

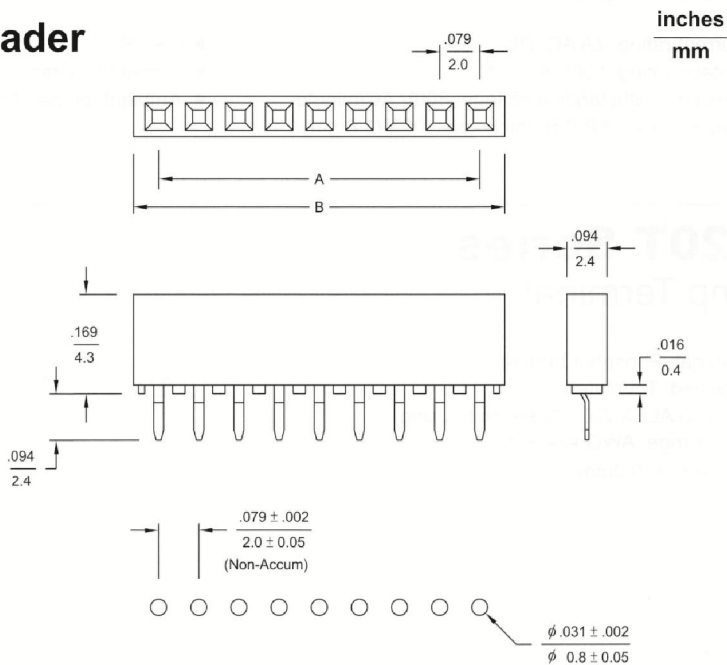


ALEX

.079"(2.0mm) Center Headers

9909-N Series Single Row Straight Header

- 2 ~ 40 circuits available
- Material: PBT
- Gold flash phosphor bronze
- Various pin lengths available



Dimensional Information (mm)

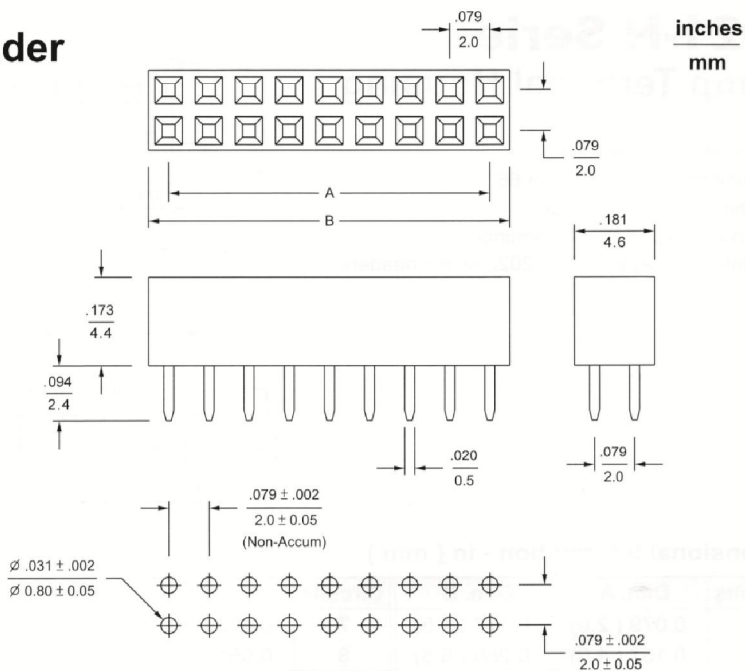
Part No.	Dim. A	Dim. B
9909-N	2.0 x (N - 1)	2.0 x N + 0.5

&& N = Number of contact, 2 ~ 40

P.C.B. hole dimensions

9910-N Series Dual Row Straight Header

- 4 ~ 80 circuits available
- Gold flash phosphor bronze
- Various pin lengths available



Ordering Information

Part No.	Material
9910-N-PBT	PBT, UL 94V-0
9910-N	Nylon 6T

Dimensional Information (mm)

Part No.	Dim. A	Dim. B
9910-N	2.0 x (N / 2 - 1)	N + 0.5

&& N = Number of contact, 4 ~ 80

P.C.B. hole dimensions

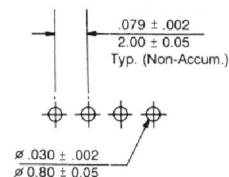
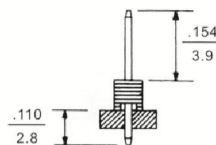
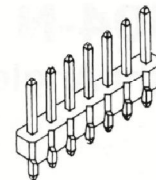
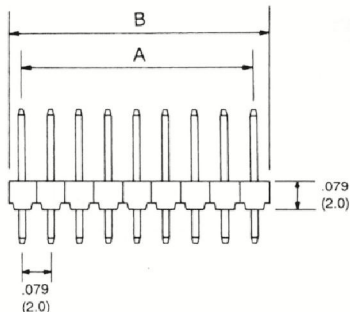


ALEX

.079" (2.0mm) Center Headers

4502-N Series Straight Flat Header

- PBT, UL 94V-0
- .020" (0.5mm) straight square wire pins
- Various pin lengths available
- 2-40 circuits available
- Mates with 4501, 4601 series housings
- Applicable PC board thickness: .063" (1.6mm)



inches
mm

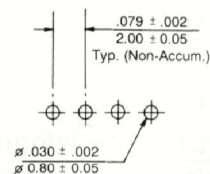
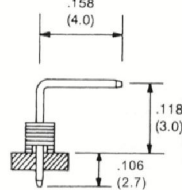
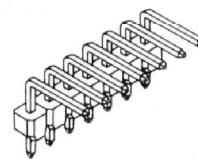
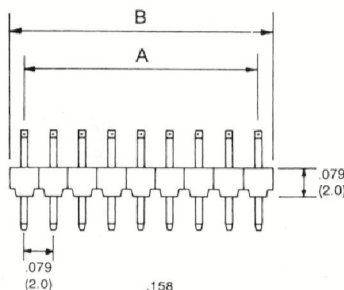
Recommended P.C. Board
Hole Layout

Dimensional Information - in. (mm) 4502/4503

Circuits	Dim. A	Dim. B	Circuits	Dim. A	Dim. B	Circuits	Dim. A	Dim. B
2	0.079 (2.0)	0.167 (4.0)	15	1.102 (28.0)	1.181 (30.0)	28	2.126 (54.0)	2.205 (56.0)
3	0.167 (4.0)	0.236 (6.0)	16	1.181 (30.0)	1.260 (32.0)	29	2.205 (56.0)	2.284 (58.0)
4	0.236 (6.0)	0.315 (8.0)	17	1.260 (32.0)	1.339 (34.0)	30	2.284 (58.0)	2.362 (60.0)
5	0.315 (8.0)	0.394 (10.0)	18	1.339 (34.0)	1.417 (36.0)	31	2.362 (60.0)	2.441 (62.0)
6	0.394 (10.0)	0.472 (12.0)	19	1.417 (36.0)	1.496 (38.0)	32	2.441 (62.0)	2.520 (64.0)
7	0.472 (12.0)	0.551 (14.0)	20	1.496 (38.0)	1.575 (40.0)	33	2.520 (64.0)	2.599 (66.0)
8	0.551 (14.0)	0.630 (16.0)	21	1.575 (40.0)	1.654 (42.0)	34	2.599 (66.0)	2.677 (68.0)
9	0.630 (16.0)	0.709 (18.0)	22	1.654 (42.0)	1.732 (44.0)	35	2.677 (68.0)	2.756 (70.0)
10	0.709 (18.0)	0.787 (20.0)	23	1.732 (44.0)	1.811 (46.0)	36	2.756 (70.0)	2.835 (72.0)
11	0.787 (20.0)	0.866 (22.0)	24	1.811 (46.0)	1.890 (48.0)	37	2.835 (72.0)	2.913 (74.0)
12	0.866 (22.0)	0.945 (24.0)	25	1.890 (48.0)	1.969 (50.0)	38	2.913 (74.0)	2.992 (76.0)
13	0.945 (24.0)	1.024 (26.0)	26	1.969 (50.0)	2.047 (52.0)	39	2.992 (76.0)	3.071 (78.0)
14	1.024 (26.0)	1.102 (28.0)	27	2.047 (52.0)	2.126 (54.0)	40	3.071 (78.0)	3.150 (80.0)

4503-N Series Right Angle Flat Header

- PBT, UL 94V-0
- .020" (0.5mm) right angle square wire pins
- Various pin lengths available
- 2-40 circuits available
- Mates with 4501, 4601 series housings
- Applicable PC board thickness: .063" (1.6mm)



inches
mm

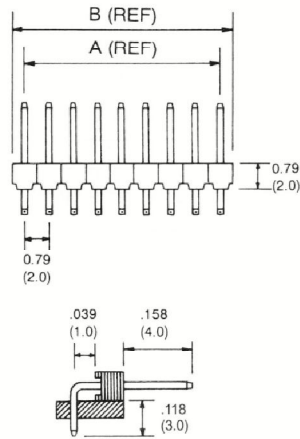
Recommended P.C. Board
Hole Layout



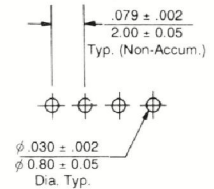
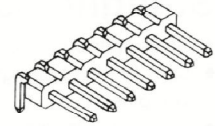
.079"(2.0mm) Crimp Terminal Housing

4504-N Series Right Angle Flat Header

- PBT, UL 94V-0
- .020" (0.5mm) right angle square wire pins
- Various pin lengths available
- 2-40 circuits available
- Mates with 4501, 4601 series housings
- Applicable PC board thickness: .063" (1.6mm)



inches
mm



Recommended P.C. Board Hole Layout

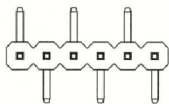
NOTE:

A=(Circuits-1) x (2.0mm)
B=(Circuits) x (2.0mm)

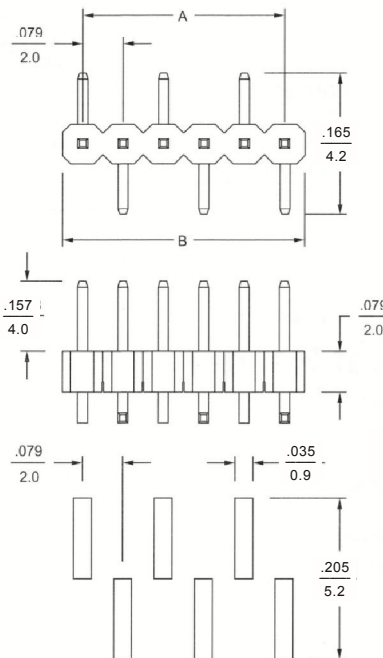
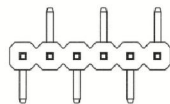
4505-xx Series Vertical Header, SMT

- 2 ~ 40 circuits available
- Insulator: Nylon 6T
- Contact: Brass
- Gold flash plated over nickel
- .020"(0.5mm) square pin
- Various pin lengths available
- Mates with ALEX 4501, 4601 housings

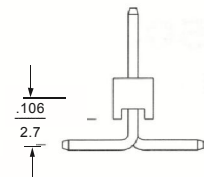
4505-xxA



4505-xxB



inches
mm



P. C. board hole dimensions

Dimensional Information (mm)

Part No.	Dim. A	Dim. B
4505-xxA	2.0 x (N - 1)	2.0 x N
4505-xxB		

&& N = 2 ~ 40

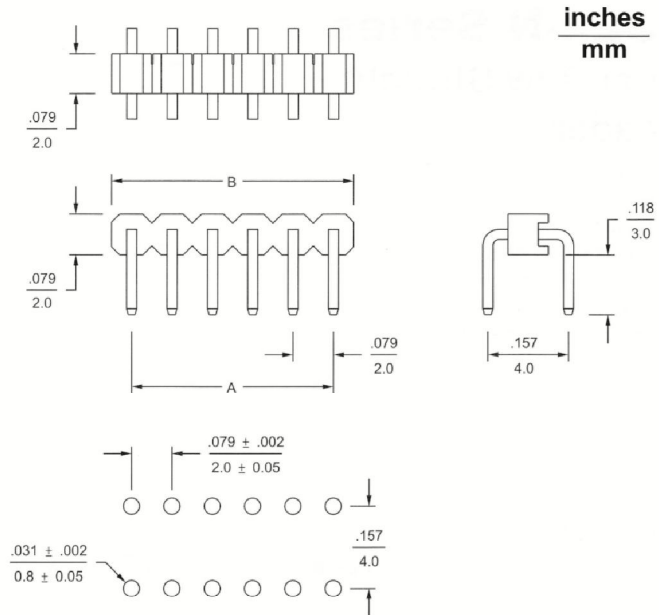


ALEX

.079"(2.0mm) Crimp Terminal Housing

4506-N Series Right Angle Header

- 2 ~ 40 circuits available
- Insulator: PBT, UL 94V-0
- Contact: Brass
- Gold flash plated over nickel
- .020"(0.5mm) square pin
- Various pin lengths available



Dimensional Information (mm)

Part No.	Dim. A	Dim. B
4506-N	2.0 x (N - 1)	2.0 x N

& N = 1 ~ 40

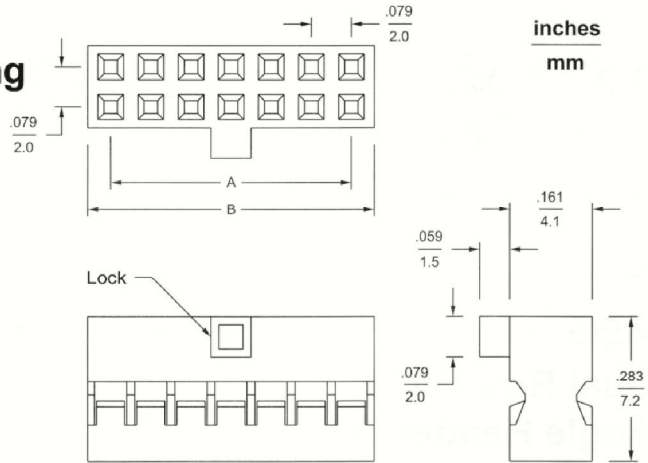
P. C. board hole dimensions

4521-xx Series Dual Row Crimp Terminal Housing

- 4 ~ 80 circuits available
- Material: PBT, UL 94V-0
- Standard color: Black
- Accepts ALEX 45T series terminals
- Mates with ALEX 4522, 4523, 4524 series headers

Ordering Information

Part No.	Description	Note
4521-xx	Without lock	XX = 04~80
4521-xx-PR	With lock	XX = 06~80



Dimensional Information - in (mm)

Circuits	Dim. A	Dim. B	Circuits	Dim. A	Dim. B	Circuits	Dim. A	Dim. B
4	0.079 (2.0)	0.169 (4.3)	30	1.102 (28.0)	1.193 (30.3)	56	2.126 (54.0)	2.217 (56.3)
6	0.157 (4.0)	0.248 (6.3)	32	1.181 (30.0)	1.272 (32.3)	58	2.205 (56.0)	2.295 (58.3)
8	0.236 (6.0)	0.327 (8.3)	34	1.260 (32.0)	1.350 (34.3)	60	2.283 (58.0)	2.374 (60.3)
10	0.315 (8.0)	0.406 (10.3)	36	1.339 (34.0)	1.429 (36.3)	62	2.362 (60.0)	2.453 (62.3)
12	0.394 (10.0)	0.484 (12.3)	38	1.417 (36.0)	1.508 (38.3)	64	2.441 (62.0)	2.531 (64.3)
14	0.472 (12.0)	0.563 (14.3)	40	1.496 (38.0)	1.587 (40.3)	66	2.520 (64.0)	2.610 (66.3)
16	0.551 (14.0)	0.642 (16.3)	42	1.575 (40.0)	1.665 (42.3)	68	2.598 (66.0)	2.689 (68.3)
18	0.630 (16.0)	0.720 (18.3)	44	1.654 (42.0)	1.744 (44.3)	70	2.677 (68.0)	2.768 (70.3)
20	0.709 (18.0)	0.799 (20.3)	46	1.732 (44.0)	1.823 (46.3)	72	2.756 (70.0)	2.846 (72.3)
22	0.787 (20.0)	0.878 (22.3)	48	1.811 (46.0)	1.902 (48.3)	74	2.835 (72.0)	2.925 (74.3)
24	0.866 (22.0)	0.957 (24.3)	50	1.890 (48.0)	1.980 (50.3)	76	2.913 (74.0)	3.004 (76.3)
26	0.945 (24.0)	1.035 (26.3)	52	1.969 (50.0)	2.059 (52.3)	78	2.992 (76.0)	3.083 (78.3)
28	1.024 (26.0)	1.114 (28.3)	54	2.047 (52.0)	2.138 (54.3)	80	3.071 (78.0)	3.161 (80.3)