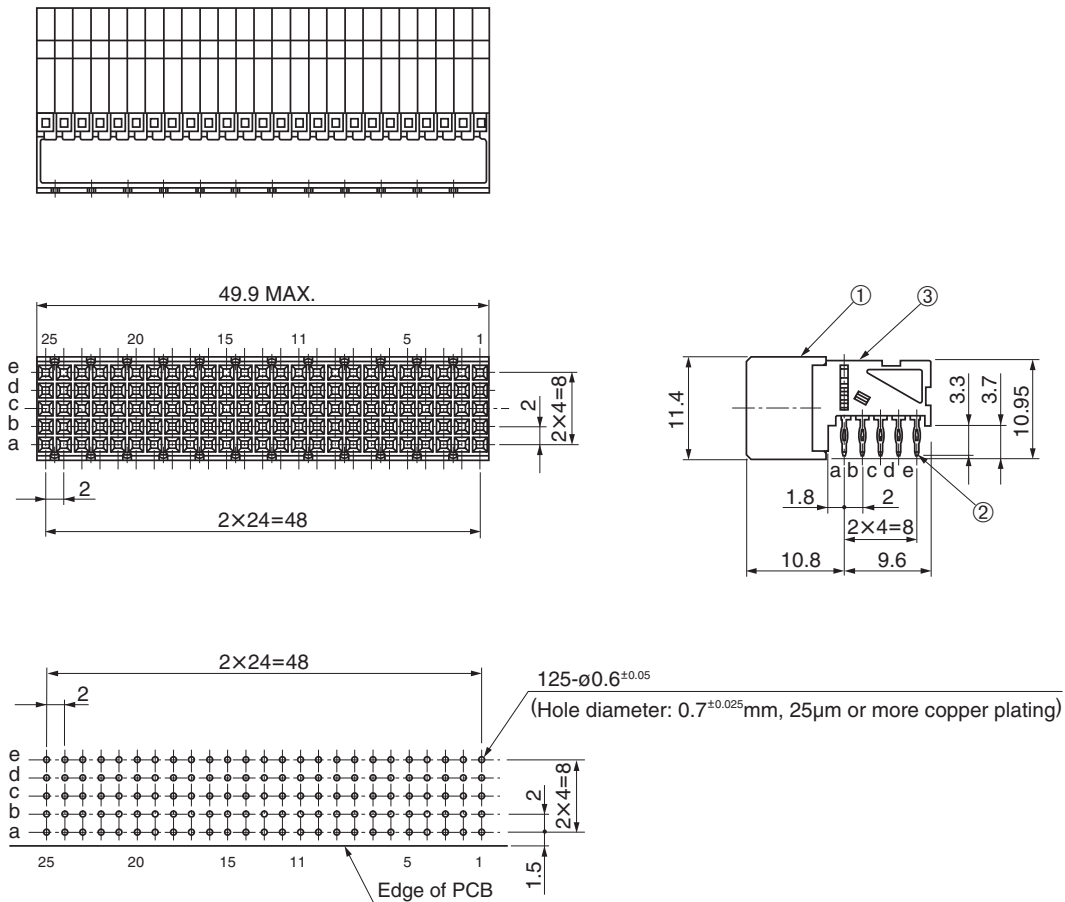


● Configuration of product Part No.

NCBA- 125 LFP G T+

① ② ③ ④

- ① Series name
- ② No. of contacts ("a" – "e" rows): 125
- ③ Type of contact
LFP: Right-angle jack (female) press-in
- ④ Contact plating
G: Min. 0.76 μm Gold plate



● Components

①	Insulator A
②	Contacts
③	Insulator B

Recommended PCB layout
 Board thickness: t = 1.6

Mating connectors: NCBA-125SMPGT()+

NCB-125SMPG()

**B-type, 125-contact daughter-board mounted female connector (shielded type)
NCBA-SU125LFPGTA+**

2 mm pitch connector

For PCB

Right-angle Press-in

IEC917/IEC61076-4-101

RoHS

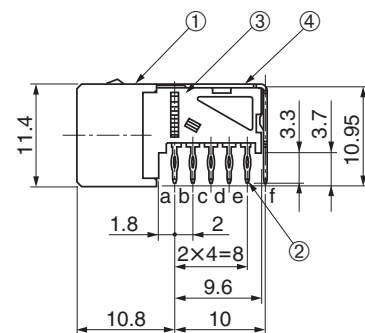
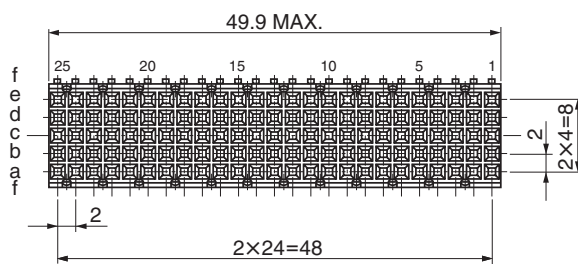
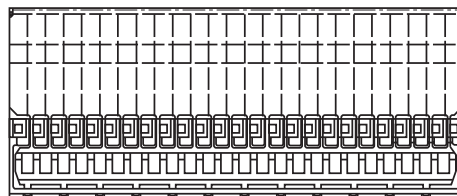


● Configuration of product Part No.

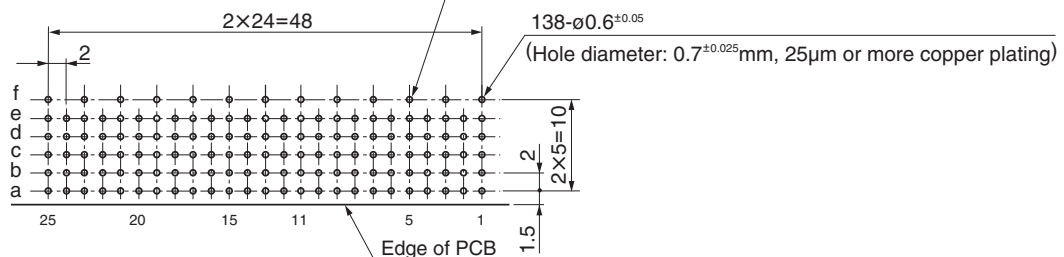
NCBA- SU 125 LFP G T A+

① ② ③ ④ ⑤

- ① Series name
- ② Shield plate
SU: With on the upper side
- ③ No. of contacts ("a" - "e" rows): 125
- ④ Type of contact
LFP: Right-angle jack (female) press-in
- ⑤ Contact plating
G: Min. 0.76 μm Gold plate



Holes in "f" row are located at odd numbered lines for tails of shield plate (upper)



● Components

①	Insulator A
②	Contacts
③	Insulator B
④	Shield plate (upper)

Recommended PCB layout
Board thickness: t = 1.6

Mating connectors: NCBA-()125SMPGT()+

NCB-()125SMPG()

B-type, 110-contact backplane mounted male connector
NCBA-()110SMPGT()+

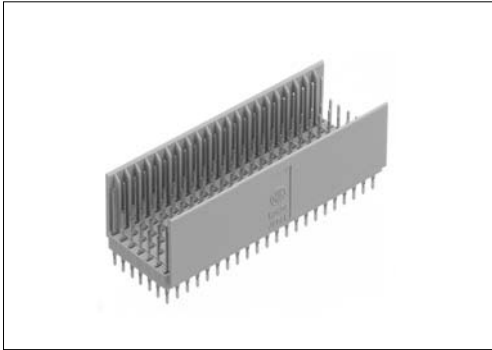
2 mm pitch connector

For PCB

Straight Press-in

IEC917/IEC61076-4-101

RoHS

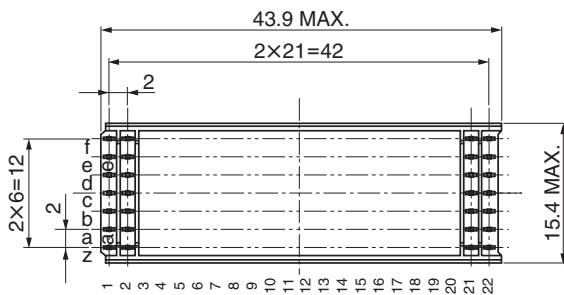


● Configuration of product Part No.

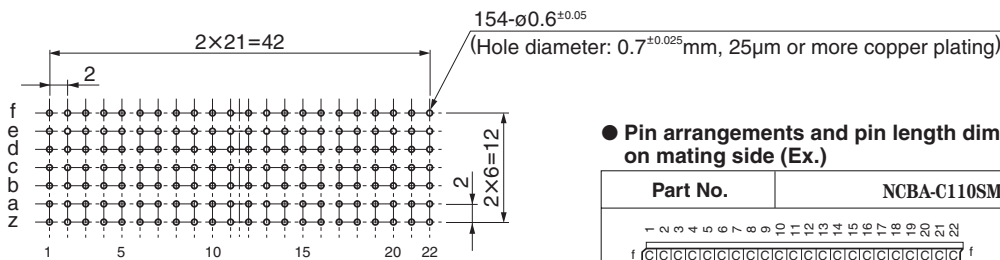
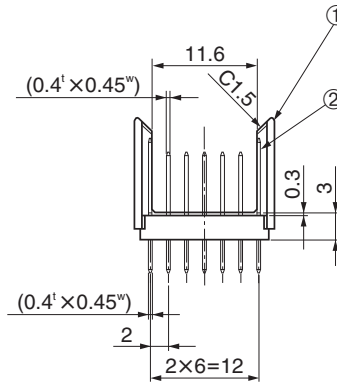
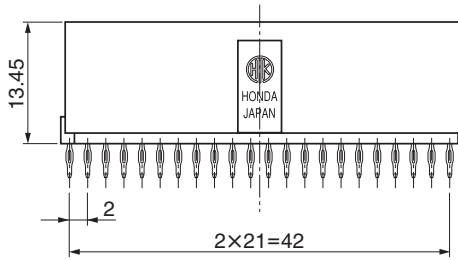
NCBA- () 110 SMP G T ()+

① ② ③ ④ ⑤ ⑥

- ① Series name
- ② "z" and "f" rows
Blank: None
C : Provided
- ③ No. of contacts ("a" – "e" rows): 110
- ④ Type of contact
SMP: Straight plug (male) press-in
- ⑤ Contact plating
G: Min. 0.76 μm Gold plate
- ⑥ Serial No. of contact arrangement



Note: This figure shows a shield type male connector as a typical example. Male connectors without shield can be provided.



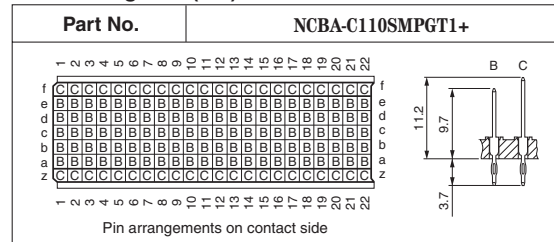
Recommended PCB layout
 Board thickness: t = 1.6-5.5 mm

The "z" and "f" are not required for connectors without shield.

● Components

①	Insulator
②	Contacts

● Pin arrangements and pin length dimensions on mating side (Ex.)



Other pin arrangements are also available, please contact us.

Mating connectors: NCBA-SU110LFPGTA+, NCBA-110LFPGT+

NCB-SU110LFPG

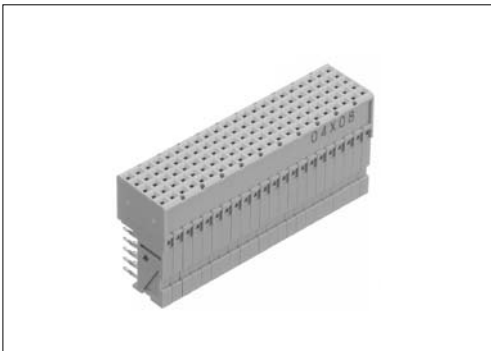
B-type, 110-contact daughter-board mounted female connector (standard type)
NCBA-110LFPGT+

For PCB

Right-angle Press-in

RoHS

IEC917/IEC61076-4-101

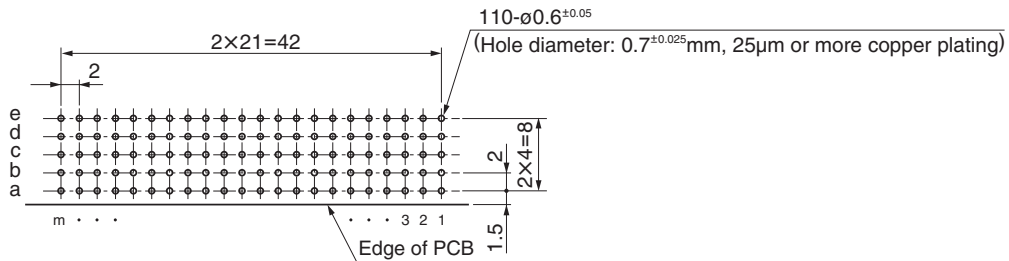
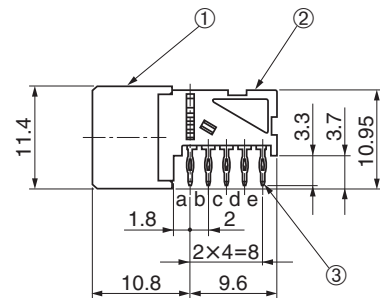
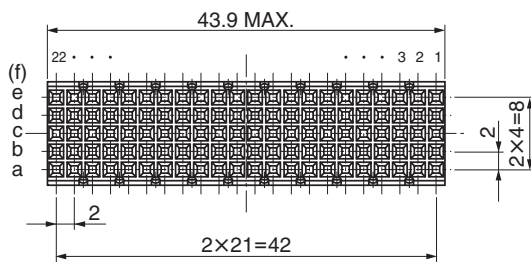
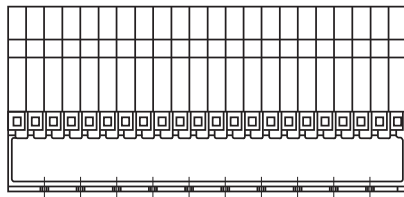


● Configuration of product Part No.

NCBA- 110 LFP G T+

① ② ③ ④

- ① Series name
- ② No. of contacts ("a" - "e" rows): 125
- ③ Type of contact
LFP: Right-angle jack (female) press-in
- ④ Contact plating
G: Min. 0.76 μm Gold plate



● Components

①	Insulator A
②	Contacts
③	Insulator B

Recommended PCB layout
 Board thickness: t = 1.6

Mating connectors: NCBA-110SMPGT()+

NCB-110SMPG()

B-type, 110-contact daughter-board mounted female connectors (shielded type)

For PCB

NCBA-SU110LFPGTA+

Right-angle Press-in

RoHS

IEC917/IEC61076-4-101

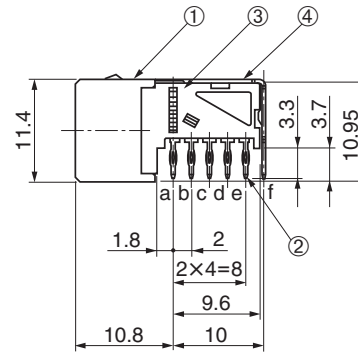
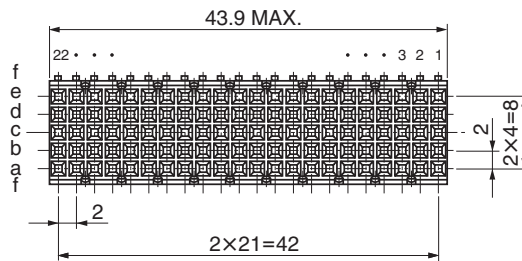
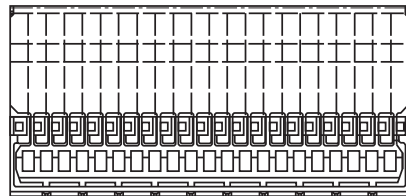


● Configuration of product Part No.

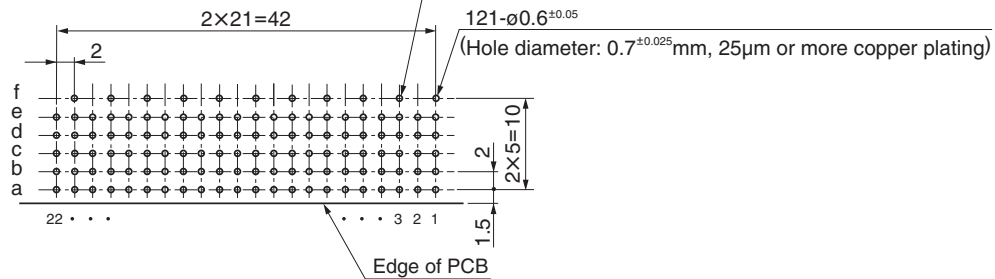
NCBA- SU 110 LFP G T A+

① ② ③ ④ ⑤

- ① Series name
- ② Shield plate
SU: With on the upper side
- ③ No. of contacts ("a" – "e" rows): 110
- ④ Type of contact
LFP: Right-angle jack (female) press-in
- ⑤ Contact plating
G: Min. 0.76 μm Gold plate



Holes in "f" row are located at odd numbered lines for tails of shield plate (upper)



● Components

①	Insulator A
②	Contacts
③	Insulator B
④	Shield plate (upper)

Recommended PCB layout
Board thickness: t = 1.6

Mating connectors: NCBA-()110SMPGT(+)

NCB-()110SMPG()

C-type, 55-contact backplane mounted male connector
NCBA-()A55SMPGTA()+

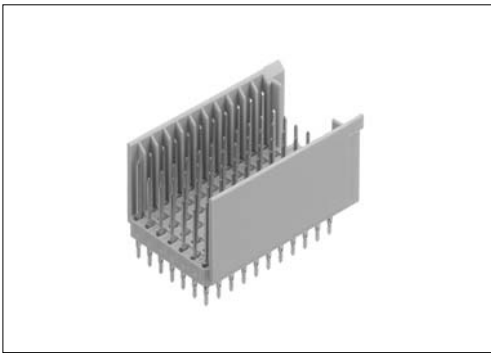
2 mm pitch connector

For PCB

Straight Press-in

RoHS

IEC917/IEC61076-4-101



● Configuration of product Part No.

NCBA- () A 55 SMP G T A ()+

- | | |
|---|---------------------------------------|
| ① Series name | ⑥ Contact plating |
| ② "z" and "f" rows
Blank: None
C : Provided | G: Min 0.76 μm Gold plate |
| ③ Type
A: 55 contacts (C type) | ⑦ Boss (location peg)
A: With boss |
| ④ No. of contacts ("a" – "e" rows): 55 | ⑧ Serial No. of contact arrangement |
| ⑤ Type of contact
SMP: Straight plug (male) press-in | |

24.9 MAX.
2x10=20
2
2x6=12
2
15.4 MAX.
1 2 3 4 5 6 7 8 9 10 11

11.6
C1.5

13.45
2
2x10=20
3

77-ø0.6^{+0.05}
(Hole diameter: 0.7^{+0.025} mm, 25μm or more copper plating)

2x10=20
2
2x6=12
3
ø2^{+0.1}

Note: This figure shows a shield type male connector as a typical example. Male connectors without shield can be provided.

(0.4' x 0.45")
1
2
3.7 (Boss dimensions)

(0.4' x 0.45")
ø1.9
2 (Boss dimensions)
2x6=12

● Pin arrangements and pin length dimensions on mating side (Ex.)

Part No.	NCBA-CA55SMPGTA2+
<p>Pin arrangements on contact side</p>	

Other pin arrangements are also available, please contact us.

● Components

① Insulator
② Contacts

Recommended PCB layout
 Board thickness: t = 1.6-5.5 mm
 The "z" and "f" are not required for connectors without shield.

Mating connectors: NCBA-SUA55LFPGTA+, NCBA-A55LFPGT+

NCB-SA55LFPG, NCB-SUA55LFPG, NCB-A55LFPG

C-type, 55-contact daughter-board mounted female connectors (standard type)
NCBA-A55LFPGT+

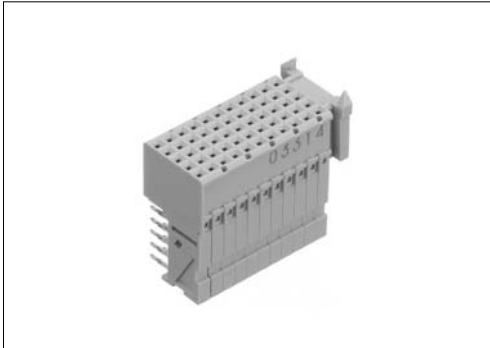
2 mm pitch connector

For PCB

Right-angle Press-in

IEC917/IEC61076-4-101

RoHS

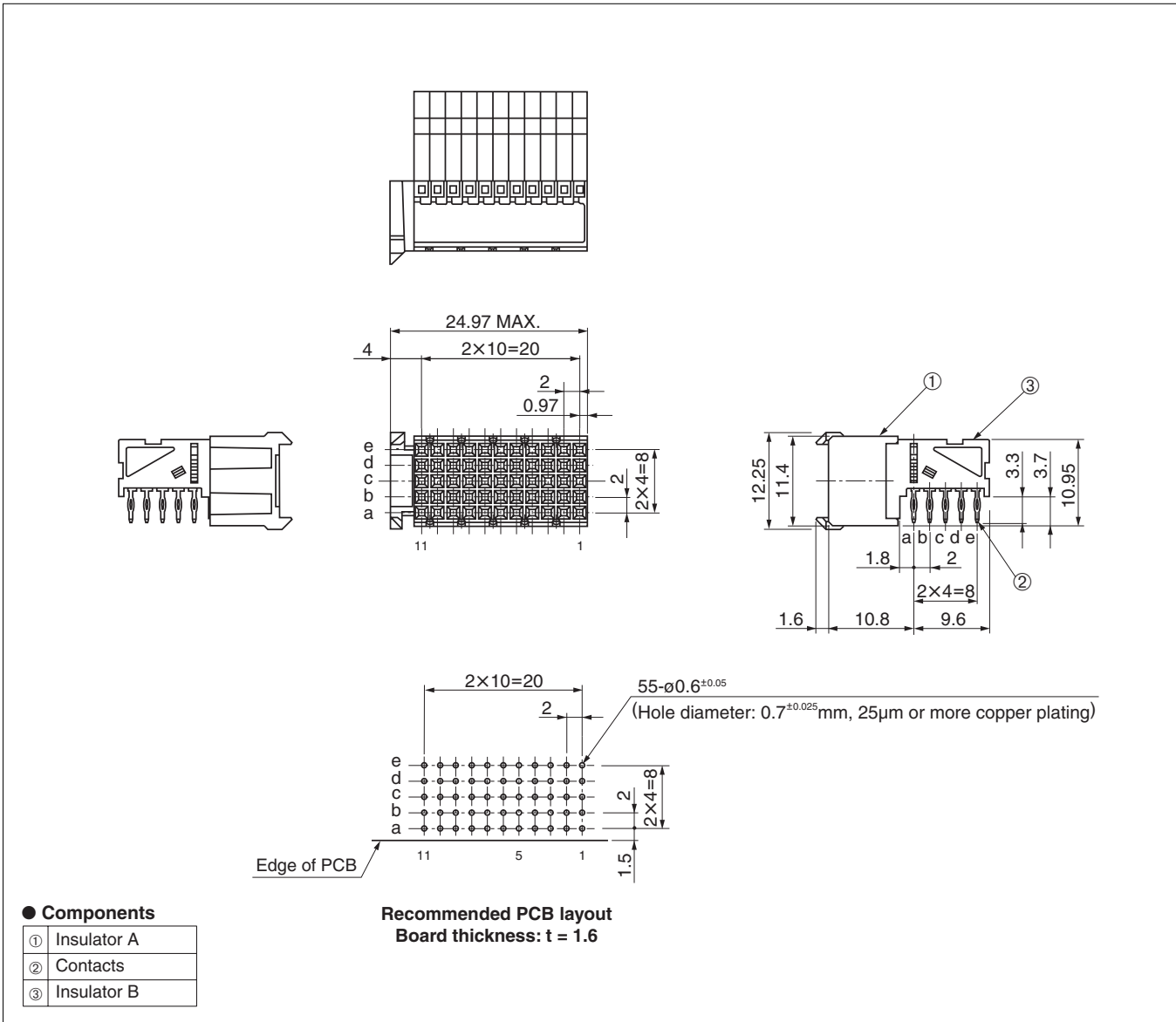


● Configuration of product Part No.

NCBA- A 55 LFP G T+

① ② ③ ④ ⑤

- ① Series name
- ② Type
A: 55 contacts (C type)
- ③ No. of contacts: 55
- ④ Type of contact
LFP: Right-angle jack (female) press-in
- ⑤ Contact plating
G: Min. 0.76 μm Gold plate



● Components

①	Insulator A
②	Contacts
③	Insulator B

Recommended PCB layout
 Board thickness: t = 1.6

Mating connectors: NCBA-A55SMPGTA()+

NCB-A55SMPGA()

C-type, 55-contact daughter-board mounted female connectors (shielded type)
NCBA-SUA55LFPGTA+

2 mm pitch connector

For PCB

Right-angle Press-in

IEC917/IEC61076-4-101

RoHS

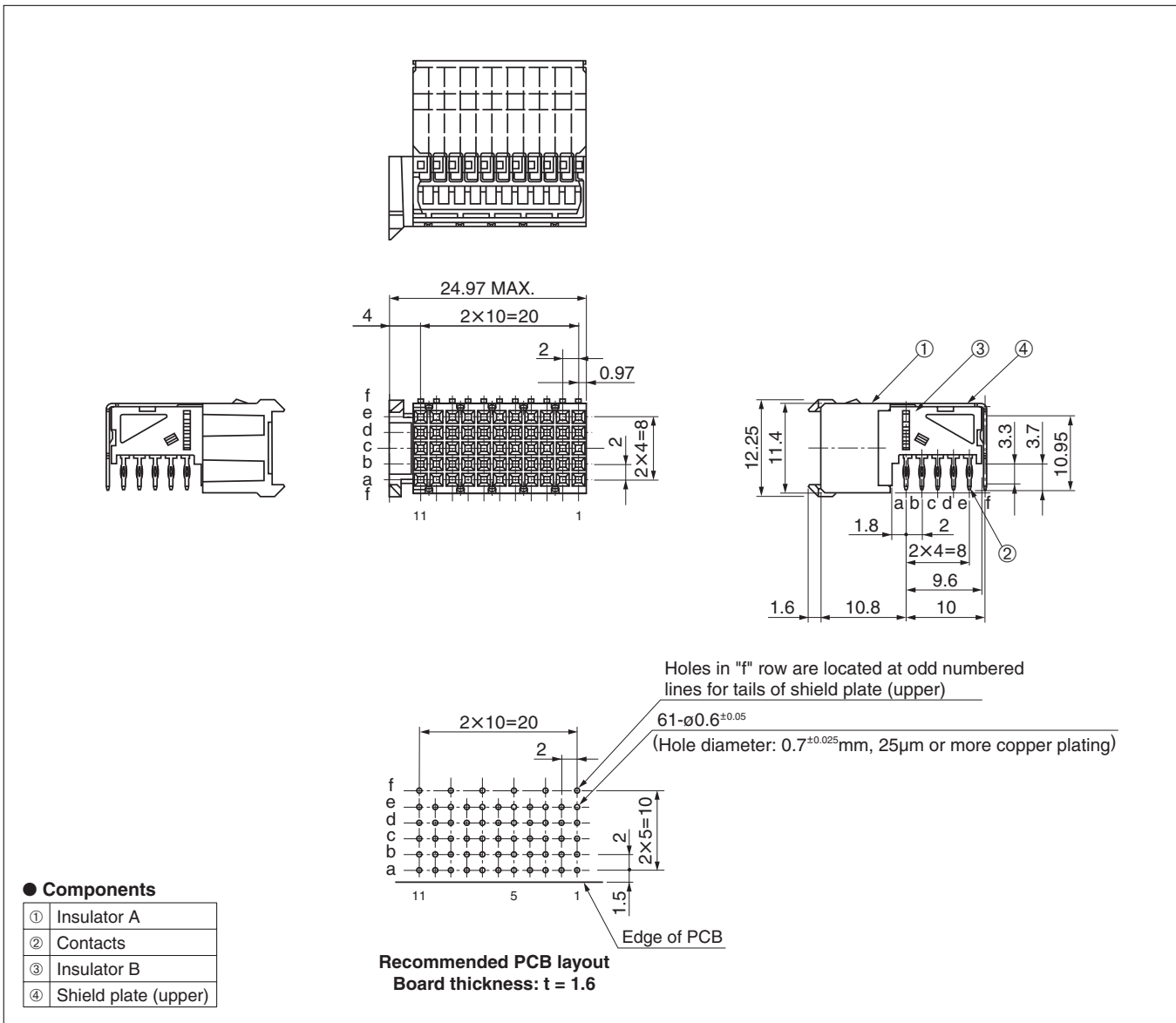


● Configuration of product Part No.

NCBA- SU A 55 LFP G T A+

① ② ③ ④ ⑤ ⑥

- ① Series name
- ② Shield plates
SU: With on the upper side
- ③ Type
A: 55 Contacts
- ④ No. of contacts ("a" - "e" rows): 55
- ⑤ Type of contact
LFP: Right-angle jack (female) press-in
- ⑥ Contact plating
G: Min. 0.76 μm Gold plate



● Components

①	Insulator A
②	Contacts
③	Insulator B
④	Shield plate (upper)

Mating connectors: NCBA-()A55SMPGTA()+

NCB-()A55SMPGA()