

Connectors



for Notebook PC

LVC series

Connectors for Fine-wire Coaxial Cables

Outline

LVC series of 0.5 mm pitch connectors have been developed for interconnection between PCs and LCDs through Fine-wire coaxial cables.

Features

- Supports high-speed data transmission.
- Board to cable application for high density packaging.
- Achieves high-speed data transmission by reducing propagation skew as much as possible.
- Low profile type allows reduced mounting space.
- Utilizes pulse-heat soldering technique, which minimizes cable damage during attachment.

Principal Applications

PCs, LCD inverter, LCD interface

Electrical Characteristics

Rated voltage	50V AC
Rated current	0.3 A/pin
Insulation resistance	Over 100 megohms at 250V DC
Dielectric withstanding voltage	150V AC (r.m.s.) for up to one minute

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.

Cable Specifications

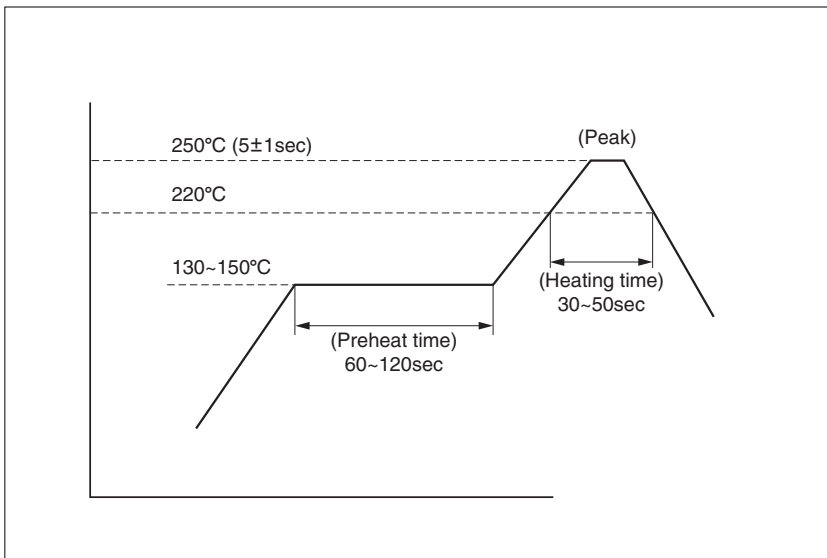
Fine-wire coaxial cable AWG#40 (7/ 0.03)

Core conductor	0.09 mm diameter
Insulator	0.25 mm diameter
Outside diameter of cable	0.37 mm diameter
Characteristic impedance	50 ohm

Cable Assemblies

Please contact us for details.

Reflow temperature profile (for reference purposes)



The reflow temperature profile shown in this drawing is for reference purposes. This profile depends on requirements such as reflow equipment, soldering paste, and PCB size. Thus, this profile may not meet with your specific situation. Please evaluate your PCB-mounting soldering and set your own reflow temperature profile.

Product List



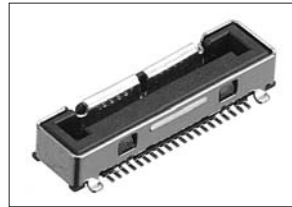
Cable side
fine-wire coaxial cable
LVC-C20LPMSG+

H-22
LVC series...4



Cable side
fine-wire coaxial cable
LVC-D20LPMSG+

H-23
LVC series...5



PCB side
fine-wire coaxial cable
LVC-D20SFYG3(TP).

H-24
LVC series...6



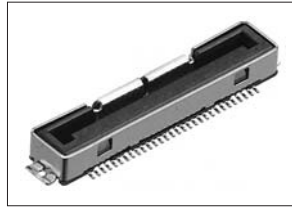
Cable side
fine-wire coaxial cable
LVC-C30LPMSG+

H-25
LVC series...7



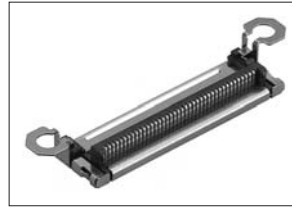
Cable side
fine-wire coaxial cable
LVC-D30LPMSG+

H-26
LVC series...8



PCB side
fine-wire coaxial cable
LVC-C()30SFYG(TP)+

H-27
LVC series...9



Cable side
fine-wire coaxial cable
LVC-C40LPMSG+

H-28
LVC series...10



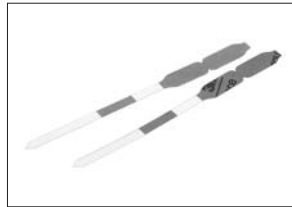
Cable side
fine-wire coaxial cable
LVC-D40LPMSG+

H-29
LVC series...11



PCB side
fine-wire coaxial cable
LVC-C40SFYG(TP)+

H-30
LVC series...12



Pull tab for cable side connector
LVC-()P

H-31
LVC series...13

**Cable side fine-wire coaxial cable
LVC-C20LPMSG+**

Fine-wire coaxial cable

For LCD

0.5 mm pitch

Cable sides

RoHS

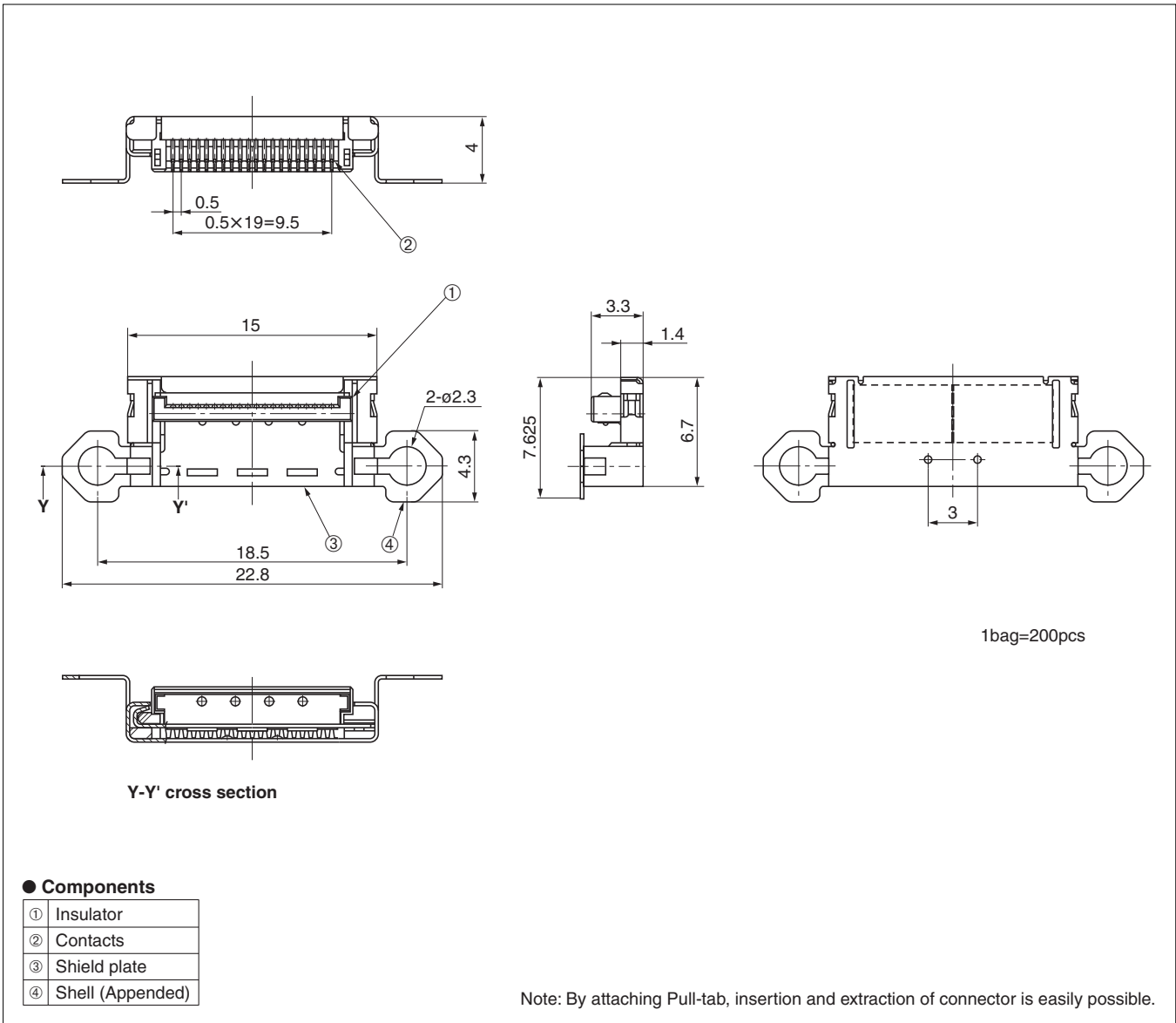


● Configuration of product Part No.

LVC- C 20 LPMS G+

① ② ③ ④

- ① Series name
- ② No. of contacts: 20
- ③ Type of contact
LPMS: Cable side right-angle, male
- ④ Contact plating
G: Gold plate



Mating connector: LVC-D20SFYG3.

Accessories: Pull tab, LVC-20P

Cable side fine-wire coaxial cable
LVC-D20LPMSG+

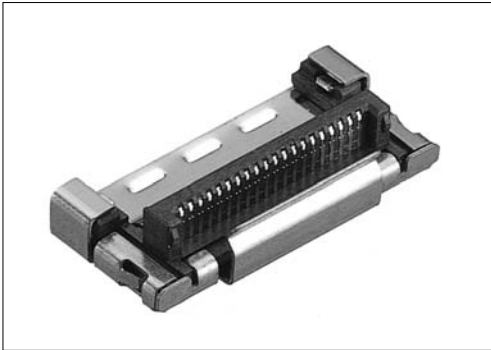
Fine-wire coaxial cable

For LCD

0.5 mm pitch

Cable sides

RoHS

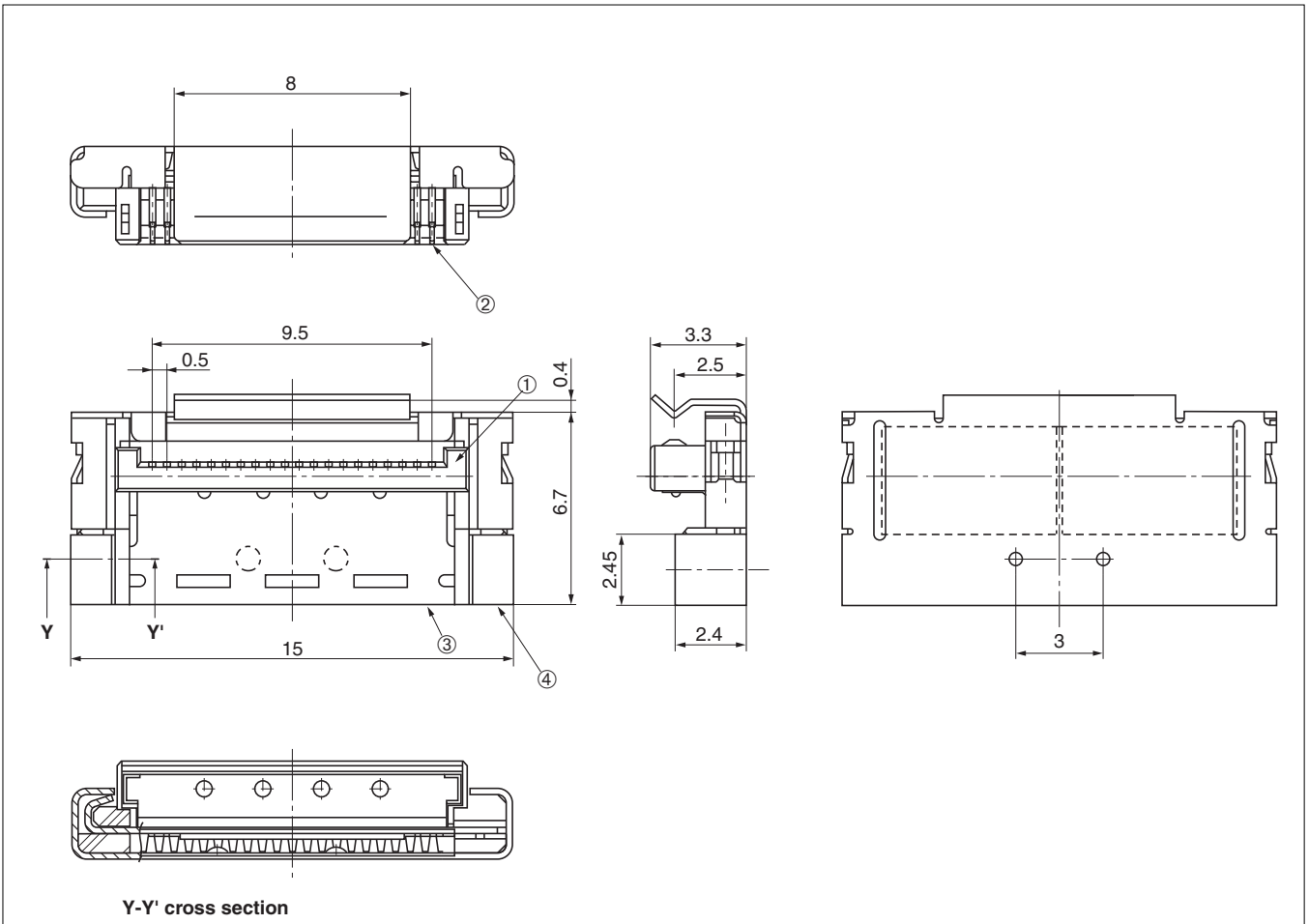


● Configuration of product Part No.

LVC- D 20 LPMS G+

① ② ③ ④

- ① Series name
- ② No. of contacts: 20
- ③ Type of contact
LPMS: Cable side right-angle, male
- ④ Contact plating
G: Gold plate



Y-Y' cross section

● Components

①	Insulator
②	Contacts
③	Shield plate
④	Shell (Appended)

Note: By attaching Pull-tab, insertion and extraction of connector is easily possible.

Mating connector: LVC-D20SFYG3.

Accessories: Pull tab, LVC-20P

**PCB side fine-wire coaxial cable
LVC-D20SFYG3(TP).**

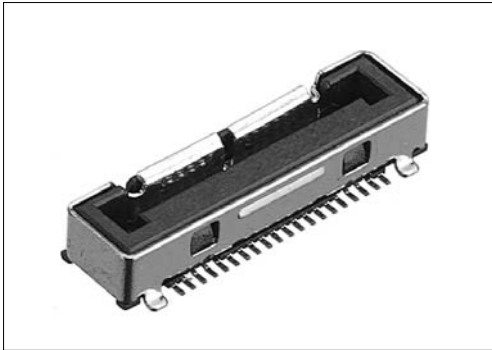
Fine-wire coaxial cable

For LCD

0.5 mm pitch

PCB sides

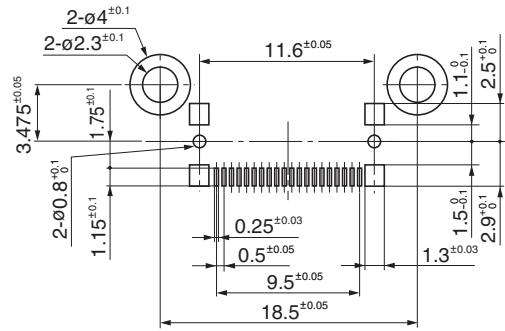
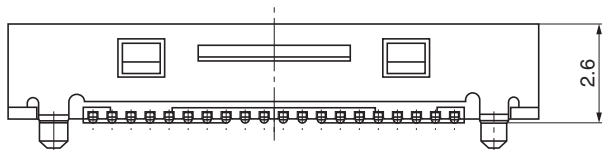
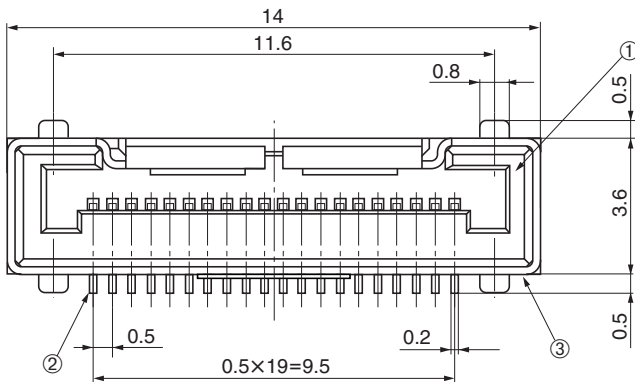
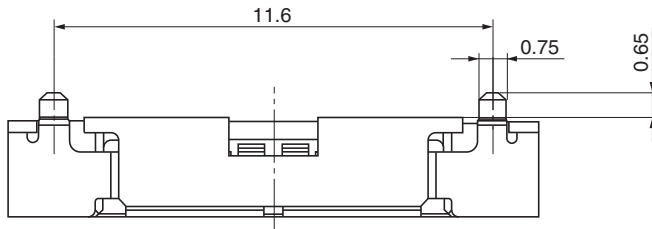
RoHS



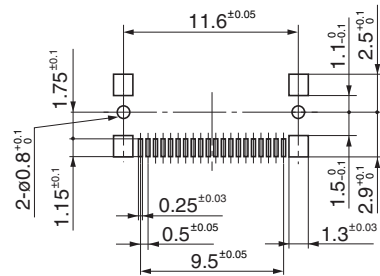
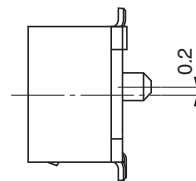
● Configuration of product Part No.
LVC- D 20 SFY G3 (TP).

① ② ③ ④ ⑤

- ① Series name
- ② No. of contacts: 20
- ③ Type of contact
SFY: Straight SMT type, female
- ④ Contact plating
G: Gold plate
- ⑤ Taping package
TP: With embossed tape and reel (1R=2,500 pcs)



**Recommended PCB layout
Mating connector: LVC-C20LPMSG+**



**Recommended PCB layout
Mating connector: LVC-D20LPMSG+**

● Components

①	Insulator
②	Contacts
③	Shell

Mating connector: LVC-C20LPMSG+

LVC-D20LPMSG+

Cable side fine-wire coaxial cable
LVC-C30LPMSG+

Fine-wire coaxial cable

For LCD

0.5 mm pitch

Cable sides

RoHS

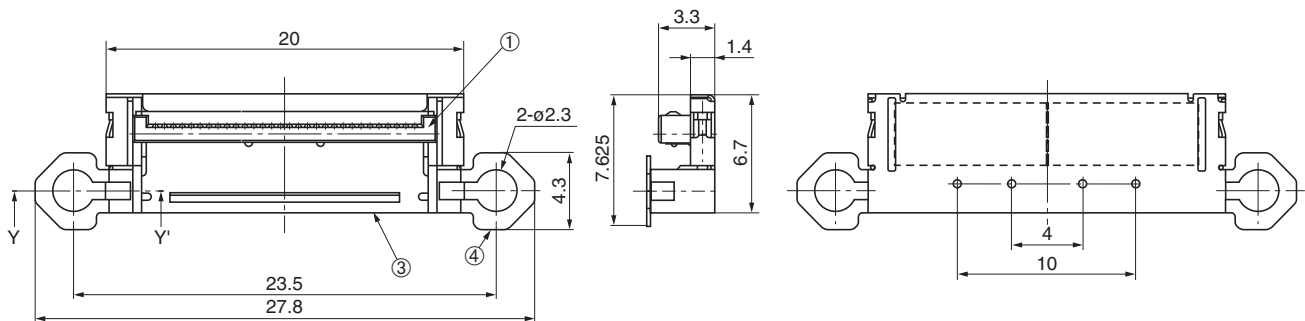
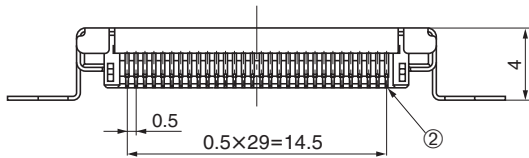


● Configuration of product Part No.

LVC- C 30 LPMS G+

① ② ③ ④

- ① Series name
- ② No. of contacts: 30
- ③ Type of contact
LPMS: Cable-side right-angle, male
- ④ Contact plating
G: Gold plate



Y-Y' cross section

● Components

①	Insulator
②	Contacts
③	Shield plate
④	Shell (Appended)

Note: By attaching Pull-tab, insertion and extraction of connector is easily possible.

Mating connector: LVC-C()30SFYG+

Accessories: Pull tab, LVC-30P

Cable side fine-wire coaxial cable
LVC-D30LPMSG+

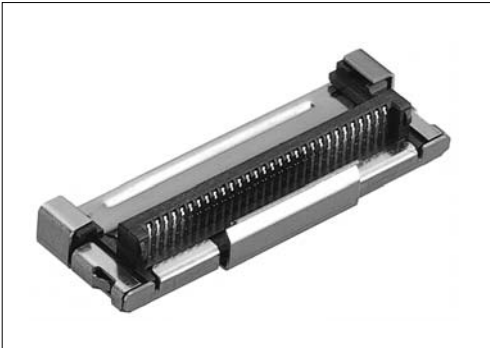
Fine-wire coaxial cable

For LCD

0.5 mm pitch

Cable sides

RoHS

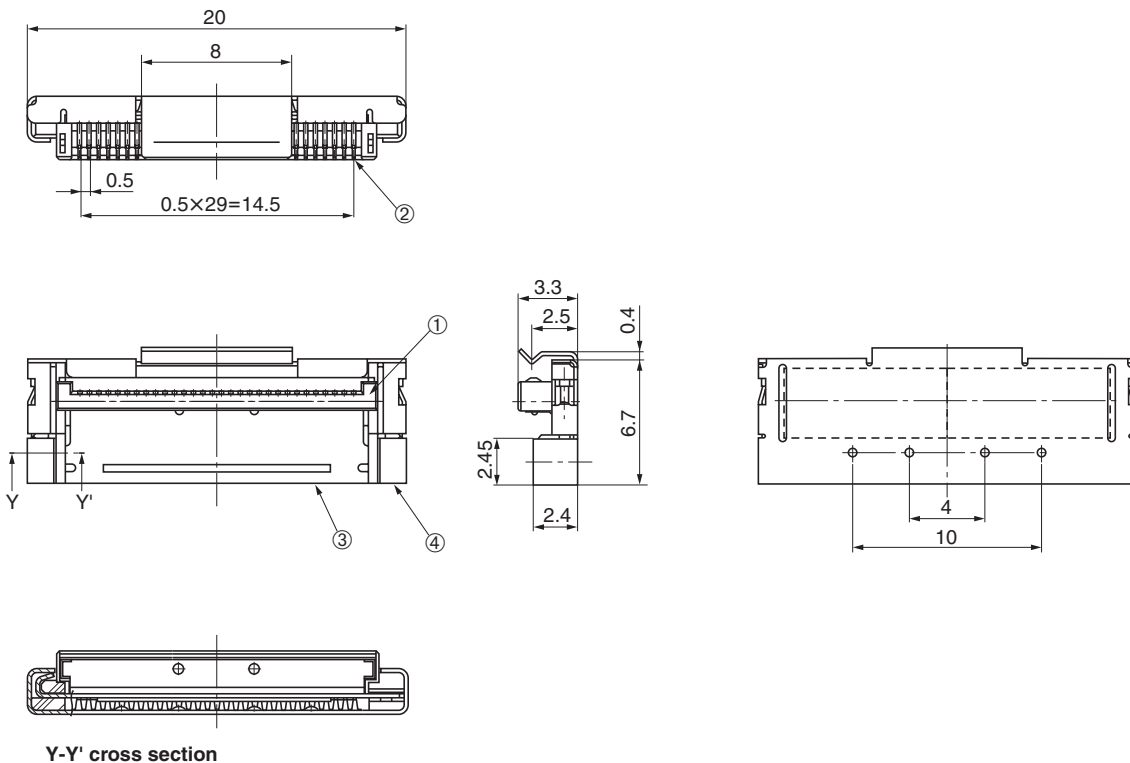


● Configuration of product Part No.

LVC- D 30 LPMS G+

① ② ③ ④

- ① Series name
- ② No. of contacts: 30
- ③ Type of contact
LPMS: Cable-side right-angle, male
- ④ Contact plating
G: Gold plate



● Components

①	Insulator
②	Contacts
③	Shield plate
④	Shell (Appended)

Note: By attaching Pull-tab, insertion and extraction of connector is easily possible.

Mating connector: LVC-C()30SFYG+

Accessories: Pull tab, LVC-30P

PCB side fine-wire coaxial cable
LVC-C()30SFYG(TP)+

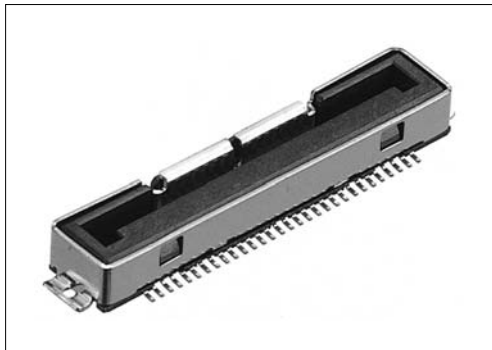
Fine-wire coaxial cable

For LCD

0.5 mm pitch

PCB sides

RoHS

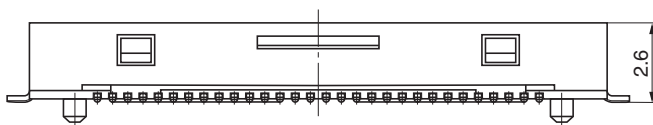
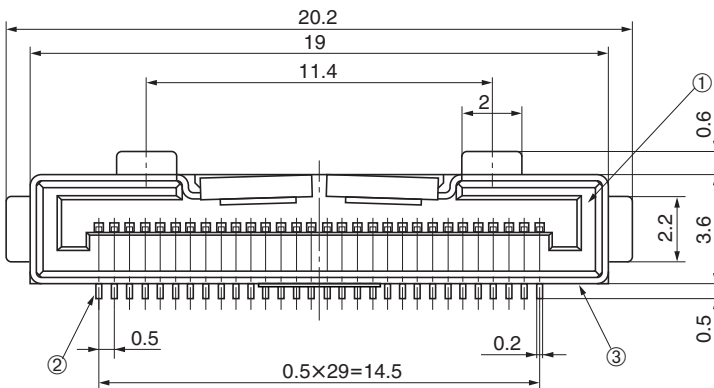
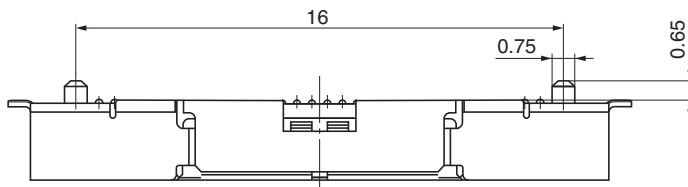


● Configuration of product Part No.

LVC- C () 30 SFY G (TP)+

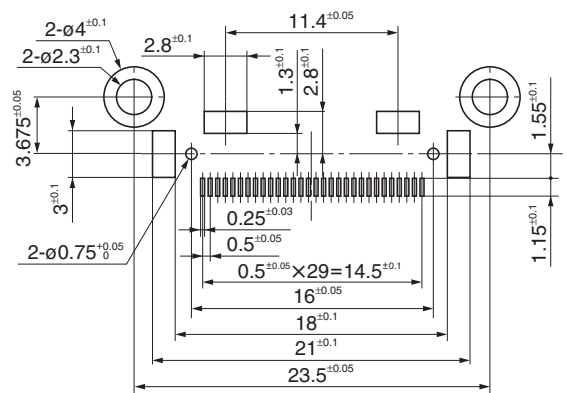
① ② ③ ④ ⑤ ⑥

- ① Series name
- ② Blank: With Boss
A : No Boss
- ③ No. of contacts: 30
- ④ Type of contact
SFY: Straight SMT type, female
- ⑤ Contact plating
G: Gold plate
- ⑥ Taping package
TP: With embossed tape and reel (1R=1,500pcs)

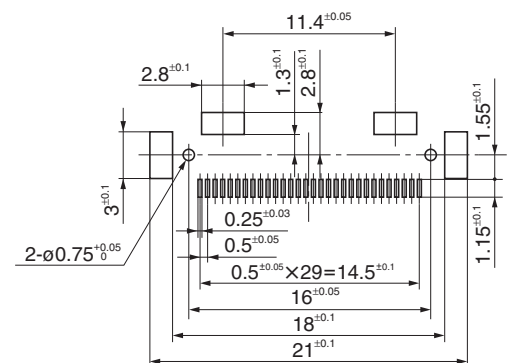
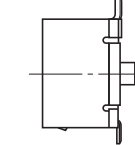


● Components

①	Insulator
②	Contacts
③	Shell



Recommended PCB layout
Mating connector: LVC-C30LPMSG+



Recommended PCB layout
Mating connector: LVC-D30LPMSG+

Mating connector: LVC-C30LPMSG+

LVC-D30LPMSG+

Cable side fine-wire coaxial cable
LVC-C40LPMSG+

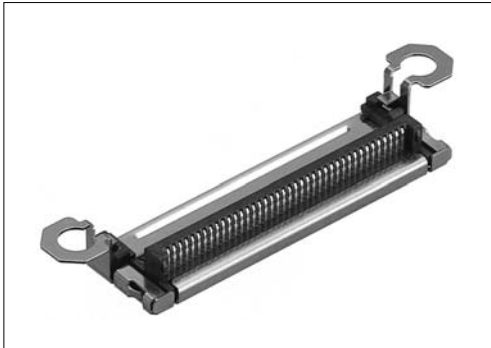
Fine-wire coaxial cable

For LCD

0.5 mm pitch

Cable sides

RoHS

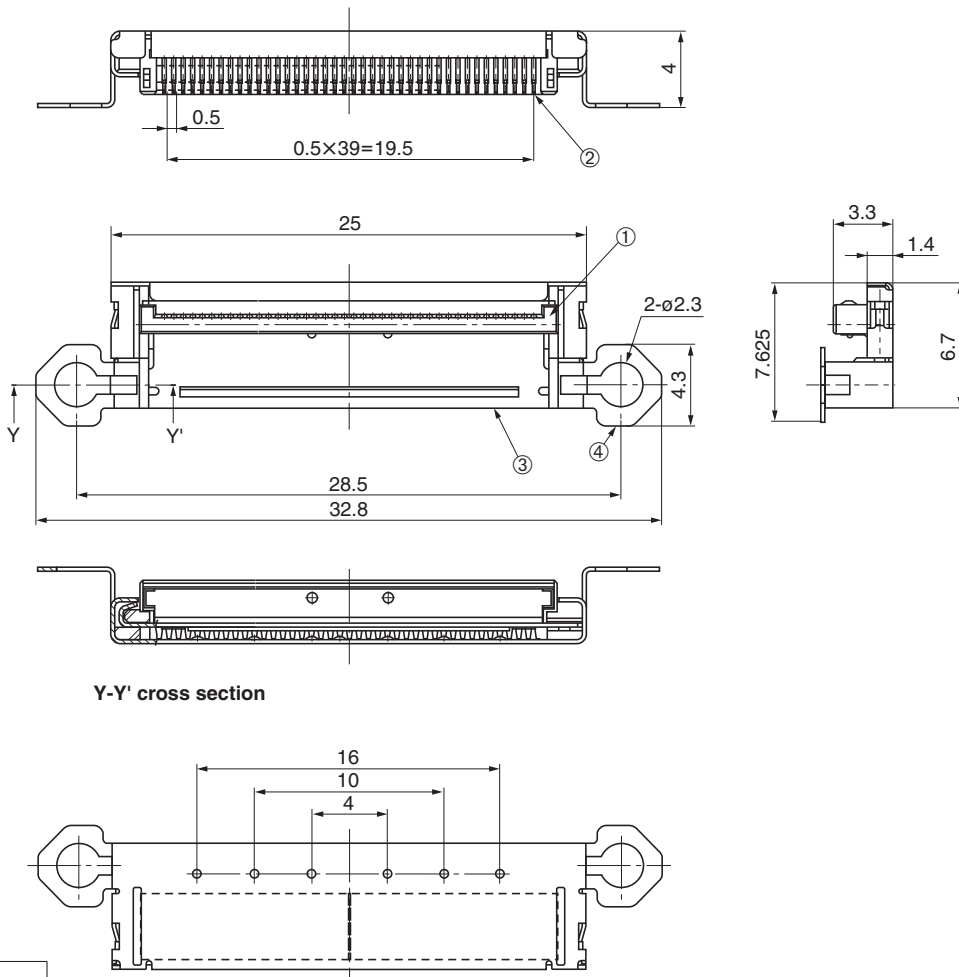


● Configuration of product Part No.

LVC- C 40 LPMS G+

① ② ③ ④

- ① Series name
- ② No. of contacts: 40
- ③ Type of contact
LPMS: Cable-side right-angle, male
- ④ Contact plating
G: Gold plate



Y-Y' cross section

● Components

①	Insulator
②	Contacts
③	Shield plate
④	Shell (Appended)

Note: By attaching Pull-tab, insertion and extraction of connector is easily possible.

Mating connector: LVC-C40SFYG+

Accessories: Pull tab, LVC-40P

Cable side fine-wire coaxial cable
LVC-D40LPMSG+

Fine-wire coaxial cable

For LCD

0.5 mm pitch

Cable sides

RoHS

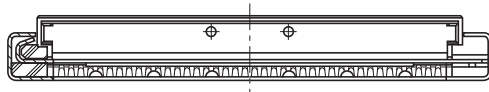
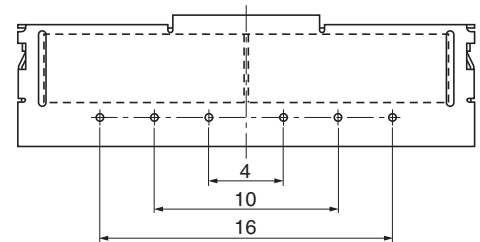
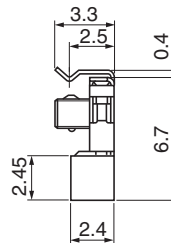
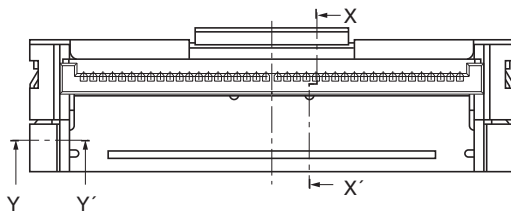
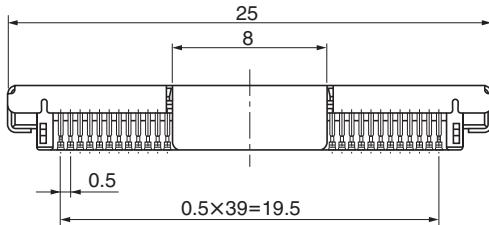


● Configuration of product Part No.

LVC- D 40 LPMS G+

① ② ③ ④

- ① Series name
- ② No. of contacts: 40
- ③ Type of contact
LPMS: Cable-side right-angle, male
- ④ Contact plating
G: Gold plate



Y-Y' cross section

● Components

①	Insulator
②	Contacts
③	Shield plate
④	Shell (Appended)

Note: By attaching Pull-tab, insertion and extraction of connector is easily possible.

Mating connector: LVC-C40SFYG+

Accessories: Pull tab, LVC-40P

**PCB side fine-wire coaxial cable
LVC-C40SFYG(TP)+**

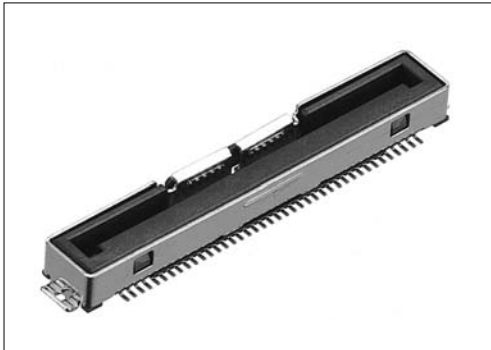
Fine-wire coaxial cable

For LCD

0.5 mm pitch

PCB sides

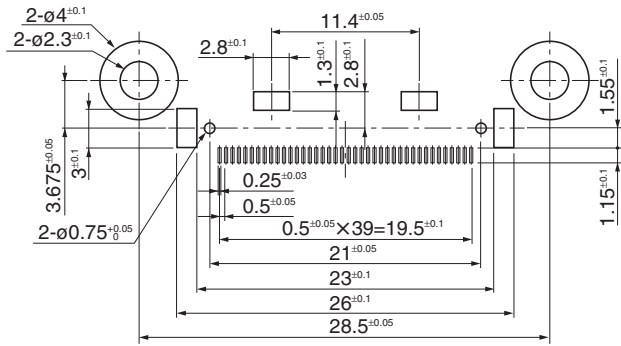
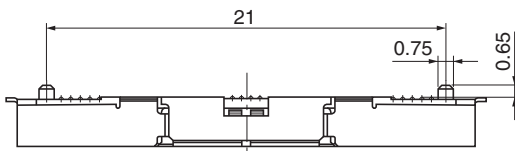
RoHS



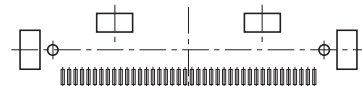
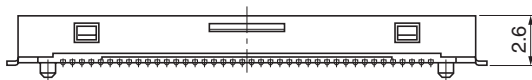
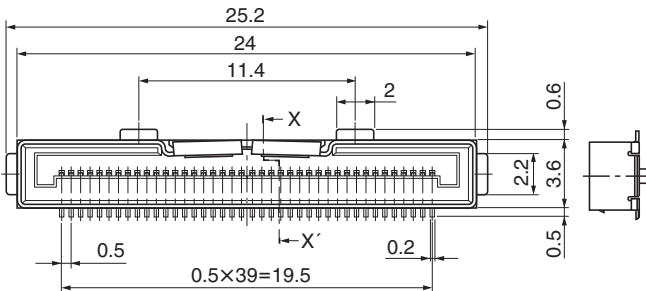
● Configuration of product Part No.
LVC- C 40 SFY G (TP)+

① ② ③ ④ ⑤

- ① Series name
- ② No. of contacts: 40
- ③ Type of contact
SFY: Straight SMT type, female
- ④ Contact plating
G: Gold plate
- ⑤ Taping package
TP: With embossed tape and reel
(1R=1,500pcs)



**Recommended PCB layout
Mating connector: LVC-C40LPMSG+**



**Recommended PCB layout
Mating connector: LVC-D40LPMSG+**

● Components

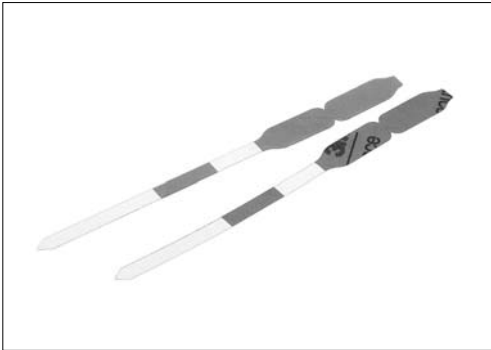
①	Insulator
②	Contacts
③	Shell

Mating connector: LVC-C40LPMSG+

LVC-D40LPMSG+

Pull tab for cable side connector

LVC-()P

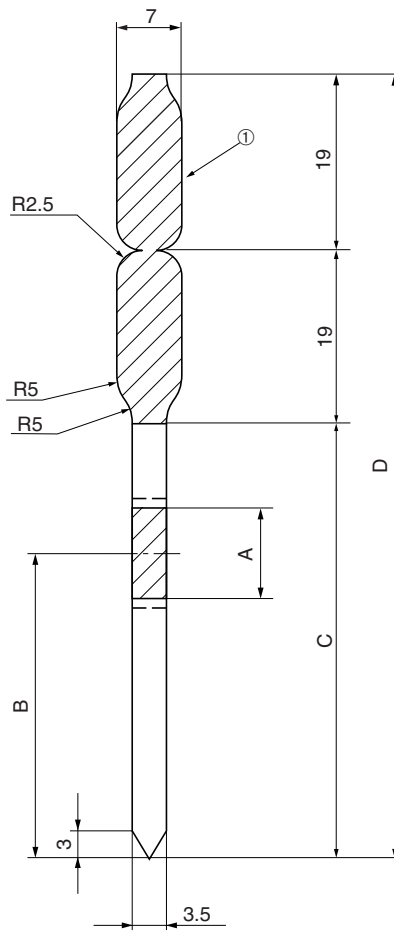


● Configuration of product Part No.

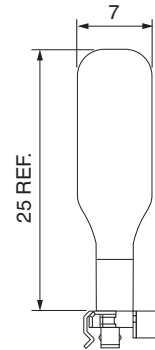
LVC- () P

① ②

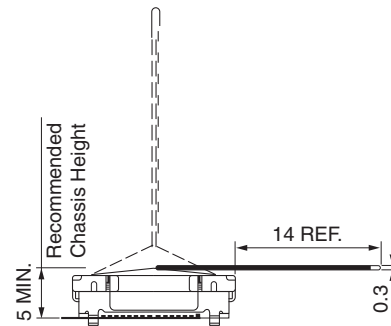
- ① Series name
- ② No. of contacts
20: 20 contacts
30: 30 contacts
40: 40 contacts



Adhesive area



Pull tab installation condition



Mating condition (Pull tab)

● Components

- ① Pull tab

● Dimensions

Part No.	A	B	C	D
LVC-20P	10.0	33.25	47.5	85.5
LVC-30P	15.0	38.25	57.5	95.5
LVC-40P	20.0	43.25	67.5	105.5

Mating connectors: LVC-20P:LVC-C20LPMSG+, LVC-D20LPMSG+

LVC-30P:LVC-C30LPMSG+, LVC-D30LPMSG+

LVC-40P:LVC-C40LPMSG+, LVC-D40LPMSG+

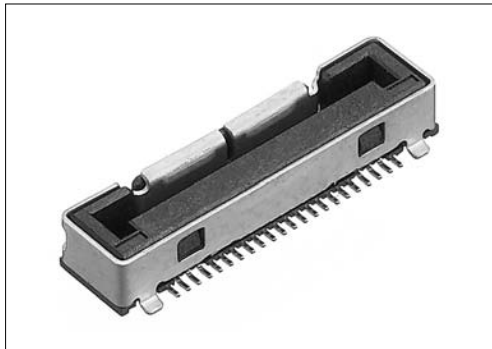
0.5 mm pitch SMT type female connector
for super-thin coaxial cables
LVC-D22SFYG+

For LCDs

0.5 mm pitch

RoHS

PCB side

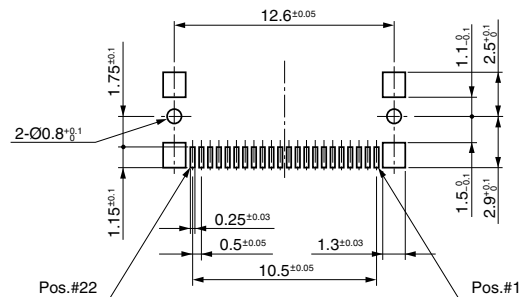
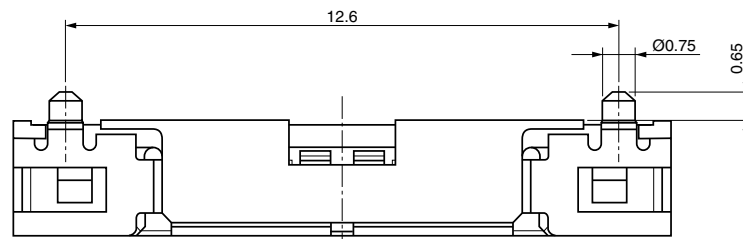


● Configuration of product Part No.

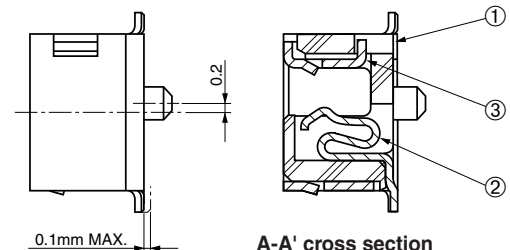
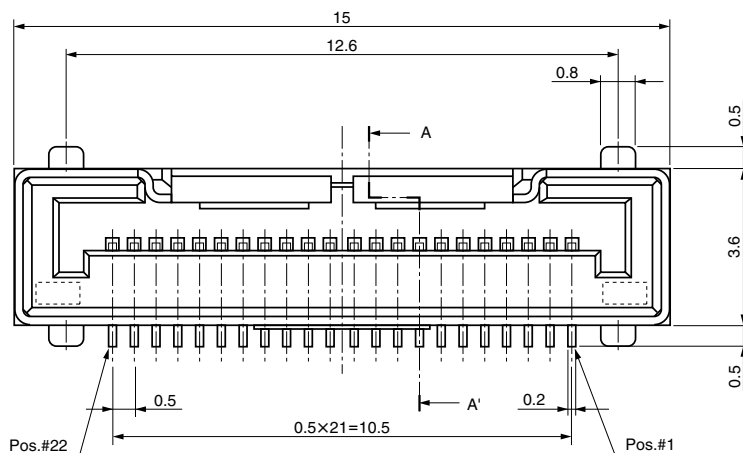
LVC- D 22 SFY G+

① ② ③ ④

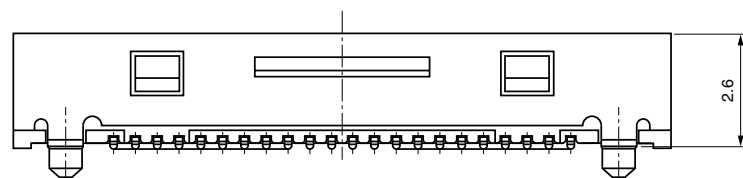
- ① Series name
- ② No. of contacts: 22
- ③ Form of contact
SFY: Straight, SMT type, female
- ④ Contact plating
G: Gold plate



Recommended PCB layout



A-A' cross section



● Components

- | | |
|---|-----------|
| ① | Insulator |
| ② | Contact |
| ③ | Shell |

Mating connectors: LVC-D22LPMSG+

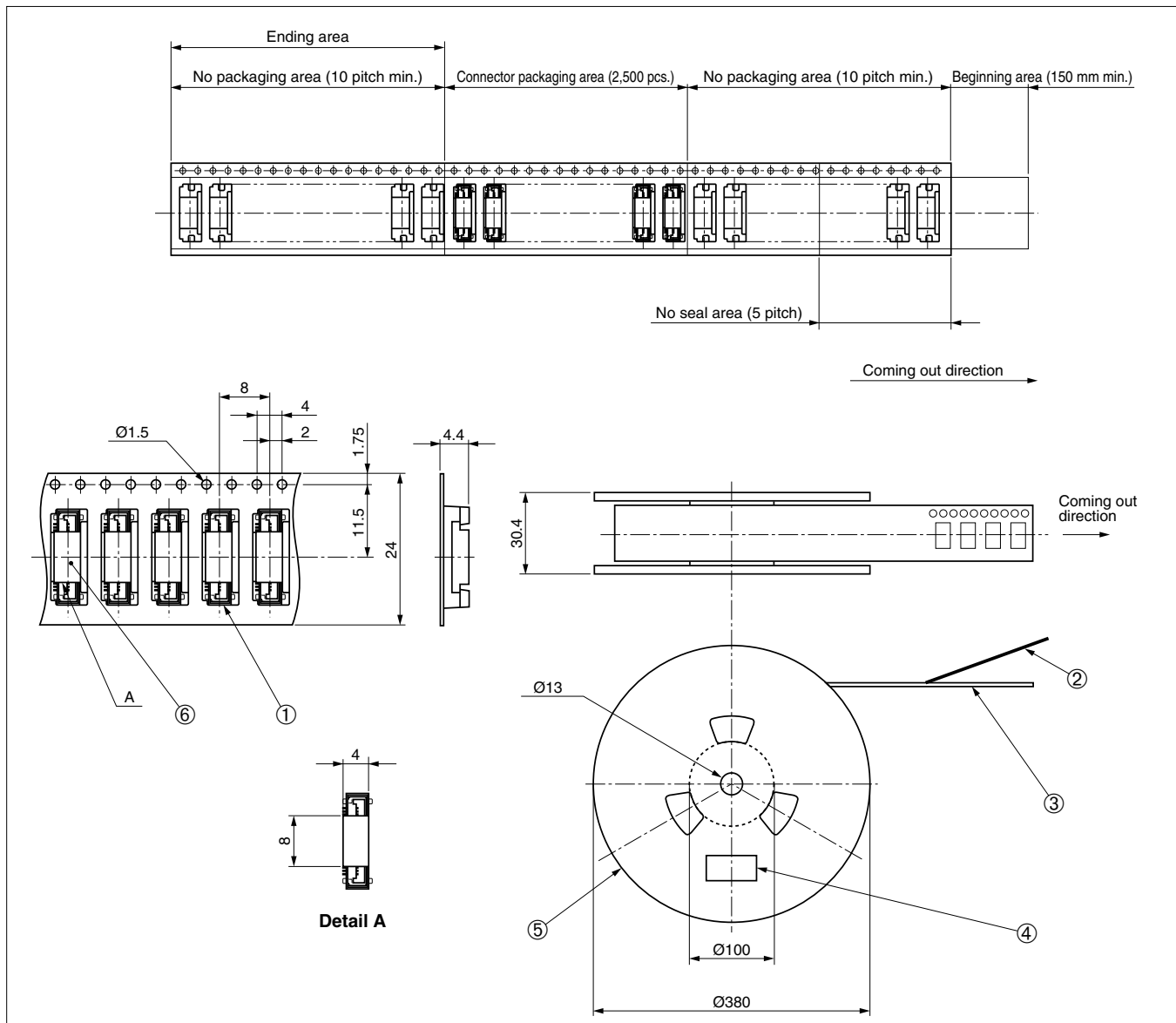
0.5 mm pitch SMT type female connector for super-thin coaxial cables
(Delivered in the form of embossed tape for automatic insertion)
LVC-D22SFYG(TP)+

● Configuration of product Part No.

LVC- D 22 SFY G (TP)+

① ② ③ ④ ⑤

- ① Series name
- ② No. of contacts: 22
- ③ Form of contact
SFY: Straight, SMT type, female
- ④ Contact plating
G: Gold plate
- ⑤ Taping packages
TP: Taping packages (One reel provides 2,500 contacts.)
Blank: Discrete pieces of connectors



Mating connectors: LVC-D22LPMSG+

0.5 mm pitch male connector for super-thin coaxial cables
LVC-D22LPMSG+

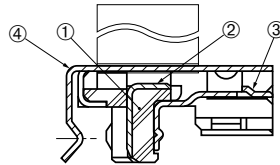


● Configuration of product Part No.

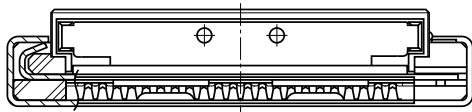
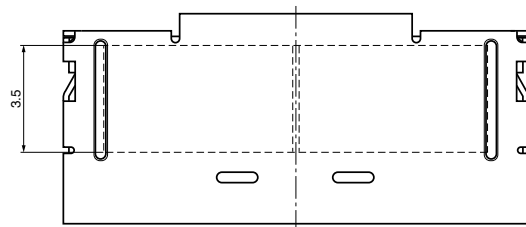
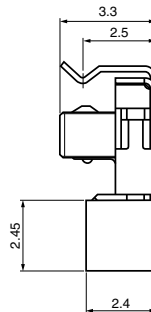
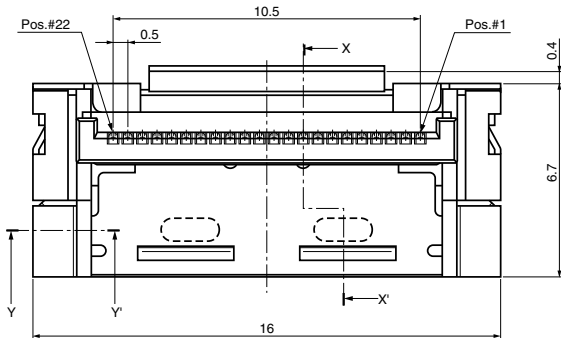
LVC- D 22 LPMS G+

① ② ③ ④

- ① Series name
- ② No. of contacts: 22
- ③ Form of contact
LPMS: Cable-side right-angle, male
- ④ Contact plating
G: Gold plate



X-X' cross section



Y-Y' cross section

● Components

①	Insulator
②	Contact
③	Shielding sheet
④	Shell

Mating connectors: LVC-D22SFYG+

**0.5 mm pitch SMT type female connector
for super-thin coaxial cables
LVC-D10SFYG+**

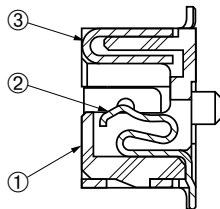
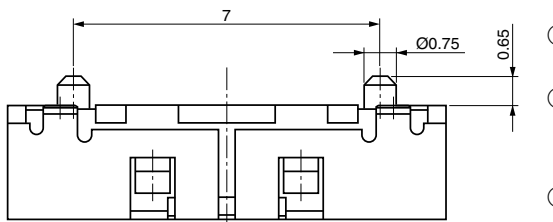


● Configuration of product Part No.

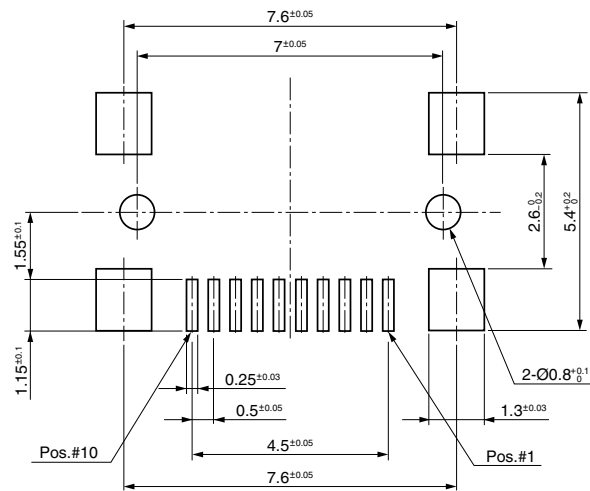
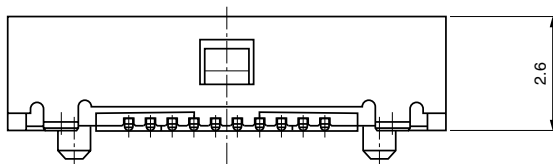
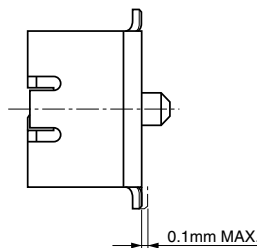
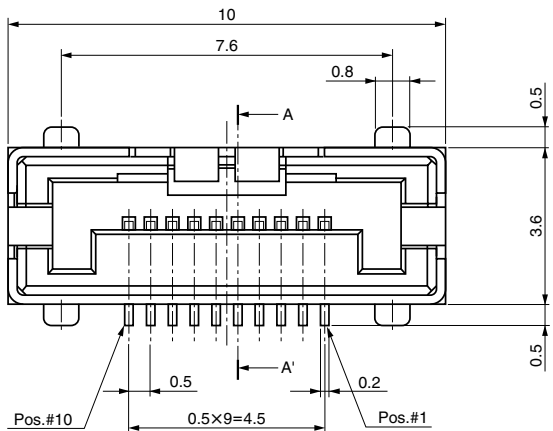
LVC- D 10 SFY G+

① ② ③ ④

- ① Series name
- ② No. of contacts: 10
- ③ Form of contact
SFY: Straight, SMT type, female
- ④ Contact plating
G: Gold plate



A-A' cross section



Recommended PCB layout

● Components

①	Insulator
②	Contact
③	Shell

Mating connectors: LVC-D10LPMSG+

**0.5 mm pitch SMT type female connector for super-thin coaxial cables
(Delivered in the form of embossed tape for automatic insertion)
LVC-D10SFYG(TP)+**

For LCDs

0.5 mm pitch

RoHS

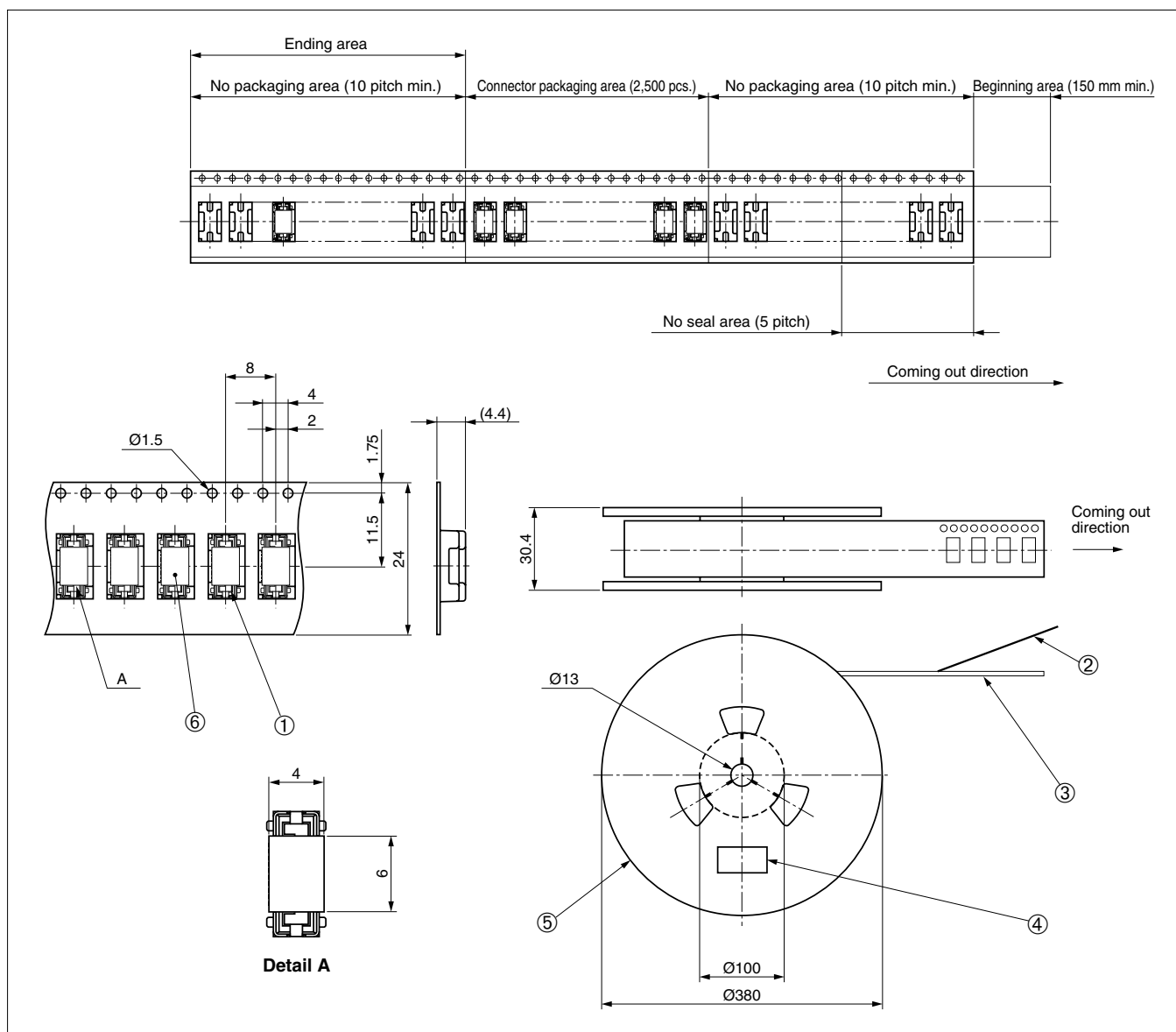
PCB side

● Configuration of product Part No.

LVC- D 10 SFY G (TP)+

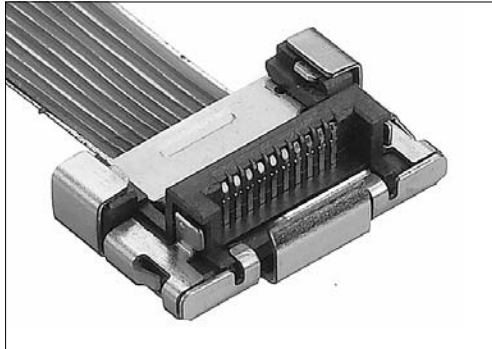
① ② ③ ④ ⑤

- ① Series name
- ② No. of contacts: 10
- ③ Form of contact
SFY: Straight, SMT type, female
- ④ Contact plating
G: Gold plate
- ⑤ Taping packages
TP: Taping packages (One reel provides 2,500 contacts.)
Blank: Discrete pieces of connectors



Mating connectors: LVC-D10LPMSG+

0.5 mm pitch connector for super-thin coaxial cables
LVC-D10LPMSG+

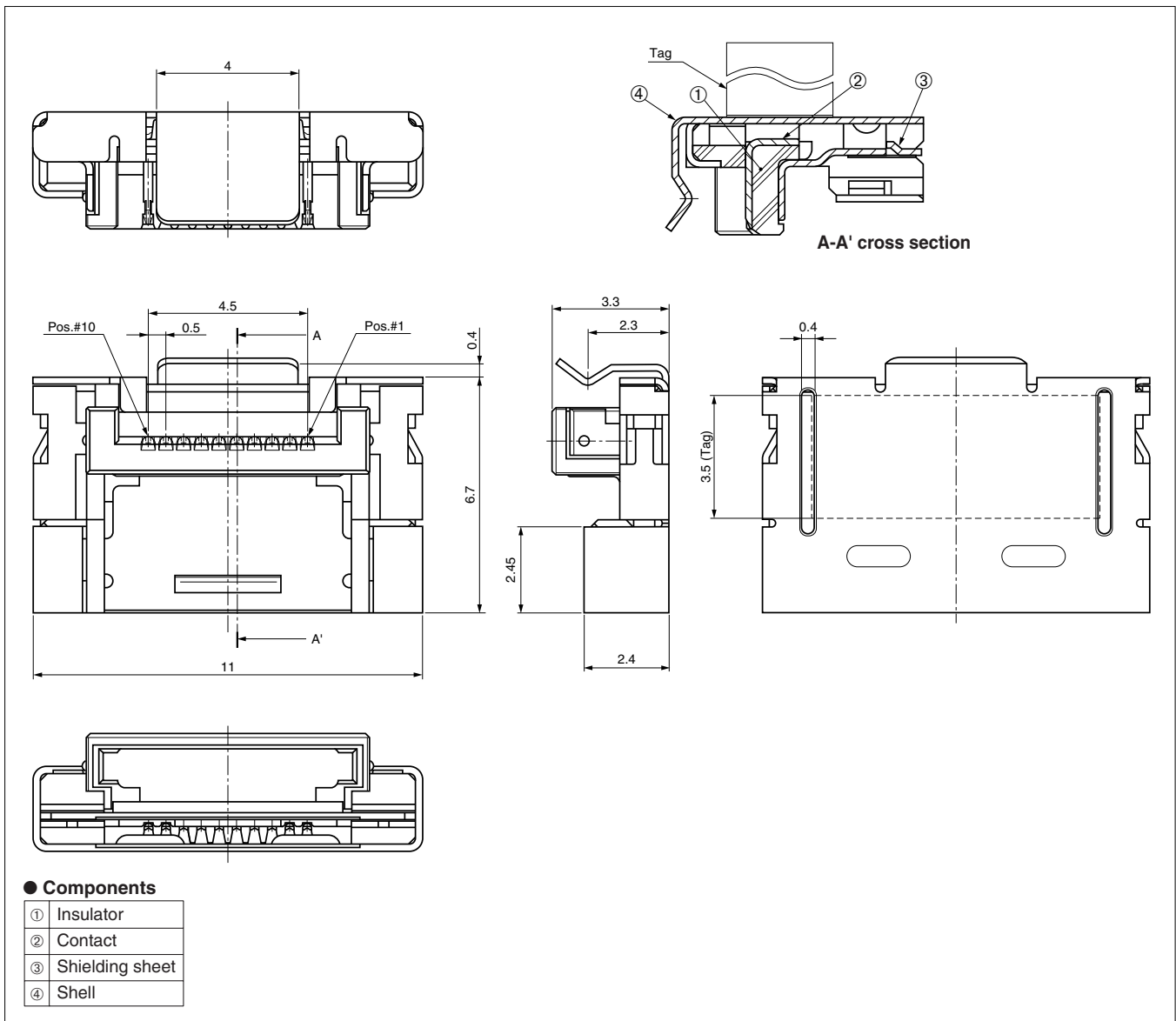


● Configuration of product Part No.

LVC- D 10 LPMS G+

① ② ③ ④

- ① Series name
- ② No. of contacts: 10
- ③ Form of contact
LPMS: Cable-side right-angle, male
- ④ Contact plating
G: Gold plate



● Components

①	Insulator
②	Contact
③	Shielding sheet
④	Shell

Mating connectors: LVC-D10SFYG+