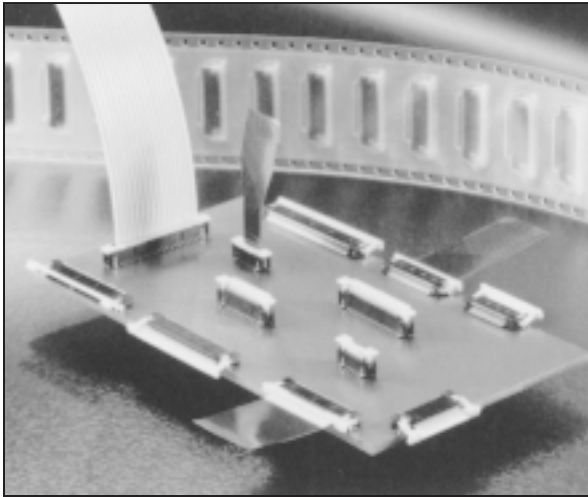


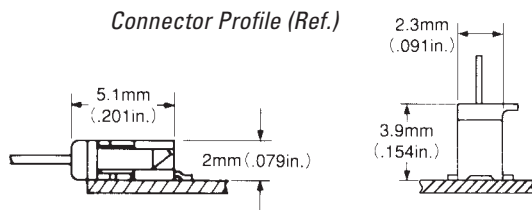
IL-FPR SERIES CONNECTORS

0.5mm (.020") Pitch, ZIF Type Connectors for FPC/FFC



FEATURES

- Extremely small, 0.5mm (.020") spacing
- SMT type for FPC
- Available in right-angle and straight versions
- A slider enables insertion/extraction of FPC without applying force (Zero Insertion Force)
- One-side contact configuration avoids mismatching of FPC
- Lower-side or upper-side FPC contact surfaces on right-angle version
- Hold down mechanism prevents floating up of the connector during soldering and retains the connector on the board
- Designed to avoid defective mating
- Supplied in embossed tape for automatic SMT mounting



.....

IL-FPR Series SMT connectors meet today's requirements for smaller size and lighter weight. These connectors have extremely high contact density and low profiles: 0.5mm (.020") centers and a 2.0mm (.079") mounted height (right-angle type).

Both straight and right-angle types are available. The ZIF (zero insertion force) configuration permits easy insertion and extraction of the FPC (flexible printed circuit), even in a minimal amount of space. A wide variety of mounting styles are available.

GENERAL SPECIFICATIONS

Number of Contacts	Right Angle type: 5 to 50 Straight type : 8 to 33 and 40
Contact Spacing	0.5mm (.020"), single row
Current Rating	0.5 Amps
Dielectric Withstanding Voltage	250 VAC r.m.s. (one minute)
Insulation Resistance	100 megohms min.
Contact Resistance	20 milliohms max.
Operating Temperature	-40°C +85°C
Applicable FPC	0.5mm (.020") Center 0.3mm ^{+0.05} / _{-0.02} (.012" ^{+0.002} / _{-.001}) Thick with reinforcement

MATERIALS AND FINISHES

Description	Materials/Finishes
Contact	Copper Alloy/Tin Plated
Base Insulator	Glass-filled PPS (Black)
Slide Insulator	Glass-filled PPS (White)
Hold-down Tab	Phosphor Bronze/Tin Plated

ORDERING INFORMATION

IL - FPR - * ** S - ** - *****

Series _____

Contact Configuration _____
Blank - Lower-Side Contact
U - Upper-Side Contact

No. of Contacts _____

Contact Type _____

S - Socket

Termination _____
HF - Right Angle
VF - Straight

Embossed Tape _____
E 1500 - 1,500 Straight Pieces/Reel
E 3000 - 3,000 Right Angle Pieces/Reel

Dimensions and specifications subject to change without notice.

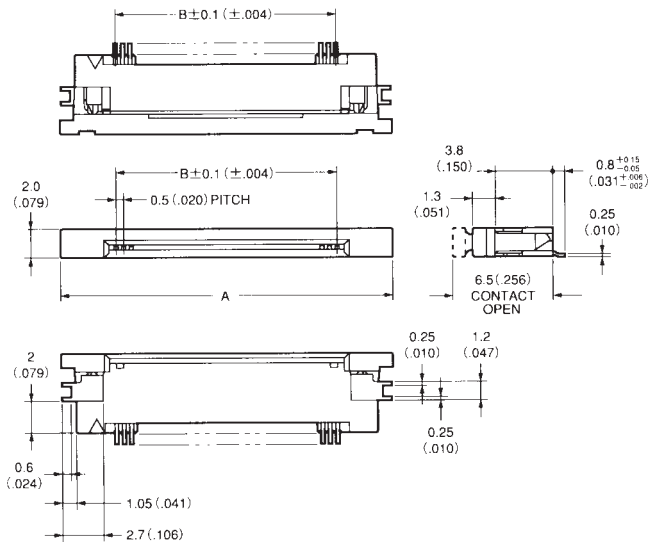


IL-FPR SERIES CONNECTORS

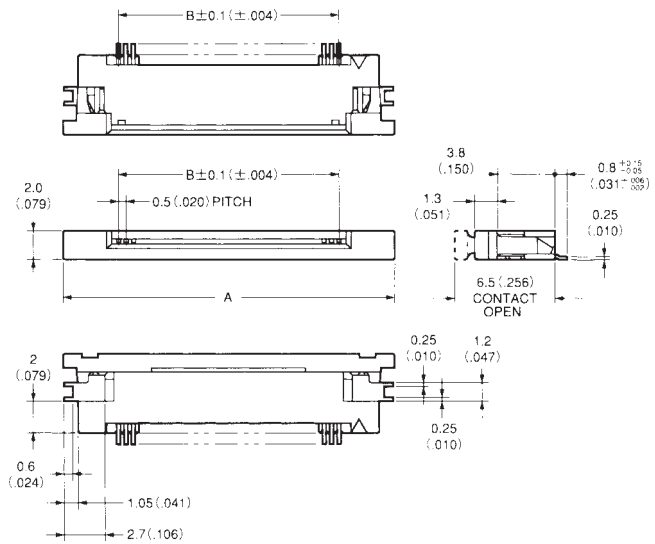
0.5mm (.020") Pitch, ZIF Type Connectors for FPC/FFC

RIGHT ANGLE TYPE

Lower-Side Contact

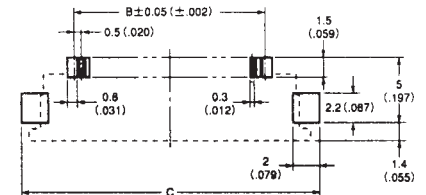


Upper-Side Contact

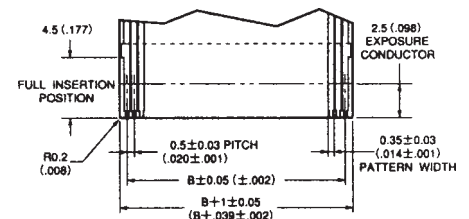


No. of Contacts	Part Number		A	B	C
	Lower-Side Contact	Upper-Side Contact			
5	IL-FPR- 5S-HF-E3000	IL-FPR- U5S-HF-E3000	9.1 (.358)	2.0 (.079)	10.5 (.413)
6	IL-FPR- 6S-HF-E3000	IL-FPR- U6S-HF-E3000	9.6 (.378)	2.5 (.098)	11.0 (.433)
7	IL-FPR- 7S-HF-E3000	IL-FPR- U7S-HF-E3000	10.1 (.398)	3.0 (.118)	11.5 (.453)
8	IL-FPR- 8S-HF-E3000	IL-FPR- U8S-HF-E3000	10.6 (.417)	3.5 (.138)	12.0 (.472)
9	IL-FPR- 9S-HF-E3000	IL-FPR- U9S-HF-E3000	11.1 (.437)	4.0 (.157)	12.5 (.492)
10	IL-FPR-10S-HF-E3000	IL-FPR-U10S-HF-E3000	11.6 (.457)	4.5 (.177)	13.0 (.512)
11	IL-FPR-11S-HF-E3000	IL-FPR-U11S-HF-E3000	12.1 (.476)	5.0 (.197)	13.5 (.531)
12	IL-FPR-12S-HF-E3000	IL-FPR-U12S-HF-E3000	12.6 (.496)	5.5 (.216)	14.0 (.551)
13	IL-FPR-13S-HF-E3000	IL-FPR-U13S-HF-E3000	13.1 (.516)	6.0 (.236)	14.5 (.571)
14	IL-FPR-14S-HF-E3000	IL-FPR-U14S-HF-E3000	13.6 (.535)	6.5 (.256)	15.0 (.590)
16	IL-FPR-16S-HF-E3000	IL-FPR-U16S-HF-E3000	14.6 (.575)	7.5 (.295)	16.0 (.630)
17	IL-FPR-17S-HF-E3000	IL-FPR-U17S-HF-E3000	15.1 (.594)	8.0 (.315)	16.5 (.650)
18	IL-FPR-18S-HF-E3000	IL-FPR-U18S-HF-E3000	15.6 (.614)	8.5 (.335)	17.0 (.669)
20	IL-FPR-20S-HF-E3000	IL-FPR-U20S-HF-E3000	16.6 (.654)	9.5 (.374)	18.0 (.709)
21	IL-FPR-21S-HF-E3000	IL-FPR-U21S-HF-E3000	17.1 (.673)	10.0 (.394)	18.5 (.728)
22	IL-FPR-22S-HF-E3000	IL-FPR-U22S-HF-E3000	17.6 (.693)	10.5 (.413)	19.0 (.748)
24	IL-FPR-24S-HF-E3000	IL-FPR-U24S-HF-E3000	18.6 (.732)	11.5 (.453)	20.0 (.787)
26	IL-FPR-26S-HF-E3000	IL-FPR-U26S-HF-E3000	19.6 (.772)	12.5 (.492)	21.0 (.827)
28	IL-FPR-28S-HF-E3000	IL-FPR-U28S-HF-E3000	20.6 (.811)	13.5 (.531)	22.0 (.866)
30	IL-FPR-30S-HF-E3000	IL-FPR-U30S-HF-E3000	21.6 (.850)	14.5 (.571)	23.0 (.906)
31	IL-FPR-31S-HF-E3000	IL-FPR-U31S-HF-E3000	22.1 (.870)	15.0 (.590)	23.5 (.925)
32	IL-FPR-32S-HF-E3000	IL-FPR-U32S-HF-E3000	22.6 (.890)	15.5 (.610)	24.0 (.945)
33	IL-FPR-33S-HF-E3000	IL-FPR-U33S-HF-E3000	23.1 (.909)	16.0 (.630)	24.5 (.965)
34	IL-FPR-34S-HF-E3000	IL-FPR-U34S-HF-E3000	23.6 (.929)	16.5 (.650)	25.0 (.984)
35	IL-FPR-35S-HF-E3000	IL-FPR-U35S-HF-E3000	24.1 (.949)	17.0 (.669)	25.5 (1.004)
36	IL-FPR-36S-HF-E3000	IL-FPR-U36S-HF-E3000	24.6 (.969)	17.5 (.689)	26.0 (1.024)
37	IL-FPR-37S-HF-E3000	IL-FPR-U37S-HF-E3000	25.1 (.988)	18.0 (.709)	26.5 (1.043)
38	IL-FPR-38S-HF-E3000	IL-FPR-U38S-HF-E3000	25.6 (1.008)	18.5 (.728)	27.0 (1.063)
40	IL-FPR-40S-HF-E3000	IL-FPR-U40S-HF-E3000	26.6 (1.047)	19.5 (.768)	28.0 (1.102)
45	IL-FPR-45S-HF-E3000	IL-FPR-U45S-HF-E3000	29.1 (1.146)	22.0 (.866)	30.5 (1.201)
50	IL-FPR-50S-HF-E3000	IL-FPR-U50S-HF-E3000	31.6 (1.244)	24.5 (.965)	33.0 (1.299)

PCB Layout (Ref.)



Applicable FPC (Ref.)



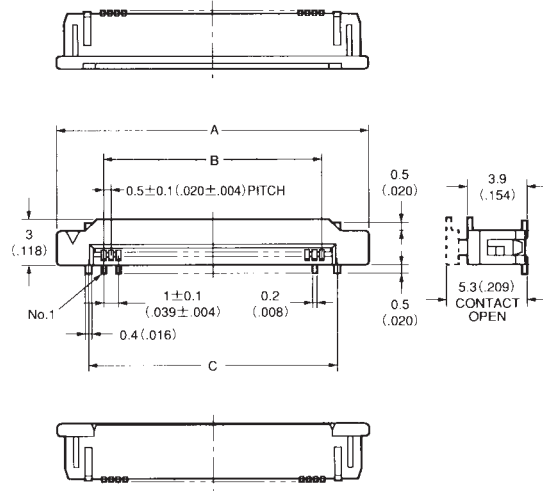
Note 1:
Supplied in embossed tape (3,000 pcs./reel). The embossed tape packing is shown on the last page of IL-FPR Series Connectors.

Dimensions in mm (inches).

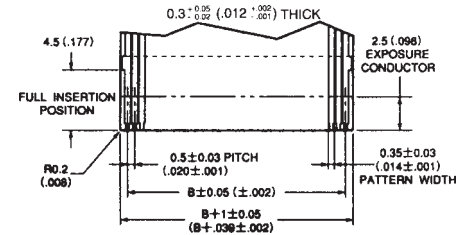
IL-FPR SERIES CONNECTORS

0.5mm (.020") Pitch, ZIF Type Connectors for FPC/FFC

STRAIGHT TYPE

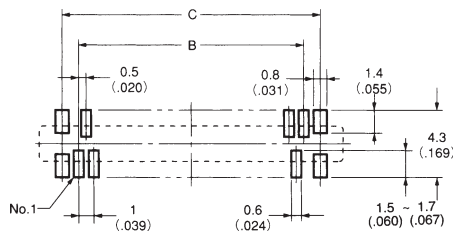


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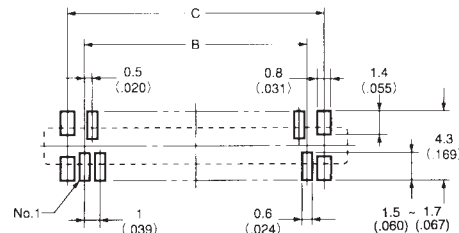


PCB Layout (Ref.)

Even number of contacts



Odd number of contacts



No. of Contacts	Part Number	A	B	C
8	IL-FPR- 8S-VF-E1500	9.5 (.374)	3.5 (.138)	5.5 (.217)
9	IL-FPR- 9S-VF-E1500	10.0 (.394)	4.0 (.157)	6.0 (.236)
10	IL-FPR-10S-VF-E1500	10.5 (.413)	4.5 (.177)	6.5 (.256)
12	IL-FPR-12S-VF-E1500	11.5 (.453)	5.5 (.217)	7.5 (.295)
13	IL-FPR-13S-VF-E1500	12.0 (.472)	6.0 (.236)	8.0 (.315)
14	IL-FPR-14S-VF-E1500	12.5 (.492)	6.5 (.256)	8.5 (.335)
16	IL-FPR-16S-VF-E1500	13.5 (.531)	7.5 (.295)	9.5 (.374)
18	IL-FPR-18S-VF-E1500	14.5 (.571)	8.5 (.335)	10.5 (.413)
20	IL-FPR-20S-VF-E1500	15.5 (.610)	9.5 (.374)	11.5 (.453)
21	IL-FPR-21S-VF-E1500	16.0 (.630)	10.0 (.394)	12.0 (.472)
22	IL-FPR-22S-VF-E1500	16.5 (.650)	10.5 (.413)	12.5 (.492)
24	IL-FPR-24S-VF-E1500	17.5 (.689)	11.5 (.453)	13.5 (.531)
26	IL-FPR-26S-VF-E1500	18.5 (.728)	12.5 (.492)	14.5 (.571)
27	IL-FPR-27S-VF-E1500	19.0 (.748)	13.0 (.512)	15.0 (.591)
28	IL-FPR-28S-VF-E1500	19.5 (.768)	13.5 (.531)	15.5 (.610)
30	IL-FPR-30S-VF-E1500	20.5 (.807)	14.5 (.571)	16.5 (.650)
32	IL-FPR-32S-VF-E1500	21.5 (.846)	15.5 (.610)	17.5 (.689)
33	IL-FPR-33S-VF-E1500	22.0 (.866)	16.0 (.630)	18.0 (.709)
40	IL-FPR-40S-VF-E1500	25.5 (1.004)	19.5 (.768)	21.5 (.846)

Note 1: Supplied in embossed tape (1,500 pcs./reel). The embossed tape packing is shown on the last page of IL-FPR Series Connectors.

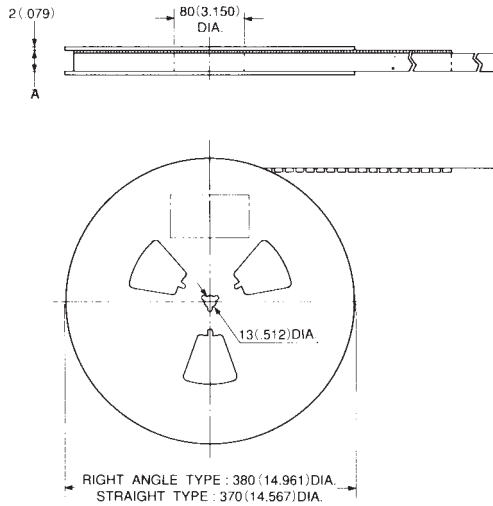
Dimensions in mm (inches).



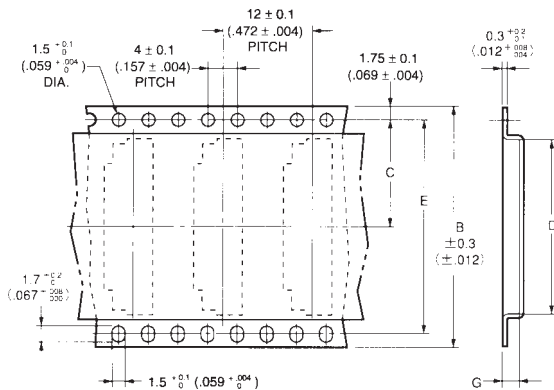
IL-FPR SERIES CONNECTORS

0.5mm (.020") Pitch, ZIF Type Connectors for FPC/FFC

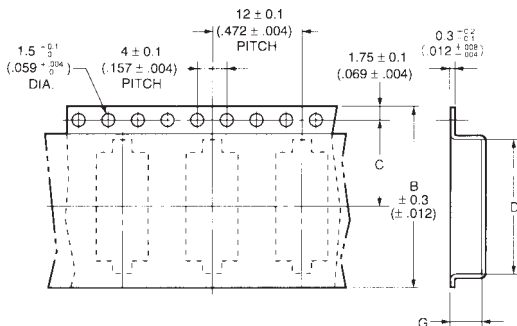
EMBOSSED TAPE PACKING



For tape width (dimension B) 32mm (1.260") and 44mm (1.732"), pilot holes are provided on both sides.



For tape width (dimension B) 24mm (.945"), a pilot hole is provided on one side.



RIGHT ANGLE TYPE

No. of Contacts	D ± 0.2 (± .008)	A	B Note 1	C ± 0.2 (± .008)	E ± 0.2 (± .008)	G ± 0.3 (± .012)
5	9.5 (.374)	26 (1.024)	24 (.945)	11.5 (.453)	—	2.3 (.091)
6	10 (.394)					
7	10.5 (.413)					
8	11 (.433)					
9	11.5 (.453)					
10	12 (.472)					
11	12.5 (.492)					
12	13 (.512)					
13	13.5 (.531)					
14	14 (.551)					
16	15 (.591)	34 (1.339)	32 (1.260)	14.2 (.559)	28.4 (1.118)	2.3 (.091)
17	15.5 (.610)					
18	16 (.630)					
20	17 (.669)					
21	17.5 (.689)					
22	18 (.709)					
24	19 (.748)					
26	20 (.787)					
28	21 (.827)					
30	22 (.866)					
31	22.5 (.886)	46 (1.811)	44 (1.732)	20.2 (.795)	40.4 (1.591)	2.3 (.091)
32	23 (.906)					
33	23.5 (.925)					
34	24 (.945)					
35	24.5 (.965)					
36	25 (.984)					
37	25.5 (1.004)					
38	26 (1.024)					
40	27 (1.063)					
45	29.5 (1.161)					
50	32 (1.260)					

STRAIGHT TYPE

No. of Contacts	D ± 0.2 (± .008)	A	B Note 1	C ± 0.2 (± .008)	E ± 0.2 (± .008)	G ± 0.1 (± .004)
8	9.8 (.386)	26 (1.024)	24 (.945)	11.5 (.453)	—	4.3 (.169)
9	10.3 (.406)					
10	10.8 (.425)					
12	11.8 (.465)					
13	12.3 (.484)					
14	12.8 (.504)					
16	13.8 (.543)					
18	14.8 (.583)					
20	15.8 (.622)					
21	16.3 (.642)					
22	16.8 (.661)	34 (1.339)	32 (1.260)	14.2 (.559)	28.4 (1.118)	4.3 (.169)
24	17.8 (.701)					
26	18.8 (.740)					
27	19.3 (.760)					
28	19.8 (.780)					
30	20.8 (.819)					
32	21.8 (.858)					
33	22.3 (.878)					
40	25.8 (1.015)	46 (1.811)	44 (1.732)	20.2 (.795)	40.4 (1.590)	4.3 (.169)

Note 1:

For tape width (dimension B) 24mm (.945"), a pilot hole is provided on one side.
For tape width (dimension B) 32mm (1.260") and 44mm (1.732"), pilot holes are provided on both sides.

Dimensions in mm (inches).

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