

## INTRODUCTION:

Adam Tech MTJ series Modular Jacks are a complete line of PCB and wire leaded jacks which are UL approved and meet all required FCC rules and regulations. Adam Tech offers a multitude of sizes (4P2C thru 10P10C) with styles including single, ganged and stacked versions with options of ferrite or magnetic filtering and or metal shielding. Jacks with integral LED's and combination hybrids such as MTJ/USB jacks are also available. These jacks are available in thru-hole or SMT mounting.

## FEATURES:

UL 1863 recognized versions  
FCC compliant to No. 47 CFR part 68  
Magnetic and Ferrite filtered types  
4,6,8 and 10 positions available  
Single, stacked or ganged  
Hi-Temp and LED options  
Unshielded or Metal Shielded  
Thru-Hole or SMT mounting  
Cat. 5 & 5e ANSI/TIA/EIA 568.2

## MATING PLUGS:

Adam Tech modular plugs and all industry standard telephone plugs.

## SPECIFICATIONS:

### Material:

Standard Insulator: PBT, or ABS, rated UL94V-0  
Optional Hi-Temp Insulator: Nylon 6T rated UL94V-0  
Insulator Colors: Black or medium gray  
Contacts: Phosphor Bronze  
Shield: Phosphor Bronze, Nickel plated

### Contact Plating:

Flat contacts: Gold over Nickel underplate on contact area, Tin over Copper underplate on solder tails.  
Round contacts: Gold over Nickel underplate overall

### Electrical:

Operating voltage: 150V AC max.  
Current rating: 1.5 Amps max.  
Contact resistance: 20 mΩ max. initial  
Insulation resistance: 500 MΩ min.  
Dielectric withstanding voltage: 1000V AC for 1 minute

### Mechanical:

Insertion force: 4 contacts: 17.6N  
6 contacts: 20.6N  
8 contacts: 22.5N  
10 contacts: 24.5N

Durability: 500 Cycles

### Temperature Rating:

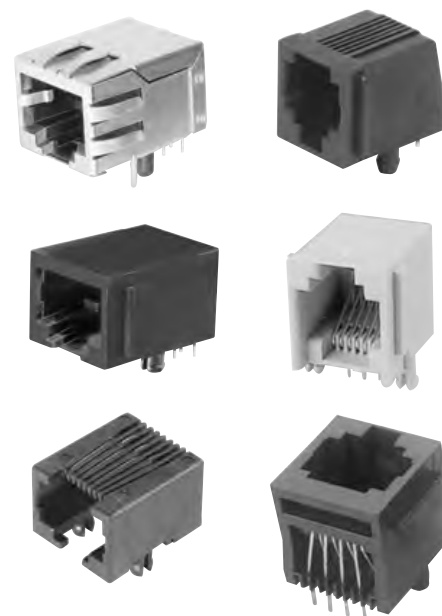
Operating temperature: -40°C to +85°C  
Soldering process temperature:  
Standard insulator: 235°C  
Hi-Temp insulator: 260°C

### PACKAGING:

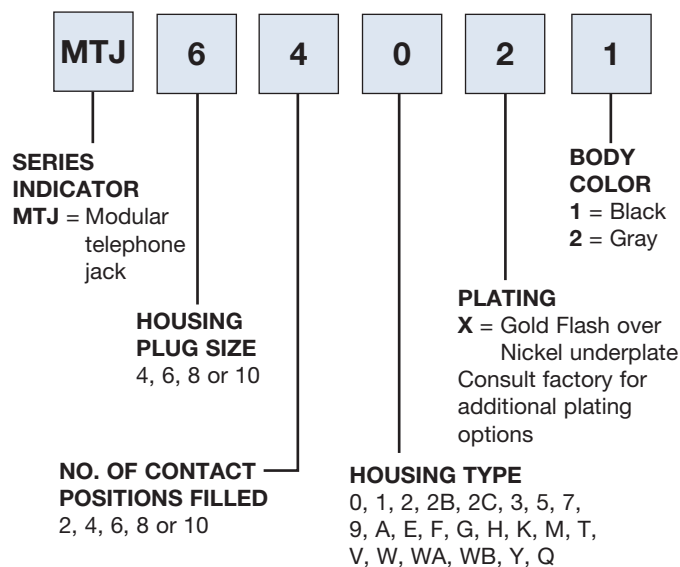
Anti-ESD plastic trays

### SAFETY AGENCY APPROVALS:

UL Recognized File no. E224049



## ORDERING INFORMATION



### OPTIONS:

Add designator(s) to end of part number

**S** = Face shielded jack (Body type 0 only)

**FSX** = Full metal shield (Use FSA, FSB, FSD, FSE)

**SMT** = Surface mount tails, housings 0, 5, 9, G & W with Hi-Temp insulator

**N** = No panel stops (Types: 1, 0, 2, 3, D)

**K** = Keyed telephone jack

**HT** = Hi-Temp insulator for Hi-Temp soldering processes up to 260°C (Add this option for thru-hole products only. All SMT products are manufactured with Hi-Temp insulators)

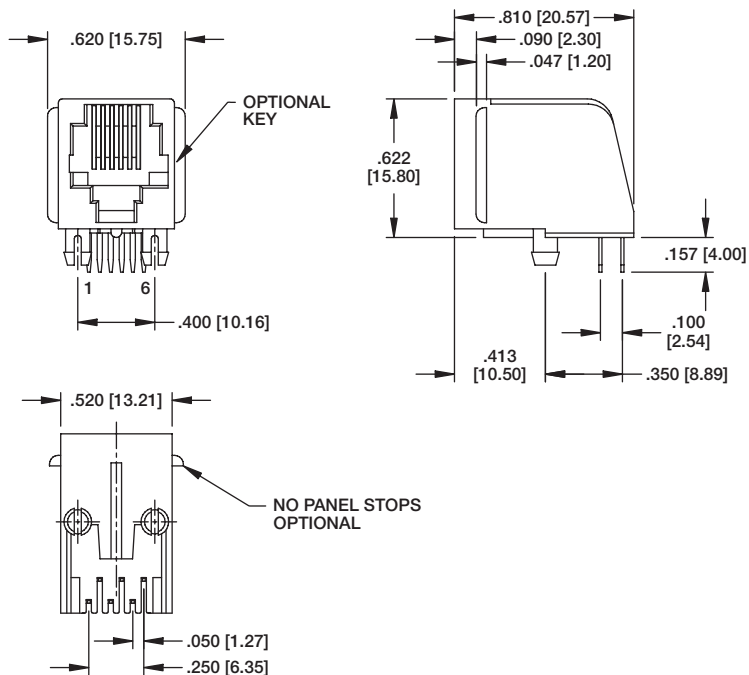
**PG** = Panel ground tabs

**KT** = Kapton Tape pickup when applicable

### TYPE 1

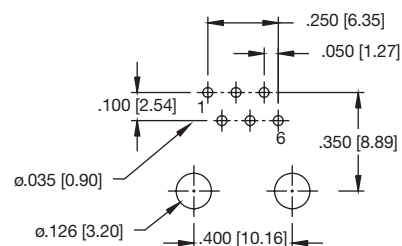
6P6C

6P4C



MTJ-661X1

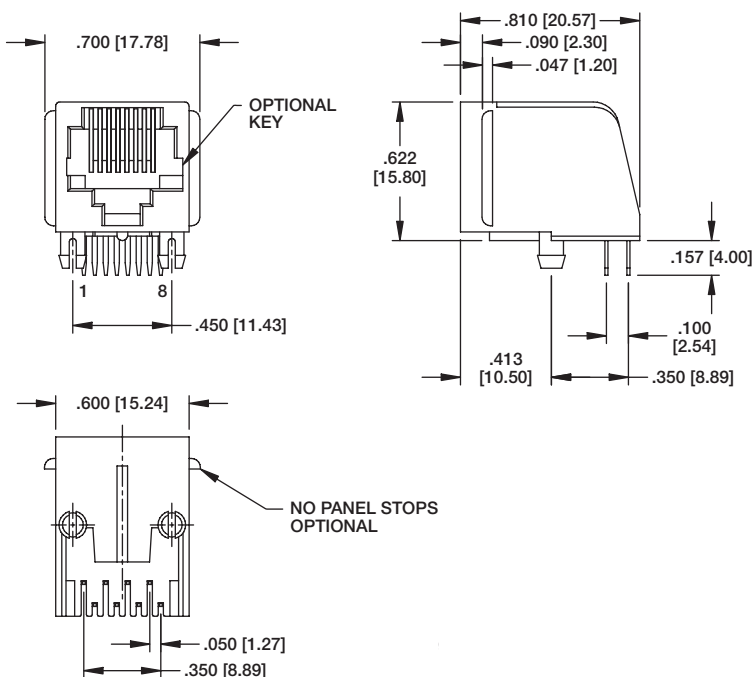
Ordering Information pg. 9



Recommended PCB Layout

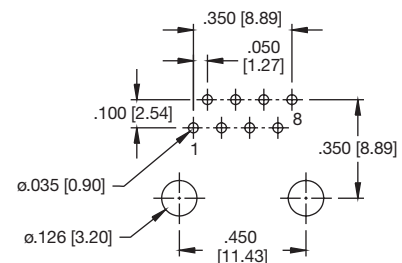
### TYPE 1

8P8C



MTJ-881X1

Ordering Information pg. 9

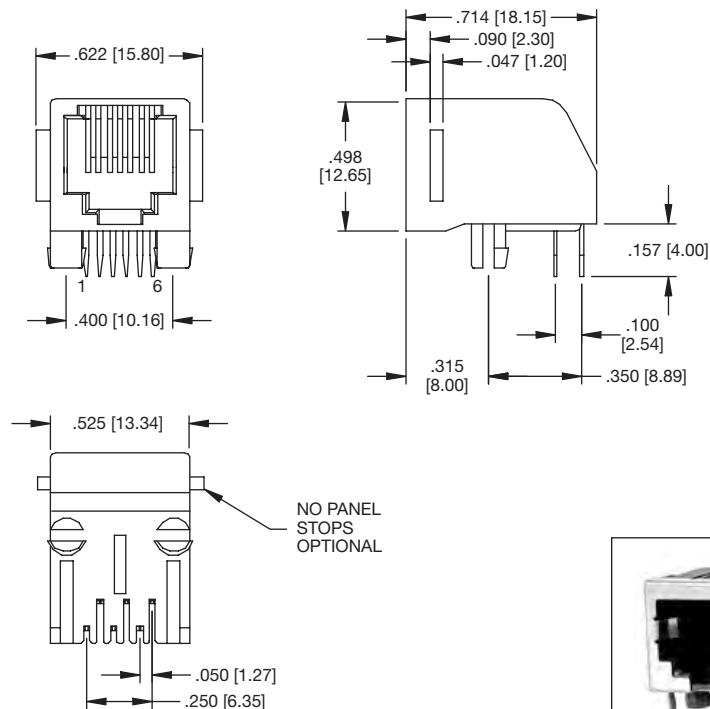


Recommended PCB Layout

### TYPE 0

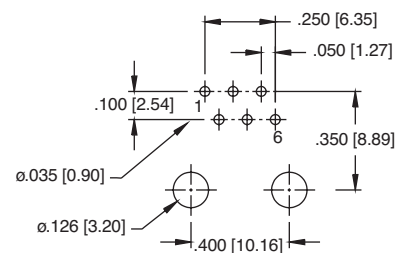
6P6C

6P4C



MTJ-660X1

Ordering Information pg. 9

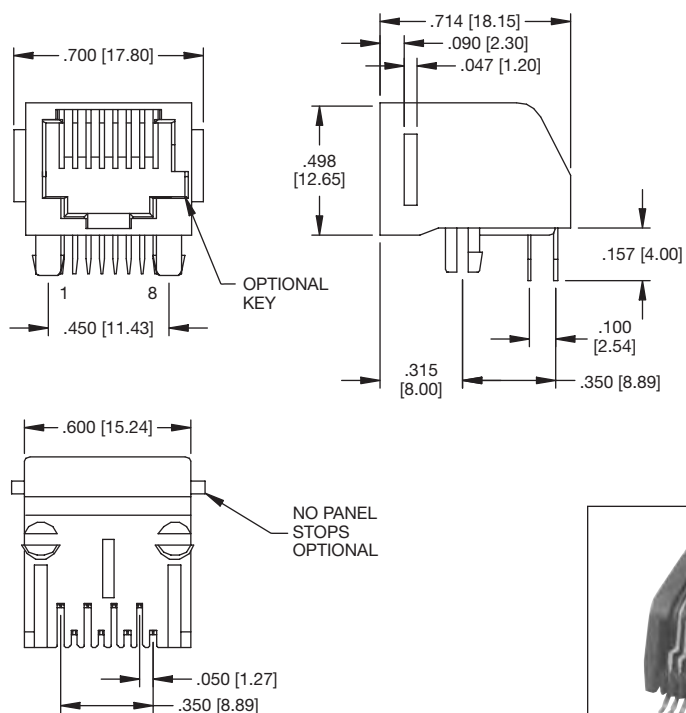


Recommended PCB Layout

Face Shield Option

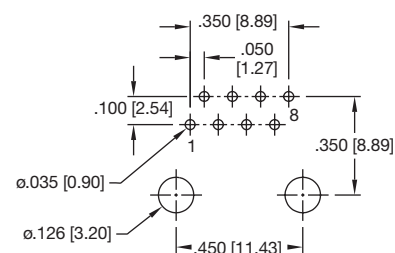
### TYPE 0

8P8C



MTJ-880X1

Ordering Information pg. 9



Recommended PCB Layout

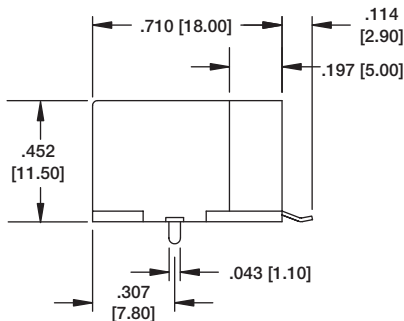
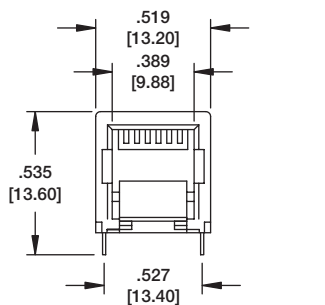
SMT Option

Ordering Information pg. 9

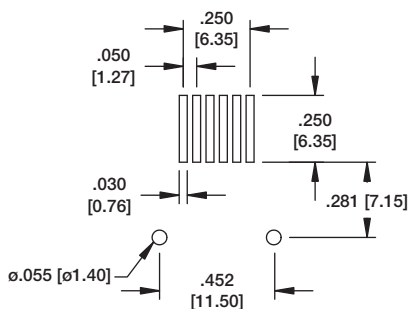
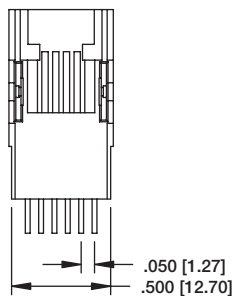
TYPE Y

6P6C

6P4C



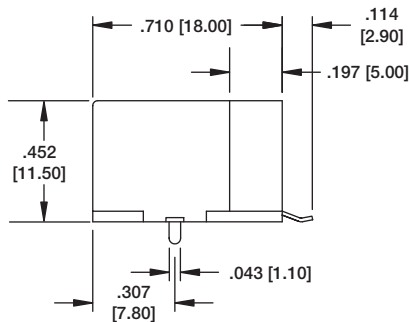
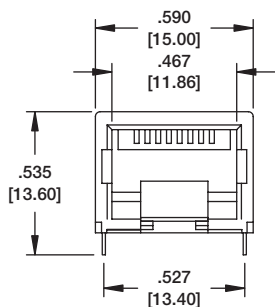
MTJ-66YX1



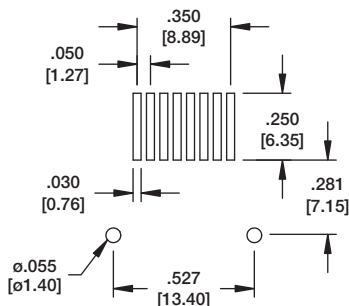
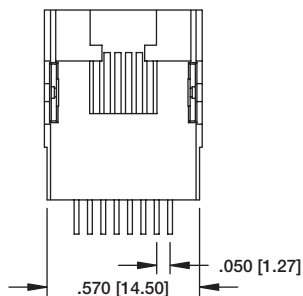
Recommended PCB Layout

TYPE Y

8P8C

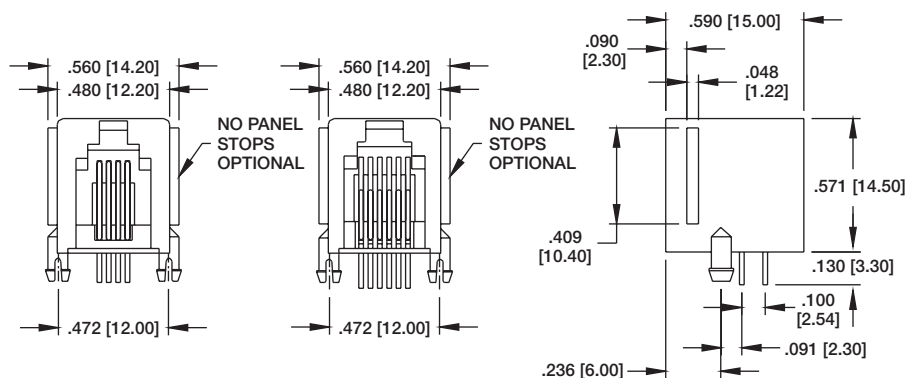


MTJ-88YX1



Recommended PCB Layout

Ordering Information pg. 9



MTJ-662X2

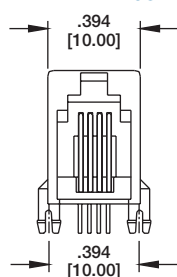


MTJ-442X2

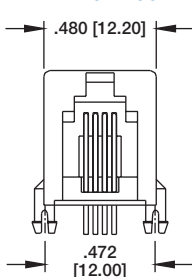
TYPE 2

4P4C  
6P6C  
6P4C

TYPE 2B 4 POS



TYPE 2C 4 POS

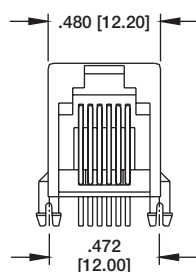


TYPE 2B & 2C

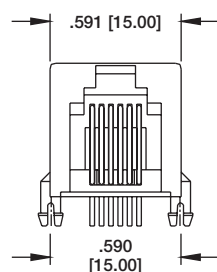
4P4C  
6P6C  
6P4C  
8P8C

MTJ-442BX2

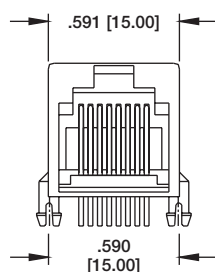
MTJ-662BX2



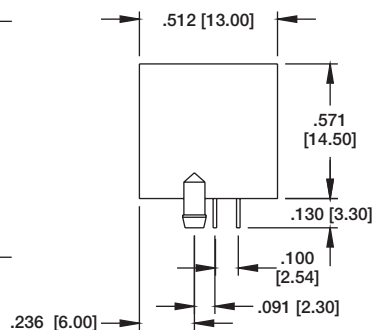
TYPE 2B 6 POS



TYPE 2C 6 POS

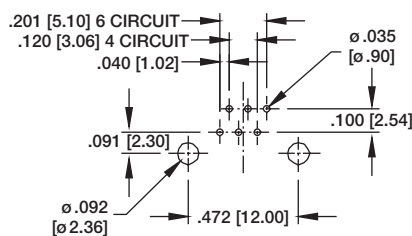


TYPE 2B 8 POS

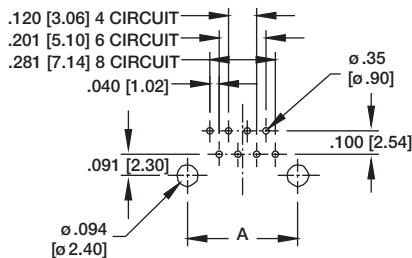


MTJ-882BX1

TYPE 2



TYPE 2B & 2C

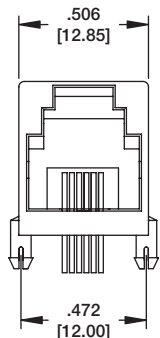


Recommended PCB Layout

DIM. "A"	
TYPE 2B 4P4C	.394 [10.00]
TYPE 2C 4P4C	.472 [12.00]
TYPE 2B 6P6C	.472 [12.00]
TYPE 2C 6P6C	.591 [15.00]
TYPE 2B 8P8C	.590 [15.00]

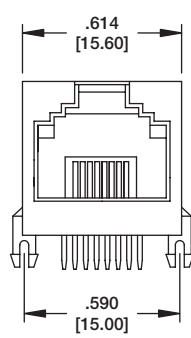
Ordering Information pg. 9

**MTJ-662BX1-FS**

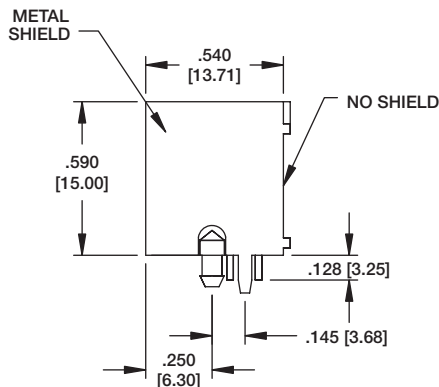


**6 POS  
2B SHIELDED**

**MTJ-882BX1-FS**



**8 POS  
2B SHIELDED**



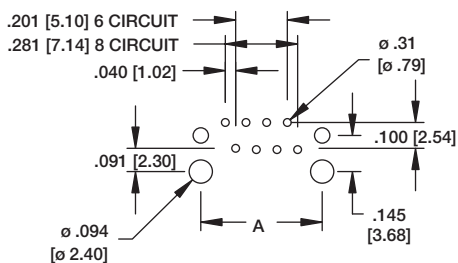
**TYPE 2B  
SHIELDED**  
6P6C  
6P4C  
8P8C



**MTJ-662BX1-FS**

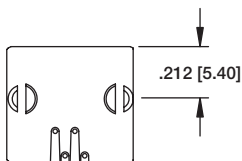
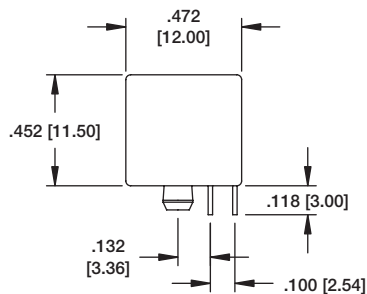
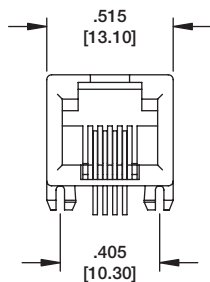


**MTJ-882BX1-FS**



**Recommended PCB Layout**

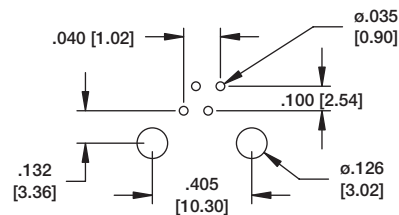
DIM. "A"	
TYPE 2B 6P6C	.472 [12.00]
TYPE 2B 8P8C	.590 [15.00]



**TYPE Q  
COMPACT JACK  
4P4C**



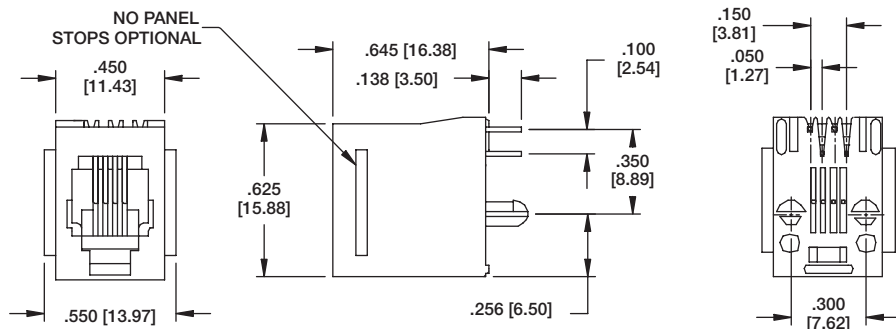
**MTJ-44QX1**



**Recommended PCB Layout**

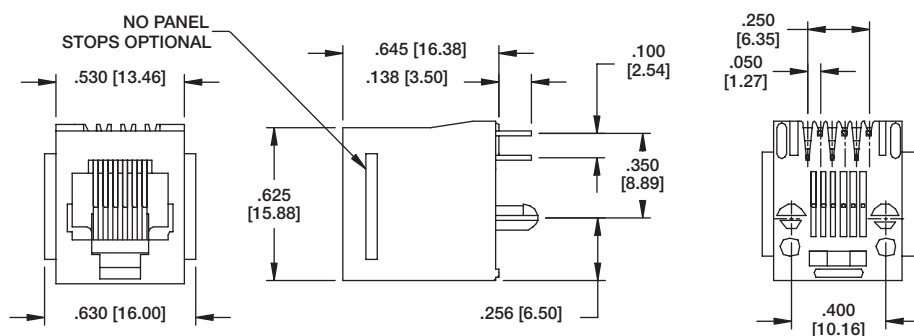
Ordering Information pg. 9

**TYPE 3**  
**4P4C**



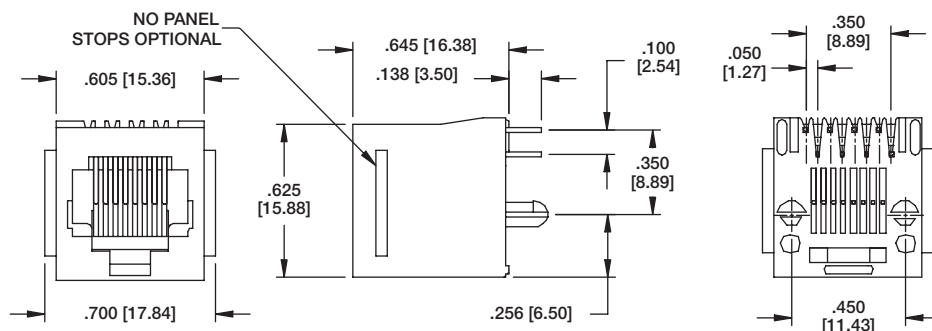
**MTJ-443X1**

**TYPE 3**  
**6P4C**



**MTJ-663X1**

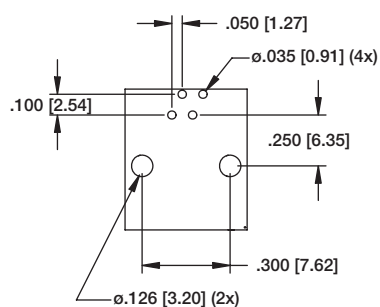
**TYPE 3**  
**8P8C**



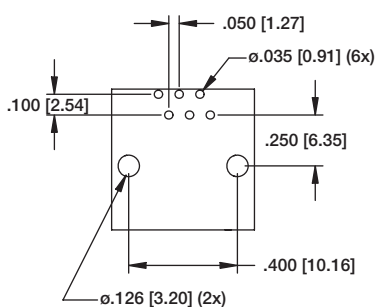
**MTJ-883X1**

#### Recommended PCB Layout

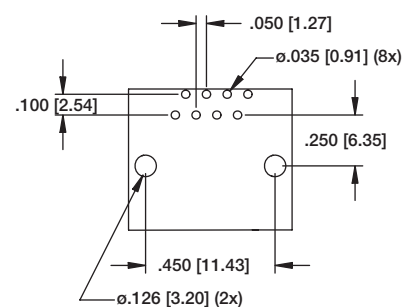
**4p4c**



**6p4c**  
**6p6c**

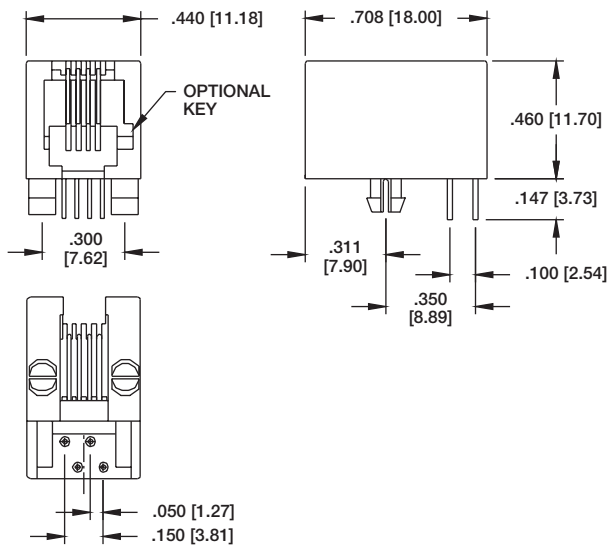


**8p8c**



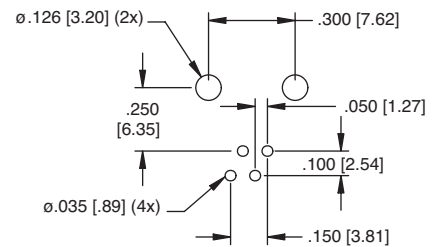
Ordering Information pg. 9

**TYPE 5**  
**4P4C**

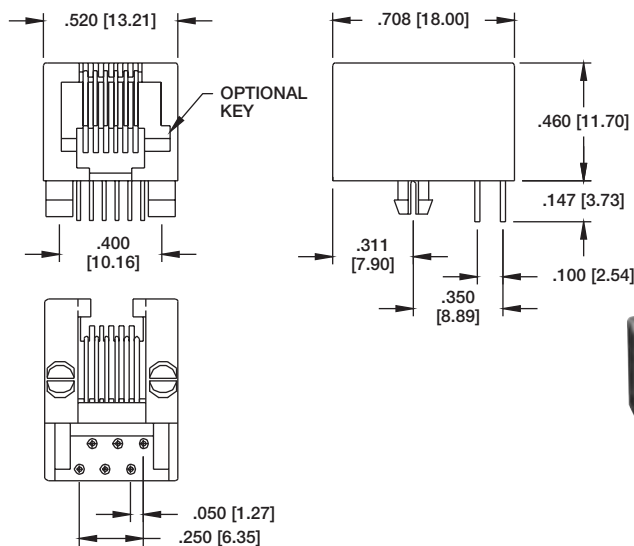


**MTJ-445X1**

### Recommended PCB Layout

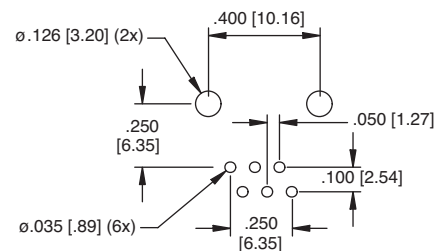


**TYPE 5**  
**6P4C**  
**6P6C**



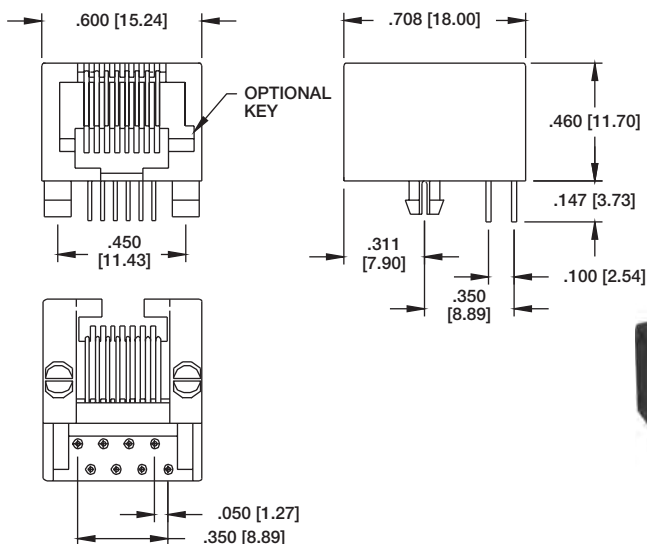
**MTJ-665X1**

### Recommended PCB Layout



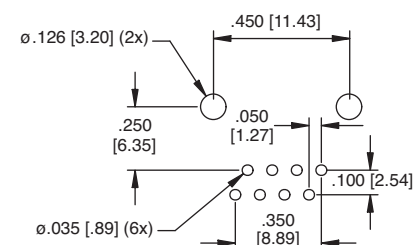
**TYPE 5**  
**8P8C**

**MT Option**



**MTJ-885X1**

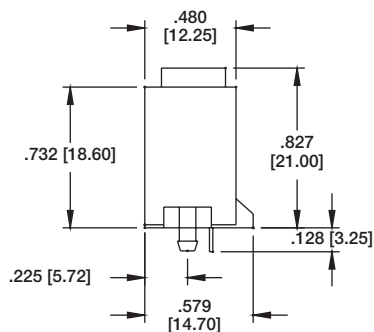
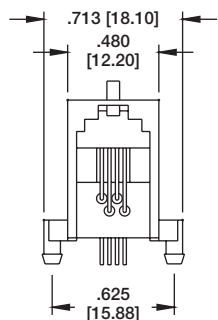
### Recommended PCB Layout





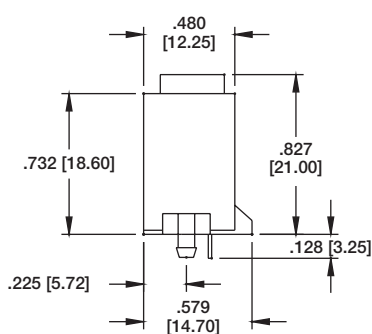
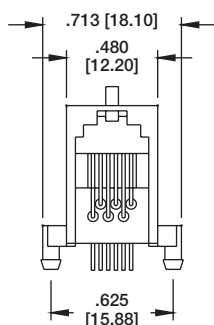
Ordering Information pg. 9

**TYPE 7**  
**4P4C**



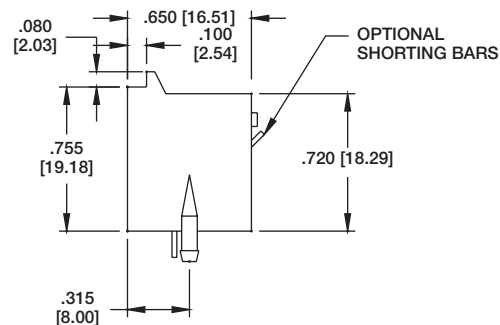
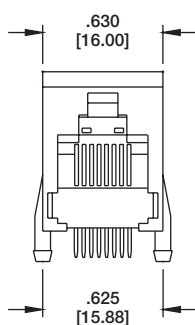
**MTJ-447X1**

**TYPE 7**  
**6P4C**  
**6P6C**



**MTJ-647X1**

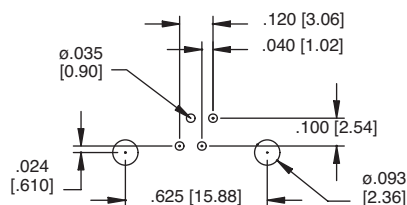
**TYPE 7**  
**8P8C**



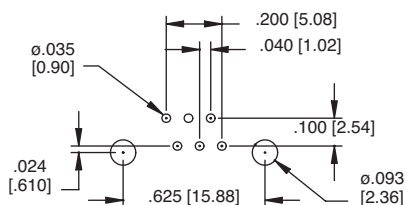
**MTJ-887X1**

#### Recommended PCB Layout

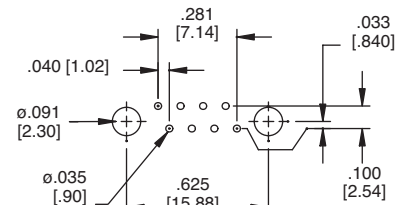
**4p4c**



**6p4c**  
**6p6c**



**8p8c**

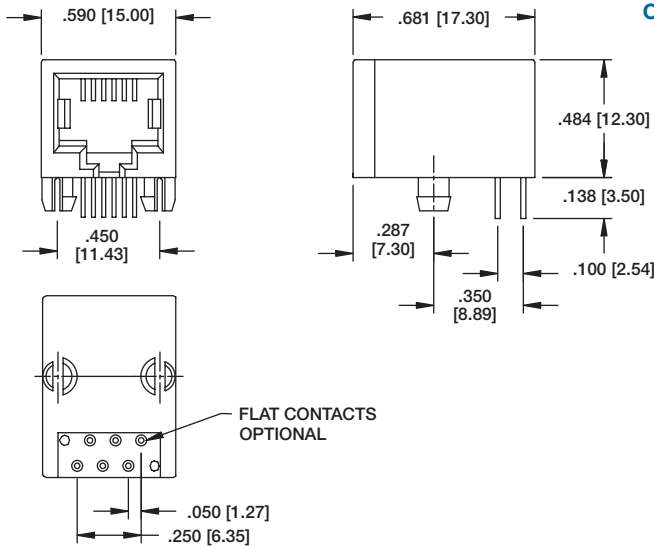


Ordering Information pg. 9

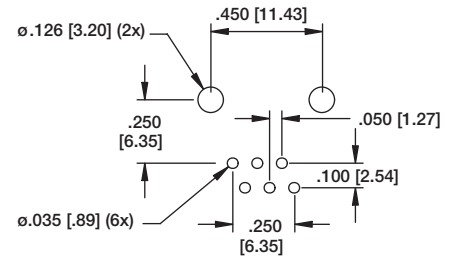
**TYPE 9**

**6P4C**

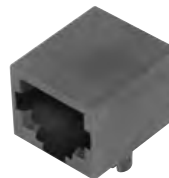
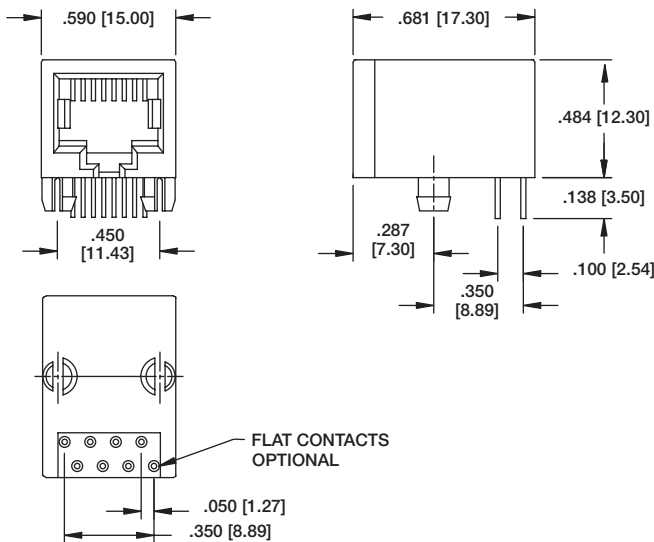
**6P6C**



**MTJ-669X1**



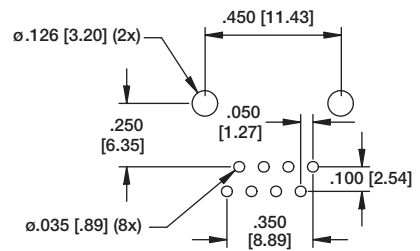
**Recommended PCB Layout**



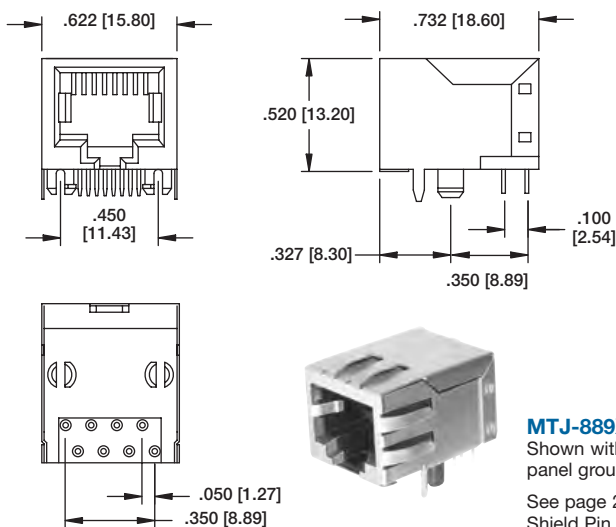
**MTJ-889X1**

**TYPE 9**

**8P8C**



**Recommended PCB Layout**



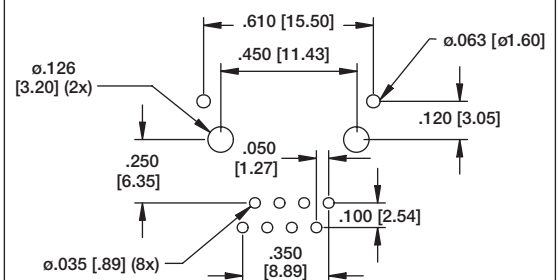
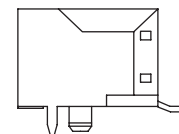
**MTJ-889X1-FSE**

**MTJ-889X1-FSE-PG**

Shown with optional panel ground tabs

See page 20 for other Shield Pin Location Options

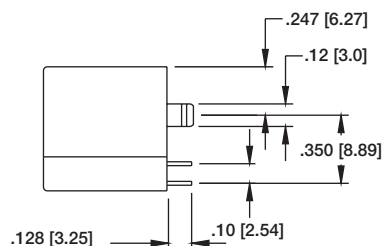
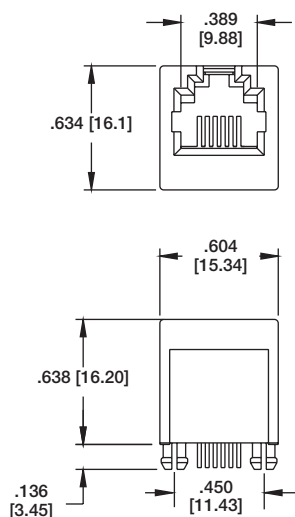
**SMT Option**



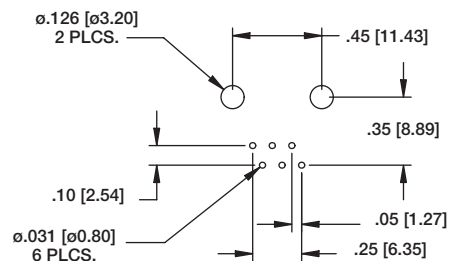
**Recommended PCB Layout**

Ordering Information pg. 9

**TYPE F**  
**6P6C**

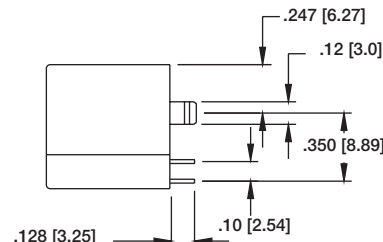
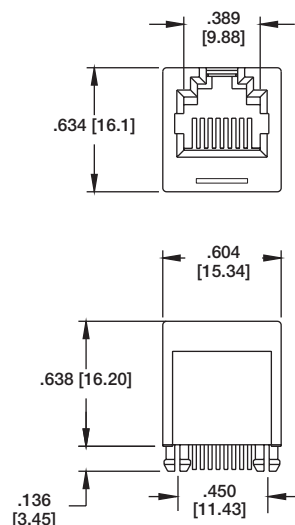


**MTJ-66FX1**

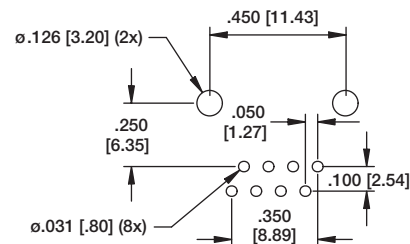


**Recommended PCB Layout**

**TYPE F**  
**8P8C**

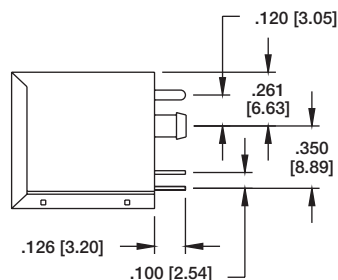
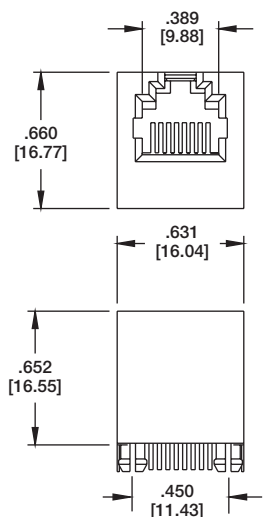


**MTJ-88FX1**

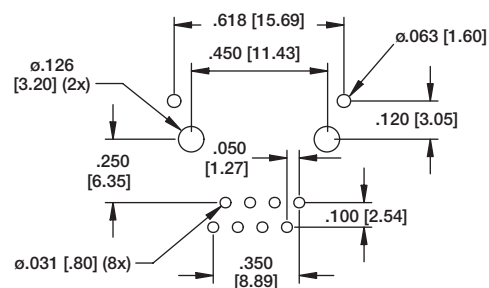


**Recommended PCB Layout**

**TYPE F**  
**SHIELDED**  
**8P8C**



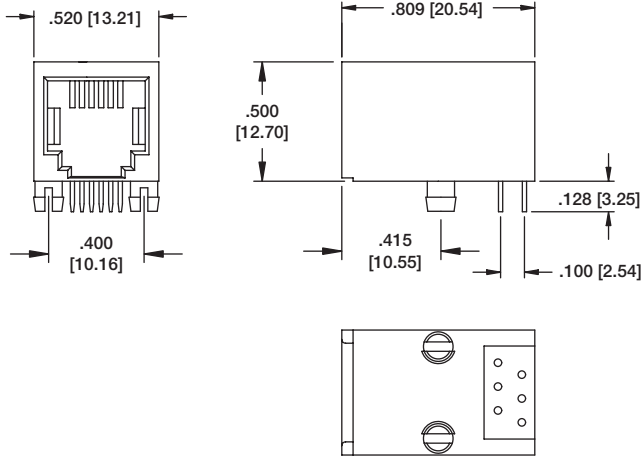
**MTJ-88FX1-FS**



**Recommended PCB Layout**

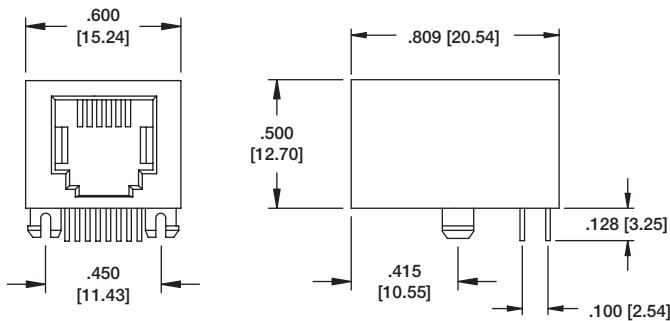
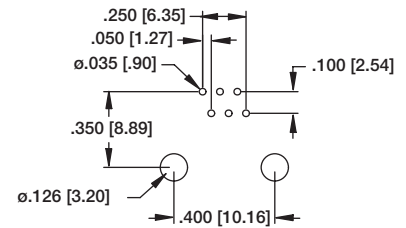
Ordering Information pg. 9

**TYPE G**  
**6P6C**



**MTJ-66GX1**

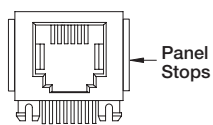
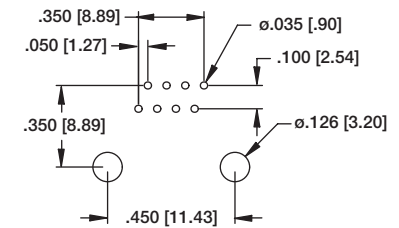
**Recommended PCB Layout**



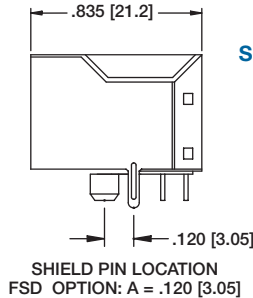
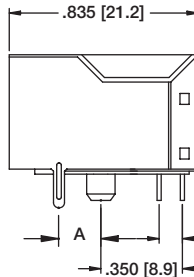
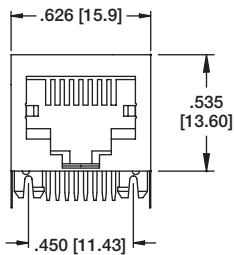
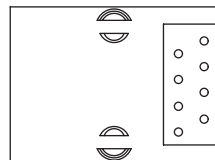
**MTJ-88GX1**

**TYPE G**  
**8P8C**

**Recommended PCB Layout**



Available with optional panel stops  
Add -PS to end of part No.



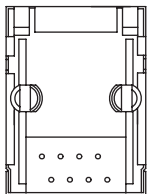
**TYPE G**  
**SHIELDED**  
**8P8C**

**SHIELD PIN LOCATION OPTIONS**

FSA OPTION: A = .170 [4.32]

FSB OPTION: A = .144 [3.66]

FSE OPTION: A = .120 [3.05]

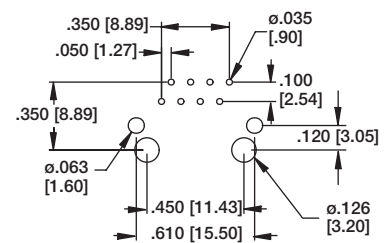


**MTJ-88GX1-FSB-PG**  
Shown with Full Metal Shield  
& Panel Ground Tab options

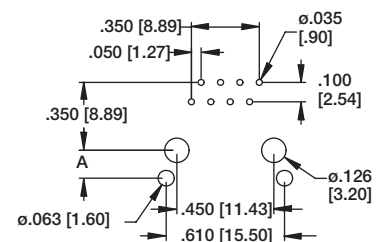


**MTJ-88GX1-FSD**  
Shown with Full  
Metal Shield option

**Recommended PCB Layout (FSD)**

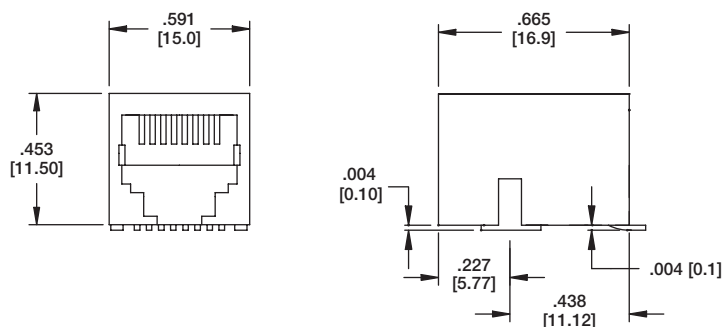


**PCB Layout (FSA, FSB, & FSE)**

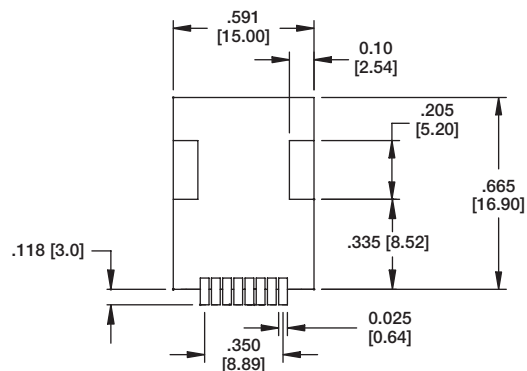
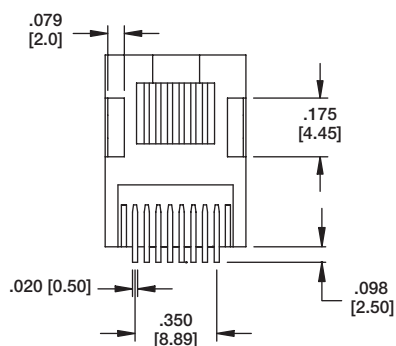


Ordering Information pg. 9

**TYPE WA**  
**SMT TABS IN**  
**8P8C**

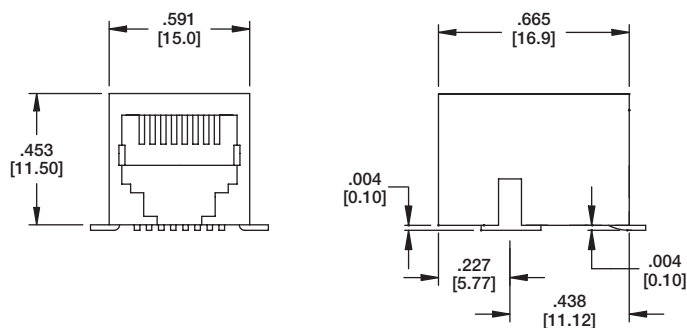


**MTJ-88WAX1**

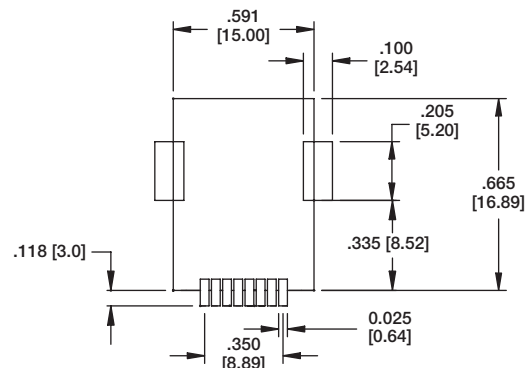
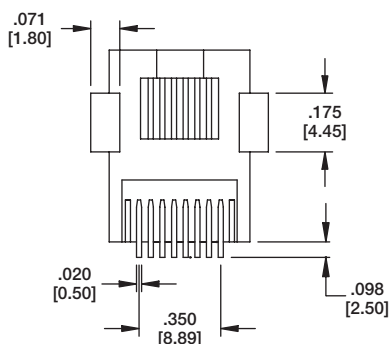


**Recommended Solder Pad Layout**

**TYPE WB**  
**SMT TABS OUT**  
**8P8C**



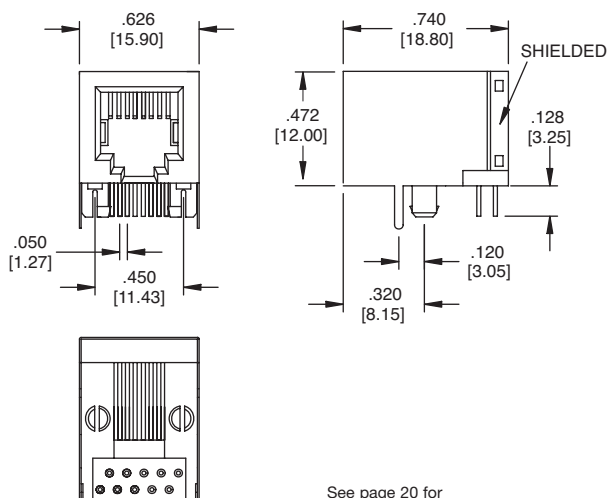
**MTJ-88WBX1**



**Recommended Solder Pad Layout**

Ordering Information pg. 9

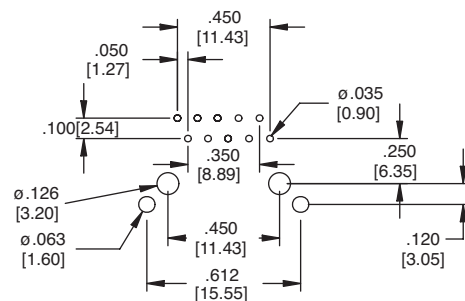
**TYPE W**  
**SHIELDED, THRU HOLE**  
**8P8C**  
**10P10C**



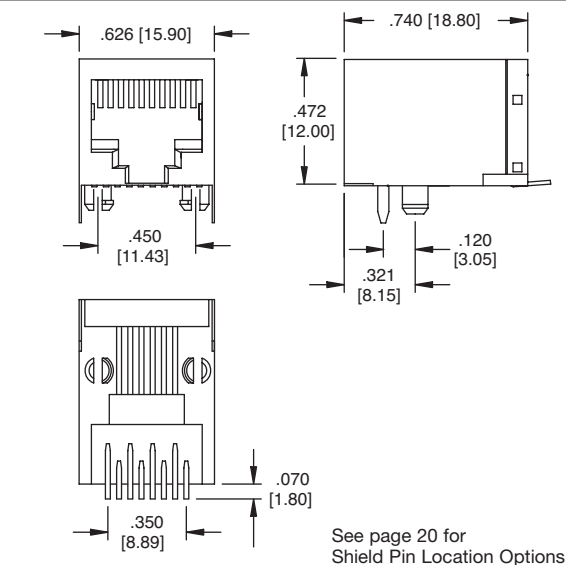
**MTJ-88WX1-FSE**



**MTJ-88WX1-FSE-PG**  
Shown with optional  
panel ground tabs



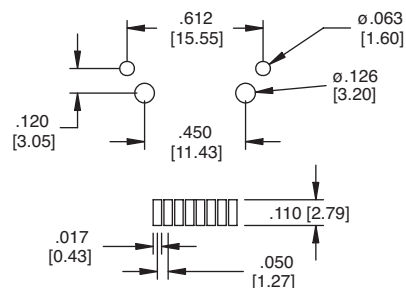
**Recommended PCB Layout**



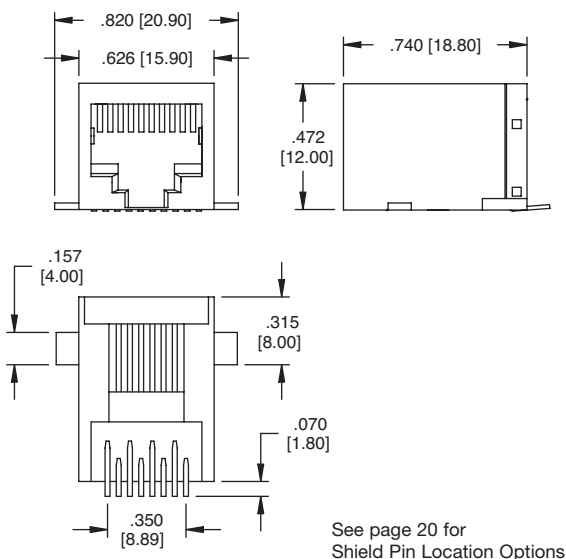
**MTJ-88WX1-FSE-SMT**



**MTJ-88WX1-FSE-SMT-PG**  
Shown with optional  
panel ground tabs



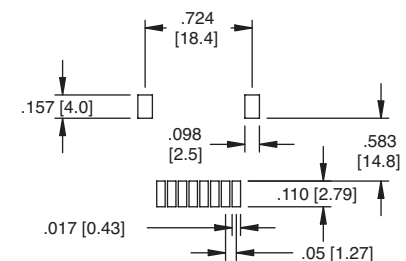
**Recommended Solder Pad Layout**



**MTJ-88WX1-FS-TSMT**



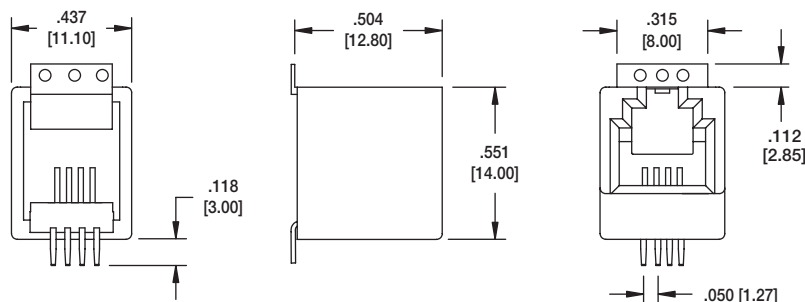
**MTJ-88WX1-FS-TSMT-PG**  
Shown with optional  
panel ground tabs



**Recommended Solder Pad Layout**

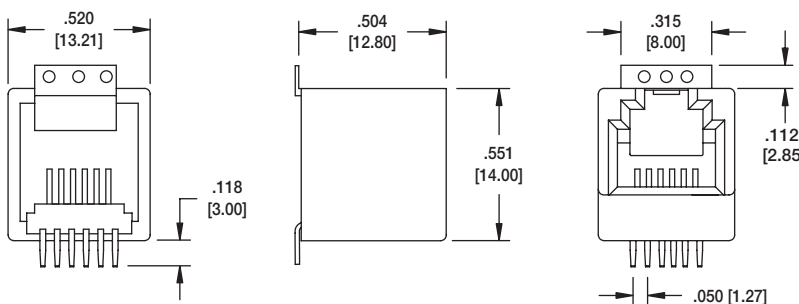
Ordering Information pg. 9

TYPE H  
4P4C



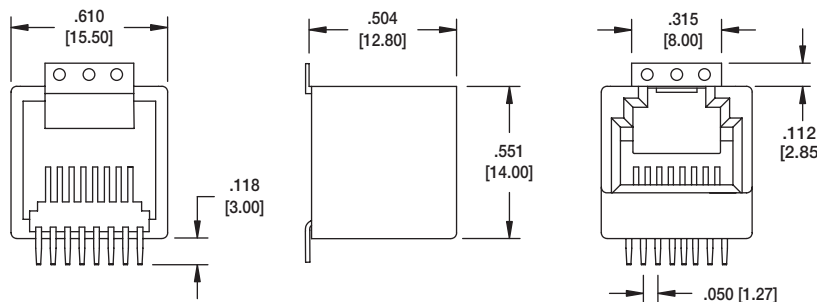
MTJ-44HX1

TYPE H  
6P6C



MTJ-66HX1

TYPE H  
8P8C



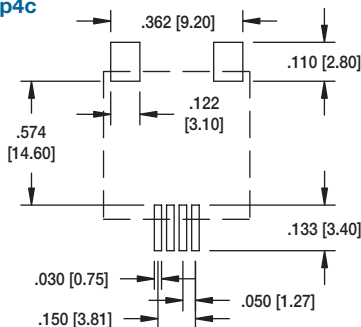
MTJ-88HX1



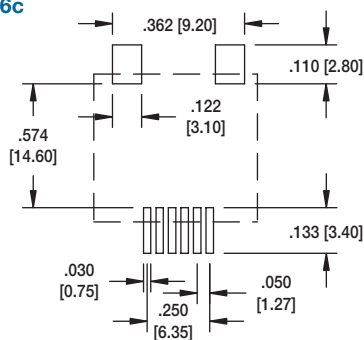
MTJ-88HX1-FS

Recommended PCB Layout

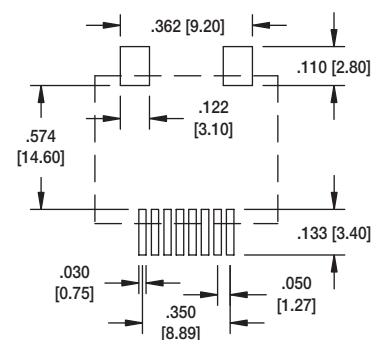
4p4c



6p6c

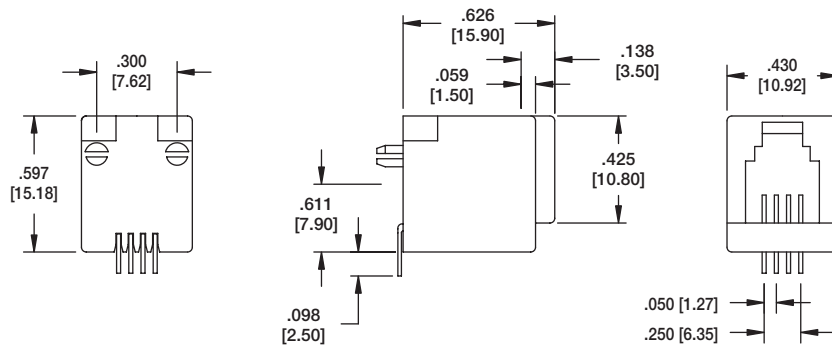


8p8c



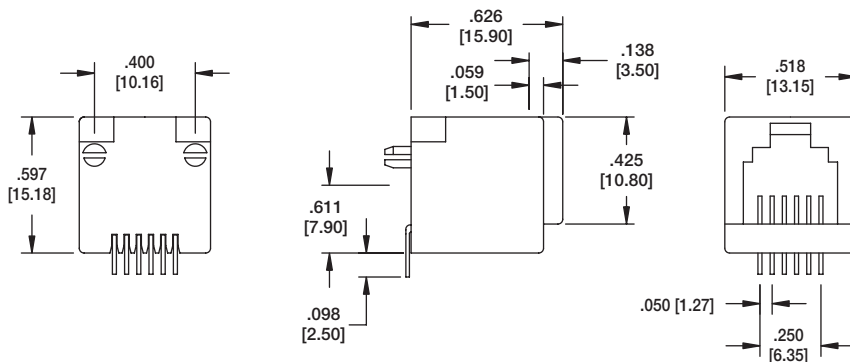
Ordering Information pg. 9

**TYPE K**  
**4P4C**



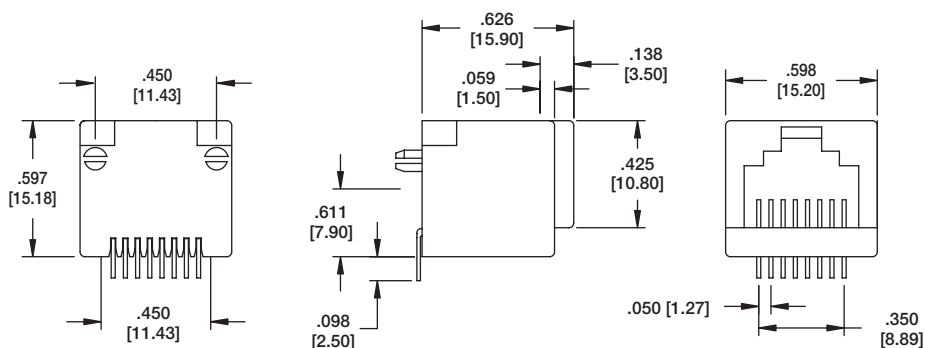
**MTJ-44KX1**

**TYPE K**  
**6P4C**  
**6P6C**



**MTJ-66KX1**

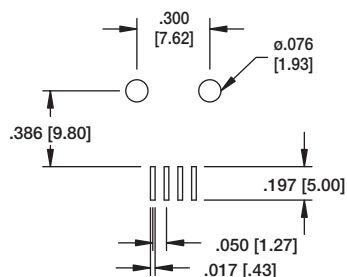
**TYPE K**  
**8P8C**



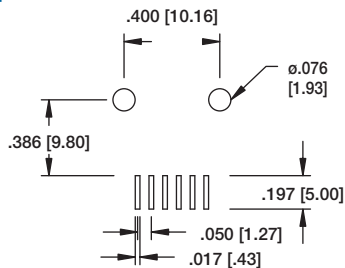
**MTJ-88KX1**

Recommended PCB Layout

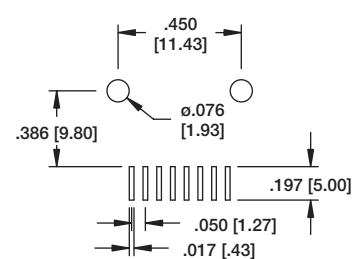
**4p4c**



**6p6c**



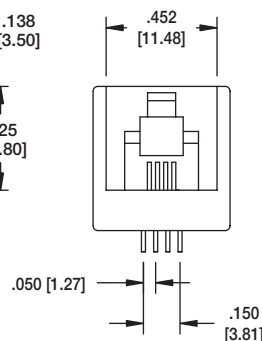
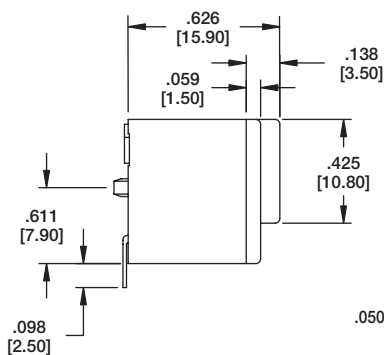
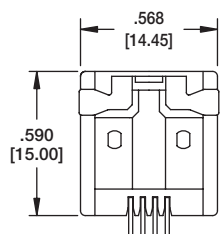
**8p8c**





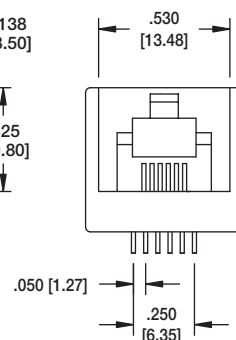
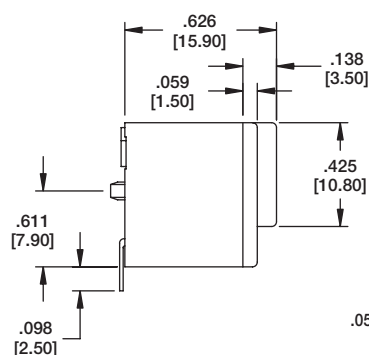
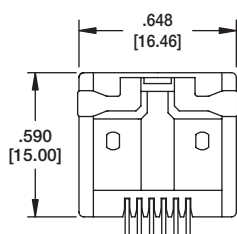
Ordering Information pg. 9

**TYPE V**  
**4P4C**



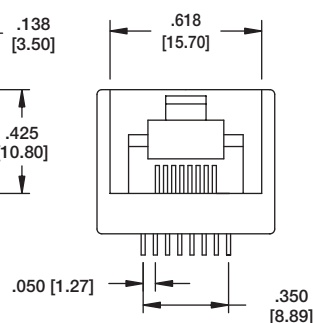
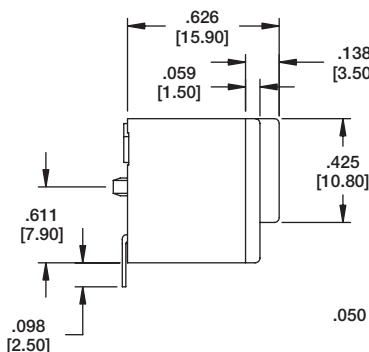
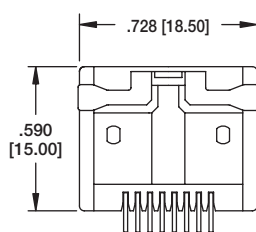
**MTJ-44VX1-SMT**

**TYPE V**  
**6P6C**  
**6P4C**



**MTJ-66VX1-SMT**

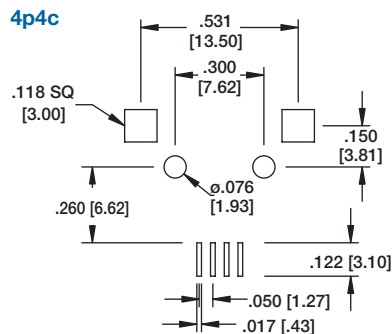
**TYPE V**  
**8P8C**



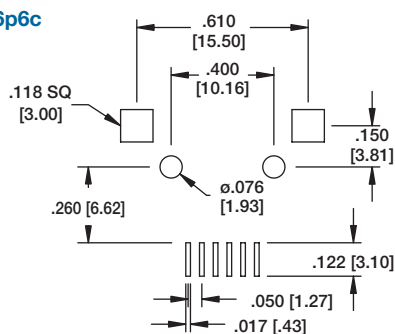
**MTJ-88VX1-SMT**

### Recommended PCB Layout

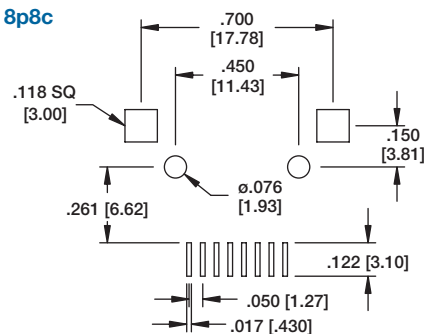
**4p4c**



**6p6c**

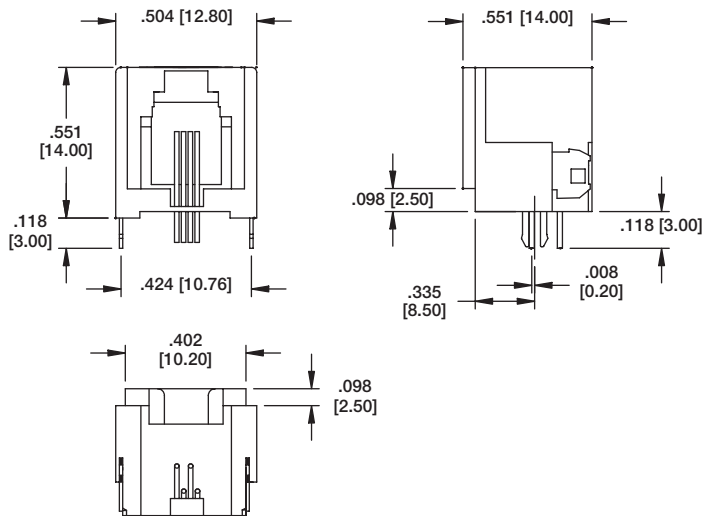


**8p8c**

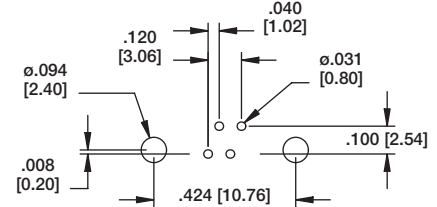


Ordering Information pg. 9

**TYPE E**  
**4P4C**

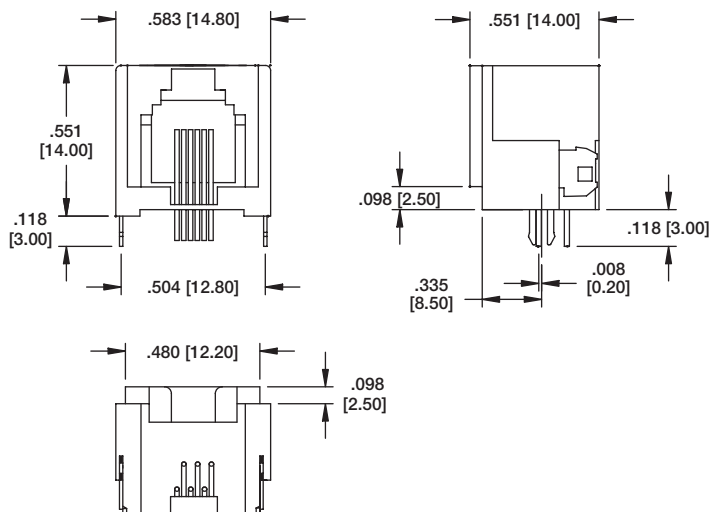


**MTJ-44EX1**

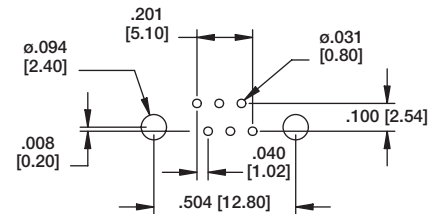


**Recommended PCB Layout**

**TYPE E**  
**6P4C**  
**6P6C**

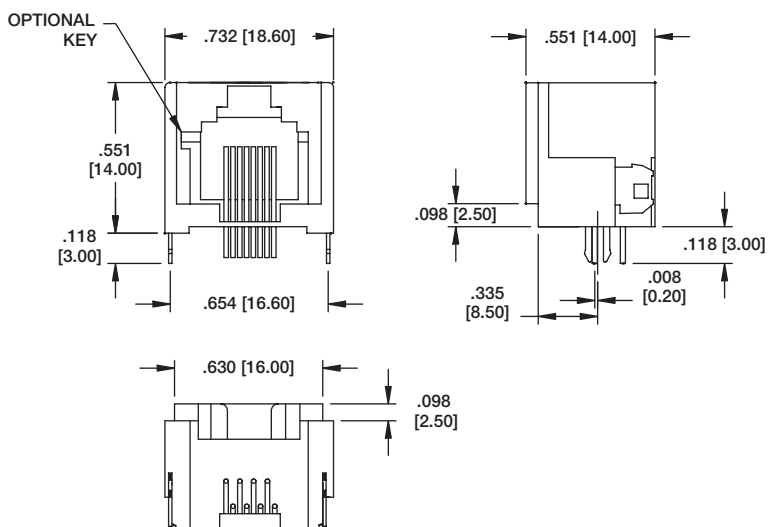


**MTJ-66EX1**

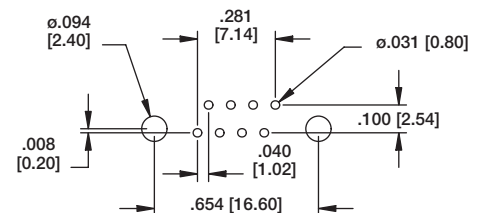


**Recommended PCB Layout**

**TYPE E**  
**8P8C**



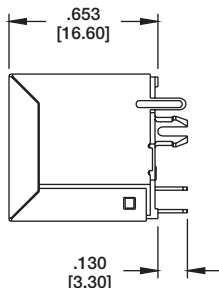
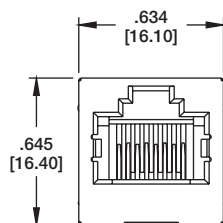
**MTJ-88EX1**



**Recommended PCB Layout**

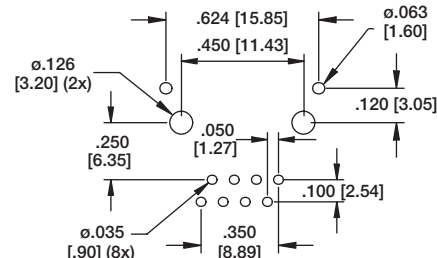
Ordering Information pg. 9

**TYPE A**  
**CAT. 5, TOP ENTRY**  
**8P8C**

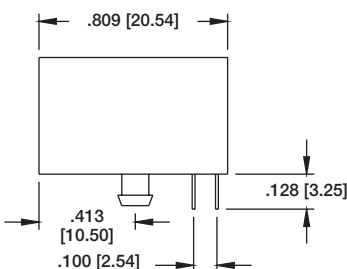
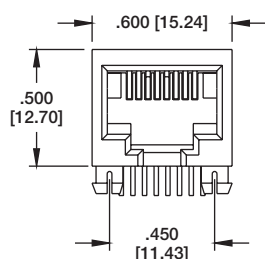


**MTJ-88AX1-FSE**

**Recommended PCB Layout**

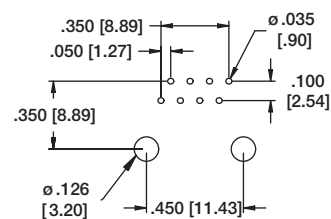


**TYPE T**  
**CAT. 5, SIDE ENTRY**  
**8P8C**

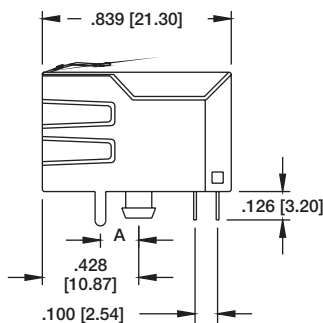
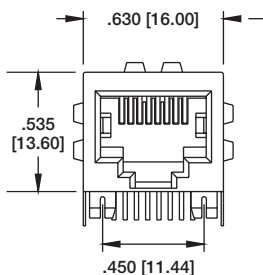


**MTJ-88TX1**

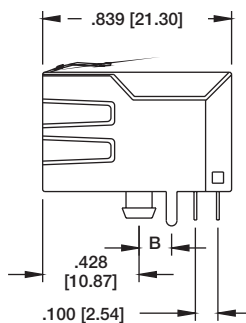
**Recommended PCB Layout**



**TYPE T**  
**CAT. 5, SHIELDED**  
**8P8C**



**FSA, FSB & FSE**

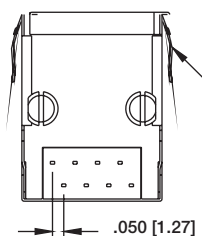


**FSD = .120 [3.05]**



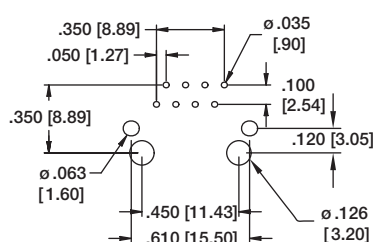
**MTJ-88TX1-FSE-PG**

Available with or without panel ground tabs

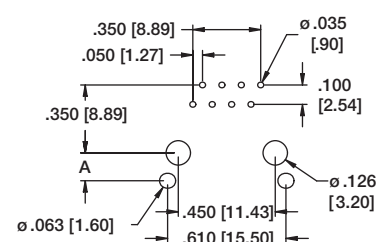


**OPTIONAL PANEL GROUND TABS**  
Dimensions A & B  
**SHIELD PIN LOCATION OPTIONS**  
FSA OPTION: A = .170 [4.32]  
FSB OPTION: A = .144 [3.66]  
FSE OPTION: A = .120 [3.05]  
FSD OPTION: B = .120 [3.05]

**PCB Layout (FSD)**

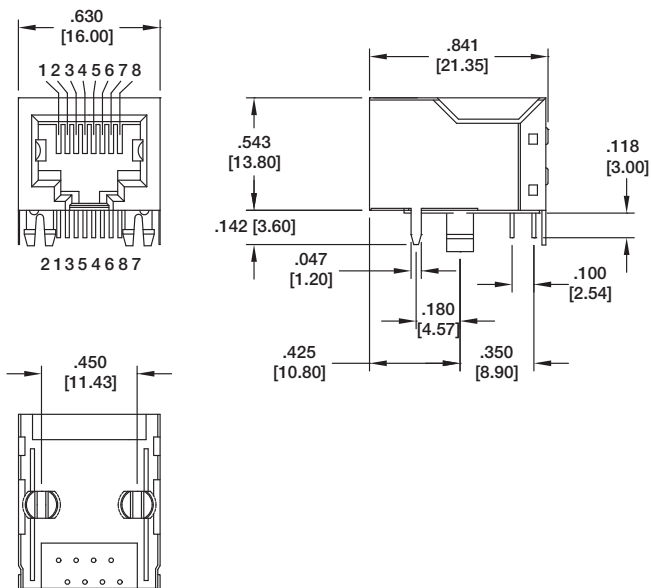


**PCB Layout (FSA, FSB & FSE)**



#### TYPE T

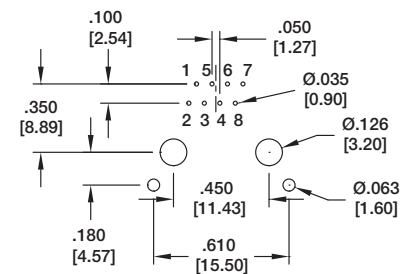
#### CAT. 5e, SHIELDED



MTJ-88TX1-FSG-C5e



MTJ-88TX1-FSG-PG-C5e

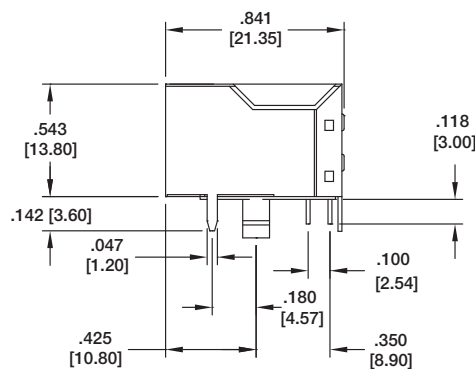
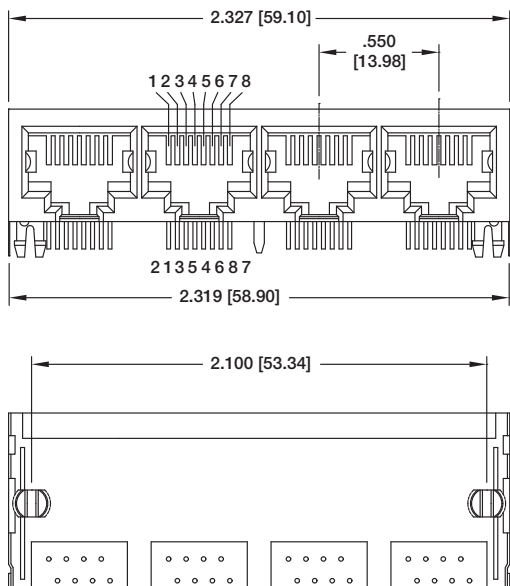


Recommended PCB Layout

#### TYPE T

#### GANGED

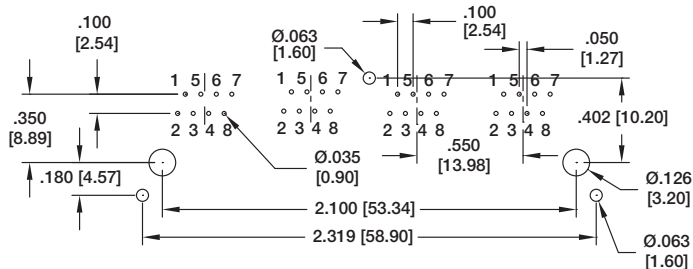
#### CAT. 5e, SHIELDED



MTJG-4-88TX1-FSG-C5e



MTJG-4-88TX1-FSG-PG-C5e



Recommended PCB Layout

#### TYPE AR

**LED JACK .531" HEIGHT**  
**TOP TAB & TOP LEDs, THRU HOLE**  
**8P8C**



**MTJ-88ARX1-FS-LG**  
Also available with panel ground tabs

#### TYPE AA

**LED JACK BOTTOM TAB & BOTTOM LEDs THRU HOLE**  
**8P8C**



**MTJ-88AAX1-FSV-LG**

#### TYPE D

**TOP ENTRY LED JACK .610" HEIGHT WITH LEDs, NON-SHIELDED**  
**8P8C**



**MTJ-88DX1-LG**

Add suffix to end of P/N:

LED CONFIGURATION		
SUFFIX	LED 1	LED 2
LA	YELLOW	YELLOW
LD	GREEN	GREEN

See pg. 43 for additional LED options

**Recommended PCB Layout**

### JACKS WITH LEDs ORDERING INFORMATION

**MTJ**

**SERIES INDICATOR**  
MTJ = Modular telephone jack

**8**

**HOUSING PLUG SIZE**  
8 or 10

**8**

**NO. OF CONTACT POSITIONS FILLED**  
6, 8 or 10

**AR**

**HOUSING TYPE**  
AR, AA, D, G

**2**

**PLATING**  
X = Gold Flash  
0 = 15  $\mu$ in gold  
1 = 30  $\mu$ in gold  
2 = 50  $\mu$ in gold

**1**

**BODY COLOR**  
1 = Black  
2 = Gray

**LD**

**LED CONFIGURATION**  
See Chart above  
Leave blank for no LEDs

#### OPTIONS:

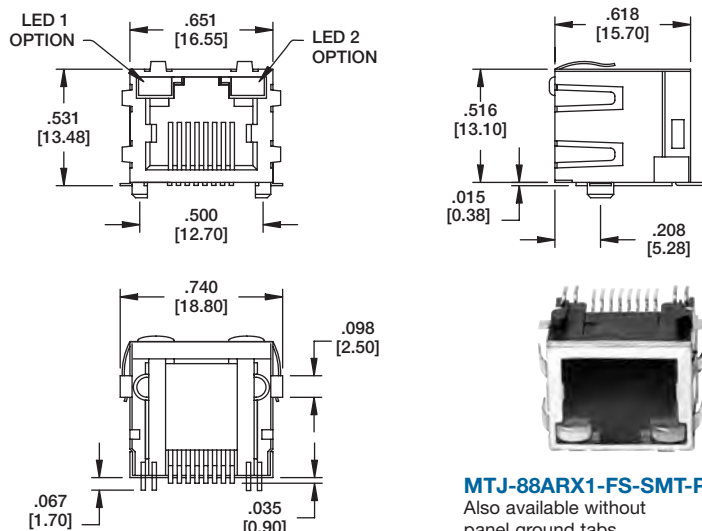
**SMT** = Surface mount tails with Hi-Temp insulator

**PG** = Panel Ground Tabs

**LX** = LEDs, use LA, LD, LG, LH, LI, see LED Configuration Chart

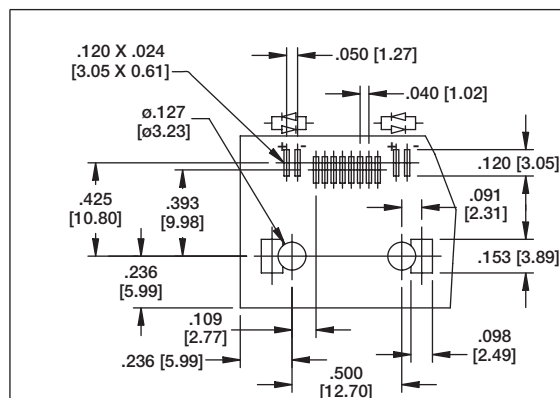
Ordering Information pg. 29

**TYPE AR**  
**WITH SMT OPTION**  
**8P8C**



**MTJ-88ARX1-FS-SMT-PG-LG**

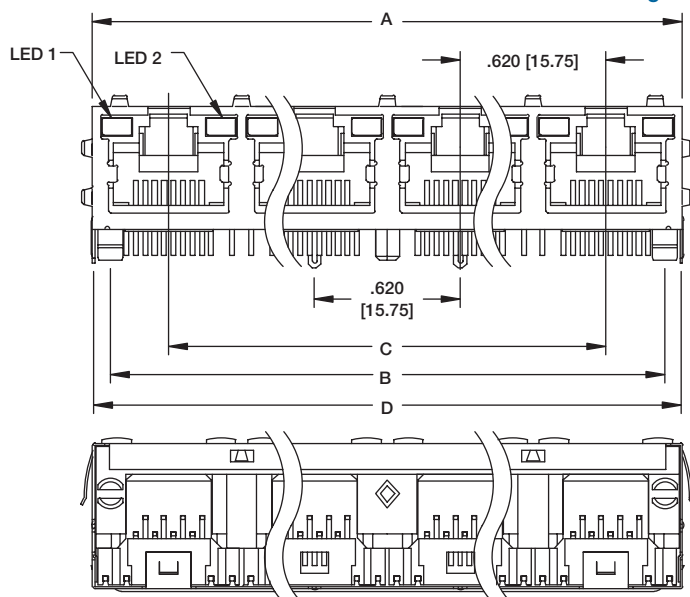
Also available without  
panel ground tabs



**Recommended PCB Layout**

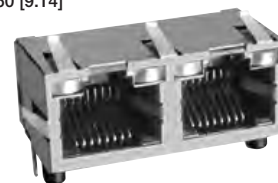
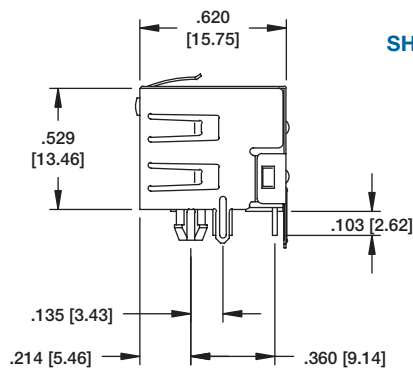
Ordering Information pg. 34

**TYPE AR**  
**GANGED WITH METAL**  
**SHIELD, PANEL GROUND**  
**TABS AND**  
**LED OPTION**  
**8P8C**



**MTJG-4-88ARX1-FSM-PG-LG**

Shown with metal shield, panel ground tabs and LED options



Add suffix to end of P/N:

LED CONFIGURATION		
SUFFIX	LED 1	LED 2
LA	YELLOW	YELLOW
LD	GREEN	GREEN

**2, 4 & 8 Ports available**

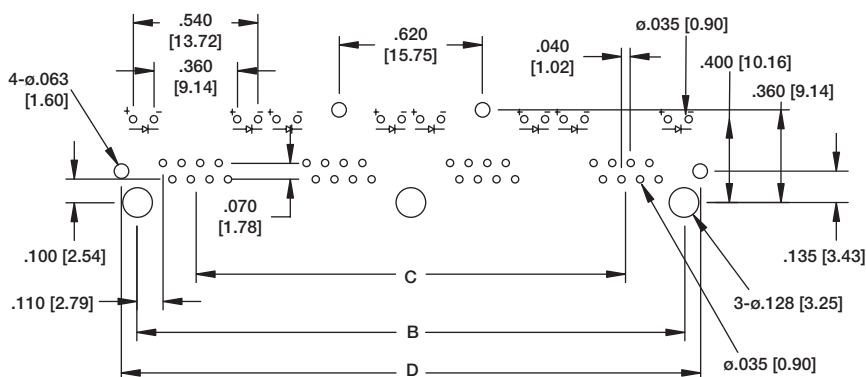
See pg. 43 for additional LED options

A = .620 [15.75] x No. of Ports + .029 [0.75]

B = .620 [15.75] x No. of Ports - 1 + .500 [12.70]

C = .620 [15.75] x No. of Ports - 1

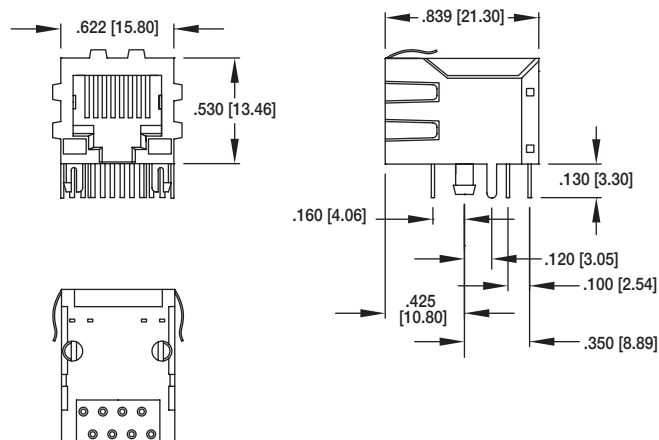
D = .620 [15.75] x No. of Ports + .019 [0.50]



**Recommended PCB Layout**

Ordering Information pg. 29

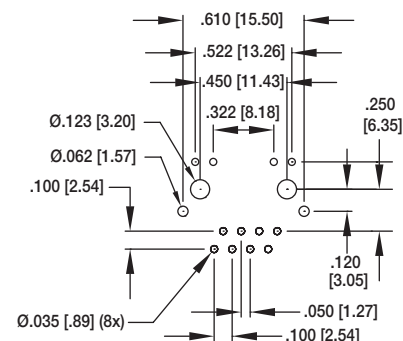
#### TYPE G WITH LEDs



MTJ-88GX1-FSD-LH

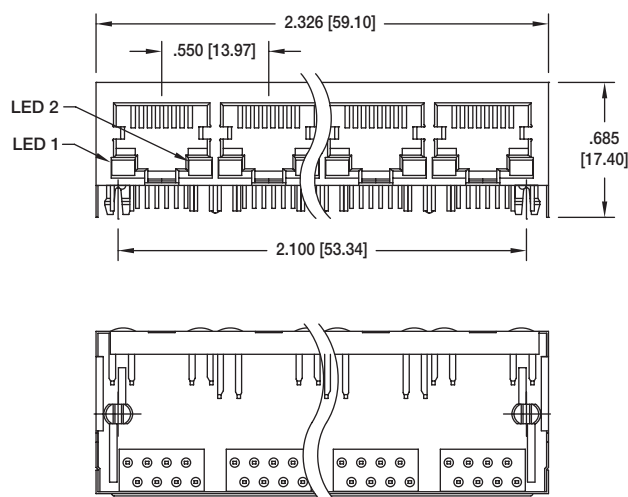


MTJ-88GX1-FSD-LH-PG

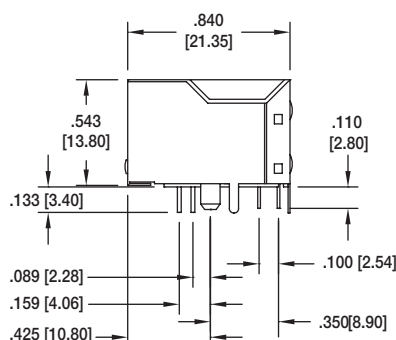


Recommended PCB Layout

#### TYPE G GANGED WITH LEDs



2, 4 & 6 PORTS AVAILABLE

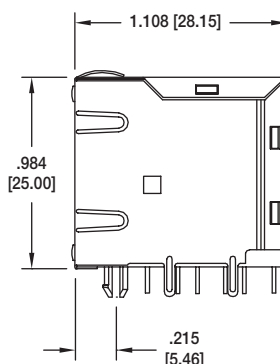
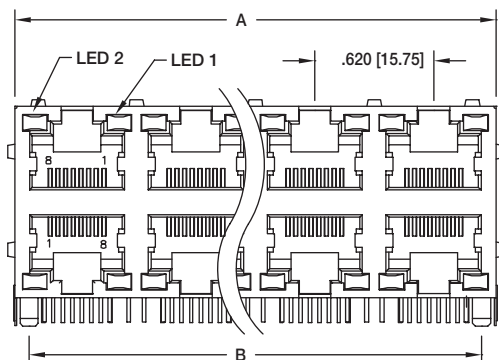


MTJG-4-88GX1-FSD-PG-LG



Ordering Information pg. 34

#### TYPE J STACKED WITH LEDs

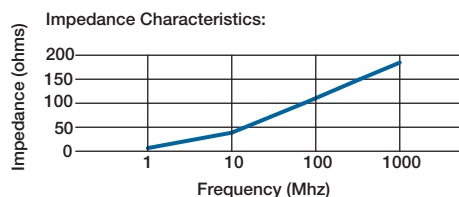


PART NUMBER	PORTS	DIMENSIONS	
		A	B
MTJG-2-88JX1-FSM-LXX	2 X 1	.650 [16.51]	.500 [12.70]
MTJG-4-88JX1-FSM-LXX	2 X 2	1.265 [32.15]	1.120 [28.45]
MTJG-8-88JX1-FSM-LXX	2 X 4	2.50 [63.65]	2.360 [59.95]
MTJG-12-88JX1-FSM-LXX	2 X 6	3.74 [95.15]	3.600 [91.45]

See pg. 43 for additional LED options

## FILTERED MODULAR JACKS

Inductive filtered modular jacks improve signal integrity and are available in a variety of styles including tin plated copper shielding with a choice of magnetic transformer or ferrite filter. Adam Tech offers drop in equivalents to all industry standard filtered jacks



Ordering Information pg. 9

TYPE M

EMI FERRITE FILTERED JACK



**MTJ-88MX1**  
Non-Shielded

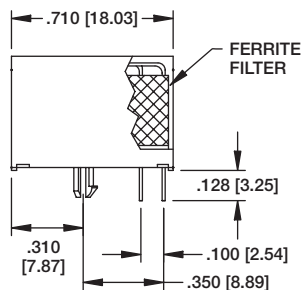
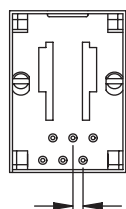
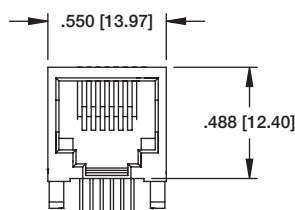


**MTJ-88MX1-FSE**  
Metal Shielded

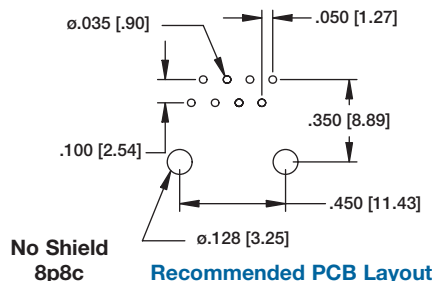
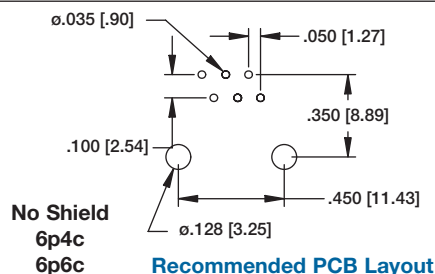


**MTJ-88MX1-FSE-PG**  
Metal Shielded with  
panel ground tabs

## EMI FERRITE FILTERED JACK

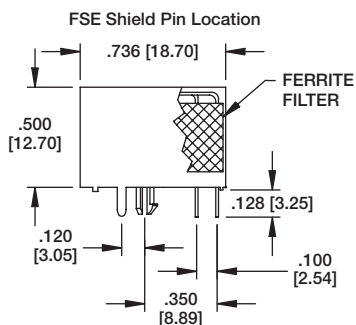
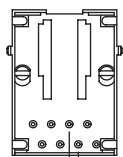
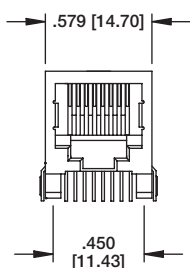


TYPE M  
6P6C  
6P4C

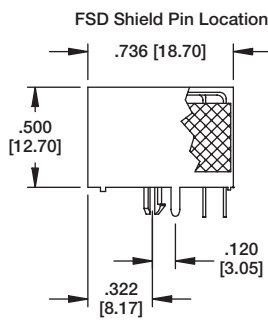


## EMI FERRITE FILTERED & SHIELDED JACK

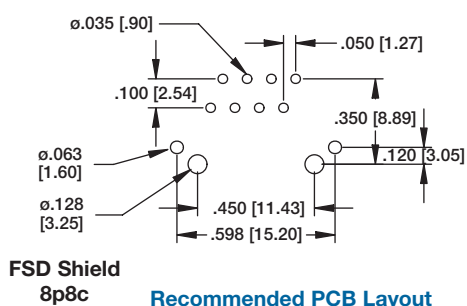
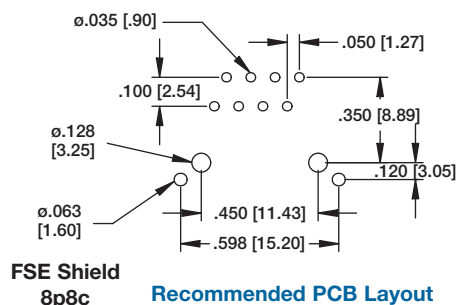
TYPE M  
8P8C



**MTJ-88MX1-FSE**

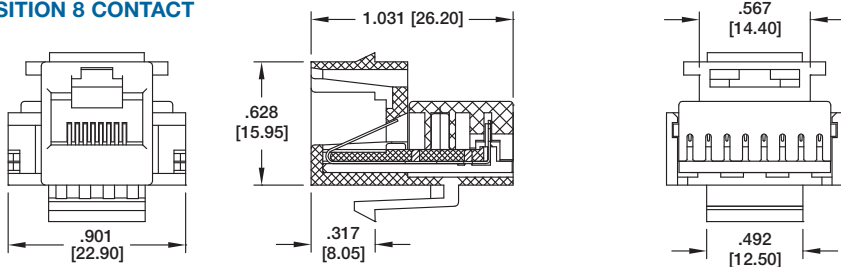


**MTJ-88MX1-FSD**



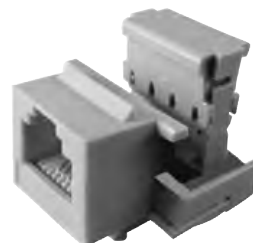
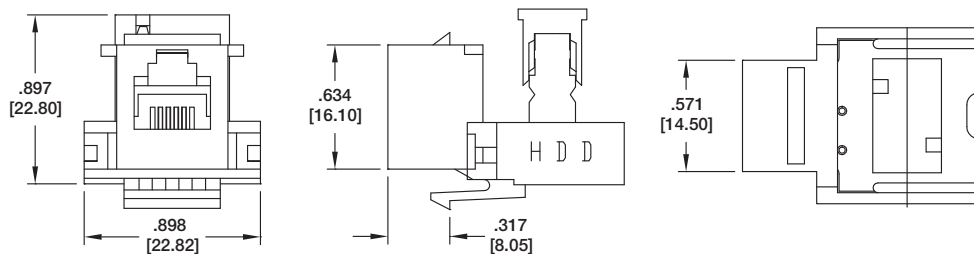


#### CAT. 3 KEYSTONE JACK 8 POSITION 8 CONTACT



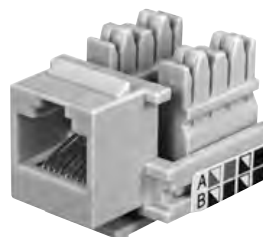
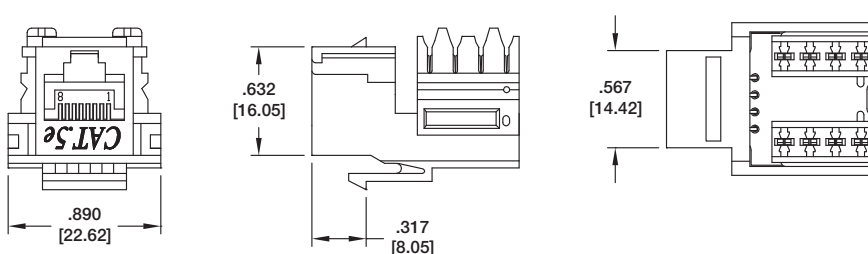
MTJK-88-10

#### CAT. 3 KEYSTONE JACK 6 POSITION 4 CONTACT



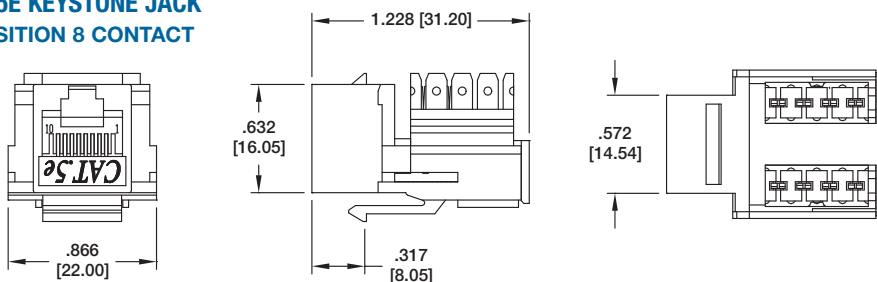
MTJK-64-29

#### CAT. 5E KEYSTONE JACK 8 POSITION 8 CONTACT



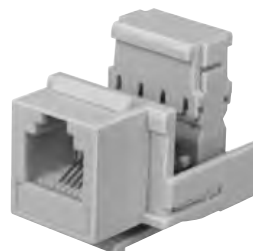
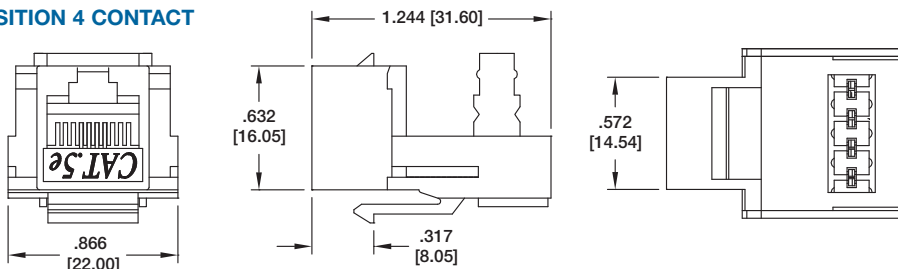
MTJK-88-02-C5E

#### CAT. 5E KEYSTONE JACK 8 POSITION 8 CONTACT



MTJK-88-05-C5E

#### CAT. 5E KEYSTONE JACK 8 POSITION 4 CONTACT



MTJK-84-01-C5E

#### ORDERING INFORMATION GANGED JACKS WITHOUT LEDs

**MTJG** **2** **64** **2** **2** **1**

**SERIES INDICATOR**  
MTJG = Ganged Telephone Jack

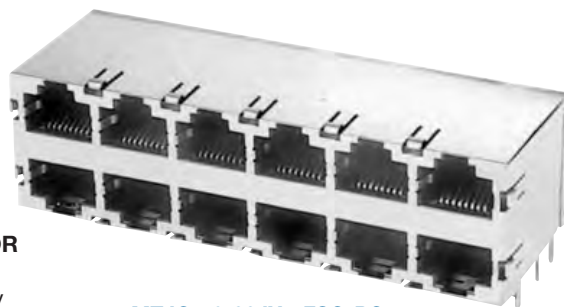
**NO. OF PORTS**  
2 thru 16

**PORT SIZE / POSITIONS FILLED**  
64 = 6 position, 4 contacts (6P4C)  
66 = 6 position, 6 contacts (6P6C)  
88 = 8 position, 8 contacts (8P8C)

**CONTACT PLATING**  
X = Gold flash  
0 = 15  $\mu$ in. gold  
1 = 30  $\mu$ in. gold  
2 = 50  $\mu$ in. gold

**HOUSING TYPE**  
2, 2B, 2C, 5, 7H, 7V, AR, C, G, J, N

**HOUSING COLOR**  
1 = Black  
2 = Medium Gray (Housing Type 7 only)



MTJG-12-88JX1-FSG-PG



MTJG-2-88GX1-FSG

#### ORDERING INFORMATION GANGED JACKS WITH LEDs

**MTJG** **2** **64** **AR** **2** **1** **LD**

**SERIES INDICATOR**  
MTJG = Ganged Telephone Jack

**NO. OF PORTS**  
2, 4, 6, 8, 12 or 16

**PORT SIZE / POSITIONS FILLED**  
62 = 6 position, 2 contacts (6P2C)  
64 = 6 position, 4 contacts (6P4C)  
66 = 6 position, 6 contacts (6P6C)  
88 = 8 position, 8 contacts (8P8C)

**HOUSING TYPE**  
AR, G, J

**CONTACT PLATING**  
X = Gold flash  
0 = 15  $\mu$ in. gold  
1 = 30  $\mu$ in. gold  
2 = 50  $\mu$ in. gold

**LED CONFIGURATION**  
See Chart Below

Add suffix to end of P/N:

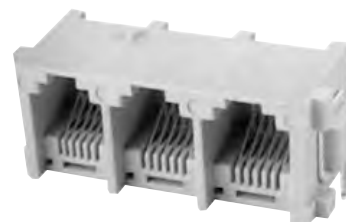
LED CONFIGURATION		
SUFFIX	LED 1	LED 2
LA	YELLOW	YELLOW
LD	GREEN	GREEN
LG	YELLOW	GREEN
LH	GREEN	YELLOW
LI	ORANGE/ GREEN	ORANGE/ GREEN



MTJG-4-88ARX1-FSM-PG-LG



MTJG-4-88GX1-FSB



MTJG-3-667HX2

#### OPTIONS:

Add as suffix to basic part no.

**FSX** = Full metal shield

**PG** = Panel ground tabs

**SMT** = Surface mount tails with Hi-Temp insulation for hi-temp soldering processes up to 260°C

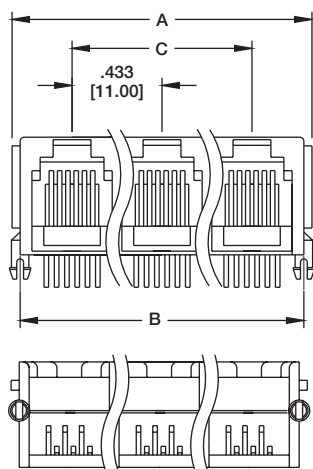


Ordering Information pg. 34

**TYPE 2**

**6P4C**

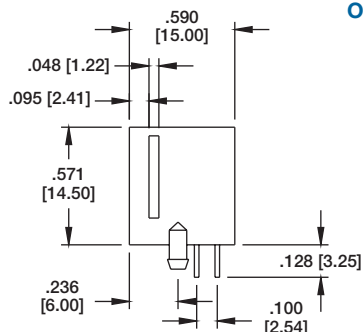
**6P6C**



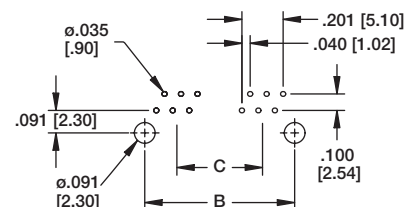
$$A = .433 [11.00] \times \text{No. of Ports} + .100 [2.54]$$

$$B = .433 [11.00] \times \text{No. of Ports} + .020 [0.50]$$

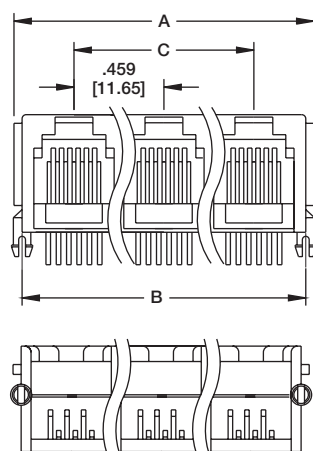
$$C = .433 [11.00] \times \text{No. of Ports} - 1$$



**MTJG-2-642X1**



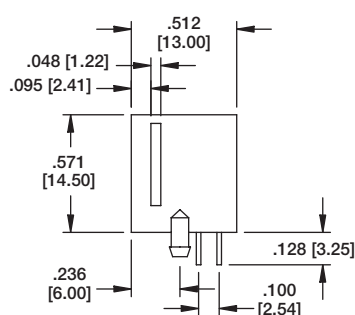
Recommended PCB Layout



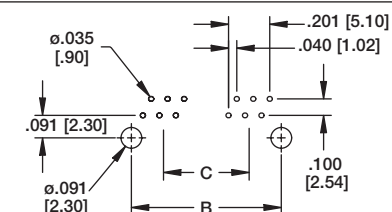
$$A = .459 [11.65] \times \text{No. of Ports} + .100 [2.54]$$

$$B = .459 [11.65] \times \text{No. of Ports} + .020 [0.50]$$

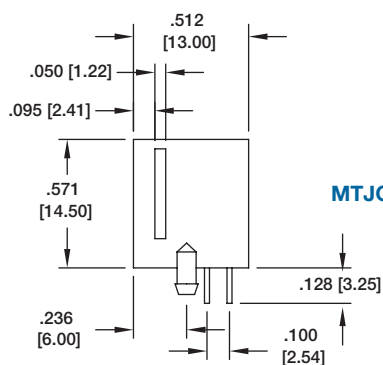
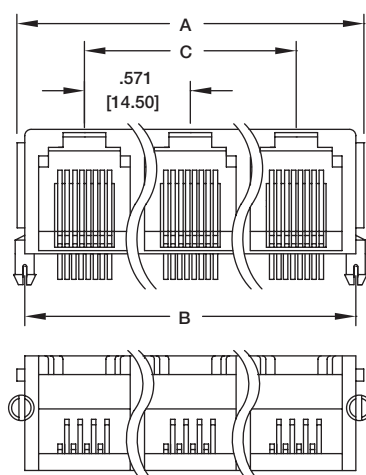
$$C = .459 [11.65] \times \text{No. of Ports} - 1$$



**MTJG-2-642BX1**



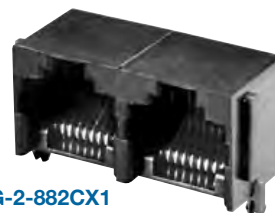
Recommended PCB Layout



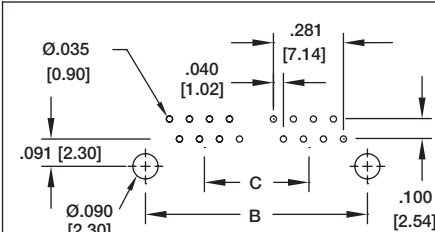
$$A = .571 [14.50] \times \text{No. of ports} + .122 [3.10]$$

$$B = .571 [14.50] \times \text{No. of Ports} + .019 [0.50]$$

$$C = .571 [14.50] \times \text{No. of Port} - 1$$

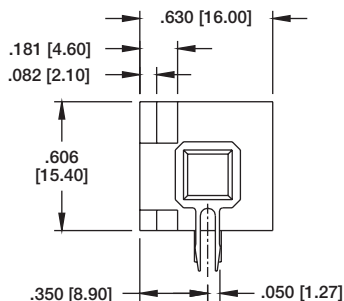
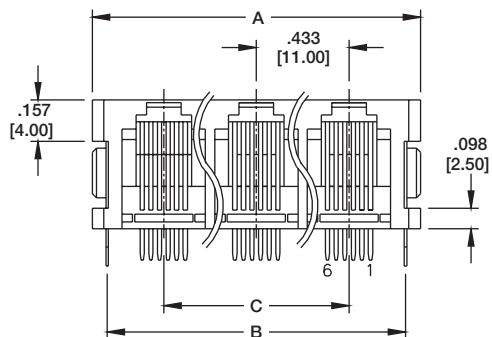


**MTJG-2-882CX1**

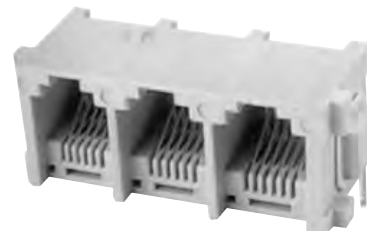


Recommended PCB Layout

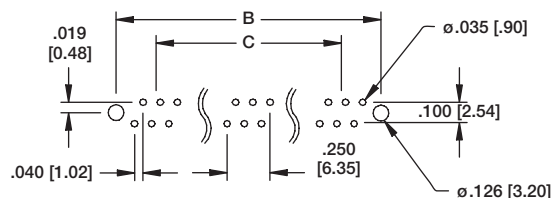
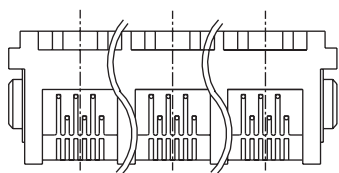
Ordering Information pg. 34



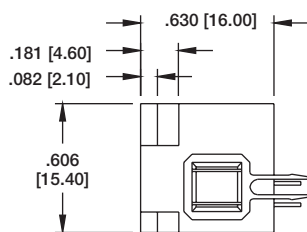
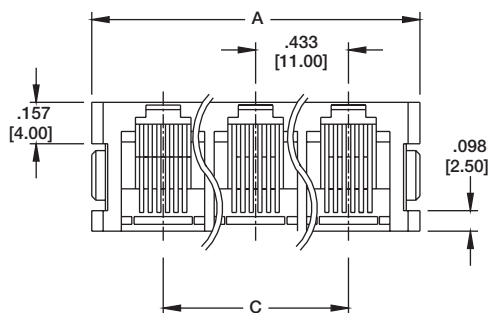
**TYPE 7H**  
**RIGHT ANGLE ENTRY**  
**6P4C**  
**6P6C**



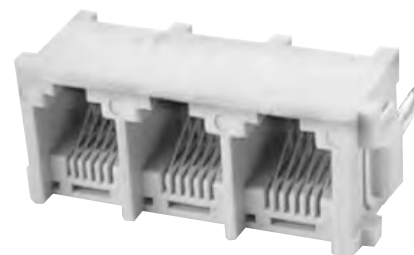
**MTJG-3-667HX2**



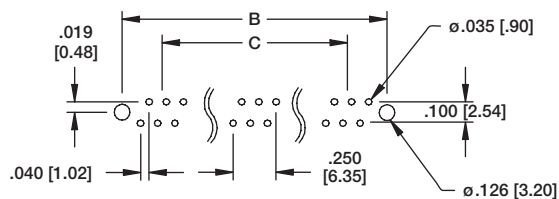
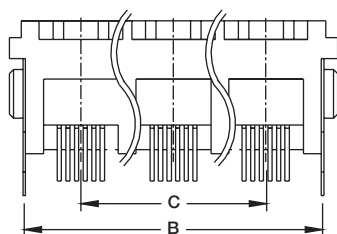
**Recommended PCB Layout**



**TYPE 7V**  
**TOP ENTRY**  
**6P4C**  
**6P6C**



**MTJG-3-667VX2**



**Recommended PCB Layout**

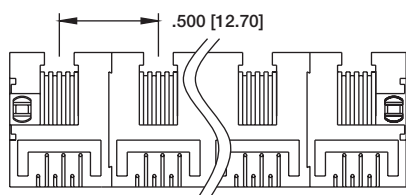
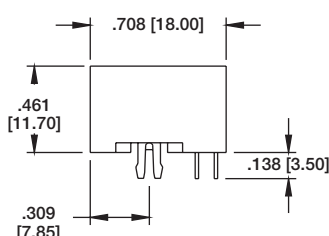
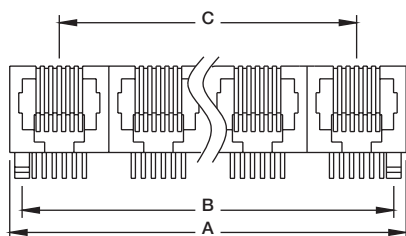
No of Ports							
DIMENSION	2	3	4	5	6	7	8
A	1.110 [28.20]	1.543 [39.20]	1.976 [50.20]	2.409 [61.20]	2.843 [72.20]	3.275 [83.20]	3.710 [94.20]
B	.992 [25.20]	1.425 [36.20]	1.858 [47.20]	2.291 [58.20]	2.724 [69.20]	3.157 [80.20]	3.590 [91.20]
C	.433 [11.00]	.886 [22.00]	1.299 [33.00]	1.732 [44.00]	2.165 [55.00]	2.598 [66.00]	3.030 [77.00]

## MODULAR JACKS

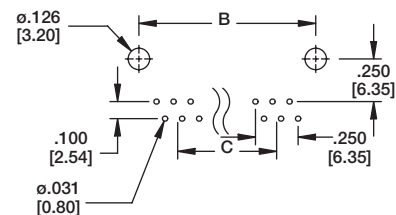
### GANGED JACKS, LOW PROFILE

### THRU HOLE & SMT - TYPE 5 & N

### MTJG SERIES



A = .500 [12.70] X (NO. OF PORTS -1) + .519 [13.20]  
 B = .500 [12.70] X (NO. OF PORTS -1) + .400 [10.16]  
 C = .500 [12.70] X NO. OF PORTS -1



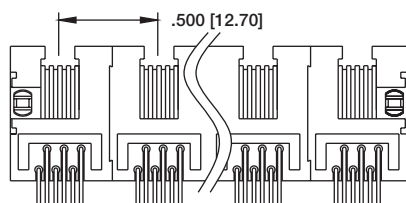
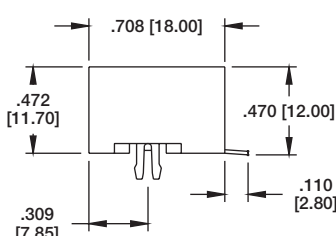
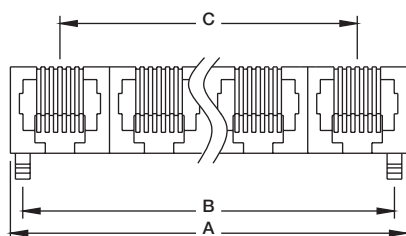
Recommended PCB Layout



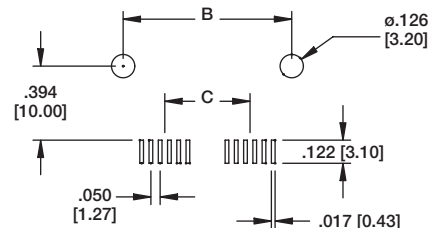
MTJG-3-665X1

**TYPE 5**  
**THRU HOLE**  
**6P4C**  
**6P6C**

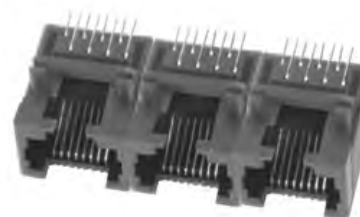
Ordering Information pg. 34



A = .500 [12.70] X (NO. OF PORTS -1) + .519 [13.20]  
 B = .500 [12.70] X (NO. OF PORTS -1) + .400 [10.16]  
 C = .500 [12.70] X NO. OF PORTS -1



Recommended PCB Layout

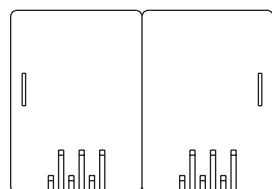
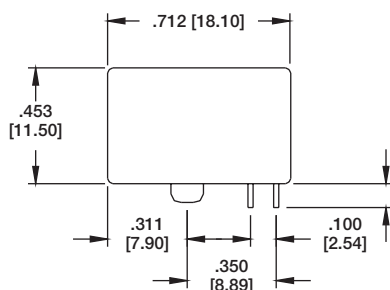
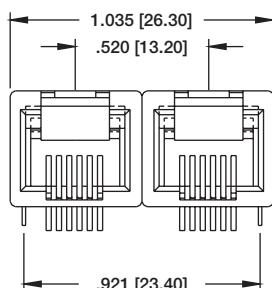


MTJG-3-885X1-SMT

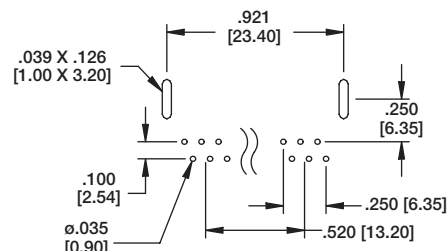
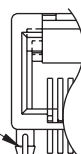
Available in 6P6C or 8P8C Versions

**TYPE 5**  
**SMT**  
**8P8C**

Ordering Information pg. 34



ADD -SP TO END  
 OF PART NO. FOR  
 SPLIT ROUND  
 PLASTIC PEG OPTION



Recommended PCB Layout

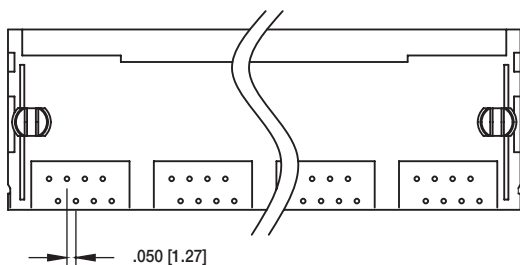
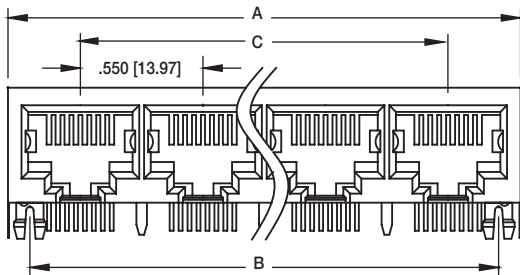


MTJG-2-66nx1

**TYPE N**  
**METAL PEG**  
**6P4C**  
**6P6C**

Ordering Information pg. 34

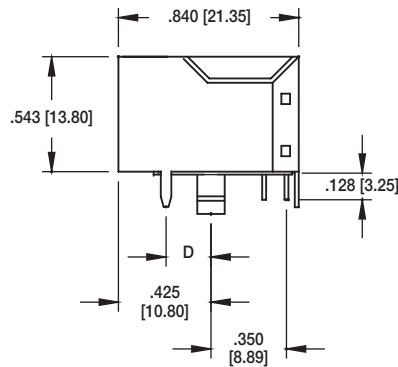
**TYPE G**  
**GANGED**  
**8P8C**



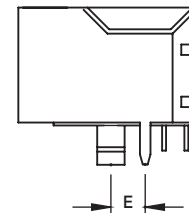
$$A = .550 [13.97] \times (\text{NO. OF PORTS} - 1) + .679 [17.27]$$

$$B = .550 [13.97] \times (\text{NO. OF PORTS} - 1) + .450 [11.43]$$

$$C = .550 [13.97] \times \text{NO. OF PORTS} - 1$$



"D" DIM.  
FSA = .170 [4.32]  
FSB = .144 [3.65]  
FSG = .180 [4.57]  
FSE = .120 [3.05]



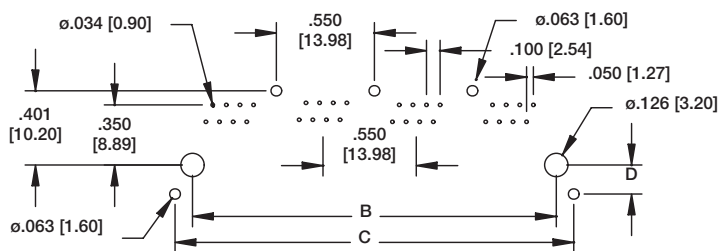
"E" DIM.  
FSD = .120 [3.05]  
FSR = .144 [3.65]



**MTJG-4-88GX1-FSB**

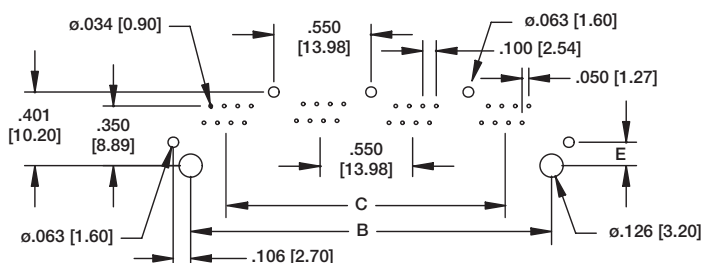
**Recommended PCB Layout for shield ground pin locations specified as FSA, FSB, FSG & FSE**

"D" DIM.  
FSA = .170 [4.32] FSE = .120 [3.05]  
FSB = .144 [3.65] FSG = .180 [4.57]



**Recommended PCB Layout for shield ground pin locations specified as FSD & FSR**

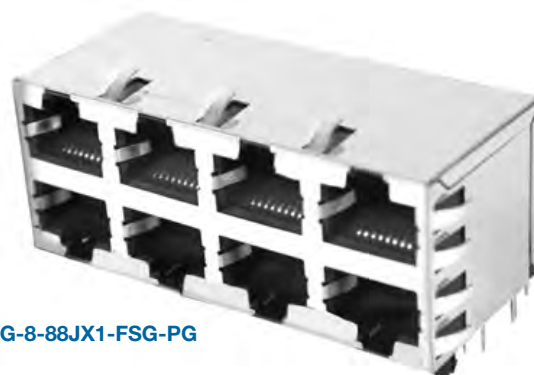
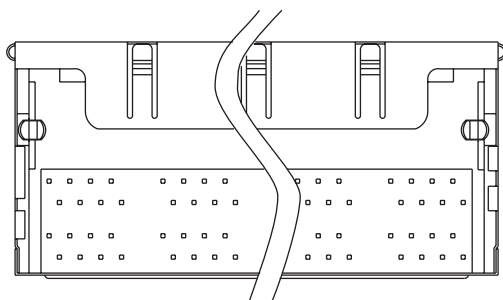
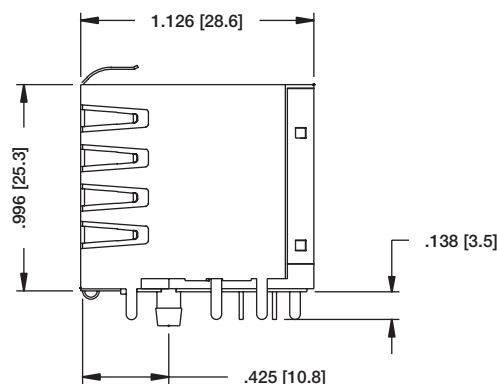
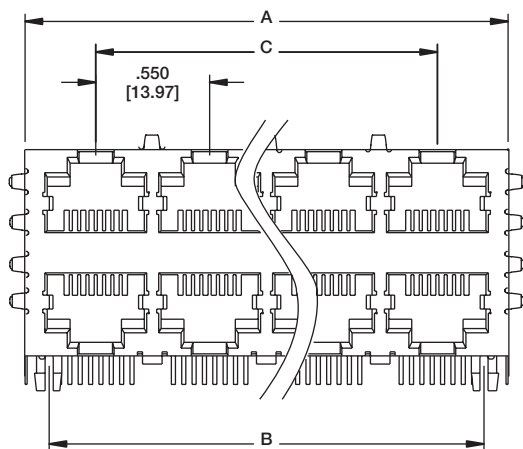
"E" DIM.  
FSD = .120 [3.05]  
FSR = .144 [3.65]



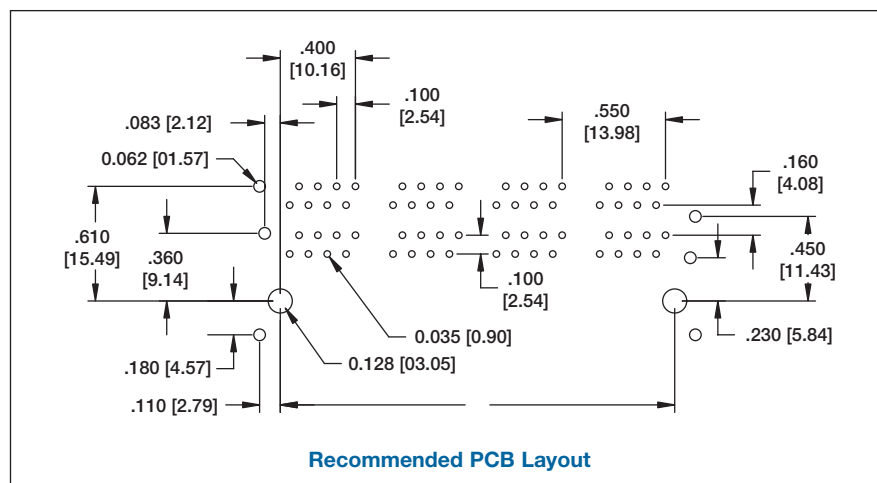
**MTJG-4-88GX1-FSB-PG**

Ordering Information pg. 34

TYPE J  
8P8C



MTJG-8-88JX1-FSG-PG



Recommended PCB Layout

PART NUMBER	PORTS	DIMENSIONS		
		A	B	C
MTJG-2-88JX1-FSG-PG	2 X 1	.679 [17.25]	.450 [11.43]	—
MTJG-4-88JX1-FSG-PG	2 X 2	1.230 [31.25]	1.00 [25.40]	.550 [13.97]
MTJG-6-88JX1-FSG-PG	2 X 3	1.780 [45.21]	1.549 [39.34]	1.100 [27.94]

PART NUMBER	PORTS	DIMENSIONS		
		A	B	C
MTJG-8-88JX1-FSG-PG	2 X 4	2.33 [59.18]	2.100 [53.34]	1.650 [41.91]
MTJG-12-88JX1-FSG-PG	2 X 6	3.43 [87.10]	3.200 [81.28]	2.750 [69.85]
MTJG-16-88JX1-FSG-PG	2 X 8	4.537 [115.25]	4.30 [109.22]	3.850 [97.79]



### INTRODUCTION:

Adam Tech MTJ series RJ-45 connectors with integrated magnetics are designed to support Base 10, 100 and 1000-T applications such as hubs, routers, ADSL modems, and ATM transmission equipment. The integrated magnetics allows the design engineer to save PC board real-estate and lower the total part count per system. This series meets all applicable specifications for CAT 5, 5e, 6 and IEEE 802.3. The USB model meets all applicable USB 2.0 specifications. All configurations are available with optional LED's.

### FEATURES:

Single, stacked and ganged configurations available All products have a full metal shield to guard against electromagnetic interference. Hi-Temp option available All products are fully lead free and RoHS compliant

### MATING PLUGS:

Adam Tech modular telephone plugs and all industry standard telephone plugs.

### SPECIFICATIONS:

#### Material:

Insulator: PBT, glass filled, rated UL94V-0

Insulator Color: Black

Contacts: Phosphor Bronze or Brass

Shield: Copper Alloy, Nickel or Tin plated

#### Contact Plating:

Gold over Nickel underplate on contact area, Tin over Copper underplate on solder tails.

### ELECTRICAL:

Operating Voltage: 150V AC

Current Rating: 1.5 Amps Max.

Contact Resistance: 20 mΩ Max.

Insulation Resistance: 500 MΩ Min.

Dielectric Withstanding Voltage: 1500V AC for 1 Minute

DC resistance: 1.2 Ohms Max.

Interwinding capacitance: 35pF @ 1MHz

Insertion loss: 100KHz to 80MHz = -1.1dB Min.

Return loss: 1MHz to 30MHz = -18dB Min.

30MHZ to 80MHz = -12dB Min.

Rise time: 30nS Max.

Cross talk: 1MHz to 100MHz = 40dB TYP.

Common to Common mode Attenuation: 35dB TYP.

### MECHANICAL:

Insertion force: 8 Contacts: 22.5N

10 Contacts: 24.5N

### TEMPERATURE RATING:

Operation Temperature: -40°C ~ +85°C

### PACKAGING:

Anti-ESD plastic trays or tubes

### SAFETY AGENCY APPROVALS:

UL Recognized File no. E224049



## MAGNETICS TELEPHONE JACK ORDERING INFORMATION

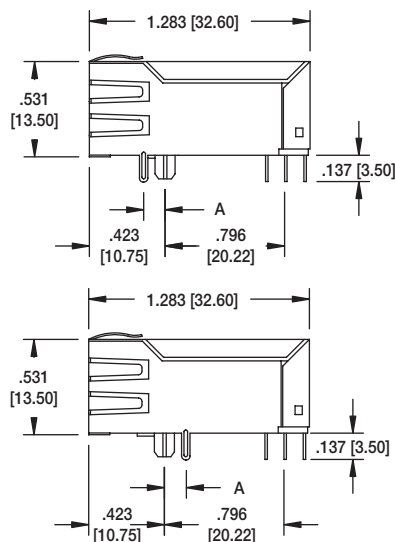
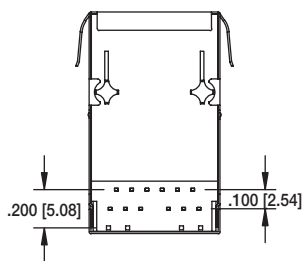
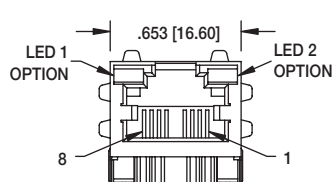
<b>MTJ</b>	<b>8</b>	<b>8</b>	<b>C</b>	<b>X</b>	<b>1</b>	<b>FSD</b>	<b>LD</b>	<b>M5</b>
<b>SERIES INDICATOR</b> MTJ = Modular Telephone Jack		<b>NO. OF CONTACT POSITIONS FILLED</b> 8 or 10		<b>PLATING</b> X = Gold Flash 0 = 15 μin gold 1 = 30 μin gold 2 = 50 μin gold		<b>SHIELD PIN LOCATION OPTION</b> FSD or FSP (See drawing on page 41)		<b>TRANSFORMER TYPE M1 Thru M20</b> (See page 44-45) Consult Factory if transformer type required is not shown
	<b>HOUSING PLUG SIZE</b> 8 or 10		<b>HOUSING TYPE</b> C = Tab Up, Extended Body S = Tab Up, Standard Body T = Tab Down, Short Body		<b>BODY COLOR</b> 1 = Black		<b>LED</b> LX = Led Color (See Chart on page 43) RLX = Led with Resistor	

### OPTIONS:

Add designator(s) to end of part number

PG = Panel ground tabs



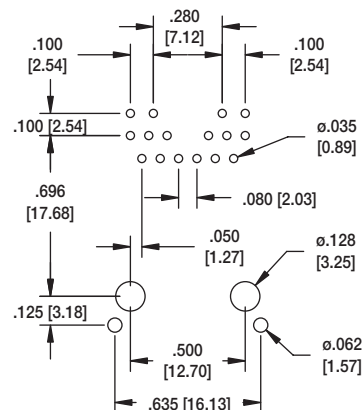


**MTJ-88CX1-FSP-PG-LG-M3**

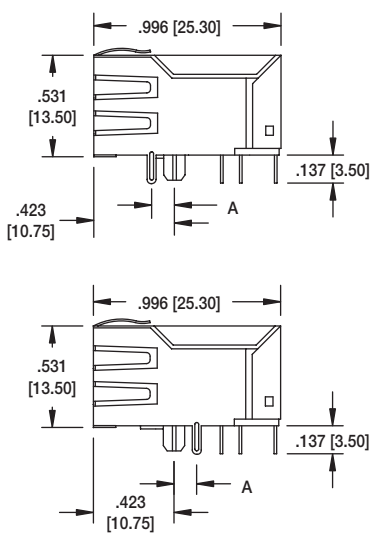
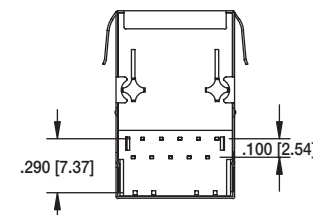
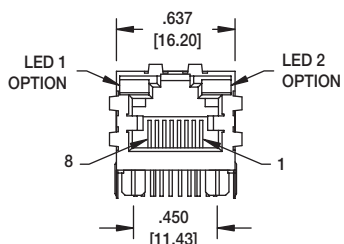
SHIELD PIN LOCATION DIM. A  
FSD DIMENSION: A = .120 [3.05]  
FSP DIMENSION: A = .125 [3.17]

AVAILABLE WITH MAGNETIC TRANSFORMERS: M1, M3, M4, M5, M6, M7, M8, M9, M10, M11, M12, M13, M16 & M20.

## TYPE C TAB UP & TOP LEDs, EXTENDED BODY



**Recommended PCB Layout  
FSP Option Shown**

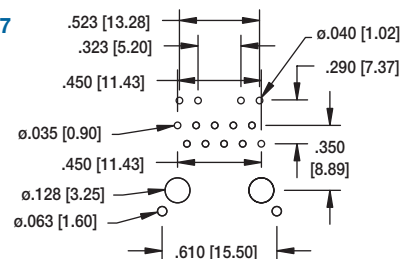


**MTJ-88SX1-FSP-PG-LG-M7**

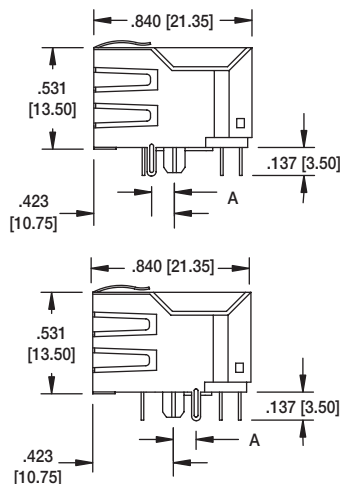
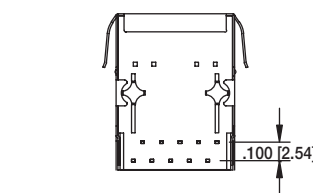
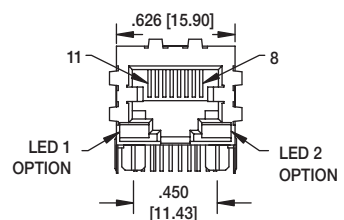
SHIELD PIN LOCATION DIM. A  
FSD DIMENSION: A = .120 [3.05]  
FSP DIMENSION: A = .125 [3.17]

AVAILABLE WITH MAGNETIC TRANSFORMERS: M1, M3, M4, M5, M6, M7, M9, M10, M11, M12 & M13. See pgs. 44-45

## TYPE S TAB UP & TOP LEDs, STANDARD BODY



**Recommended PCB Layout  
FSP Option Shown**

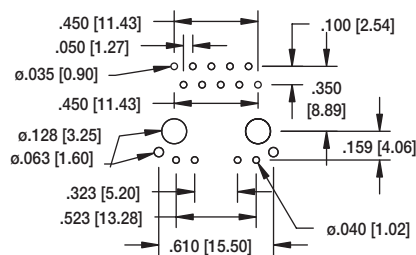


**MTJ-88TX1-FSP-PG-LG-M5**  
Tab Up Type also available

SHIELD PIN LOCATION DIM. A  
FSD DIMENSION: A = .120 [3.05]  
FSP DIMENSION: A = .125 [3.17]

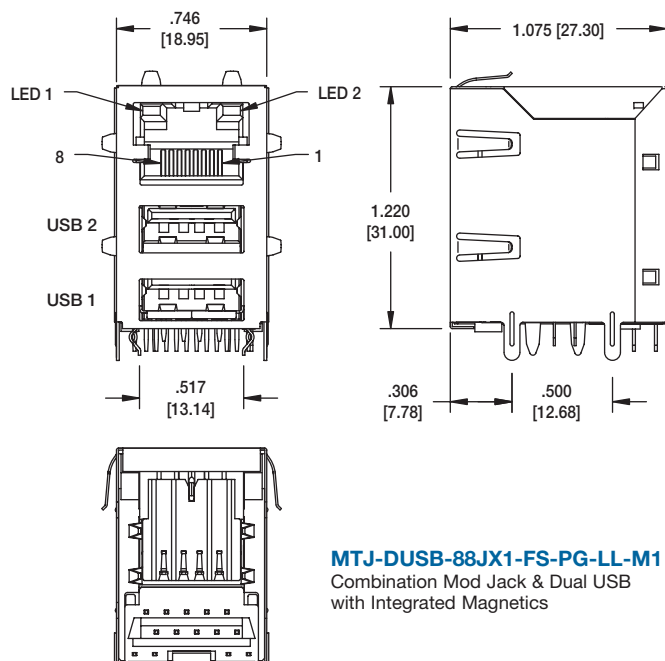
AVAILABLE WITH MAGNETIC TRANSFORMERS: M1, M3, M4, M5, M6, M7, M9, M10, M11, M12 & M13. See pgs. 44-45

## TYPE T TAB DOWN & BOTTOM LEDs, SHORT BODY

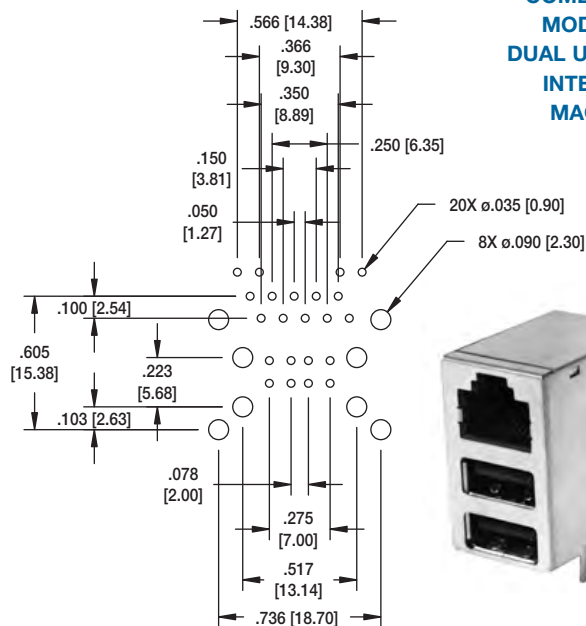


**Recommended PCB Layout  
FSP Option Shown**





**COMBINATION  
MOD JACK &  
DUAL USB WITH  
INTEGRATED  
MAGNETICS**



**Recommended PCB Layout**

LED CONFIGURATION (Add suffix to end of part no.)		
SUFFIX	LED 1	LED 2
LA	YELLOW	YELLOW
LD	GREEN	GREEN
LG	YELLOW	GREEN
LH	GREEN	YELLOW
LI	ORANGE/GREEN	ORANGE/GREEN
LP	YELLOW/GREEN	YELLOW/GREEN
LQ	YELLOW/GREEN	—
L11	RED	GREEN

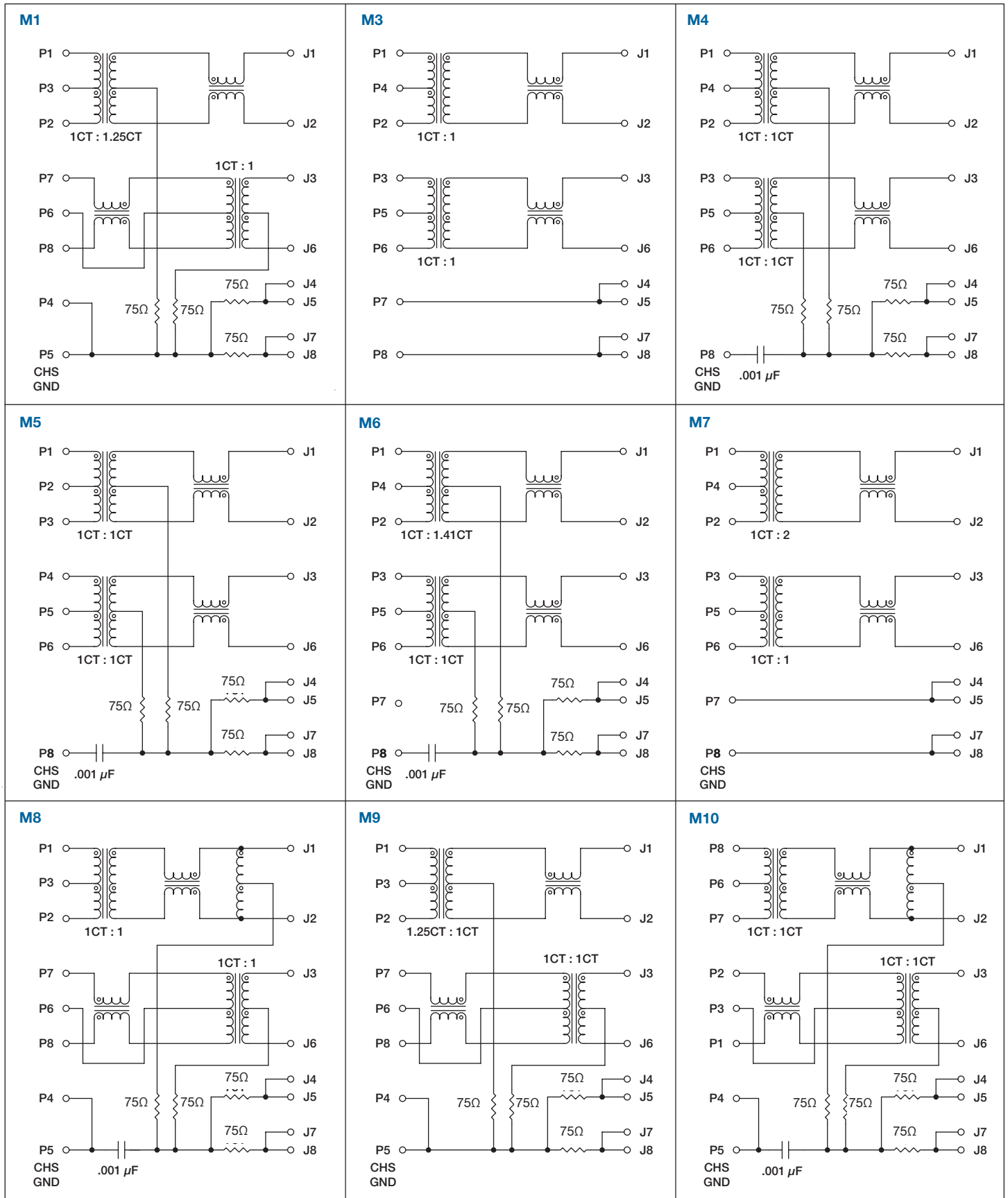
OTHER LED COLOR  
COMBINATIONS AVAILABLE

LED SPECIFICATION			
STANDARD LED	WAVE LENGTH	FORWARD VOLT / CURRENT	TYP
GREEN	565 nm	5.5V / 20mA	5.0V
YELLOW	590 nm	5.5V / 20mA	5.0V
ORANGE	610 nm	5.5V / 20mA	5.0V
RED	637 nm	5.5V / 20mA	5.0V

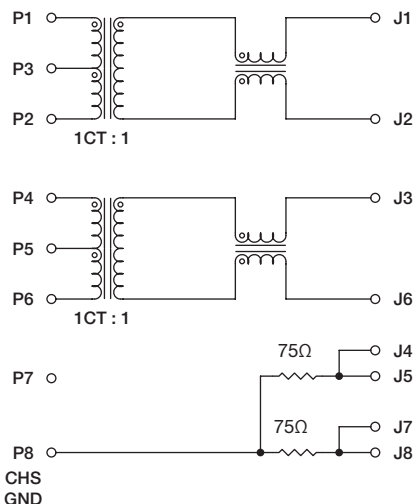
AVAILABLE WITH MAGNETIC  
TRANSFORMERS M1, M3, M4,  
M5, M6, M7, M8, M9, M10, M11,  
M12, M13, M16 & M20  
See Pgs 44-45:

### ORDERING INFORMATION FOR JACKS WITH INTEGRATED MAGNETICS & LEDs

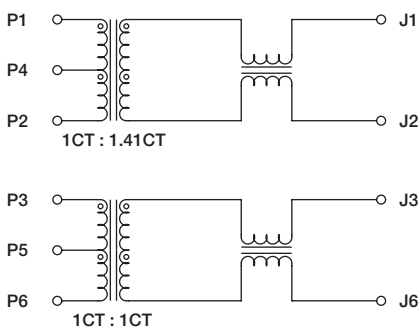
<b>MTJG</b>	<b>4</b>	<b>8</b>	<b>8</b>	<b>T</b>	<b>X</b>	<b>1</b>	<b>FSD</b>	<b>LD</b>	<b>M5</b>
<b>SERIES INDICATOR</b> MTJG =Magnetics Ganged Jack	<b>NO. OF PORTS</b> 2 thru 8	<b>HOUSING PLUG SIZE</b> 8 or 10	<b>NO. OF CONTACT POSITIONS FILLED</b> 8 or 10	<b>HOUSING TYPE</b> T or J	<b>PLATING</b> X = Gold Flash 0 = 15 $\mu$ in gold 1 = 30 $\mu$ in gold 2 = 50 $\mu$ in gold	<b>BODY COLOR</b> 1 = Black	<b>SHIELD PIN LOCATION</b> FSD thru FSH (See drawing on page 40)	<b>LED</b> LX = Led Color RLX = Led with Resistor	<b>TRANSFORMER</b> M1 Thru M20 (See page 44-45) Consult Factory for transformer types not shown
<b>OPTIONS:</b> Add designator(s) to end of part number PG = Panel ground tabs									



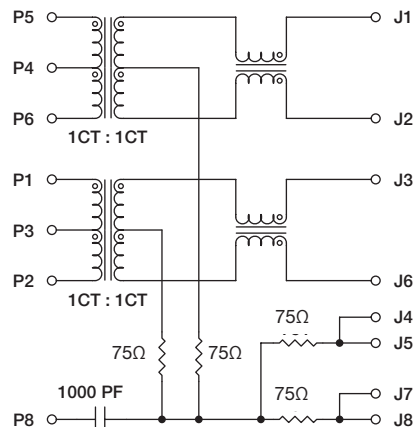
**M11**



**M12**

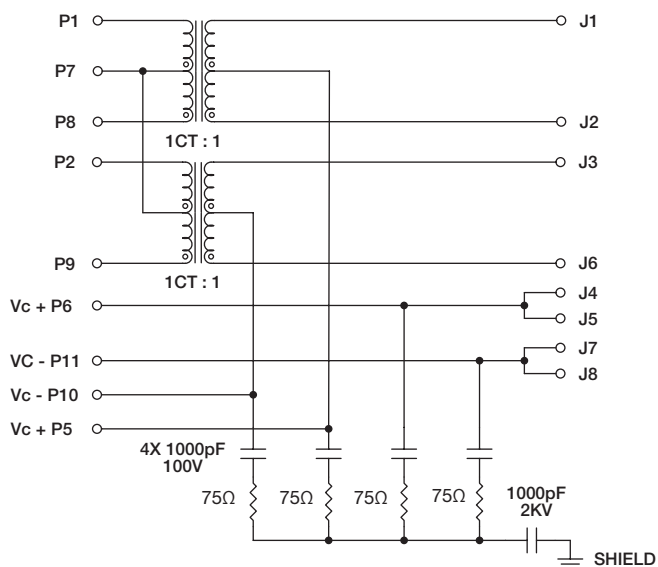


**M13**

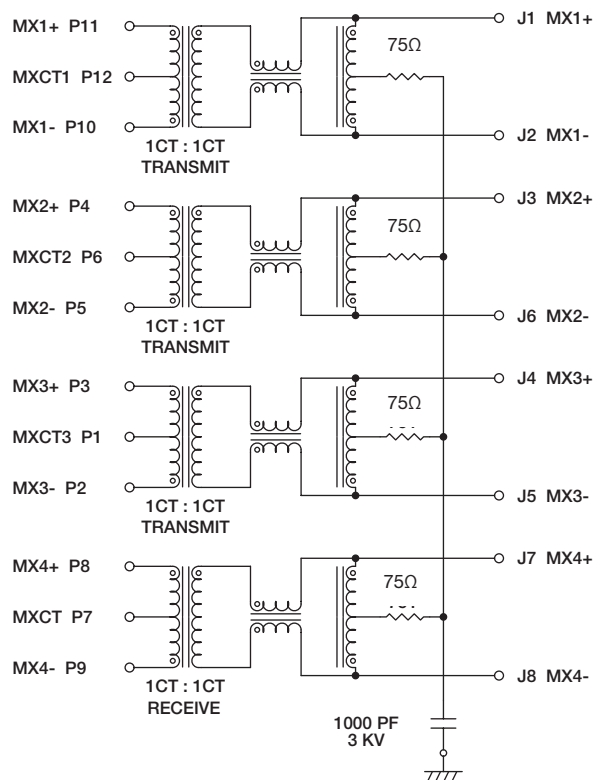


**M16**

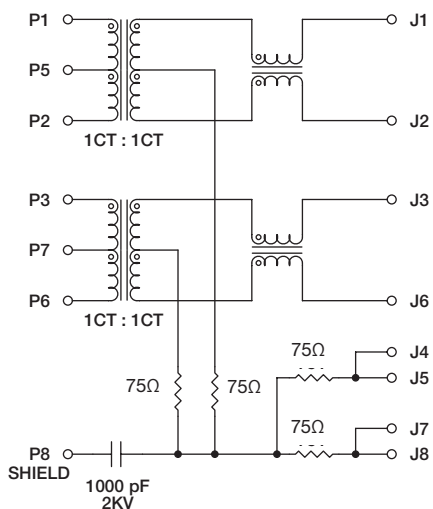
**POWER OVER ETHERNET**



**M20**



**M19**



**THE INTERNAL TRANSFORMER SCHEMATICS SHOWN ON THIS PAGE ARE A SAMPLING OF THE OVER 500 TRANSFORMER TYPES CURRENTLY AVAILABLE**

#### INTRODUCTION:

Adam Tech MTJP Series Wire Leaded Handset and Panel Jacks are conveniently prepared with wire leads ready for final assembly. This series has a multitude of housing shapes to fit many specific applications. They are offered in 4, 6 & 8 positions with choice of Stripped and Tinned leads or leads with Spade Terminals, Adam Tech Jacks are UL approved and meet all required FCC rules and regulations.

#### FEATURES:

- UL approved
- FCC compliant to No. 47 CFR part 68
- Prepared for Final Assembly
- 4P, 6P and 8P versions
- Custom Jacks available

#### MATING PLUGS:

All industry standard line cords manufactured with telephone plugs

#### SPECIFICATIONS:

##### Material:

Insulator: ABS, (Nylon 66 optional), rated UL94V-0  
 Insulator Colors: Medium gray or black  
 Contacts: Phosphor Bronze  
 Wires: 26 Awg, UL-1061, 80°C, VW-1, 300V.

##### Contact Plating:

Gold over Nickel underplate on contact area.

##### Electrical:

Operating voltage: 150V AC max.  
 Current rating: 1.5 Amps max.  
 Contact resistance: 20 mΩ max. initial  
 Insulation resistance: 500 MΩ min.  
 Dielectric withstanding voltage: 500V AC for 1 minute

##### Mechanical:

Insertion force: 4 Contacts: 500g, 6 contacts 750g  
 8 contacts: 900g, 10 contacts: 1000g  
 Durability: 500 Cycles min.

##### Temperature Rating:

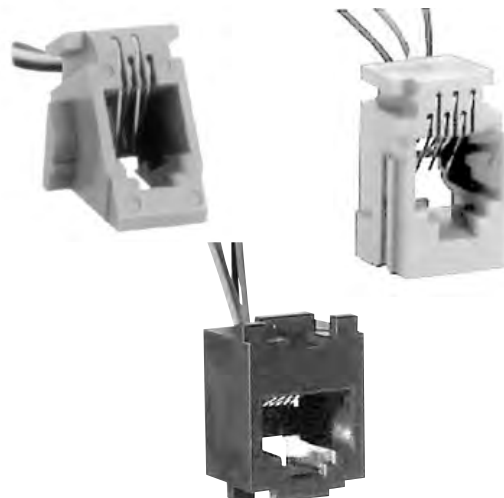
Operating temperature: -40°C to +85°C

##### PACKAGING:

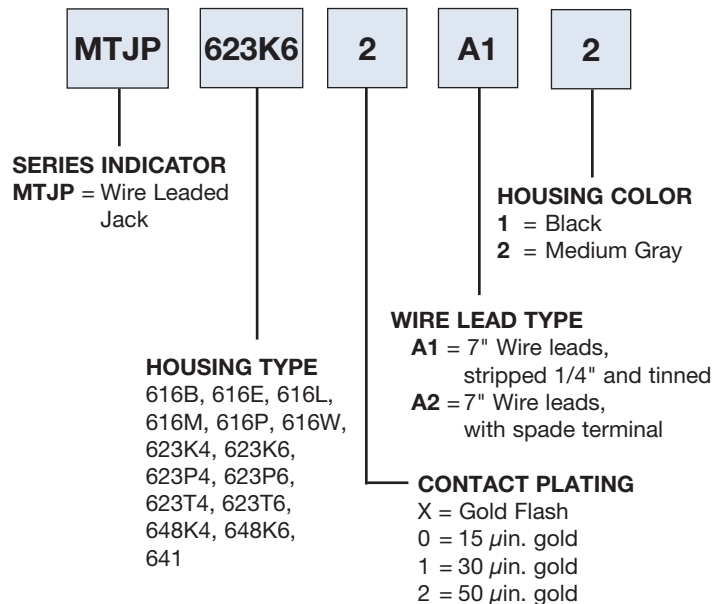
Anti-ESD plastic bags

##### APPROVALS AND CERTIFICATIONS:

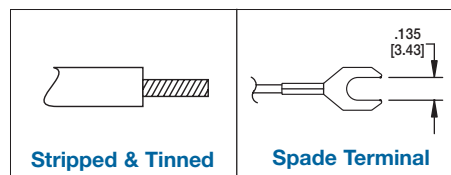
UL Recognized File no. E224049



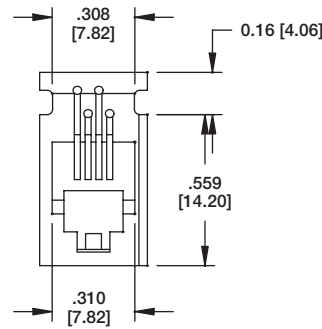
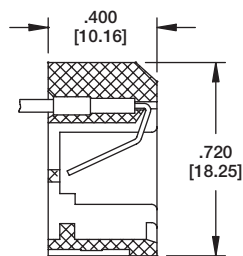
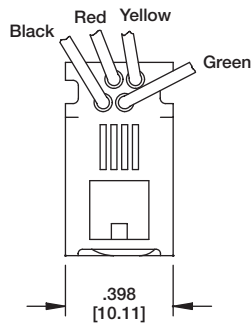
### ORDERING INFORMATION WIRE LEADED JACKS



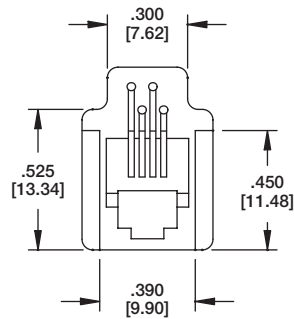
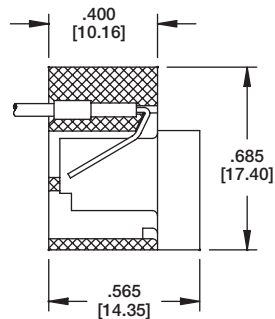
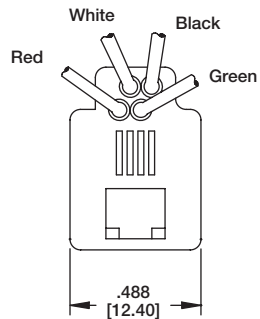
Wire Lead Options



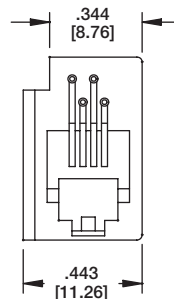
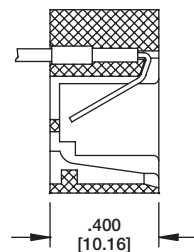
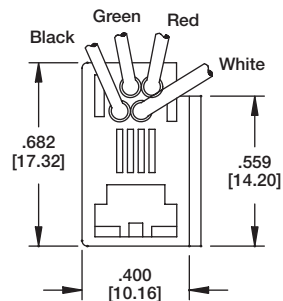
**MTJP-616L**



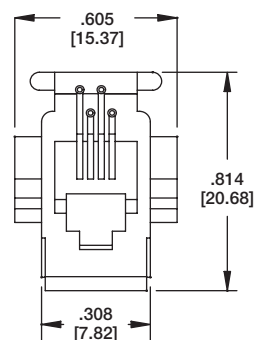
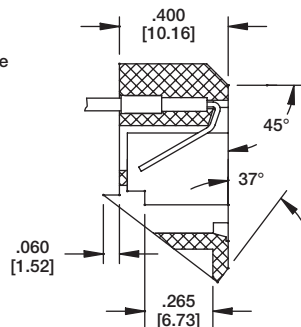
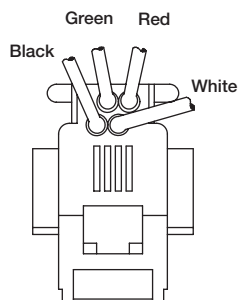
**MTJP-616M**



**MTJP-616E**

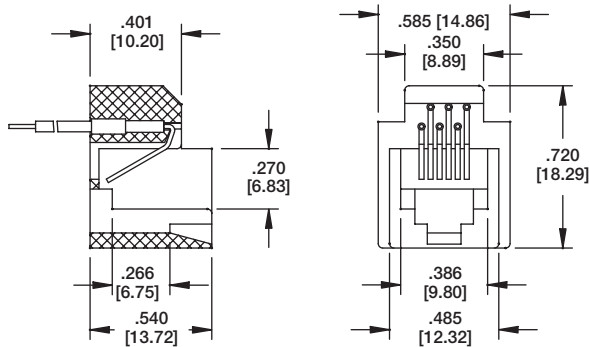
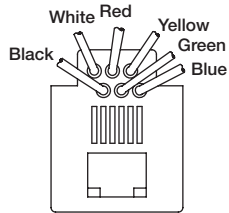


**MTJP-616W**



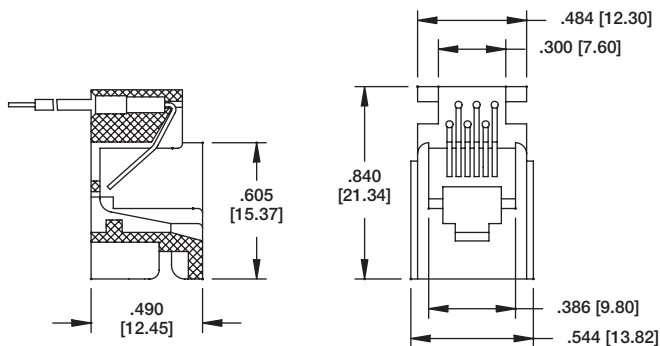
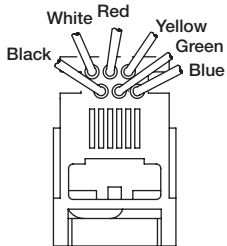
**MTJP-623K4**

**MTJP-623K6**



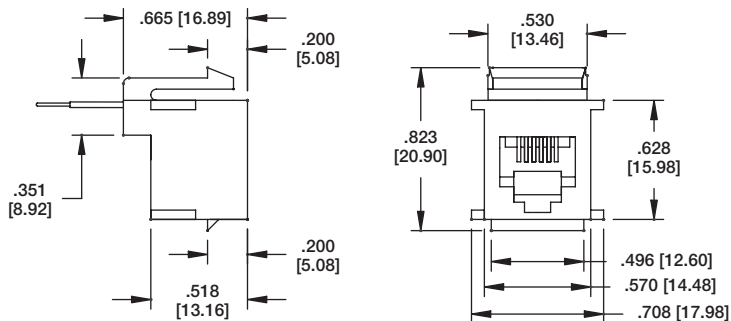
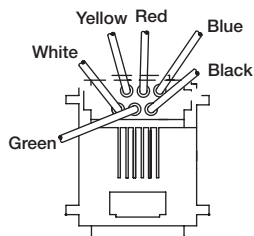
**MTJP-623P4**

**MTJP-623P6**



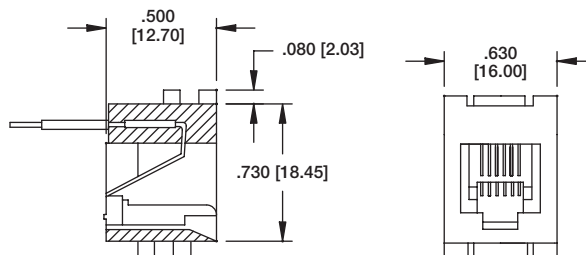
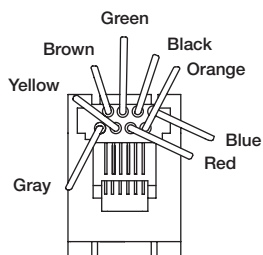
**MTJP-648K4**

**MTJP-648K6**



**MTJP-641**

**MTJP-641**





### ORDERING INFORMATION

**MTJC**

#### SERIES INDICATOR

**MTJC** = Modular Jack Coupler

**8**

**HOUSING SIZE = 8**

**6**

**POSITIONS FILLED**  
4, 6, or 8

**0**

#### PLATING

**X** = Gold Flash  
**0** = 15  $\mu$ in gold  
**1** = 30  $\mu$ in gold  
**2** = 50  $\mu$ in gold

**B**

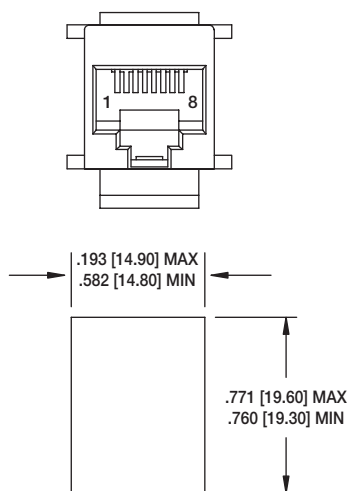
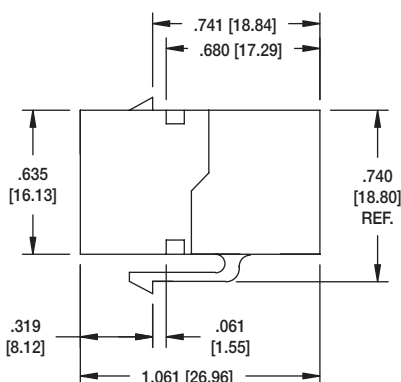
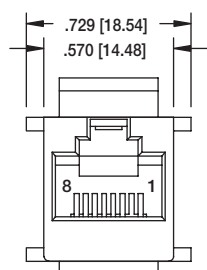
#### INSULATOR COLOR

**B** = Black    **Y** = Yellow  
**W** = White    **R** = Red  
**IV** = Ivory    **G** = Green  
**GY** = Gray    **BL** = Blue

#### OPTIONS:

Add designator to end of part number

**S** = Shielded

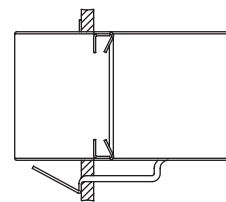


MTJC-88XB

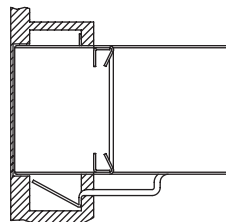
**RECOMMENDED PANEL CUT-OUT**  
**PANEL THICKNESS .062 [1.57]**

**MTJC-88-XB**  
**PLASTIC HOUSING**

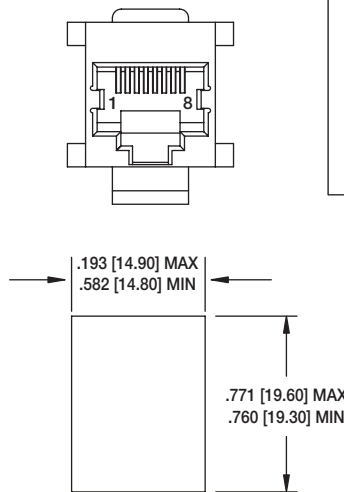
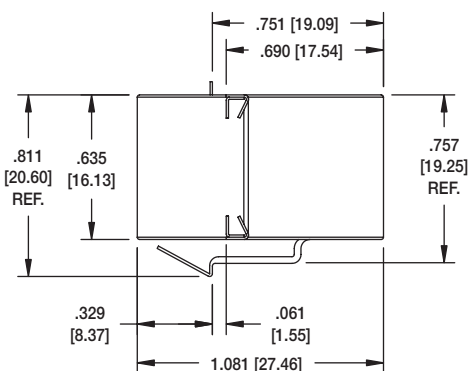
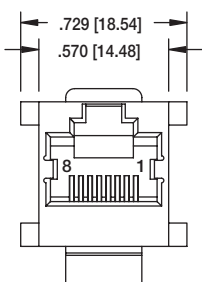
MTJC Couplers can be used in either of the following mounting applications



Single Wall Plate Mounting



Double Wall Plate Mounting



MTJC-88XB-S

**RECOMMENDED PANEL CUT-OUT**  
**PANEL THICKNESS .062 [1.57]**

**MTJC-88-XBS**  
**METAL SHIELDED**