

DT-S SERIES

0.5mm PITCH FLOATING CONNECTOR FOR HIGH-SPEED TRANSMISSION WITH SHELL

RoHS
Compliant



FEATURES

- ▶ High-speed serial transmission in the SATA standard level is supported, satisfying all the transmission characteristics required by the SATA Rev 3.0. (Differential impedance: 100Ω±15%)
- ▶ With shell suitable for ESD / EMC protection.
- ▶ Floating amount ±0.5mm in both X and Y directions.
- ▶ The effective mating length is 1.5mm.
- ▶ Positioning posts are optional.
- ▶ Variations in the number of contacts are 30, 40, and 100 pins.
* Available pin count varies with the product type.
- ▶ 2 Variations for Stacked / Vertical mating.
- ▶ The stacked mating type has a stacking height of 10mm.

ORDER CODE

DT0 **S** - -

① ② ③ ④

* Please order in multiples of the quantity per package.

① **[Type]** Receptacle **DT00S** : Without positioning posts **DT01S** : With positioning posts

② **[Number of contacts]** (S type) **030** : 30pin **040** : 40pin **100** : 100pin
(L type) **100** : 100pin

③ **[Contact tail style]** **S** : Straight **L** : Right angle

④ **[Anti-dust tape]** **T** : With anti-dust tape (S type) **No code** : Without anti-dust tape (L type)

ORDER CODE

DT1 **S** - **S** - **10** - **T**

① ② ③ ④ ⑤

* Please order in multiples of the quantity per package.

① **[Type]** Plug **DT10S** : Without positioning posts **DT11S** : With positioning posts

② **[Number of contacts]** **030** : 30pin **040** : 40pin **100** : 100pin

③ **[Contact tail style]** **S** : Straight

④ **[Stacked height]** **10** : 10mm

⑤ **[Anti-dust tape]** **T** : With anti-dust tape

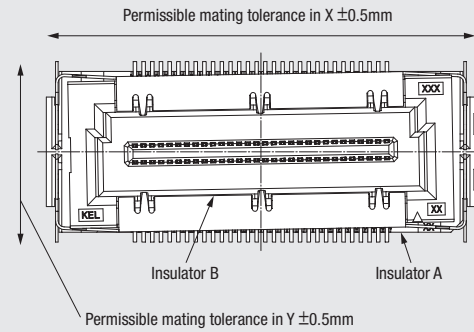
SPECIFICATIONS

Material and plating		Electrical characteristics	
Insulator material	Glass-filled LCP(UL94V-0), Black	Rated current*	0.4A per contact (140 pins or less must be energized at the same time.)
Contact material	Copper alloy	Contact resistance	80mΩ max.
Contact plating	Gold over Nickel	Dielectric withstanding voltage	200V AC for 1 minute.
Shell material	Copper alloy	Insulation resistance	100MΩ min. at 250V DC
Shell plating	Gold over Nickel	Operating temperature	-40°C to +105°C
Material of anti-dust tape	Polyimide		

* The rated current may be higher than the indicated current capacity depending on the number of contacts and the contact tail style. Please contact our sales representative for details.

Floating structure

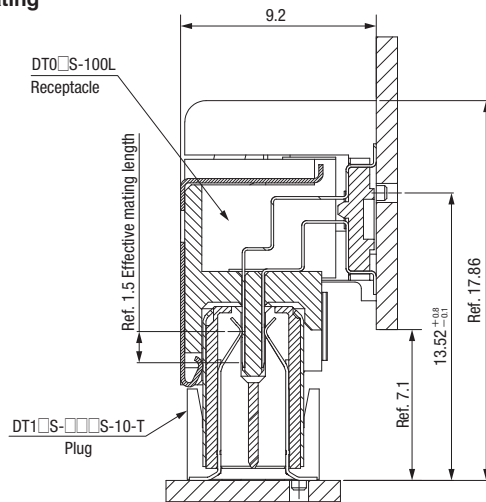
When the connector is mounted on the printed circuit board, a position error in the two directions of horizontal and vertical (XY direction) may occur at both connectors. In addition, if each printed circuit board is fixed to a case by screws after mating connectors, the connectors may have to compensate for the position error because a gap occurs during screwing the printed circuit board. A connector having a tolerance to compensate for such an error or gap caused by vibration is called a floating connector. The DT-S series is a 0.5mm fine pitch connector with $\pm 0.5\text{mm}$ floating structure and ensures sufficient compensation for position errors.



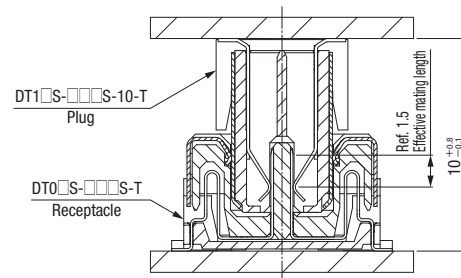
Mating drawing

Unit : mm

Vertical mating

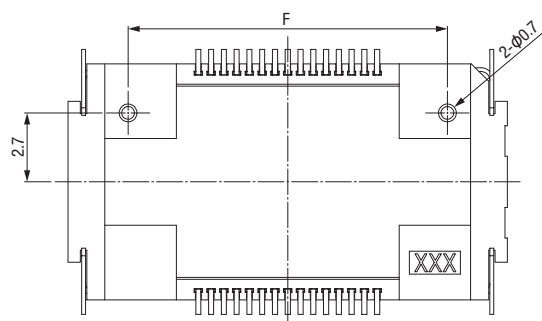
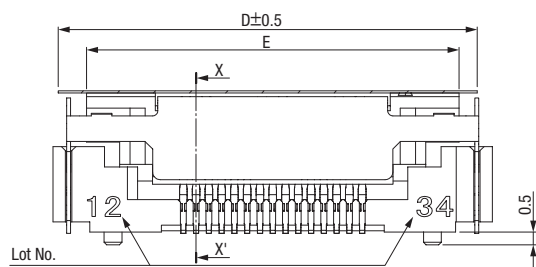
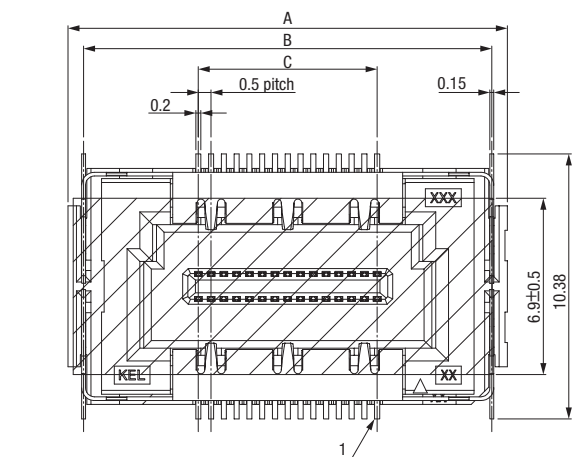
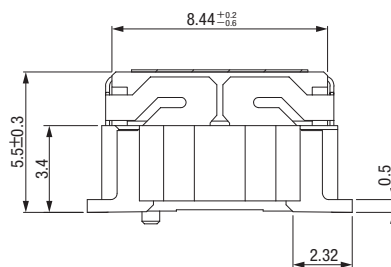
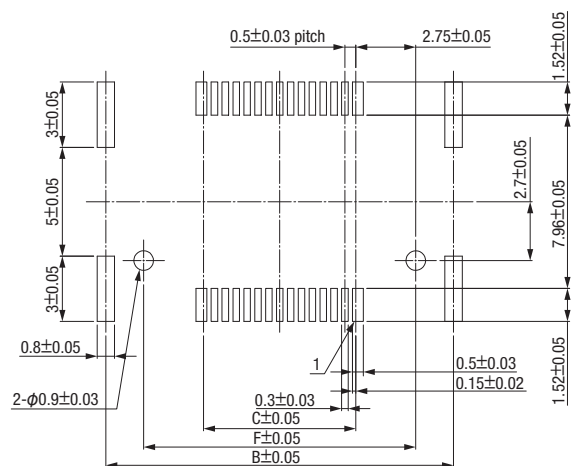
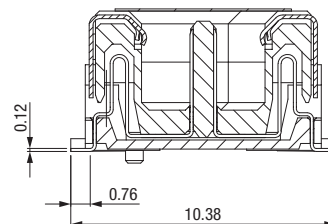


Stacked mating



Mating matrix

Part number		Receptacle	
		DT0□S-□□S-T (Straight / With shell type)	DT0□S-□□L (Right angle / With shell type)
Plug	DT1□S-□□S-10-T (Straight / With shell type)	Stacked mating (Stacked height : 10mm)	Vertical mating


Printed Circuit Board layout (Component side view)

X-X' Cross section

Product table / Dimensions

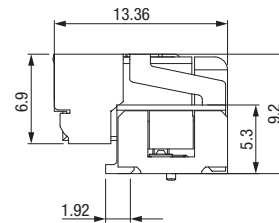
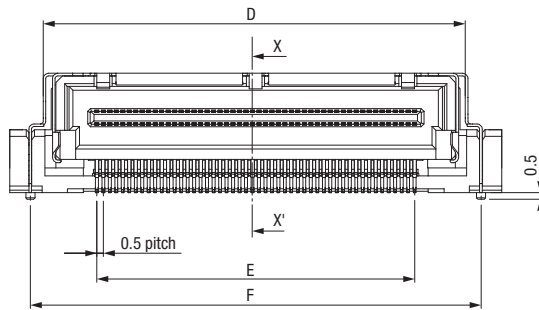
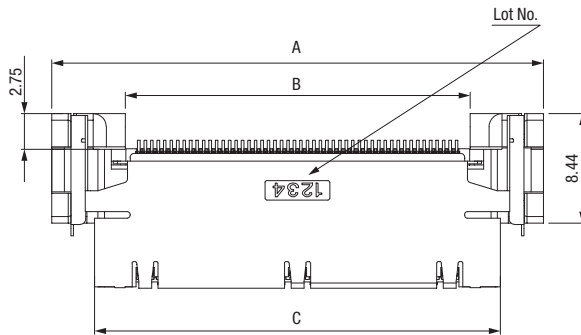
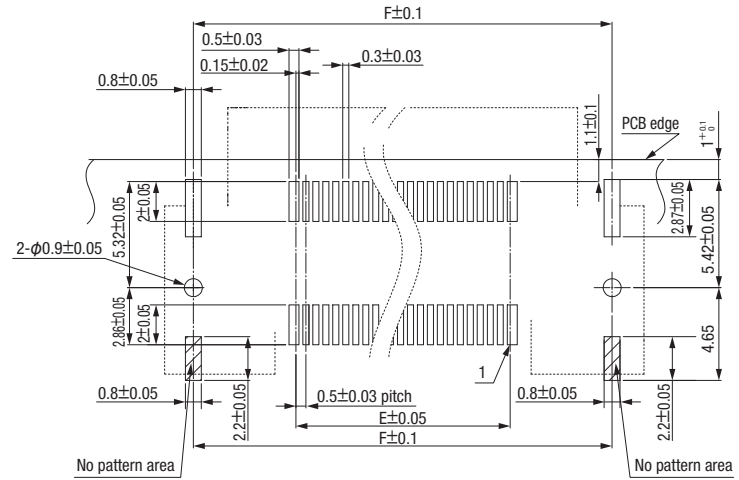
Packing style
Embossed tape

No. of contacts	Part number	A	B	C	D	E	F	No. of packaging
30	DT0□S-030S-T	17.2	15.98	7.0	16.4	14.58	12.5	800
40	DT0□S-040S-T	19.7	18.48	9.5	18.9	17.08	15.0	800
100	DT0□S-100S-T	34.7	33.48	24.5	33.9	32.08	30.0	800

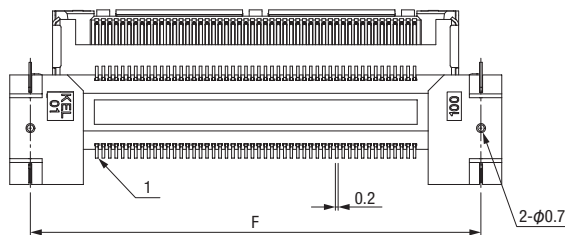
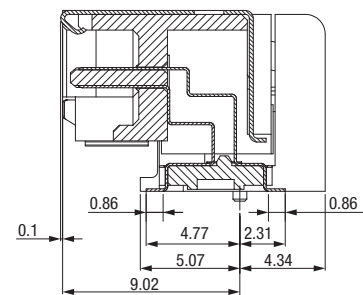
DT0□S-100L (Receptacle, Right angle, With shell)

Unit : mm

Printed Circuit Board layout (Component side view)



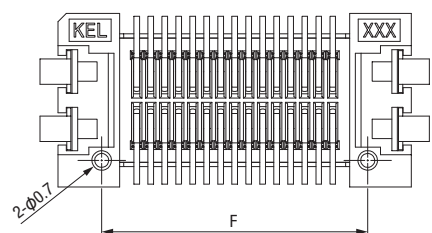
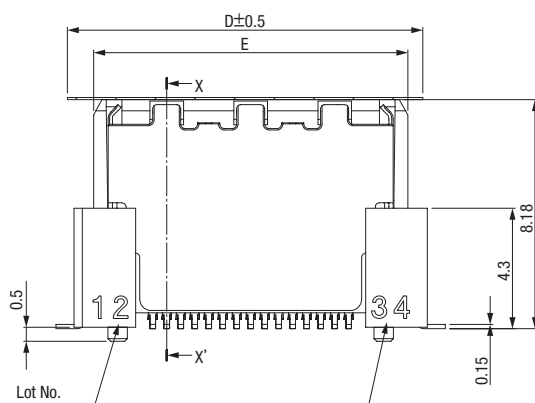
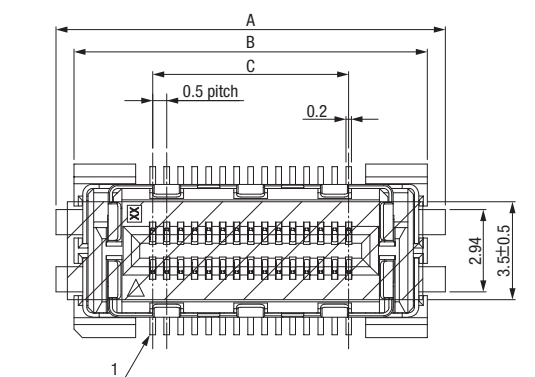
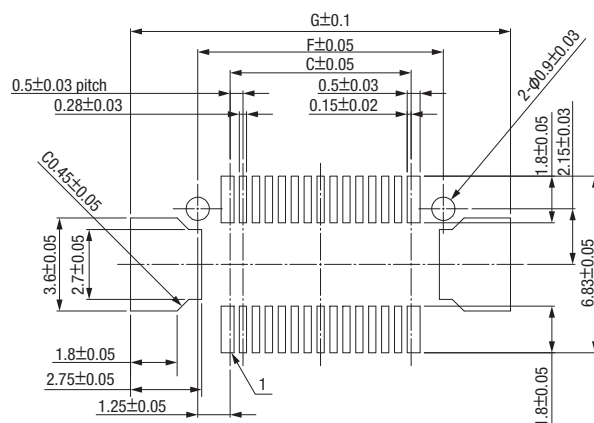
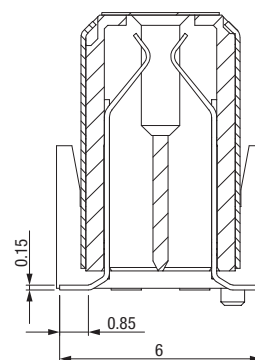
X-X' Cross section



Product table / Dimensions

Packing style
Embossed tape

No. of contacts	Part number	A	B	C	D	E	F	No. of packaging
100	DT0□S-100L	37.92	26.60	31.30	32.55	24.50	34.75	300


Printed Circuit Board layout (Component side view)

X-X' Cross section

Product table / Dimensions

Packing style
Embossed tape

No. of contacts	Part number	A	B	C	D	E	F	G	No. of packaging
30	DT1□S-030S-10-T	13.9	12.62	7.0	12.5	11.22	9.5	14.7	500
40	DT1□S-040S-10-T	16.4	15.12	9.5	15.0	13.72	12.0	17.2	500
100	DT1□S-100S-10-T	31.4	30.12	24.5	30.0	28.72	27.0	32.2	500