

## INTRODUCTION:

Adam Tech MTJ series Modular Jacks are a complete line of PCB and wire leaded jacks which are UL and CSA 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
- 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, tin plated

### Contact Plating:

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

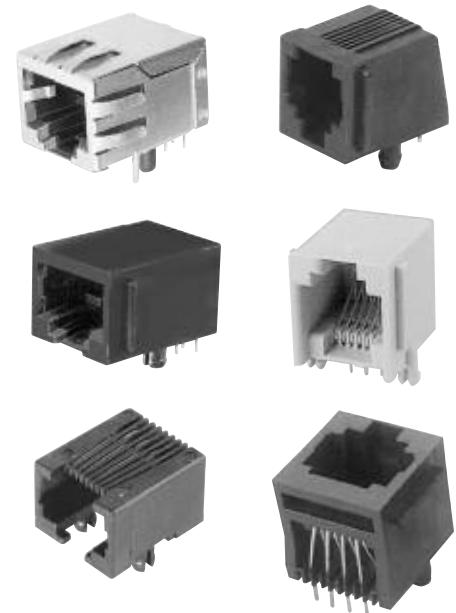
Operating temperature: -40°C to +85°C  
 Soldering process temperature:  
 Standard insulator: 235°C  
 Hi-Temp insulator: 260°C

### PACKAGING:

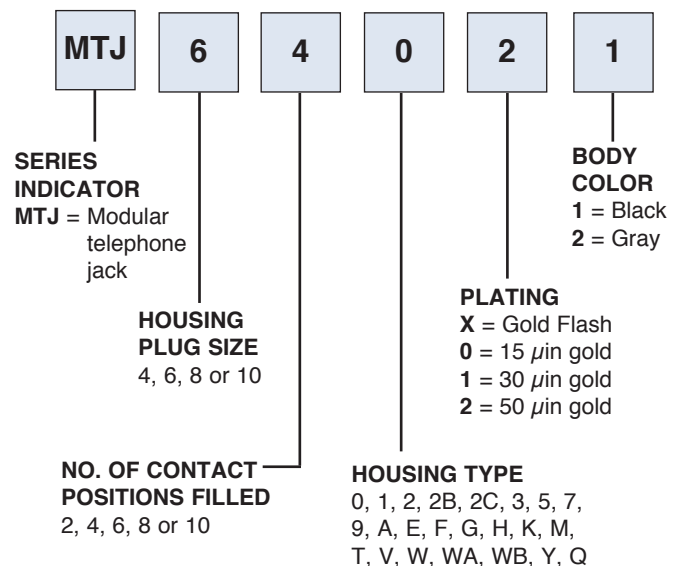
Anti-ESD plastic trays

### SAFETY AGENCY APPROVALS:

UL Recognized & CSA Certified,  
 File no. E224049



## ORDERING INFORMATION



## OPTIONS:

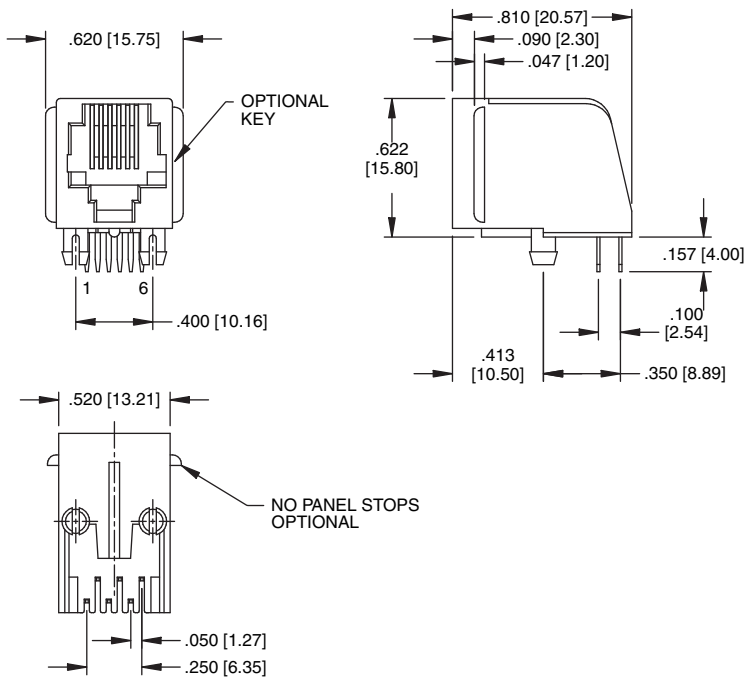
Add designator(s) to end of part number

- 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
- K = Keyed telephone jack
- HT = Hi-Temp insulator for Hi-Temp soldering processes up to 260C (Add this option for thru-hole products only. All SMT products are manufactured with Hi-Temp insulators)
- PG = Panel ground tabs

## TYPE 1

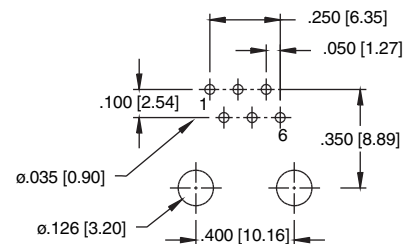
6P6C

6P4C



MTJ-661X1

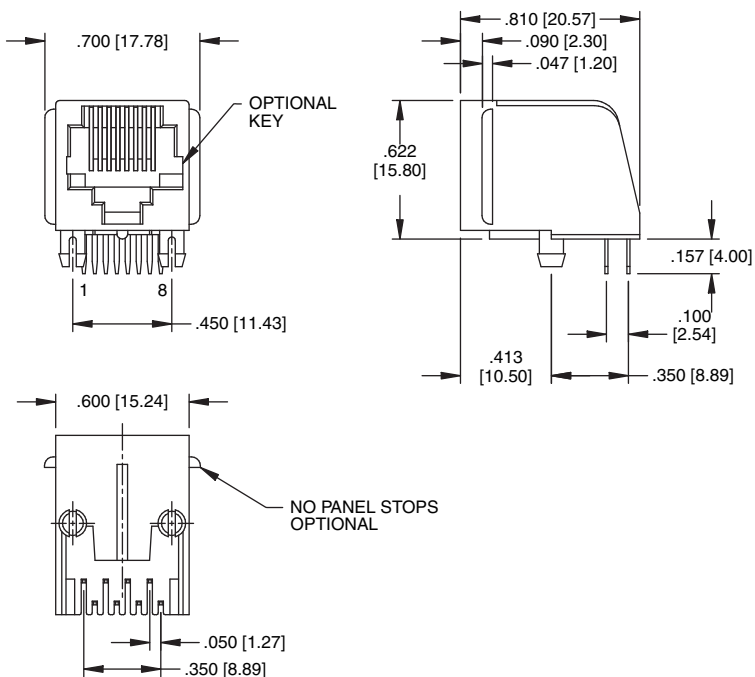
Ordering Information pg. 9



Recommended PCB Layout

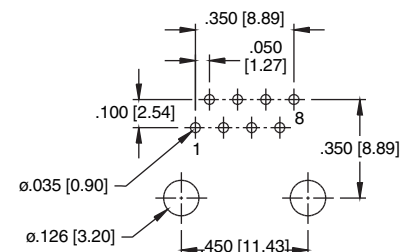
## TYPE 1

8P8C



MTJ-881X1

Ordering Information pg. 9

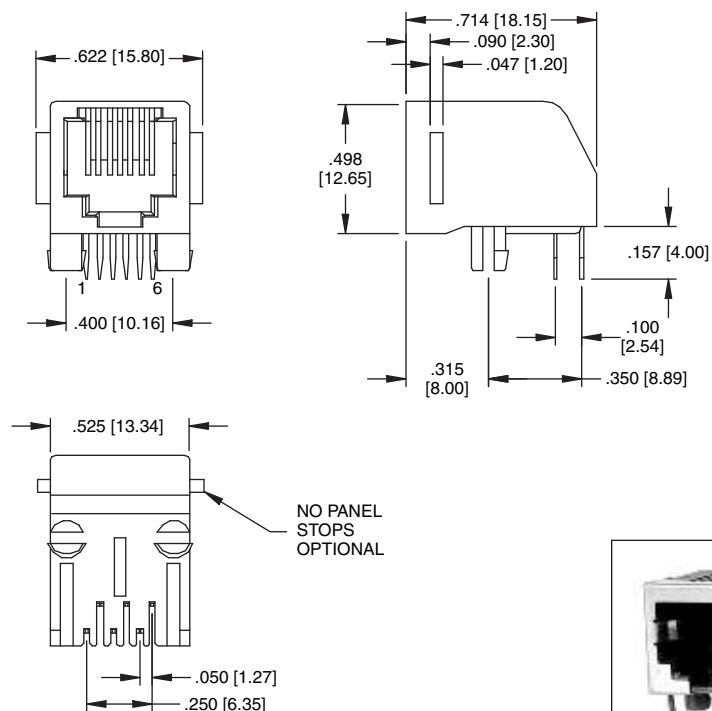


Recommended PCB Layout

## TYPE 0

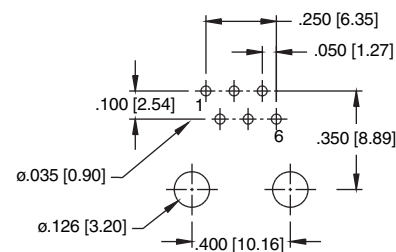
6P6C

6P4C



MTJ-660X1

Ordering Information pg. 9



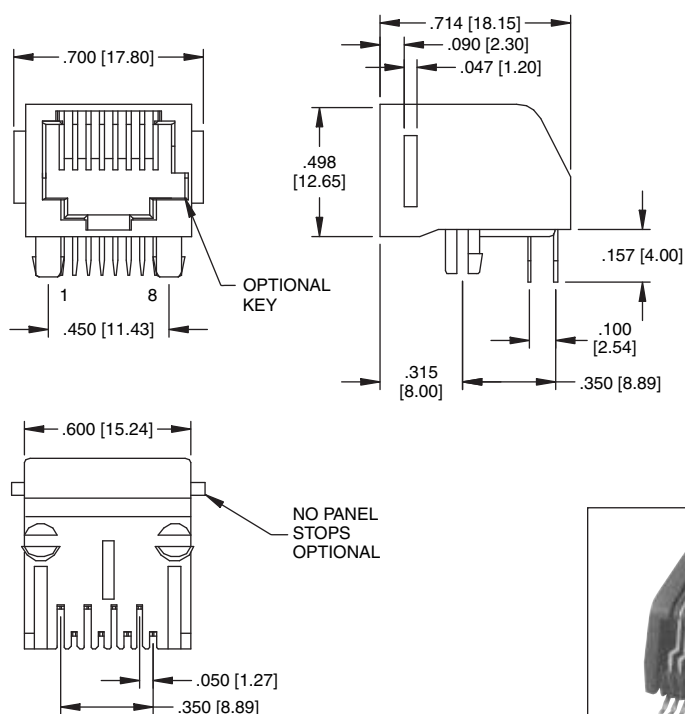
Recommended PCB Layout



Face Shield Option

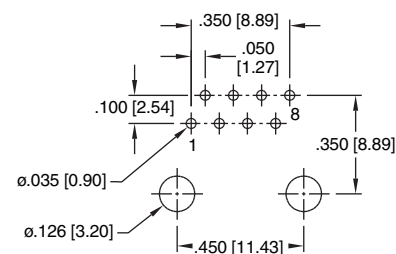
## TYPE 0

8P8C

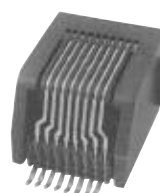


MTJ-880X1

Ordering Information pg. 9



Recommended PCB Layout



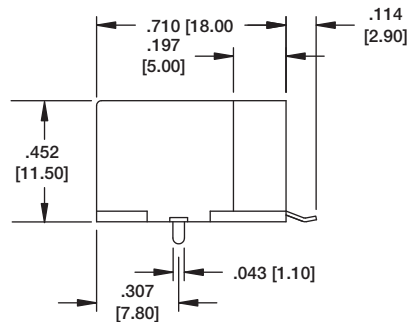
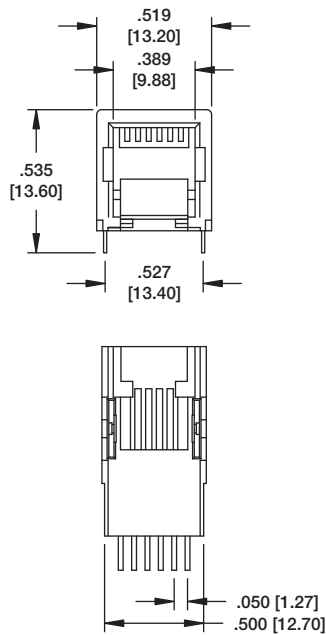
SMT Option

#### Ordering Information pg. 9

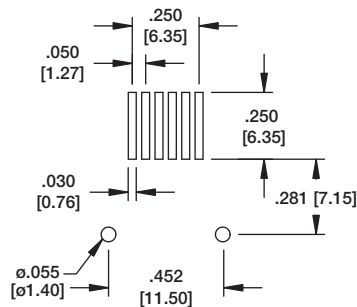
#### TYPE Y

6P6C

6P4C



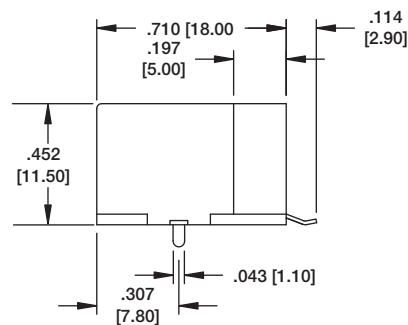
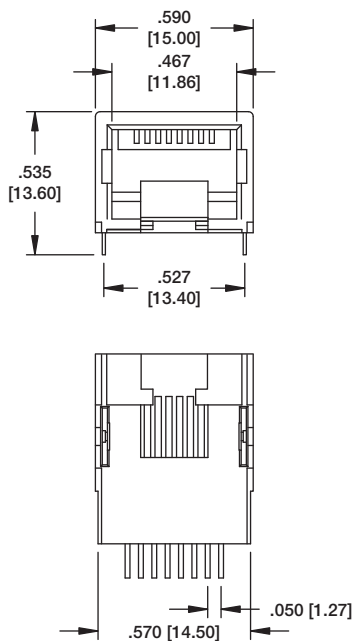
MTJ-66YX1



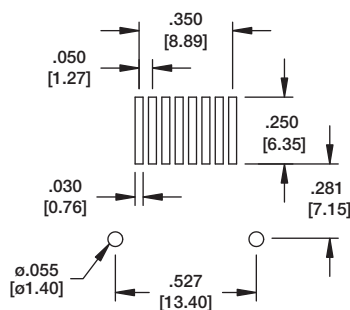
#### Recommended PCB Layout

#### TYPE Y

8P8C

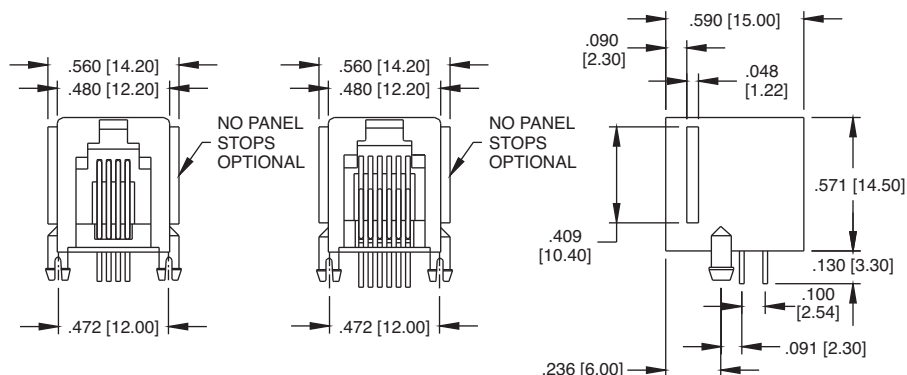


MTJ-88YX1



#### Recommended PCB Layout

Ordering Information pg. 9



MTJ-662X2



MTJ-442X2

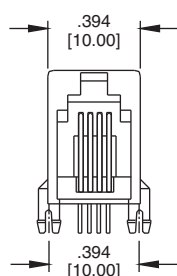
TYPE 2

4P4C

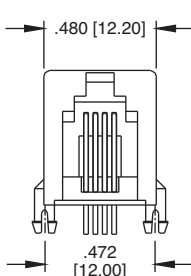
6P6C

6P4C

TYPE 2B 4 POS



TYPE 2C 4 POS



TYPE 2B & 2C

4P4C

6P6C

6P4C

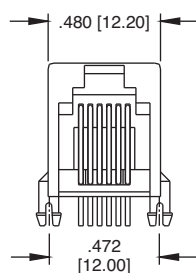
8P8C



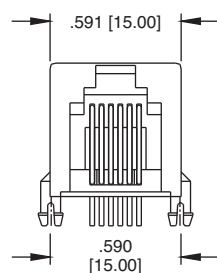
MTJ-442BX2



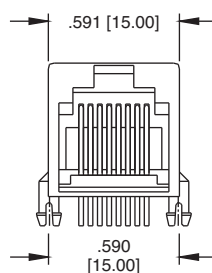
MTJ-642BX2



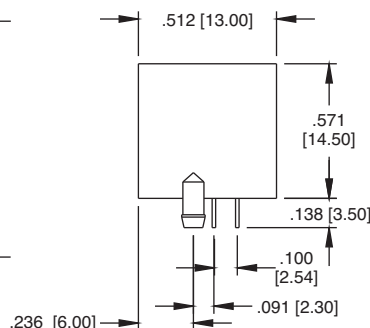
TYPE 2B 6 POS



TYPE 2C 6 POS

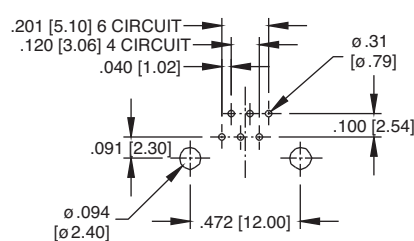


TYPE 2B 8 POS

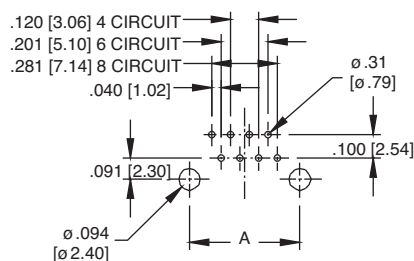


MTJ-882BX1

TYPE 2



TYPE 2B & 2C



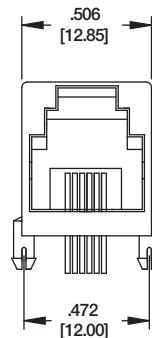
Recommended PCB Layout

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

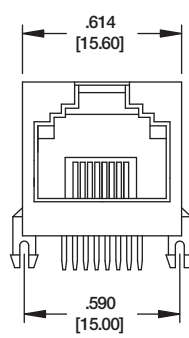
**TYPE 2B  
SHIELDED**  
6P6C  
6P4C  
8P8C

**MTJ-662BX1-FS**

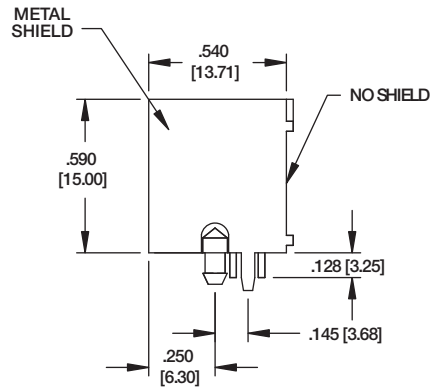


**6 POS  
2B SHIELDED**

**MTJ-882BX1-FS**



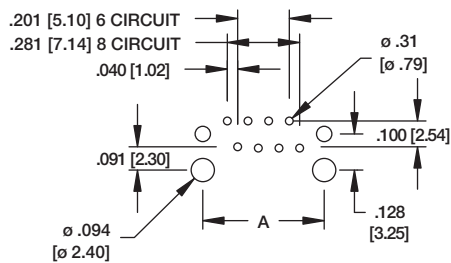
**8 POS  
2B SHIELDED**



**MTJ-662BX1-FS**



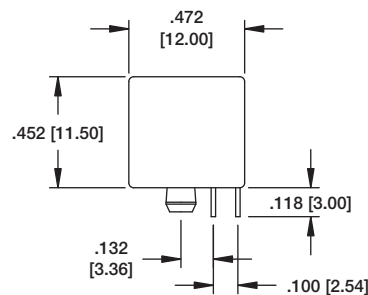
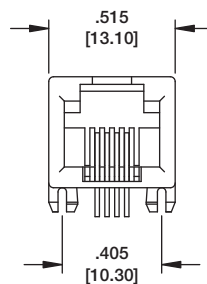
**MTJ-882BX1-FS**



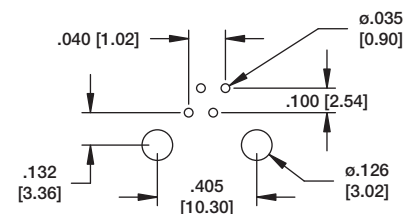
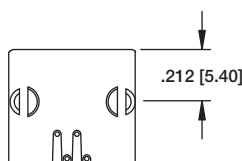
**Recommended PCB Layout**

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

**TYPE Q  
COMPACT JACK  
4P4C**



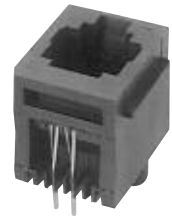
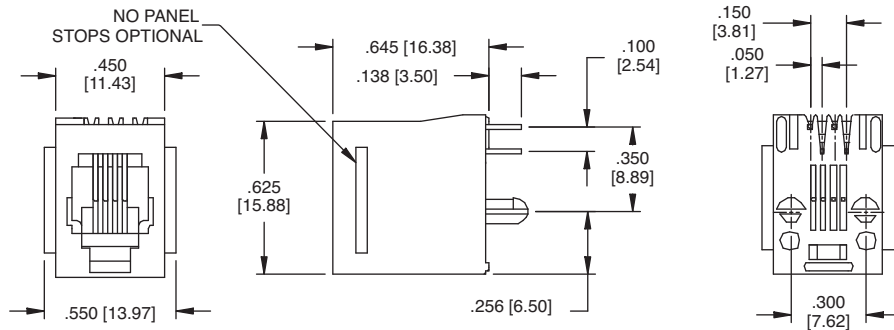
**MTJ-44QX1**



**Recommended PCB Layout**

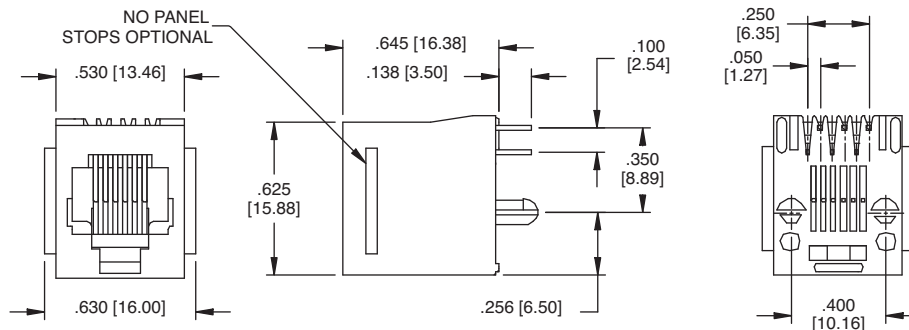
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**TYPE 3**  
**4P4C**



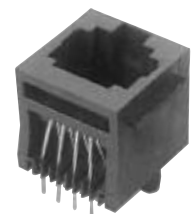
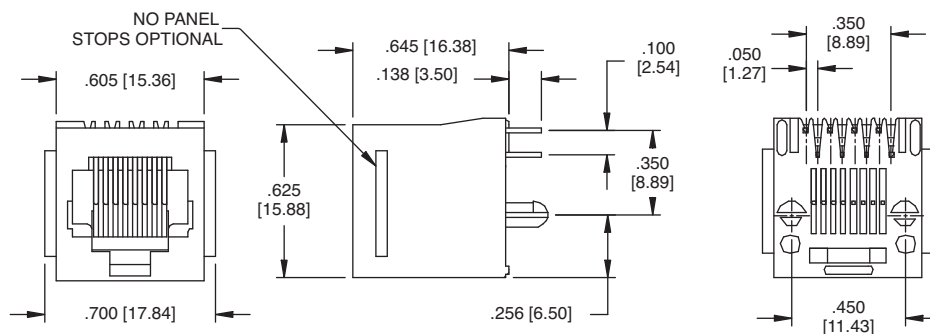
**MTJ-443X1**

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



**MTJ-663X1**

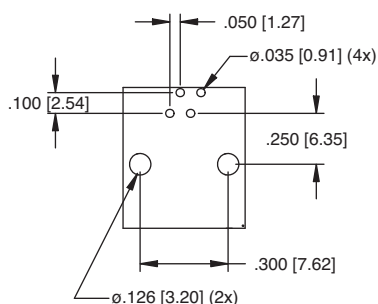
**TYPE 3**  
**8P8C**



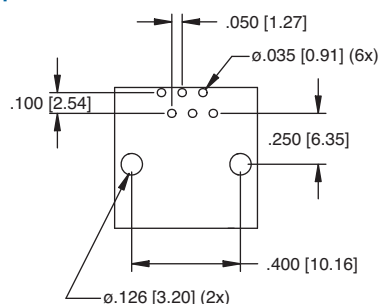
**MTJ-883X1**

## Recommended PCB Layout

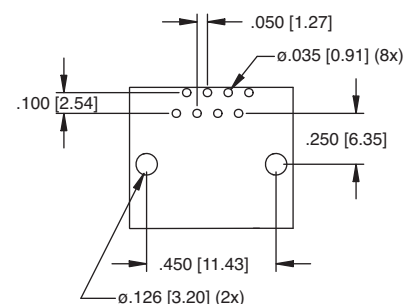
**4p4c**



**6p4c  
6p6c**



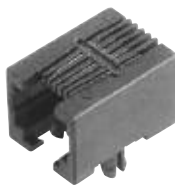
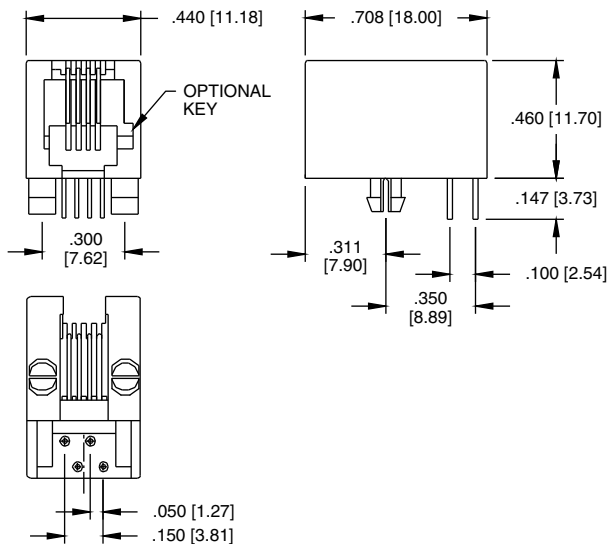
**8p8c**



Ordering Information pg. 9

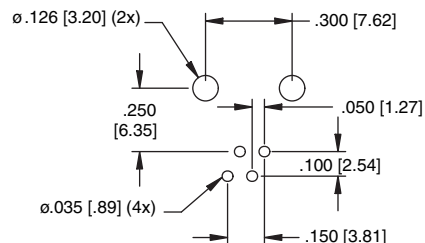
**TYPE 5**

**4P4C**



**MTJ-445X1**

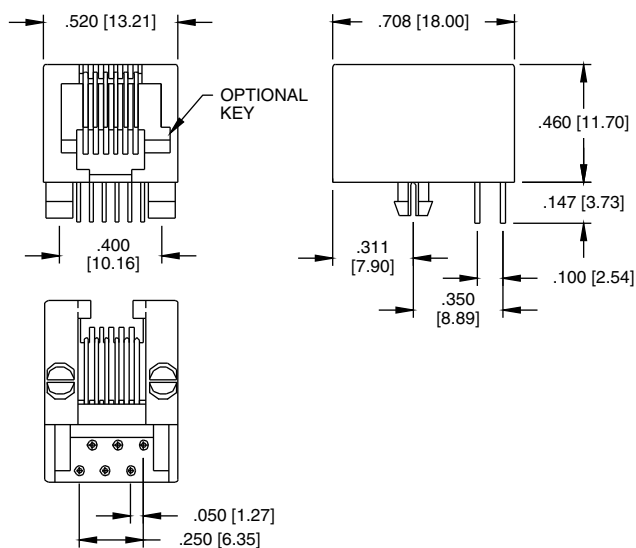
### Recommended PCB Layout



**TYPE 5**

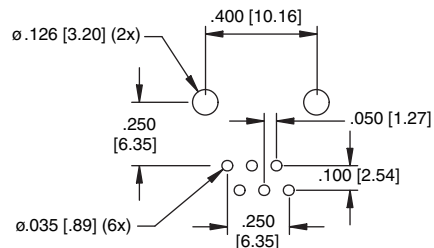
**6P4C**

**6P6C**



**MTJ-665X1**

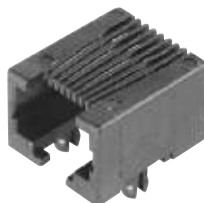
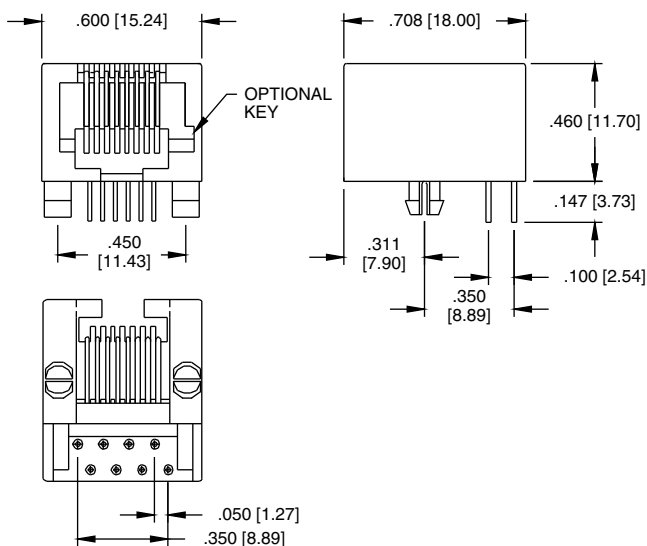
### Recommended PCB Layout



**TYPE 5**

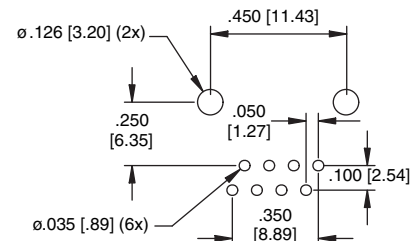
**8P8C**

**SMT Option**



**MTJ-885X1**

### Recommended PCB Layout

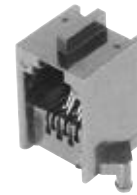
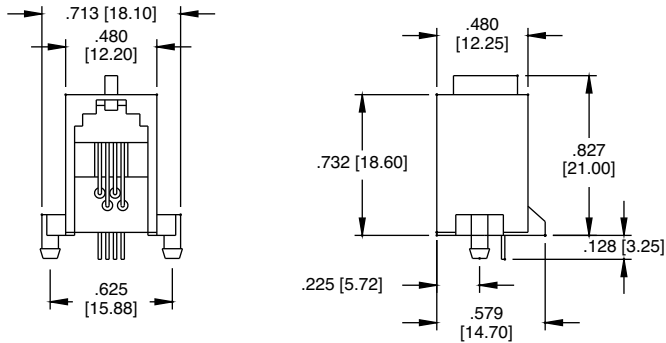




Ordering Information pg. 9

**TYPE 7**

**4P4C**

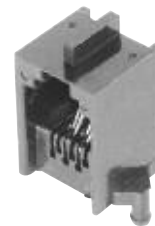
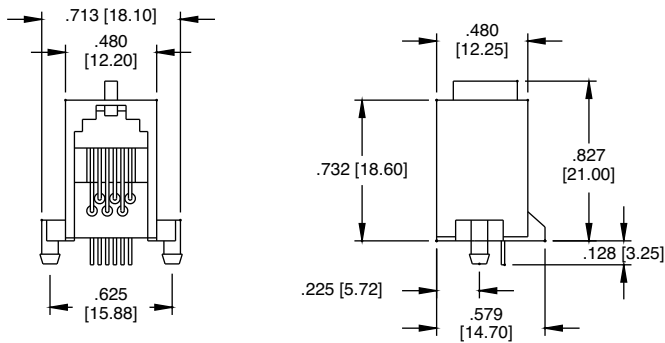


**MTJ-447X1**

**TYPE 7**

**6P4C**

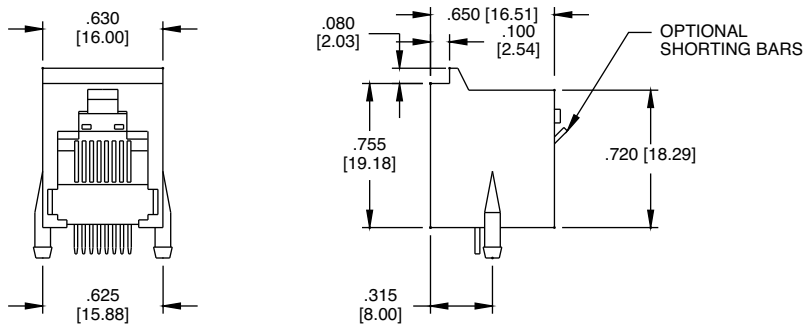
**6P6C**



**MTJ-647X1**

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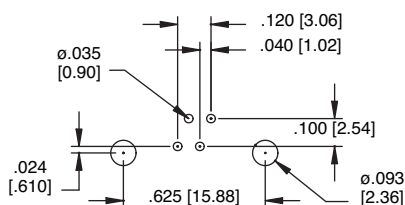
**8P8C**



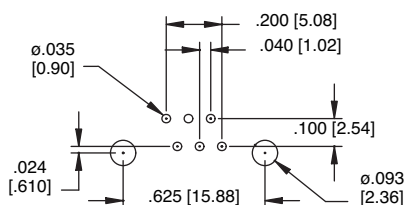
**MTJ-887X1**

### Recommended PCB Layout

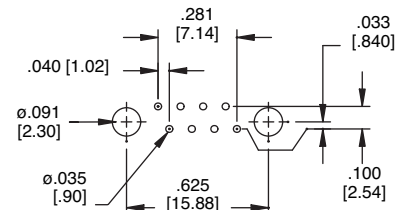
**4p4c**



**6p4c  
6p6c**



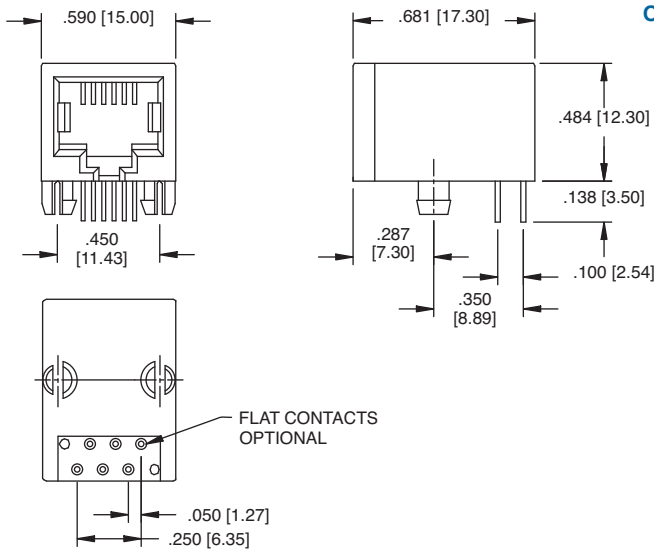
**8p8c**



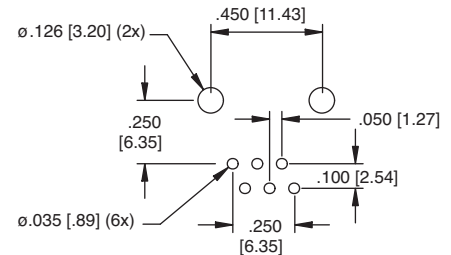
Ordering Information pg. 9

**TYPE 9**

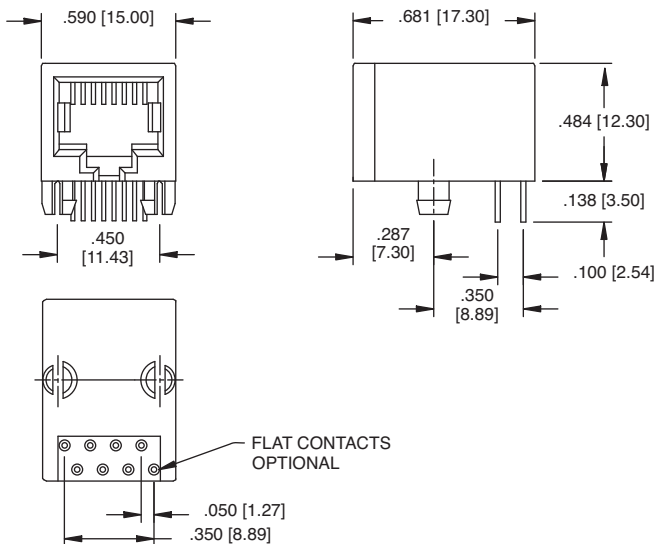
**6P4C  
6P6C**



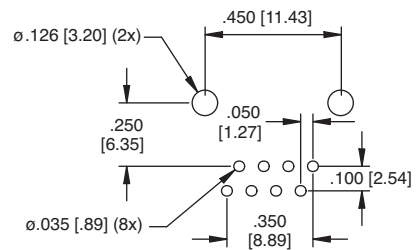
**MTJ-669X1**



**Recommended PCB Layout**

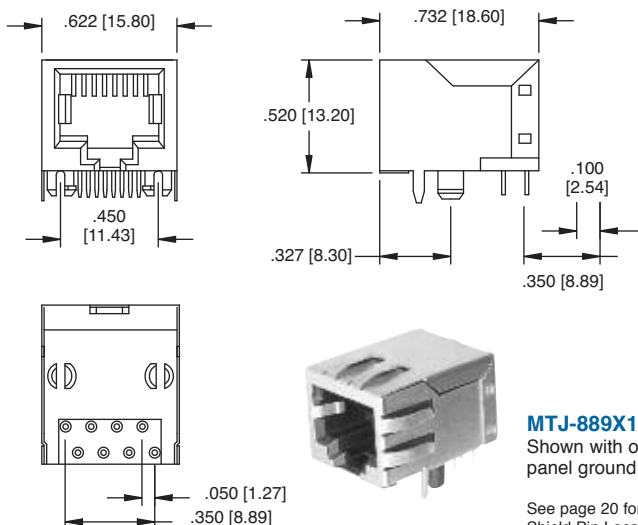


**MTJ-889X1**



**Recommended PCB Layout**

**TYPE 9  
8P8C  
SHIELDED**



**MTJ-889X1-FSE**

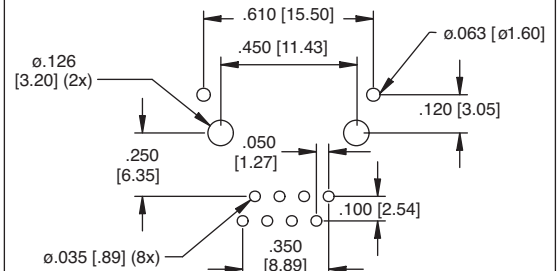
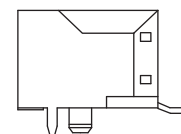


**MTJ-889X1-FSE-PG**

Shown with optional panel ground tabs

See page 20 for other Shield Pin Location Options

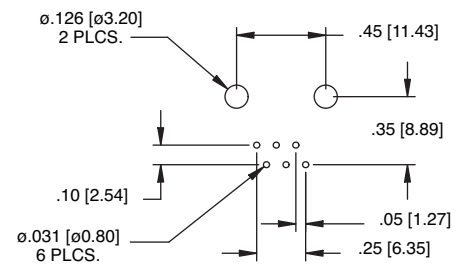
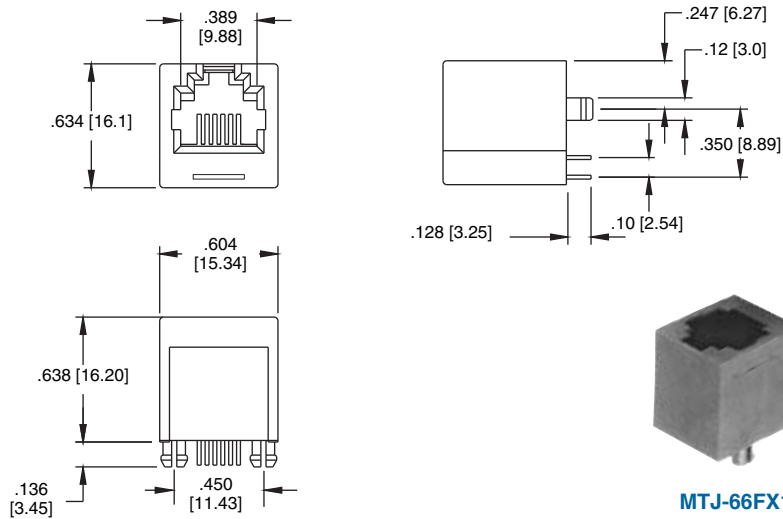
**SMT Option**



**Recommended PCB Layout**

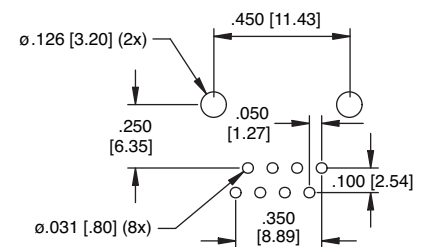
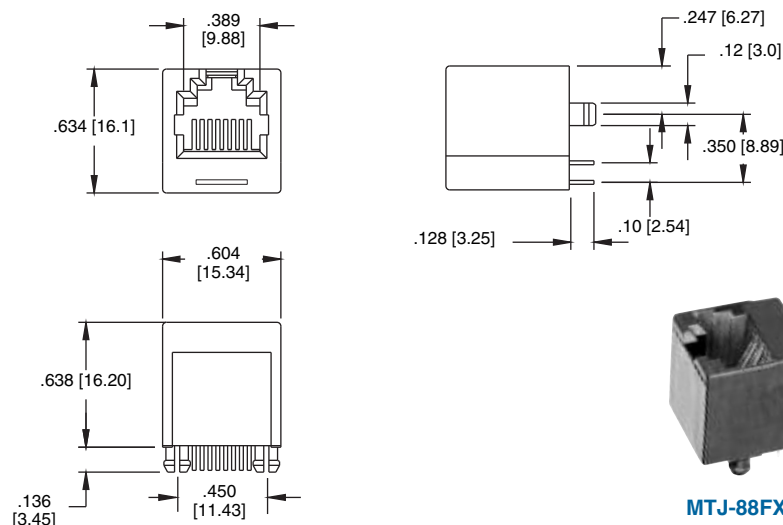
Ordering Information pg. 9

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



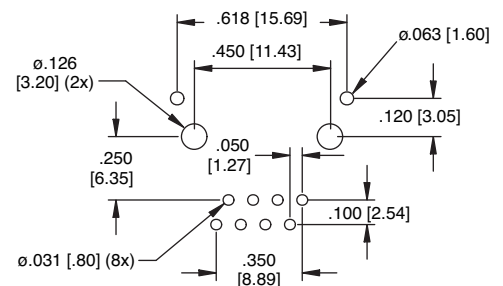
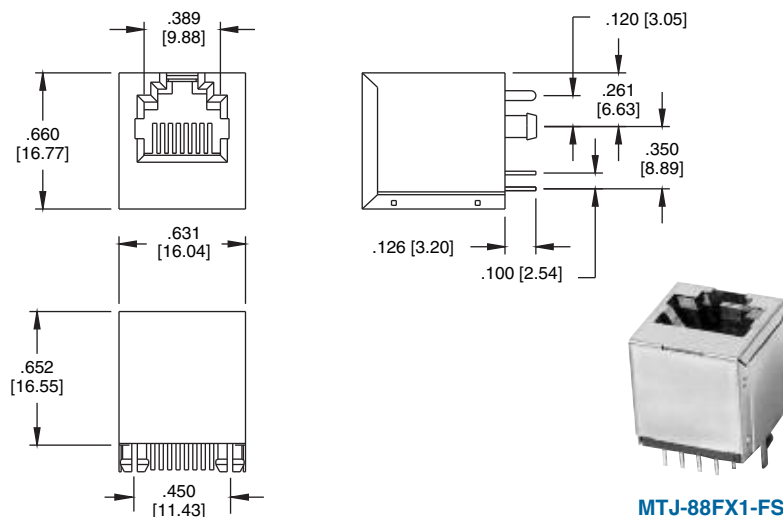
**Recommended PCB Layout**

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



**Recommended PCB Layout**

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

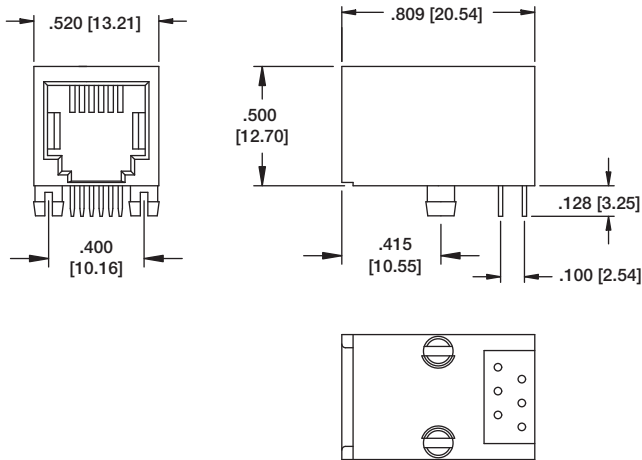


**Recommended PCB Layout**

Ordering Information pg. 9

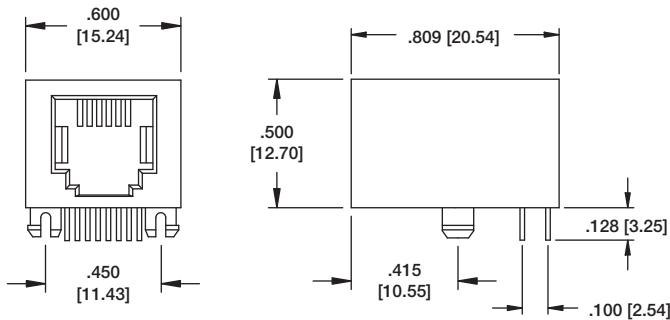
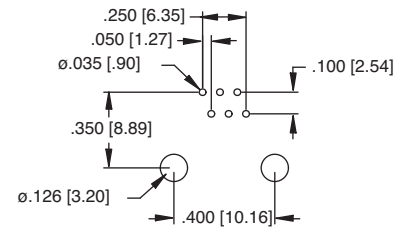
**TYPE G**

**6P6C**



**MTJ-64GX1**

**Recommended PCB Layout**

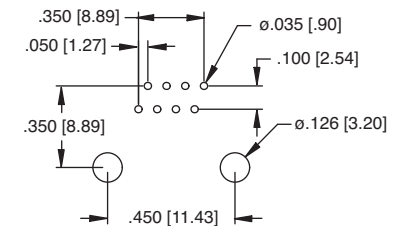


**MTJ-88GX1**

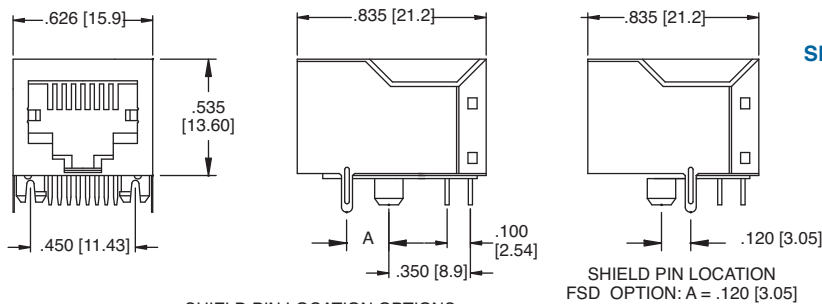
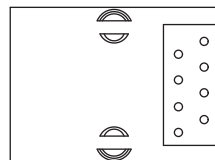
**TYPE G**

**8P8C**

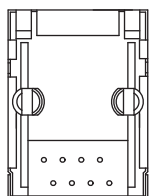
**Recommended PCB Layout**



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



SHIELD PIN LOCATION OPTIONS  
FSA OPTION: A = .170 [4.32]  
FSB OPTION: A = .144 [3.66]  
FSE OPTION: A = .120 [3.05]



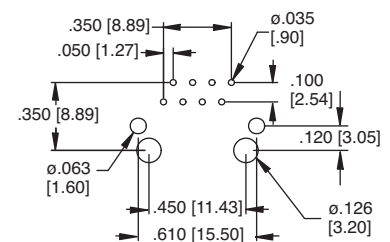
**MTJ-88GX1-FSB-PG**  
Shown with Full Metal Shield  
& Panel Ground Tab options



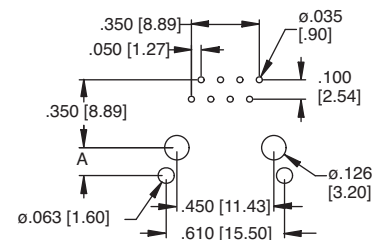
**MTJ-88GX1-FSD**  
Shown with Full  
Metal Shield option

**TYPE G  
SHIELDED  
8P8C**

**Recommended PCB Layout (FSD)**

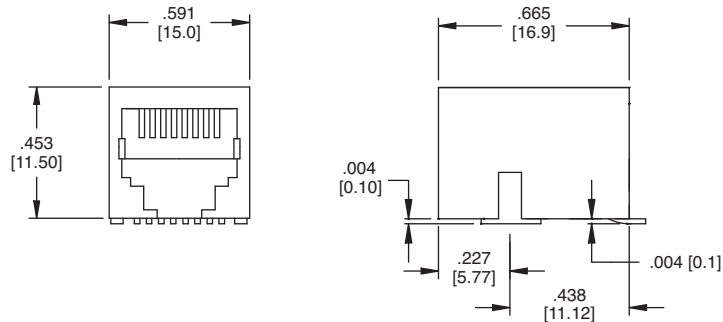


**PCB Layout (FSA, FSB, & FSE)**

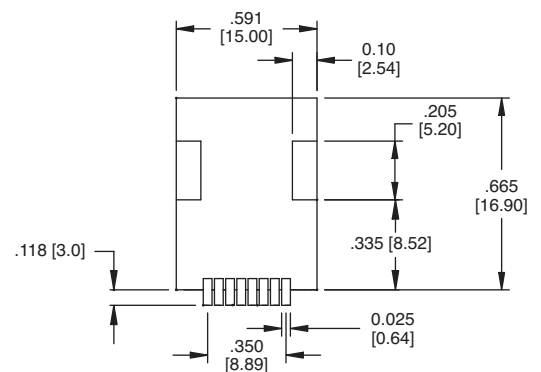
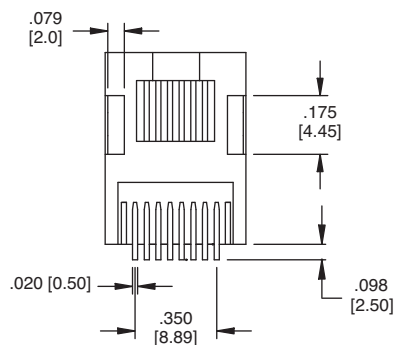


Ordering Information pg. 9

**TYPE WA**  
SMT TABS IN  
8P8C

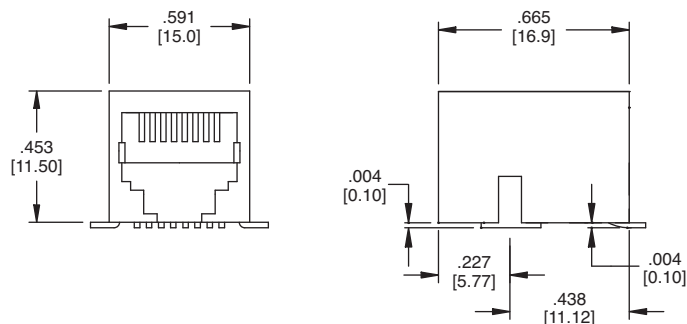


**MTJ-88WAX1**

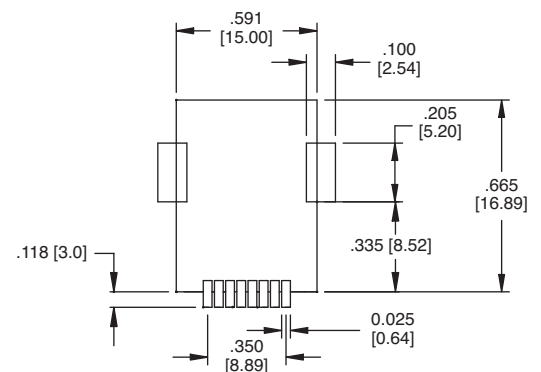
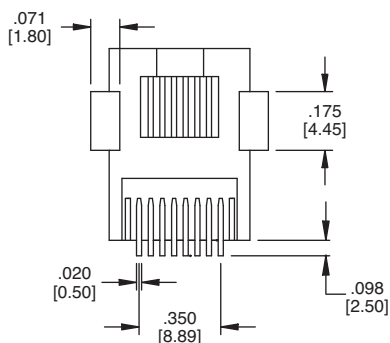


**Recommended Solder Pad Layout**

**TYPE WB**  
SMT TABS OUT  
8P8C



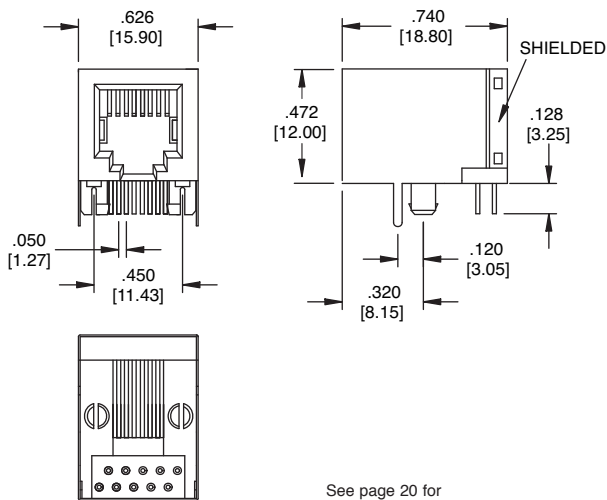
**MTJ-88WBX1**



**Recommended Solder Pad Layout**

Ordering Information pg. 9

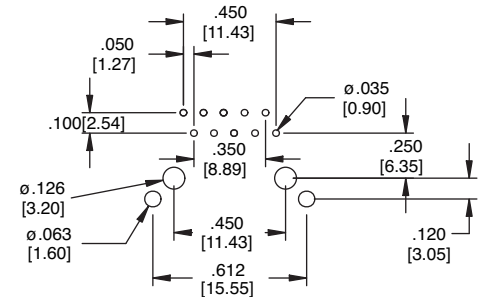
**TYPE W**  
**SHIELDED, THRU HOLE**  
**8P8C**  
**10P10C**



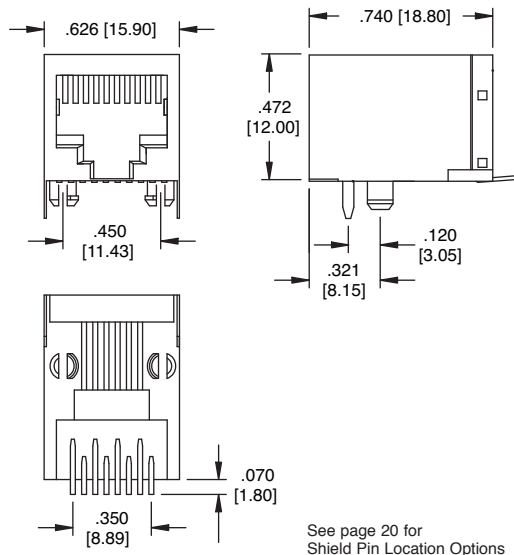
**MTJ-88WX1-FSE**



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



**Recommended PCB Layout**

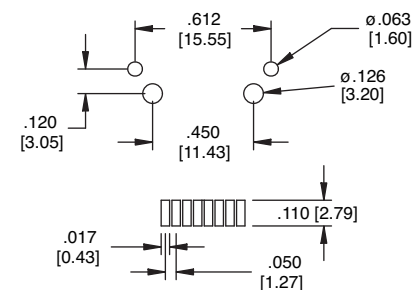


**MTJ-88WX1-FSE-SMT**

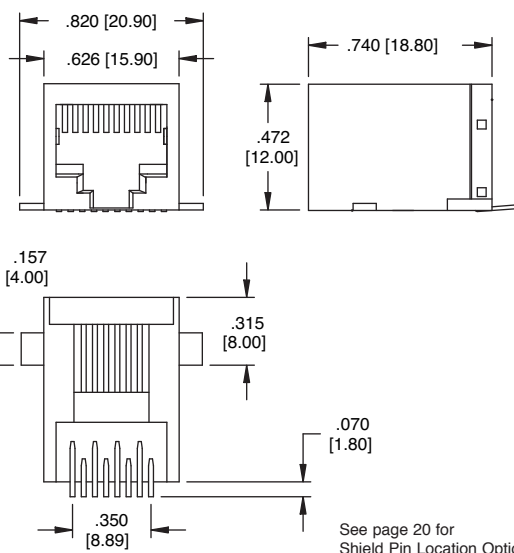


**MTJ-88WX1-FSE-SMT-PG**  
Shown with optional  
panel ground tabs

**TYPE W**  
**SHIELDED SMT WITH PLASTIC PEG**  
**8P8C**



**Recommended Solder Pad Layout**

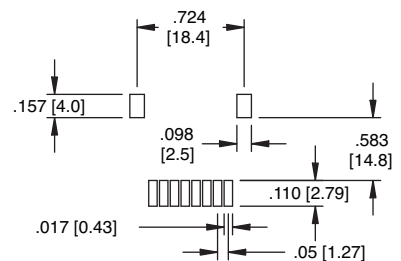


**MTJ-88WX1-FS-TSMT**



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

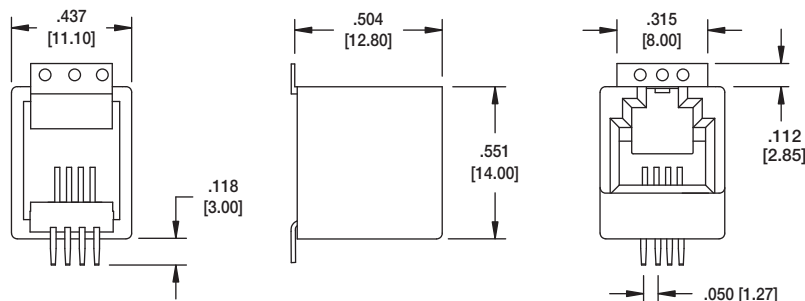
**TYPE W**  
**SHIELDED TRUE SMT**  
**8P8C**



**Recommended Solder Pad Layout**

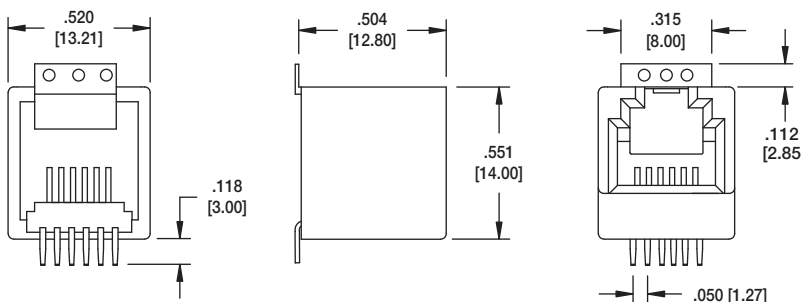
Ordering Information pg. 9

**TYPE H**  
**4P4C**



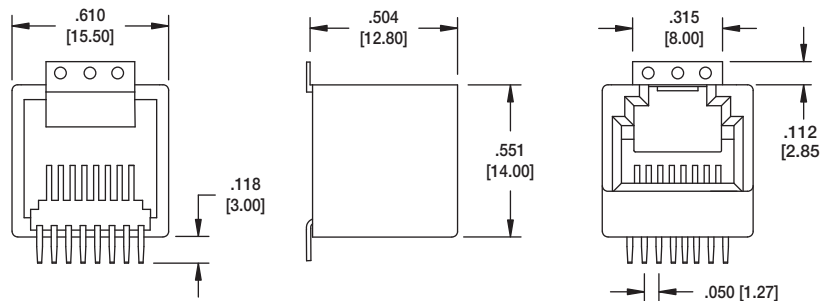
MTJ-44HX1

**TYPE H**  
**6P6C**

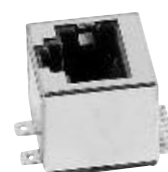


MTJ-66HX1

**TYPE H**  
**8P8C**



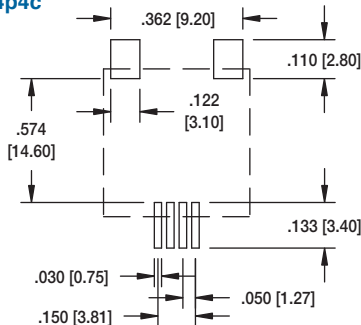
MTJ-88HX1



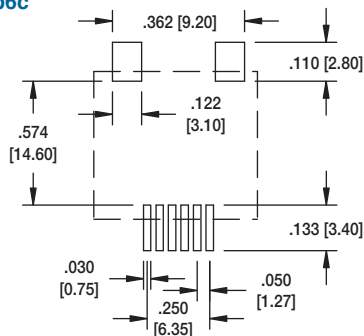
MTJ-88HX1-FS

Recommended PCB Layout

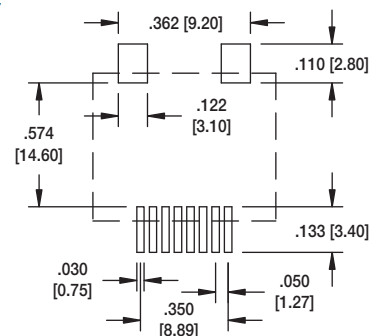
**4p4c**



**6p6c**

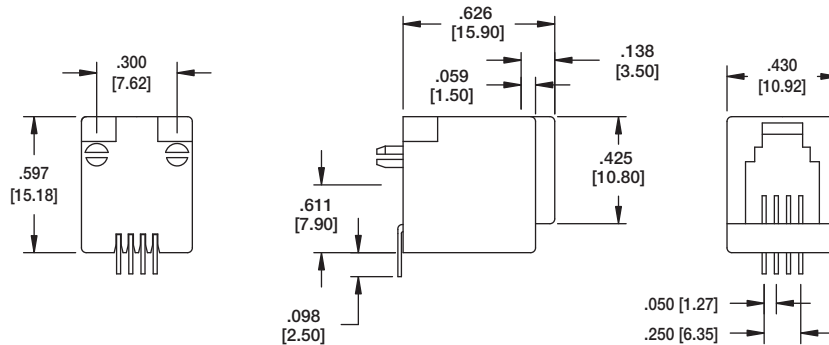


**8p8c**



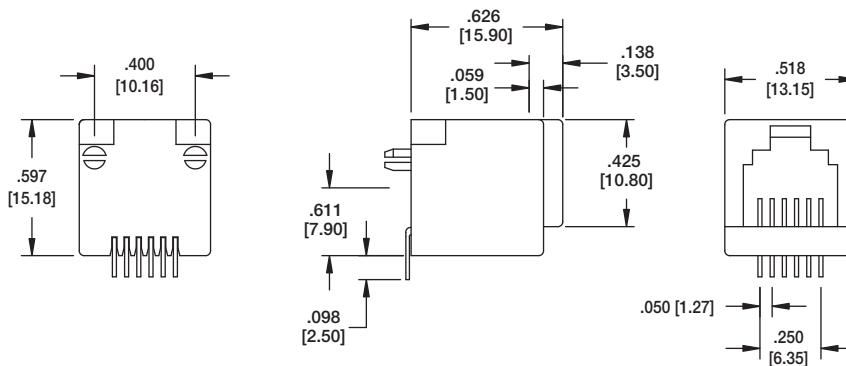
Ordering Information pg. 9

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



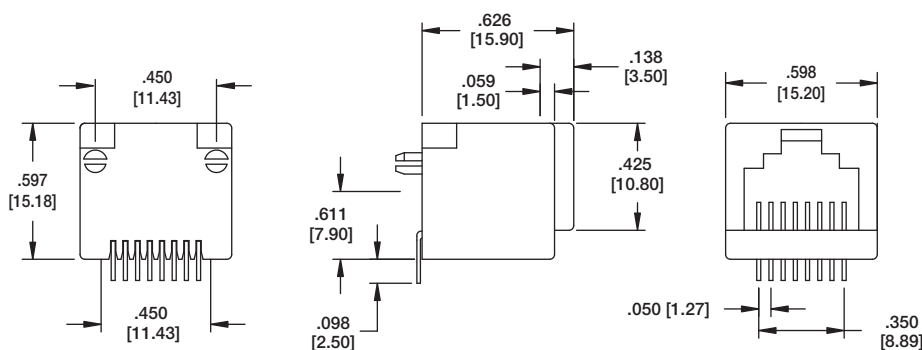
**MTJ-44KX1**

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



**MTJ-66KX1**

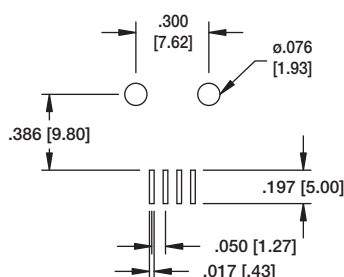
**TYPE K**  
**8P8C**



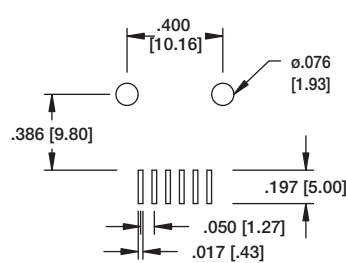
**MTJ-88KX1**

Recommended PCB Layout

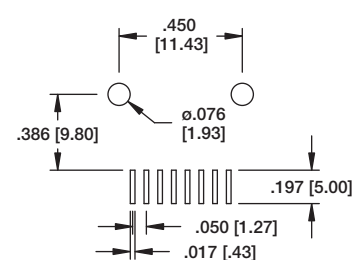
**4p4c**



**6p6c**



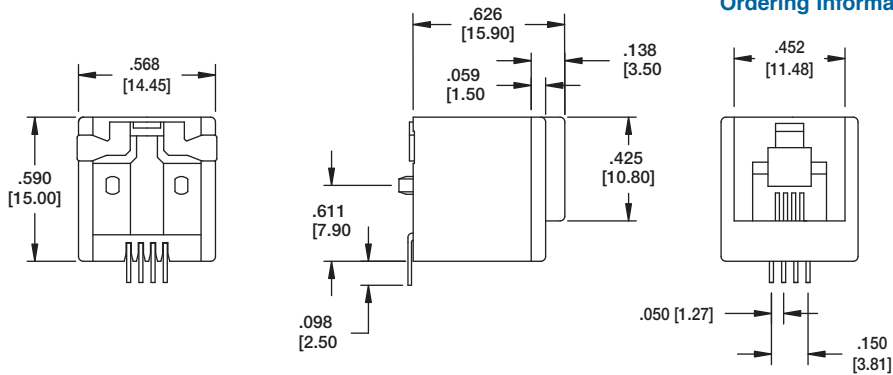
**8p8c**





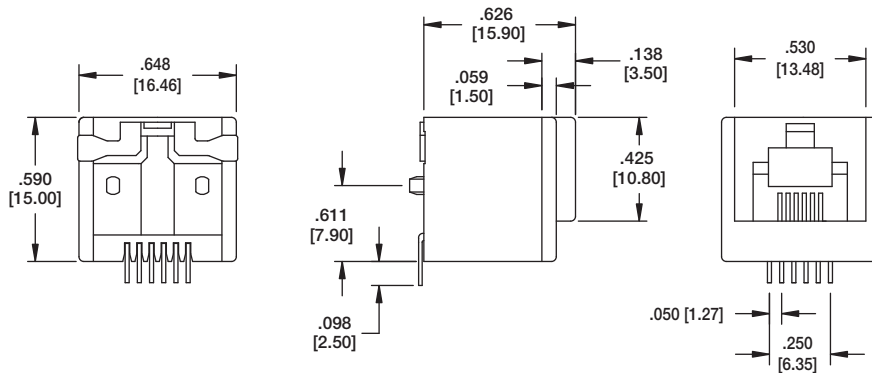
Ordering Information pg. 9

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



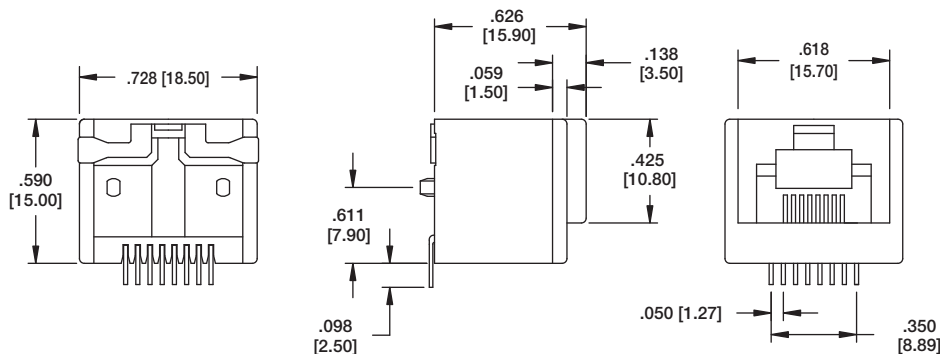
**MTJ-44VX1**

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



**MTJ-66VX1**

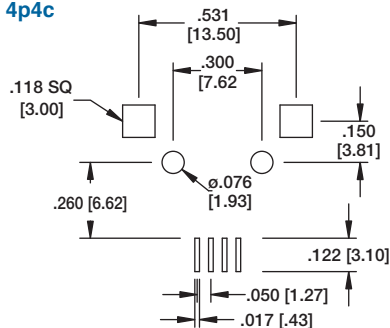
**TYPE V**  
**8P8C**



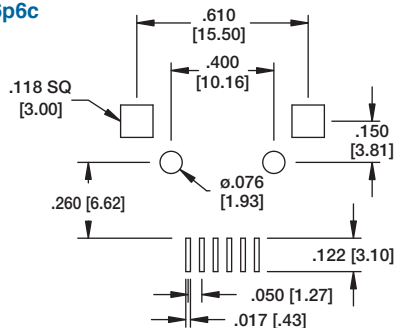
**MTJ-88VX1**

## Recommended PCB Layout

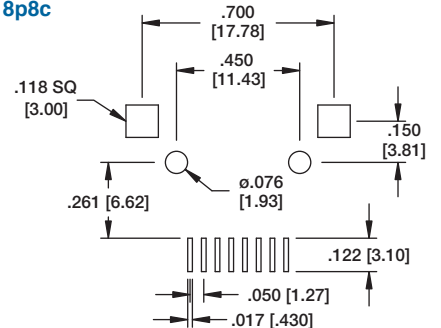
**4p4c**



**6p6c**



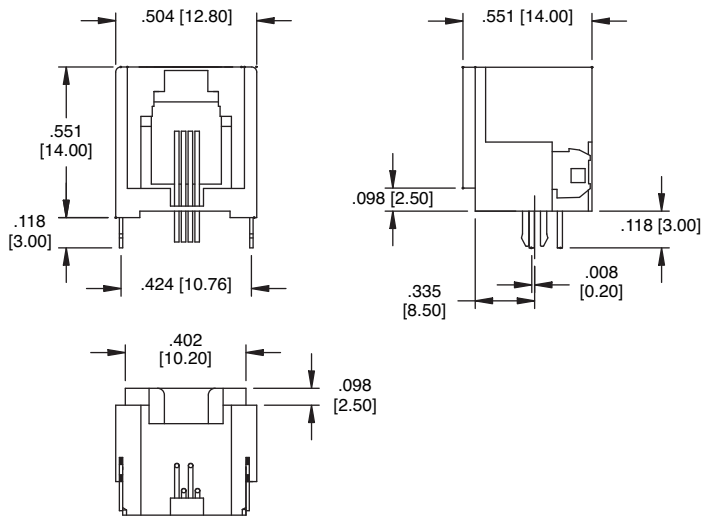
**8p8c**



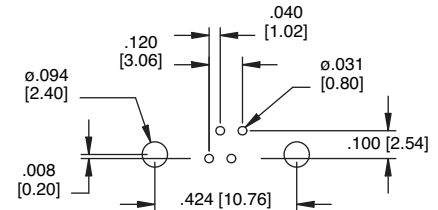
Ordering Information pg. 9

**TYPE E**

**4P4C**



**MTJ-44EX1**

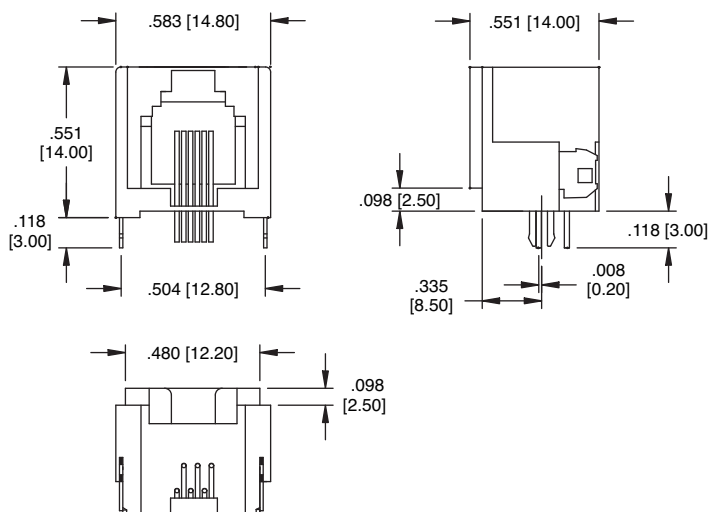


**Recommended PCB Layout**

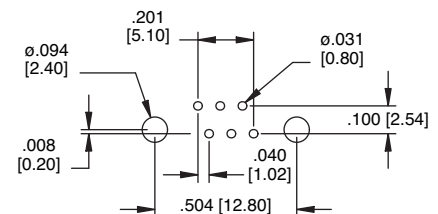
**TYPE E**

**6P4C**

**6P6C**



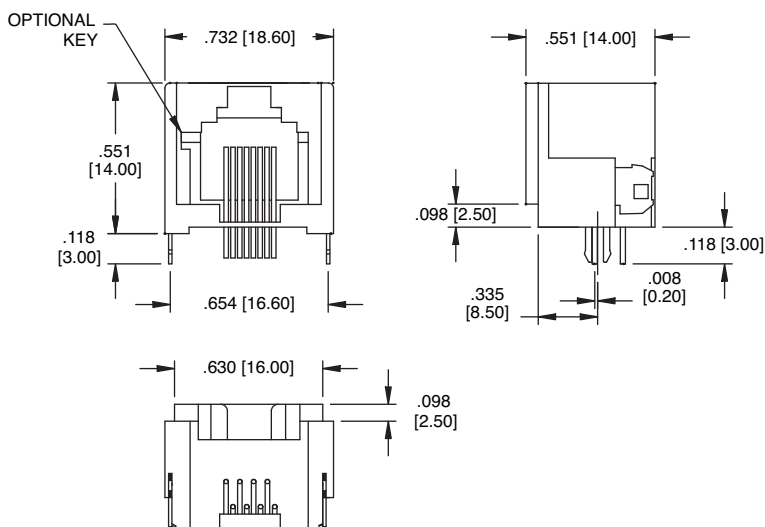
**MTJ-66EX1**



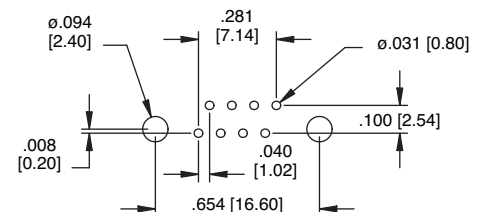
**Recommended PCB Layout**

**TYPE E**

**8P8C**



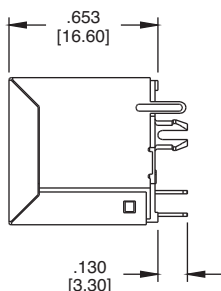
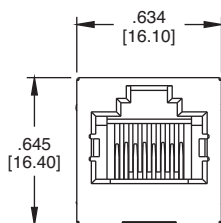
**MTJ-88EX1**



**Recommended PCB Layout**

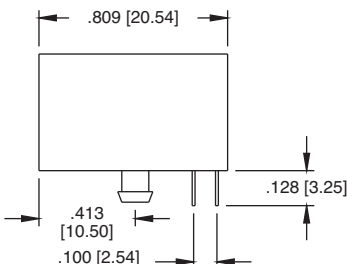
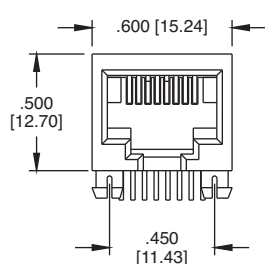
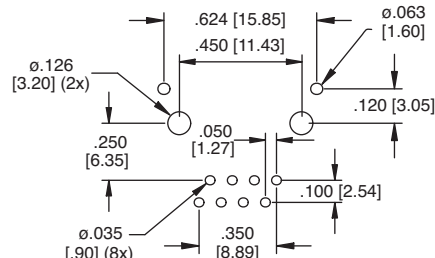
Ordering Information pg. 9

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



**MTJ-88AX1-FSE**

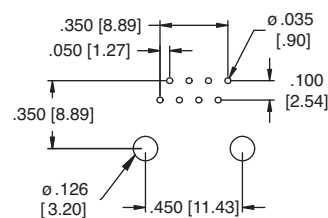
**Recommended PCB Layout**



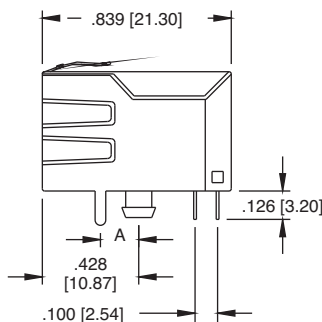
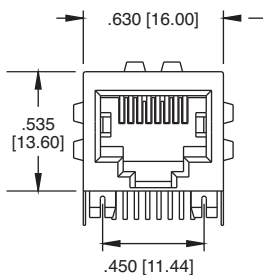
**MTJ-88TX1**

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

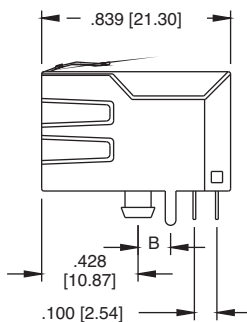
**Recommended PCB Layout**



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



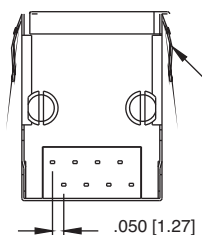
FSA, FSB & FSE



FSD = .120 [3.05]

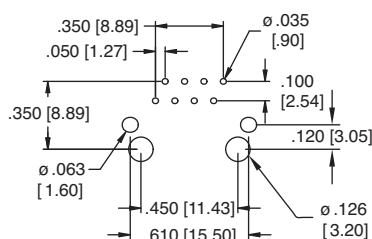


**MTJ-88TX1-FSE-PG**  
Available with or without  
panel ground tabs

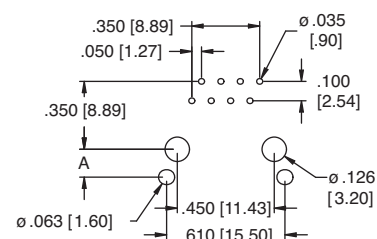


OPTIONAL  
PANEL GROUND TABS  
Dimensions A & B  
SHIELD PIN LOCATION OPTIONS  
FSA OPTION: A = .170 [4.32]  
FSB OPTION: A = .144 [3.66]  
FSE OPTION: A = .120 [3.05]  
FSD OPTION: B = .120 [3.05]

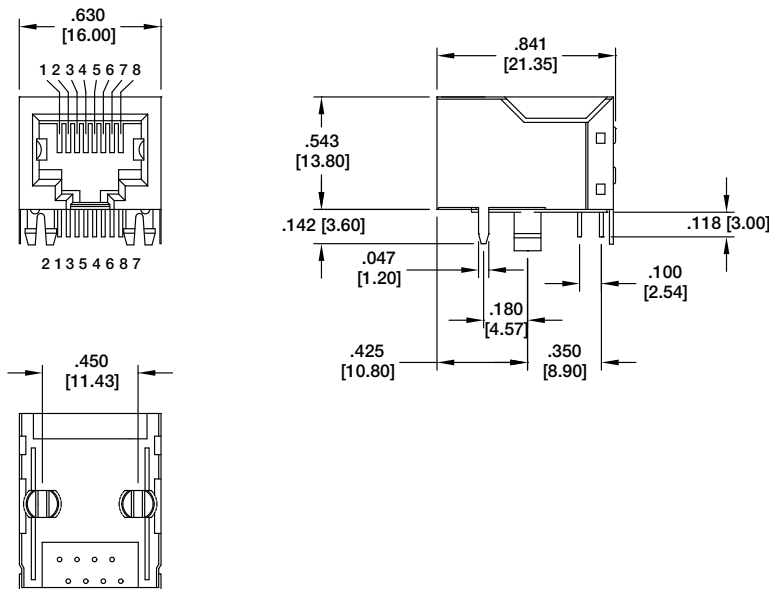
**PCB Layout (FSD)**



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



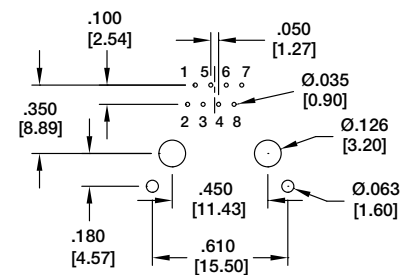
**TYPE T**  
**CAT. 5e, SHIELDED**



**MTJ-88TX1-FSG**

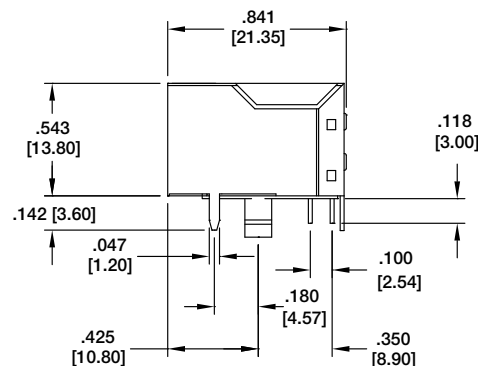
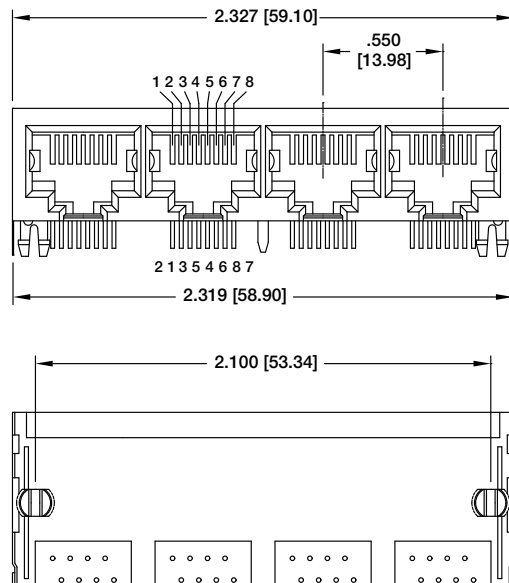


**MTJ-88TX1-FSG-PG**

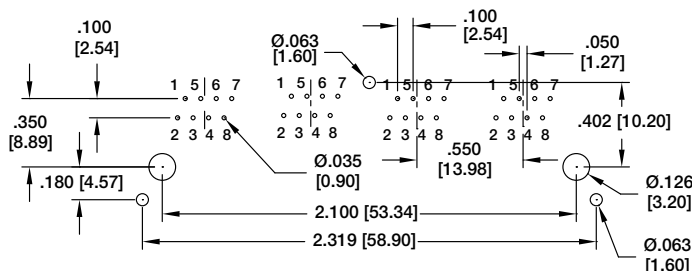


**Recommended PCB Layout**

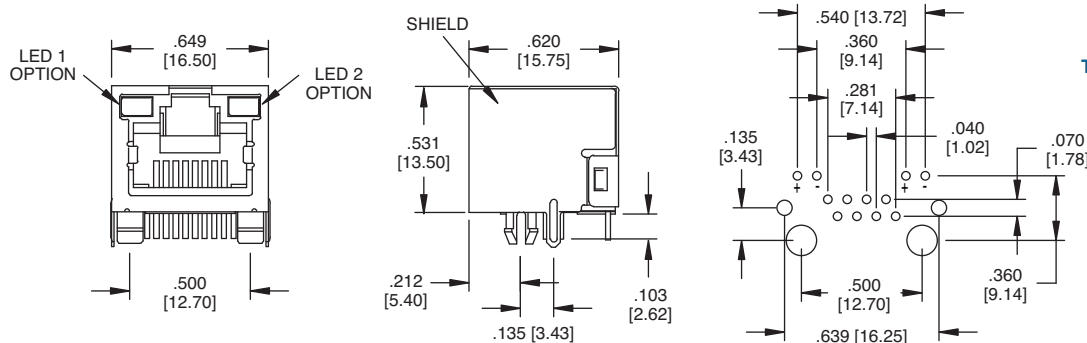
**TYPE T**  
**GANGED**  
**CAT. 5e, SHIELDED**



**MTJG-4-88TX1-FSG**



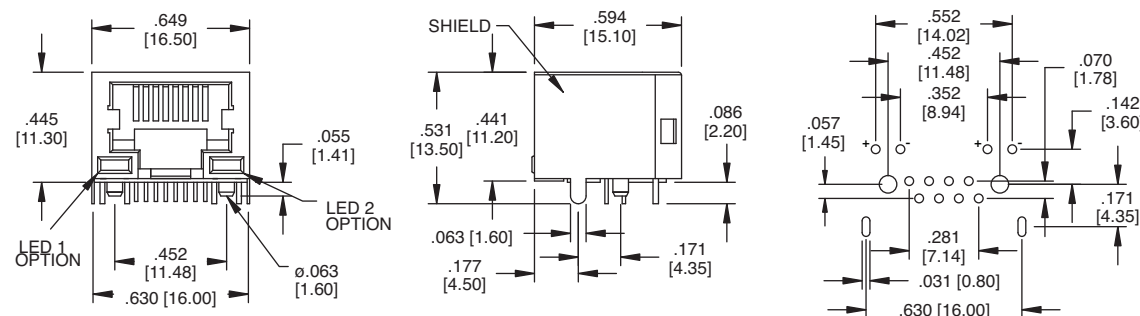
**Recommended PCB Layout**



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



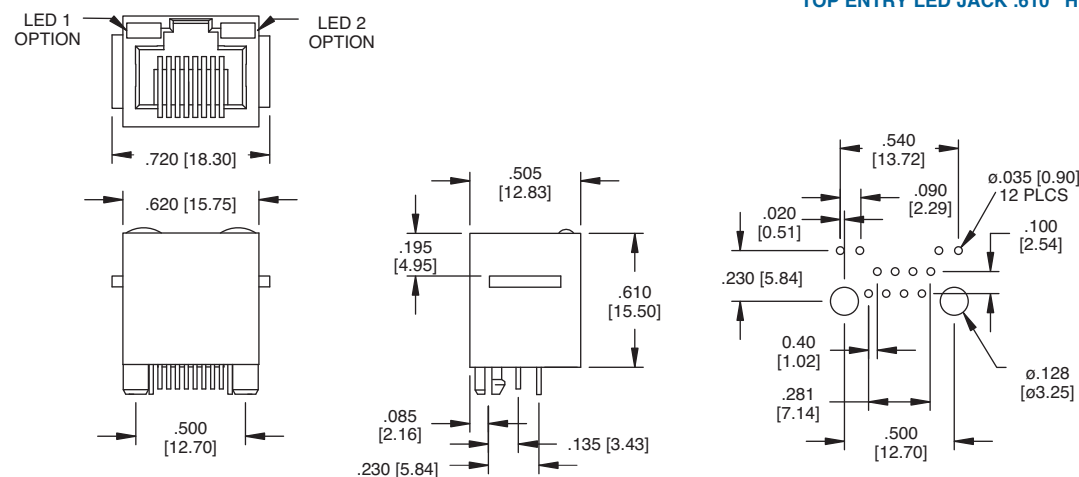
**MTJ-88ARX1-FS-LG**  
Also available with  
panel ground tabs



**TYPE AA**  
LED JACK BOTTOM TAB &  
BOTTOM LEDSTHRU HOLE  
8P8C



**MTJ-88AA1-FS-LG-PG**



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



**MTJ-88DX1-LG**

**Recommended PCB Layout**

Add suffix to end of P/N:

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

### JACKS WITH LEDs ORDERING INFORMATION



**SERIES INDICATOR**  
MTJ = Modular  
telephone jack



**HOUSING  
PLUG SIZE**  
8 or 10



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



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



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



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



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

#### OPTIONS:

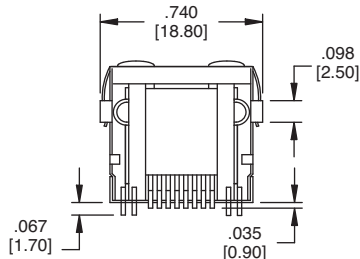
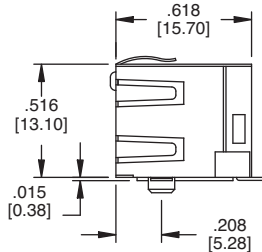
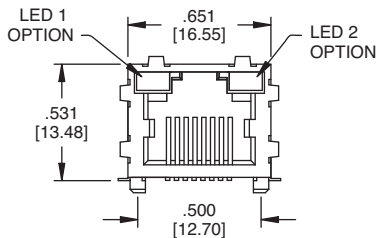
SMT = Surface mount tails with Hi-Temp insulator

PG = Panel Ground Tabs

LX = LED's, use LA, LD, LG, LH, LI, see LED Configuration Chart

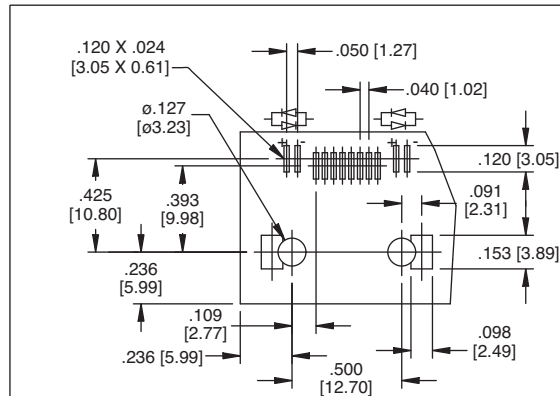
Ordering Information pg. 29

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



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

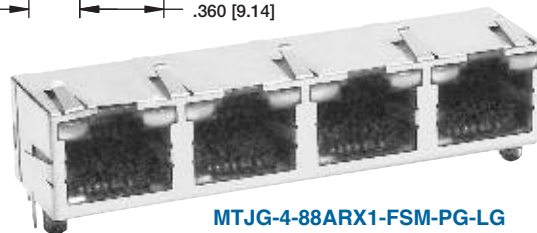
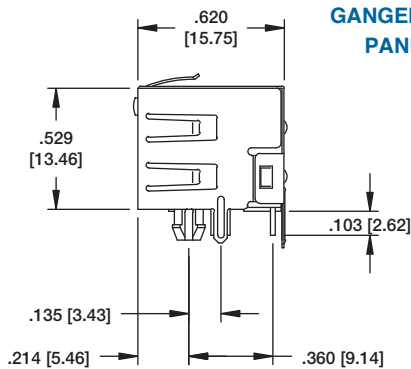
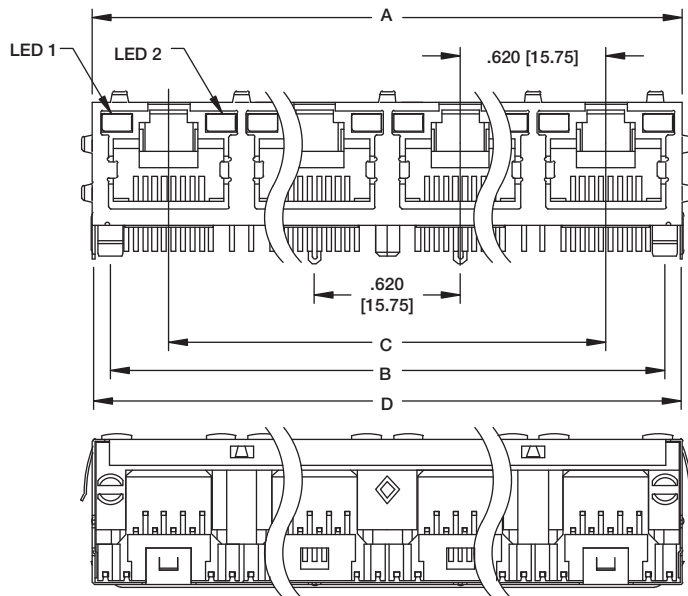
Also available without panel ground tabs



**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**

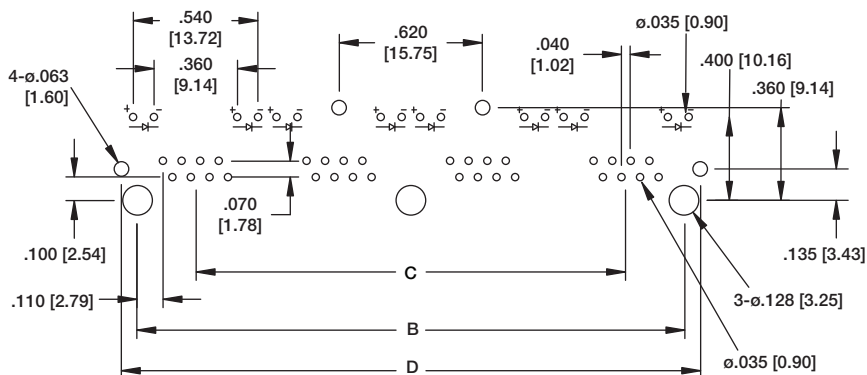
Shown with metal shield, panel ground tabs and LED options

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**

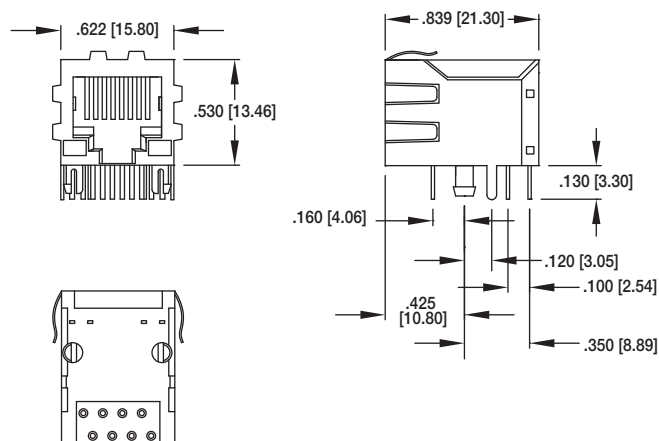
A = .620 [15.75] x No. of Ports + .029 [0.75]  
B = .620 [15.75] x No. of Ports - 1 + .500 [12.70]  
C = .620 [15.75] x No. of Ports - 1  
D = .620 [15.75] x No. of Ports + .019 [0.50]



**Recommended PCB Layout**

**Ordering Information pg. 29**

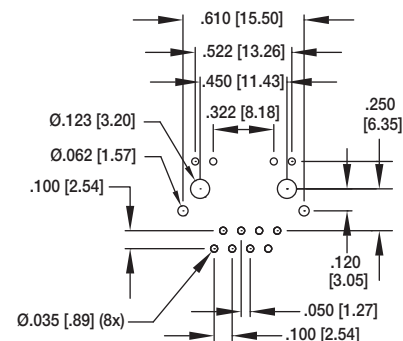
## TYPE G WITH LED's



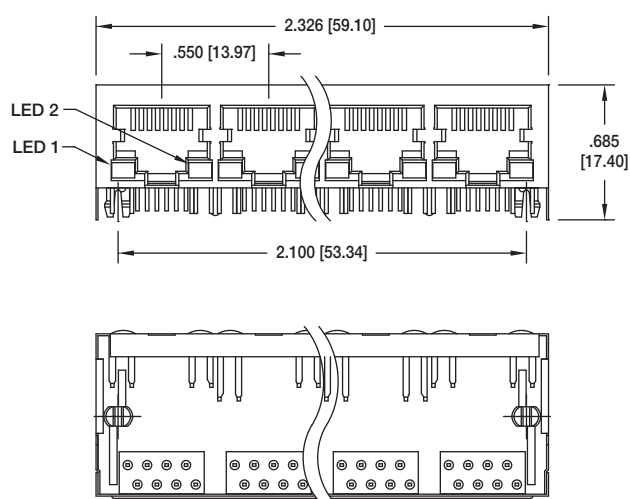
MTJ-88GX1-FSD-LH



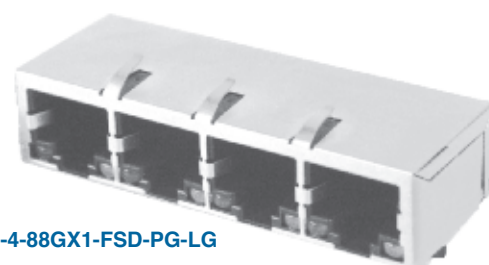
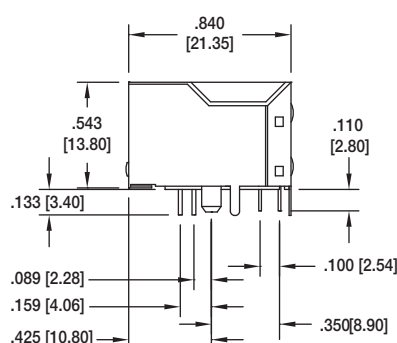
MTJ-88GX1-FSD-LH-PG



## Recommended PCB Layout



2, 4 & 6 PORTS AVAILABLE

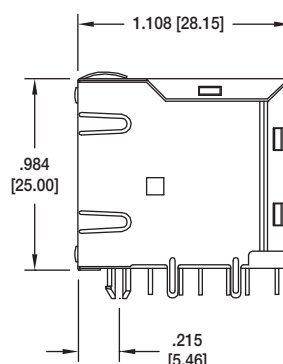
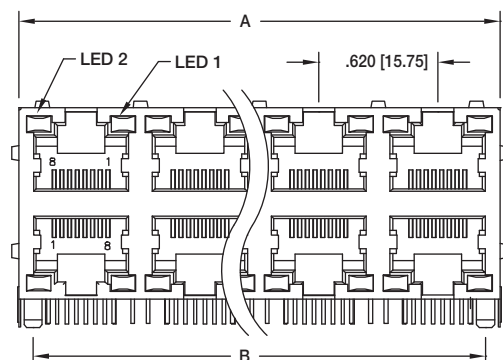


**MTJG-4-88GX1-FSD-PG-LG**

## TYPE G GANGED WITH LED's

**Ordering Information pg. 34**

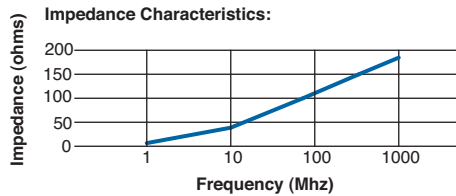
## TYPE J STACKED WITH LED's



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	3.75 [95.15]	3.600 [91.45]

## 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

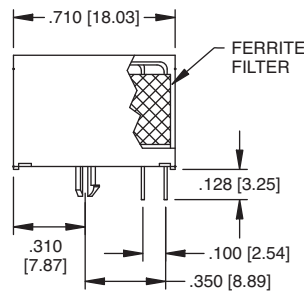
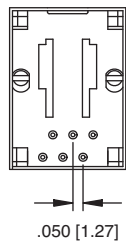
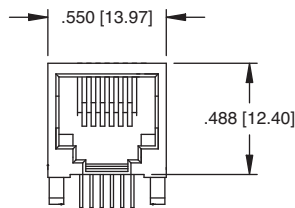


**MTJ-88MX1-FSE**  
Metal Shielded

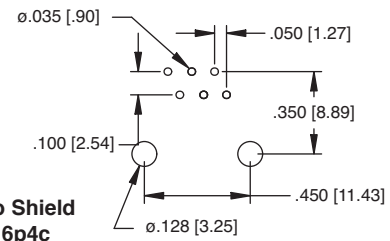


**MTJ-88MX1-FSE-PG**  
Metal Shielded with  
panel ground tabs

## EMI FERRITE FILTERED JACK

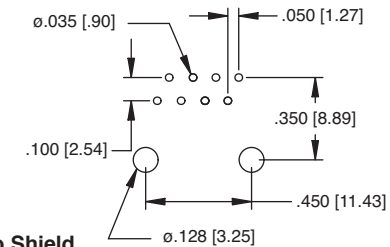


Type M  
6P6C  
6P4C



No Shield  
6p4c  
6p6c

Recommended PCB Layout

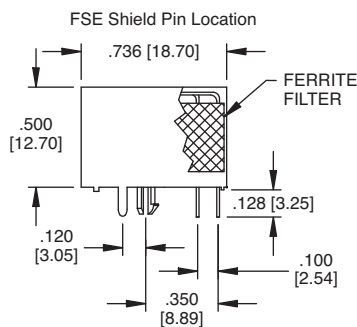
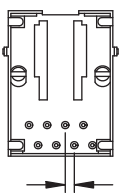
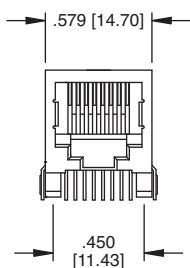


No Shield  
8p8c

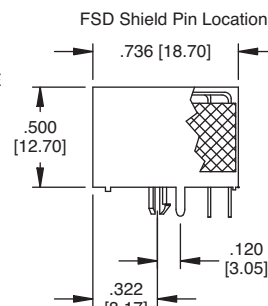
Recommended PCB Layout

## EMI FERRITE FILTERED & SHIELDED JACK

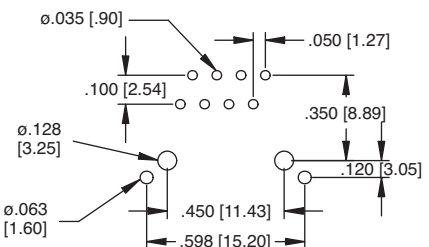
Type M  
8P8C



**MTJ-88MX1-FSE**

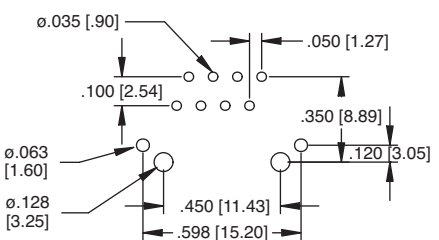


**MTJ-88MX1-FSD**



FSE Shield  
8p8c

Recommended PCB Layout



FSD Shield  
8p8c

Recommended PCB Layout