

# 3M™ Pak 10 Media Plug

1 mm Right Angle, Surfacemount, With Pwr. Gnd. Option

PK10M Series



- 1 mm pitch connector system
- Four mating heights available
- Available power contacts rated at 5A
- Available frame ground connection through surfacemount retention clips
- Keyed design helps prevent mating misalignment
- RoHS compliant\* version (DA plating suffix) available

Date Modified: January 8, 2007

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## Physical

### Insulation

Material: Glass-Filled LCP  
Flammability: UL 94V-0  
Color: Black

### Contact

Signal Contact: Copper Alloy  
Power Contact: Copper Alloy  
Retention Clips: Copper Alloy

### Contact Plating

Underplating: 120  $\mu$ " [ 3.0  $\mu$ m ] Nickel  
Wiping Area: 4  $\mu$ " [ 0.10  $\mu$ m ] min. Gold  
Solder Tails: Tin Alloy or Gold Flash (RoHS compliant)

**Retention Clip Plating:** Tin Copper over 120  $\mu$ " [ 3.0  $\mu$ m ] Nickel

Marking: Orientation Triangle, Standoff Height Code, Lot Number

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## Electrical

**Current Rating:** 0.5 A per Signal Contact, 5 A Power Contact

**Insulation Resistance:**  $1 \times 10^3$  M $\Omega$  min at 250 V<sub>DC</sub>

**Withstanding Voltage:** 300 V<sub>AC</sub> for 1 minute

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## Environmental

**Temperature Rating:** -55°C to +85°C

**Process Rating:** Maximum 260°C

"RoHS compliant" means that the product or part does not contain any of the following substances in excess of the following maximum concentration values in any homogeneous material, unless the substance is in an application that is exempt under RoHS: (a) 0.1% (by weight) for lead, mercury, hexavalent chromium, polybrominated biphenyls or polybrominated diphenyl ethers; or (b) 0.01% (by weight) for cadmium. Unless otherwise stated by 3M in writing, this information represents 3M's knowledge and belief based upon information provided by third party suppliers to 3M.

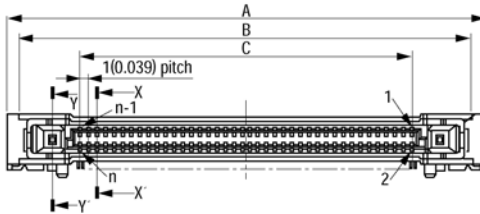
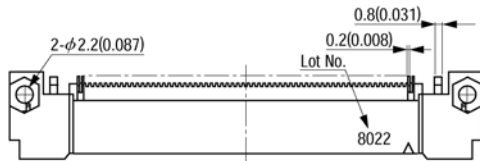
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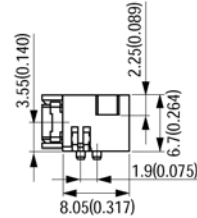
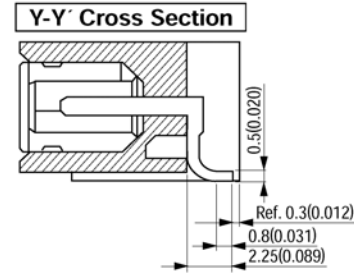
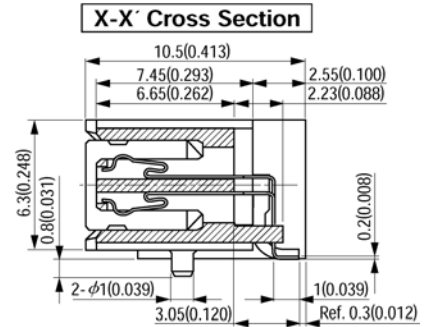
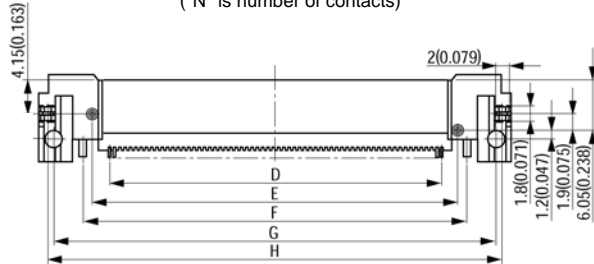
PK10M Series

Plug with Power Contacts and without Standoff

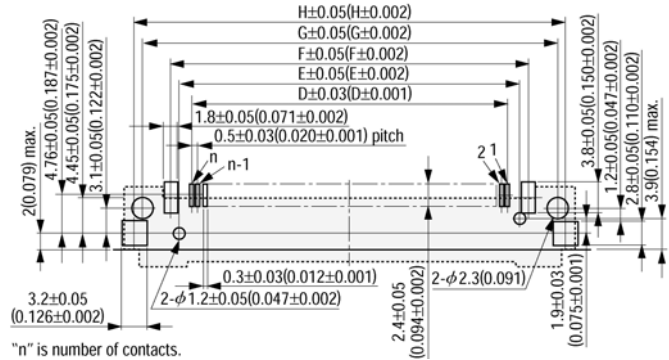
Contact Quantity	A	B	C	D	E	F	G	H
40	36.50	33.20	19.00	19.50	23.28	25.40	32.36	33.98
	[1.437]	[1.307]	[0.748]	[0.768]	[0.917]	[1.000]	[1.274]	[1.338]
50	41.50	38.20	24.00	24.50	28.28	30.40	37.36	38.98
	[1.634]	[1.504]	[0.945]	[0.965]	[1.113]	[1.197]	[1.471]	[1.535]
60	46.50	43.20	29.00	29.50	33.28	35.40	42.36	43.98
	[1.831]	[1.701]	[1.142]	[1.161]	[1.310]	[1.394]	[1.668]	[1.731]
80	56.50	53.20	39.00	39.50	43.28	45.40	52.36	53.98
	[2.224]	[2.094]	[1.535]	[1.555]	[1.704]	[1.787]	[2.061]	[2.125]



("N" is number of contacts)



## Printed Circuit Board Layout (Component Side View)



## Ordering Information

### PK10M - XXXPX - SMX - XX

Contact Quantity  
See Table

P = With Power Contacts  
Omit = Without Power Contacts

Standoff Height Code:

- R = Without Standoff
- 1 = Standoff Height 1 mm [ 0.039" ]
- 2 = Standoff Height 2 mm [ 0.079" ]
- 3 = Standoff Height 3 mm [ 0.118" ]
- 4 = Standoff Height 4 mm [ 0.157" ]

Plating Suffix:

- TGF = Gold flash with tin-lead tails
- DA = Gold flash overall (RoHS compliant)

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# 3M™ Pak 10 Media Plug

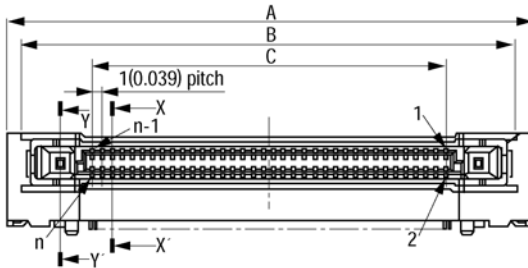
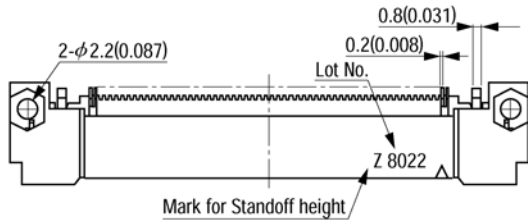
1 mm Right Angle, Surfacemount, With Pwr. Gnd. Option

PK10M Series

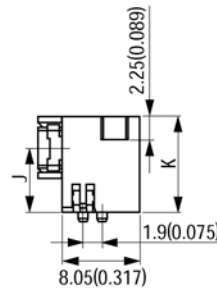
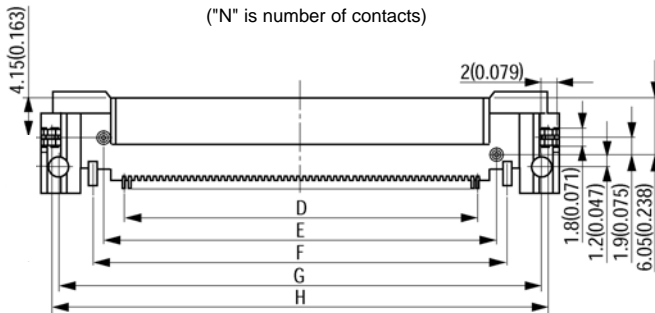
Plug with Power Contacts and Standoff

Contact Quantity	A	B	C	D	E	F	G	H
40	36.50	33.20	19.00	19.50	23.28	25.40	32.36	33.98
	[1.437]	[1.307]	[0.748]	[0.768]	[0.917]	[1.000]	[1.274]	[1.338]
50	41.50	38.20	24.00	24.50	28.28	30.40	37.36	38.98
	[1.634]	[1.504]	[0.945]	[0.965]	[1.113]	[1.197]	[1.471]	[1.535]
60	46.50	43.20	29.00	29.50	33.28	35.40	42.36	43.98
	[1.831]	[1.701]	[1.142]	[1.161]	[1.310]	[1.394]	[1.668]	[1.731]
80	56.50	53.20	39.00	39.50	43.28	45.40	52.36	53.98
	[2.224]	[2.094]	[1.535]	[1.555]	[1.704]	[1.787]	[2.061]	[2.125]

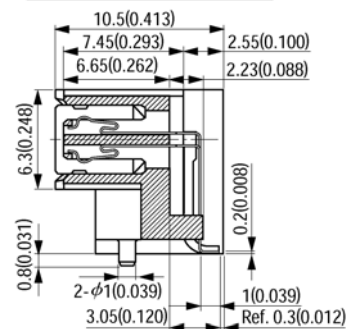
Standoff height	J	K
1	4.55	7.70
	[0.179]	[0.303]
2	5.55	8.70
	[0.219]	[0.343]
3	6.55	9.70
	[0.258]	[0.382]
4	7.55	10.70
	[0.297]	[0.421]



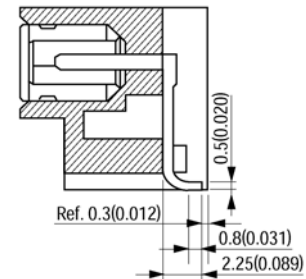
("N" is number of contacts)



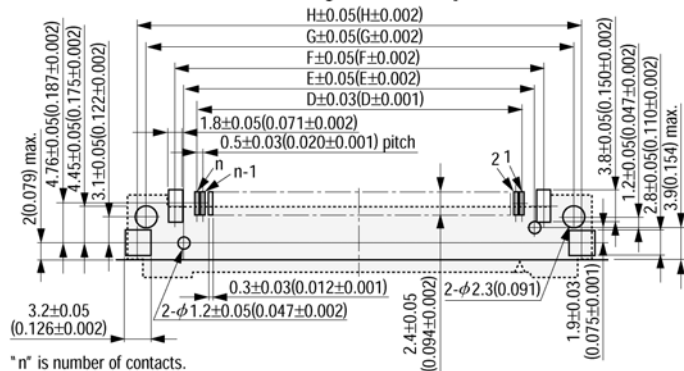
### X-X' Cross Section



### Y-Y' Cross Section



### Printed Circuit Board Layout (Component Side View)



"n" is number of contacts.

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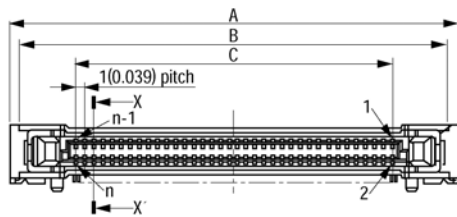
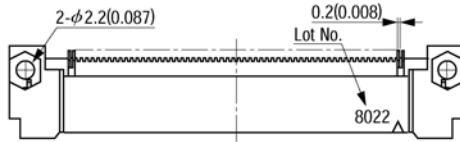
# 3M™ Pak 10 Media Plug

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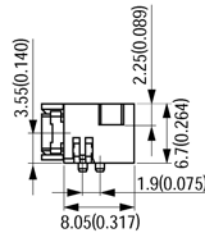
PK10M Series

Plug without Power Contacts and Standoff

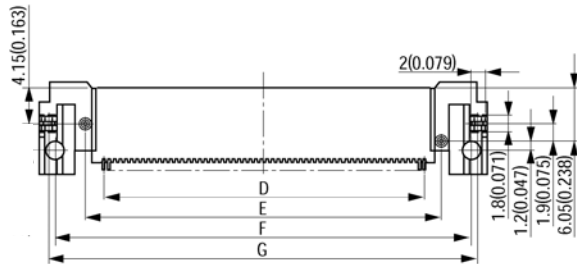
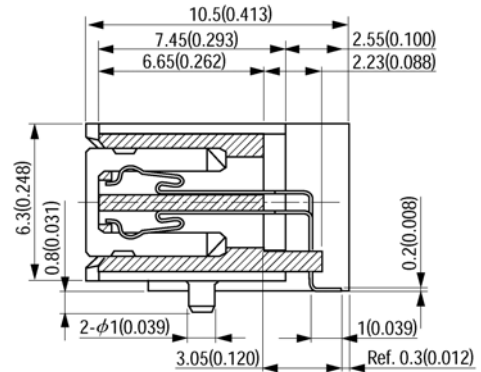
Contact Quantity	A	B	C	D	E	F	G
40	34.50 [1.358]	31.20 [1.228]	19.00 [0.748]	19.50 [0.768]	23.28 [0.917]	30.36 [1.195]	31.98 [1.259]
50	39.50 [1.555]	36.20 [1.425]	24.00 [0.945]	24.50 [0.965]	28.28 [1.113]	35.36 [1.392]	36.98 [1.456]
60	44.50 [1.752]	41.20 [1.622]	29.00 [1.142]	29.50 [1.161]	33.28 [1.310]	40.36 [1.589]	41.98 [1.653]
80	54.50 [2.146]	51.20 [2.016]	39.00 [1.535]	39.50 [1.555]	43.28 [1.704]	50.36 [1.983]	51.98 [2.046]



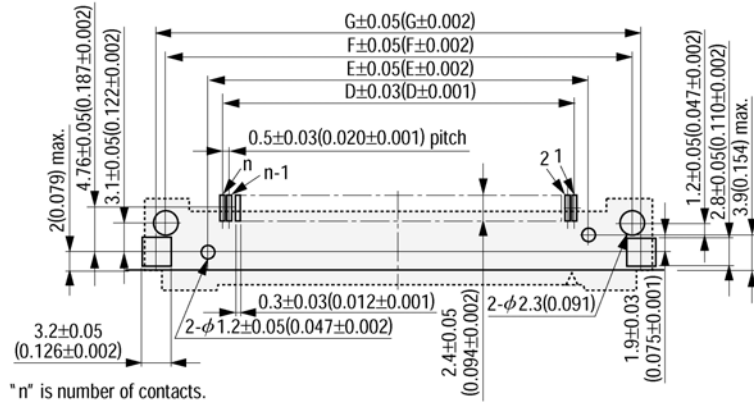
("N" is number of contacts)



X-X' Cross Section



Printed Circuit Board Layout (Component Side View)



"n" is number of contacts.

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# 3M™ Pak 10 Media Plug

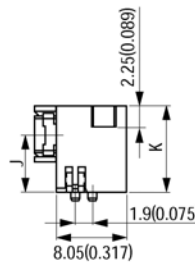
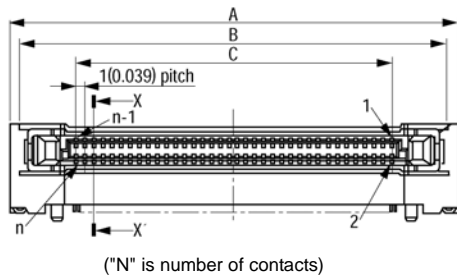
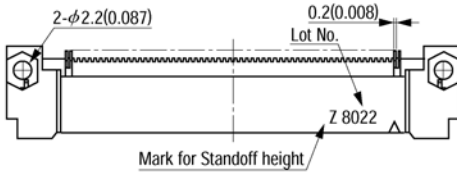
1 mm Right Angle, Surfacemount, With Pwr. Gnd. Option

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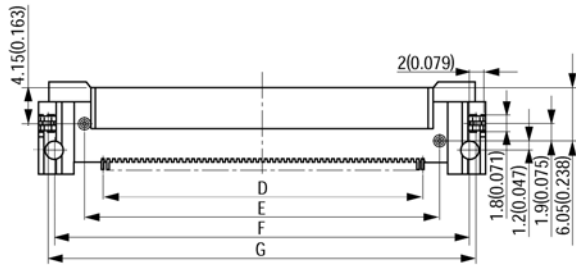
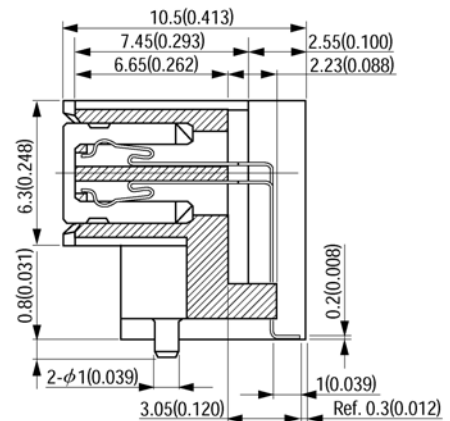
Plug without Power Contacts and with Standoff

Contact Quantity	A	B	C	D	E	F	G
40	34.50	31.20	19.00	19.50	23.28	30.36	31.98
	[1.358]	[1.228]	[0.748]	[0.768]	[0.917]	[1.195]	[1.259]
50	39.50	36.20	24.00	24.50	28.28	35.36	36.98
	[1.555]	[1.425]	[0.945]	[0.965]	[1.113]	[1.392]	[1.456]
60	44.50	41.20	29.00	29.50	33.28	40.36	41.98
	[1.752]	[1.622]	[1.142]	[1.161]	[1.310]	[1.589]	[1.653]
80	54.50	51.20	39.00	39.50	43.28	50.36	51.98
	[2.146]	[2.016]	[1.535]	[1.555]	[1.704]	[1.983]	[2.046]

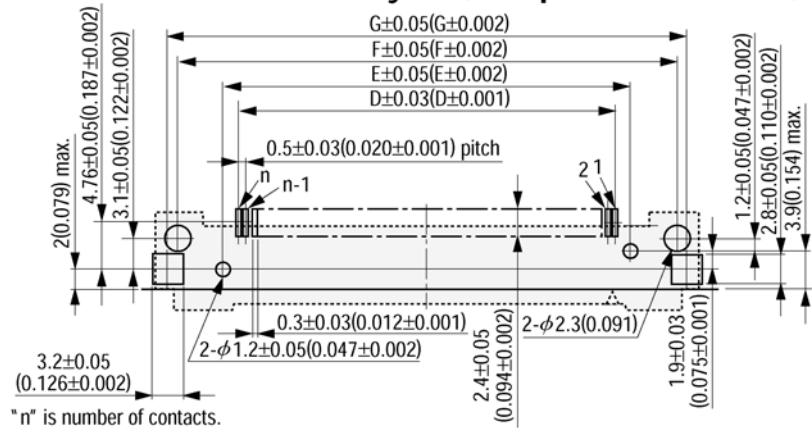
Standoff height	J	K
1	4.55	7.70
	[0.179]	[0.303]
2	5.55	8.70
	[0.219]	[0.343]
3	6.55	9.70
	[0.258]	[0.382]
4	7.55	10.70
	[0.297]	[0.421]



### X-X' Cross Section



### Printed Circuit Board Layout (Component Side View)



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Телефон: 8 (812) 309-75-97 (многоканальный)

Факс: 8 (812) 320-03-32

Электронная почта: [ocean@oceanchips.ru](mailto:ocean@oceanchips.ru)

Web: <http://oceanchips.ru/>

Адрес: 198099, г. Санкт-Петербург, ул. Калинина, д. 2, корп. 4, лит. А