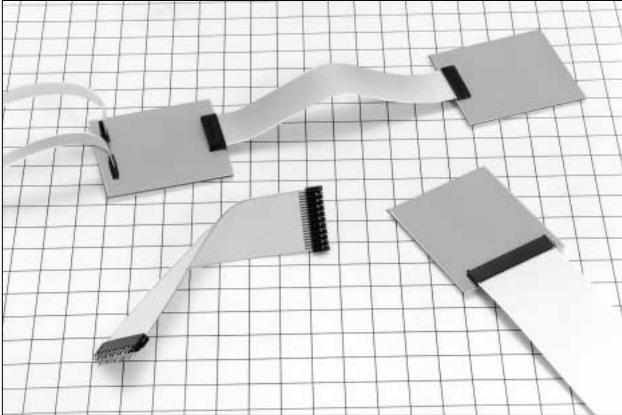


# 1mm Pitch FPC/FFC Connector

## FH 21 Series



### ■ Features

#### 1. LIF (Low Insertion Force) Mechanism

LIF mechanism secures mounting serviceability.

#### 2. Kink Mechanism

DIP post is treated with kinks, and prevent connector floating in the soldering process.

#### 3. Contact Structure on Both Sides

The contact structure on both sides does restrict directionality of FPC and FFC conductors.

### ■ Applications

HDD, facsimiles, printers, and crystal liquie modules, etc.

### ■ Product Specifications

Rating	Rated Current: 0.5A	Operating Temperature Range: -30 ~ +70°C (Note 1)	Storage Temperature Range: -10 ~ +50°C (Note 2)
	Rated Voltage: 50V AC	Operating Humidity Range: Relative humidity 90% max. (Not dewed)	Storage Humidity Range: Relative Humidity: 90% max. (Not dewed)

Applicable FPC	t=0.3±0.05 Solder plating
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Item	Specification	Condition
1. Insulation Resistance	500MΩ min.	Measured at 100V DC
2. Withstand voltage	Neither short nor breakdown should occur	150V AC for 1 minute
3. Contact Resistance	40mΩ *FPC conductor resistance included	Measured at 100mA
4. Mechanical Operation	Contact resistance: 40mΩ max. No part should be damaged, cracked, or loosened	10 cycles
5. Vibration	Electrical discontinuity, 1μS max. Contact resistance: 40mΩ No part should be damaged, cracked, or loosened	Frequency 10~55Hz and single amplitude 0.75mm in 3 directions for 2 hours, respectively.
6. Shock	Electrical discontinuity, 1μS max. Contact resistance: 40mΩ max. No part should be damaged, cracked, or loosened	Acceleration: 490m/s, duration: 11ms, sine half-wave in 3 directions for 3 cycles, respectively
7. Moisture Resistance in Steady State	Contact resistance: 40mΩ max. Insulation resistance: 50MΩ max. No part should be damaged, cracked, or loosened	Exposed to temperature 60°C and humidity 90~95% for 96 hours

Note 1. Temperature rise included when energized

Note 2. This storage indicates a long-term storage state for the unused product before the board mounted.

The operating temperature and humidity ranges are applied to the non-energized state after the connector has been installed in the board.

Note 3. The above standards represent this series. The individual formal agreement should be based on the "Specification".

## Material

Part	Material	Finish	Remarks
Insulator	PBT	Black	UL94V-0
Contact	Phosphor bronze	Solder plating	—

## Ordering Information

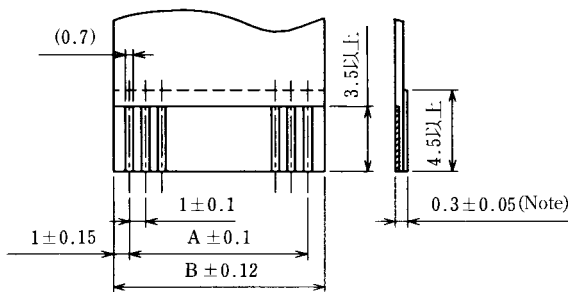
Please determine the specific product. If needed, please select and order the product from the product No. as listed in this catalog on page D17 and D18.

$\frac{\text{FH}}{\text{q}}$   $\frac{21}{\text{w}}$  -  $\frac{10}{\text{e}}$   $\frac{\text{S}}{\text{r}}$  -  $\frac{1}{\text{t}}$   $\frac{\text{DS}}{\text{y}}$

<b>q</b> Series Name : FH	<b>r</b> Contact Alignment: Single
<b>w</b> Series No. : 21	<b>t</b> Contacts Pitch: 0.3mm
<b>e</b> Number of Contacts: 5, 6, 8, 10, 12, 14, 15, 16, 18, 20, 22, 24, 25, 28, 30	<b>y</b> Contact Type: DS : Right angle type DSA : Straight type

## FPC·FFC Dimensions

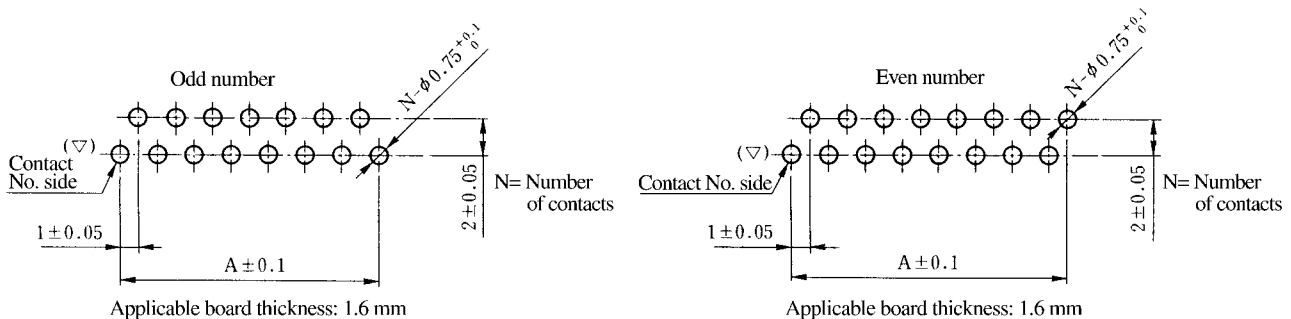
Note: In case of FPC, specify 0.25, excluding adhesive agent included in FFC.



Unit: mm

Number of Contacts	5	6	8	10	12	14	15	16	18	20	22	24	26	28	30
Size A	4.0	5.0	7.0	9.0	11.0	13.0	14.0	15.0	17.0	19.0	21.0	23.0	25.0	27.0	29.0
Size B	6.0	7.0	9.0	11.0	13.0	15.0	16.0	17.0	19.0	21.0	23.0	25.0	27.0	29.0	31.0

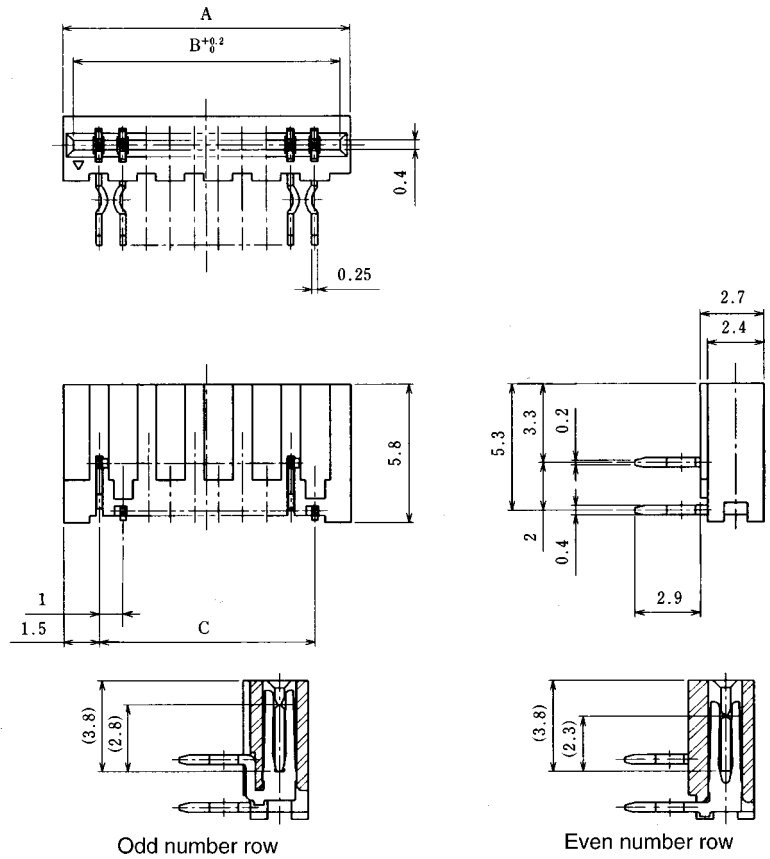
## PCB Footprints



Unit: mm

Number of Contacts	5	6	8	10	12	14	15	16	18	20	22	24	26	28	30
Size A	4.0	5.0	7.0	9.0	11.0	13.0	14.0	15.0	17.0	19.0	21.0	23.0	25.0	27.0	29.0

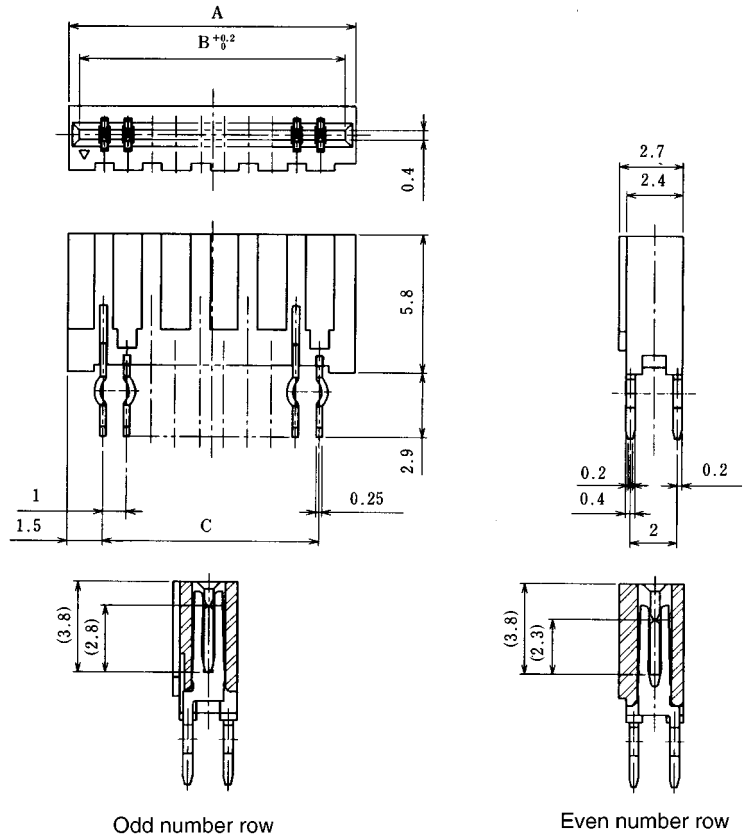
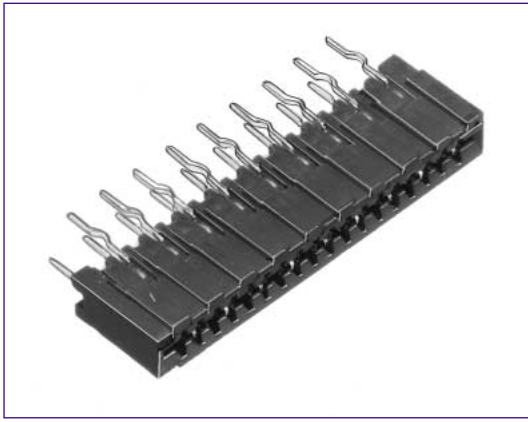
## Right Angle Type



Unit: mm

Product No.	HRS No.	Number of Contacts	A	B	C
FH21- 5S-1DS	CL586-0410-0	5	7	6.15	4
FH21- 6S-1DS	CL586-0411-2	6	8	7.15	5
FH21- 8S-1DS	CL586-0412-5	8	10	9.15	7
FH21-10S-1DS	CL586-0413-8	10	12	11.15	9
FH21-12S-1DS	CL586-0414-0	12	14	13.15	11
FH21-14S-1DS	CL586-0415-3	14	16	15.15	13
FH21-15S-1DS	CL586-0416-6	15	17	16.15	14
FH21-16S-1DS	CL586-0417-9	16	18	17.15	15
FH21-18S-1DS	CL586-0418-1	18	20	19.15	17
FH21-20S-1DS	CL586-0419-4	20	22	21.15	19
FH21-22S-1DS	CL586-0420-3	22	24	23.15	21
FH21-24S-1DS	CL586-0421-6	24	26	25.15	23
FH21-26S-1DS	CL586-0422-9	26	28	27.15	25
FH21-28S-1DS	CL586-0423-1	28	30	29.15	27
FH21-30S-1DS	CL586-0424-4	30	32	31.15	29

## ■Straight Type



Unit: mm

Product No.	HRS No.	Number of Contacts	A	B	C
FH21- 5S-1DSA	CL586-0425-7	5	7	6.15	4
FH21- 6S-1DSA	CL586-0426-0	6	8	7.15	5
FH21- 8S-1DSA	CL586-0427-2	8	10	9.15	7
FH21-10S-1DSA	CL586-0428-5	10	12	11.15	9
FH21-12S-1DSA	CL586-0429-8	12	14	13.15	11
FH21-14S-1DSA	CL586-0430-7	14	16	15.15	13
FH21-15S-1DSA	CL586-0431-0	15	17	16.15	14
FH21-16S-1DSA	CL586-0432-2	16	18	17.15	15
FH21-18S-1DSA	CL586-0433-5	18	20	19.15	17
FH21-20S-1DSA	CL586-0434-8	20	22	21.15	19
FH21-22S-1DSA	CL586-0435-0	22	24	23.15	21
FH21-24S-1DSA	CL586-0436-3	24	26	25.15	23
FH21-26S-1DSA	CL586-0437-6	26	28	27.15	25
FH21-28S-1DSA	CL586-0438-9	28	30	29.15	27
FH21-30S-1DSA	CL586-0439-1	30	32	31.15	29