

INTRODUCTION:

Adam Tech MTJ series Modular Telephone 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 telephone plugs and all industry standard telephone plugs.

SPECIFICATIONS:

Material:

Standard Insulator: PBT, or ABS, rated UL94V-0 Optional Hi-Temp Insulator: Nvlon 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 m Ω max. initial Insulation resistance: 500 M Ω 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 +70°C

Soldering process temperature: Standard insulator: 235°C Hi-Temp insulator: 260C

PACKAGING:

Anti-ESD plastic trays

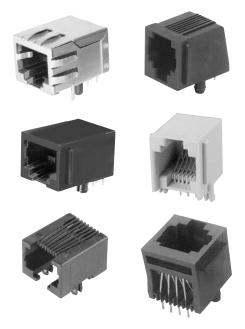
SAFETY AGENCY APPROVALS:

UL Recognized E224049

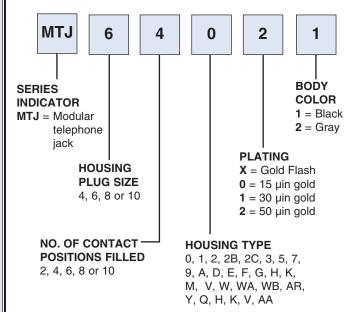




71 @ FC



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

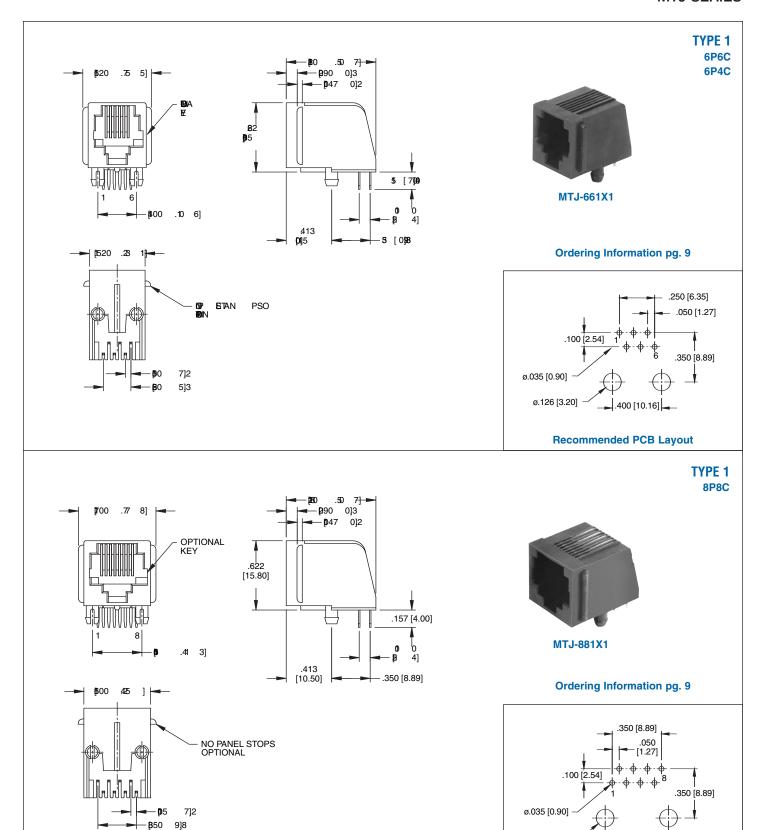
HT = Hi-Temp insulator for Hi-Temp soldering processes up to 260C (Add this option for thru-hole products only. All SMT products are manufactured with Hi-Temp insulators)

PG = Panel ground tabs



.622" HEIGHT, SIDE ENTRY - TYPE 1

MTJ SERIES



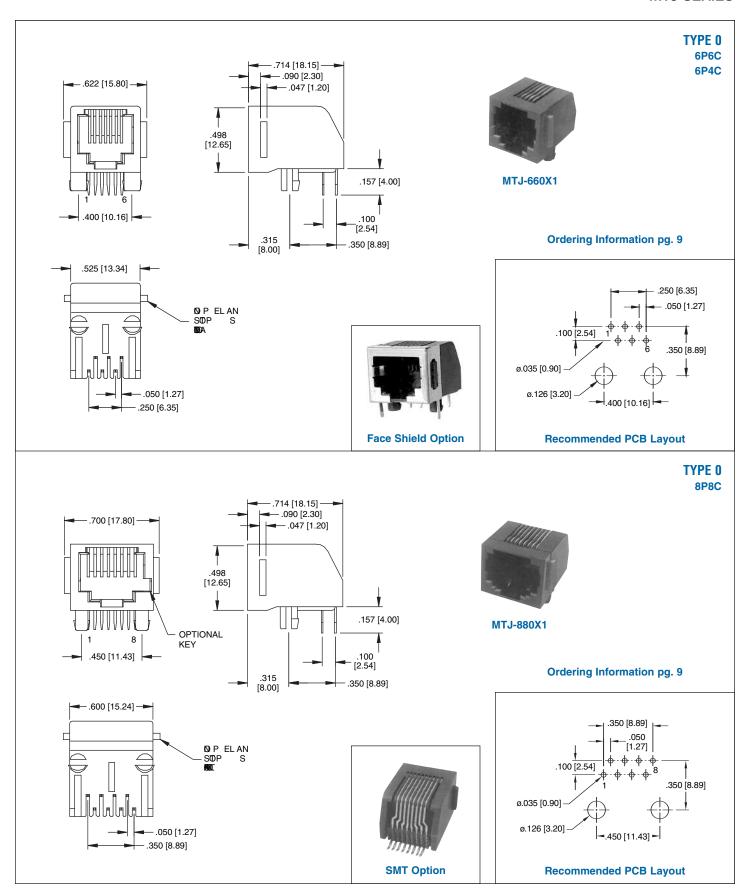
ø.126 [3.20]

450 [11.43]

Recommended PCB Layout

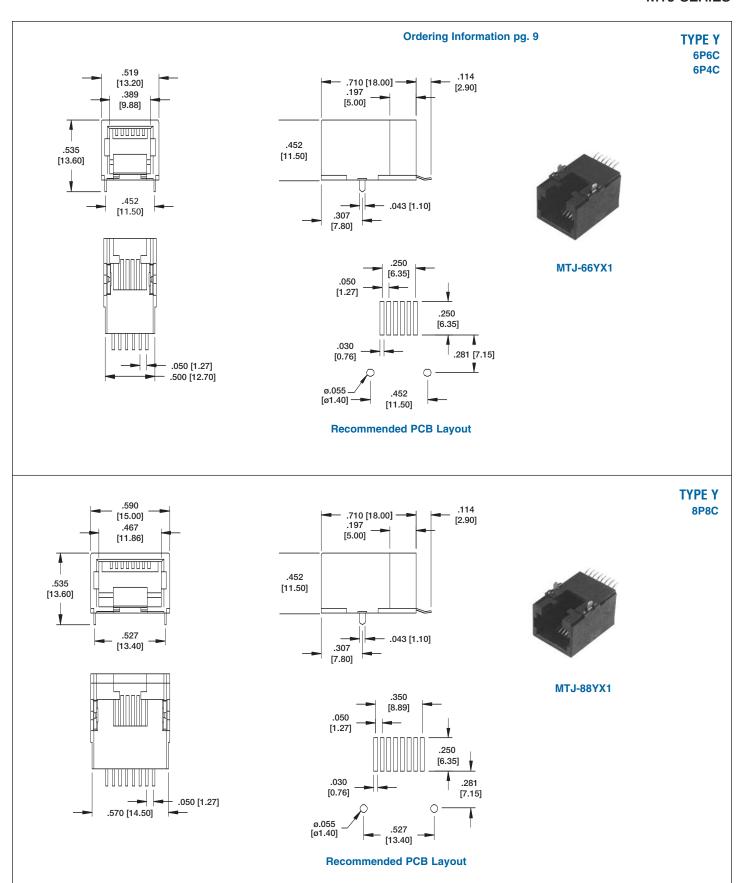


.498" HEIGHT, SIDE ENTRY - TYPE 0
MTJ SERIES





INTERNAL SHIELD LOW PROFILE SMT- TYPE Y
MTJ SERIES





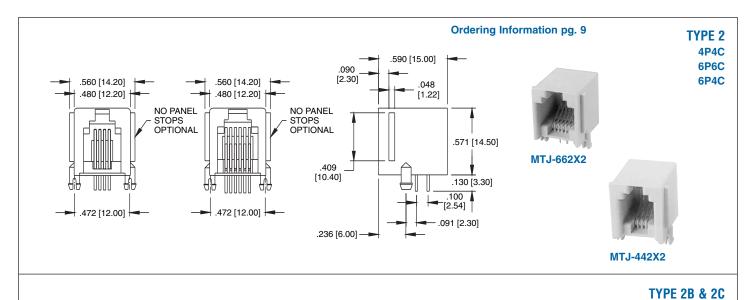
.571" HEIGHT, SIDE ENTRY - TYPE 2

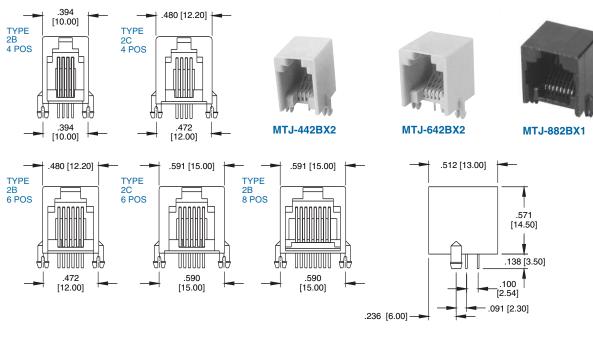
MTJ SERIES

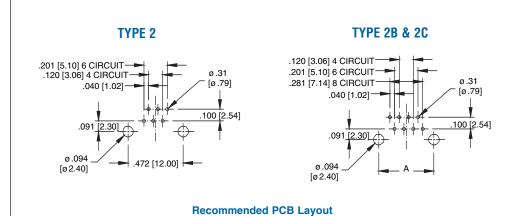
4P4C

6P6C

6P4C 8P8C







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]		



COMPACT TYPE Q & SHIELDED TYPE 2B

MTJ SERIES

.100 [2.54]

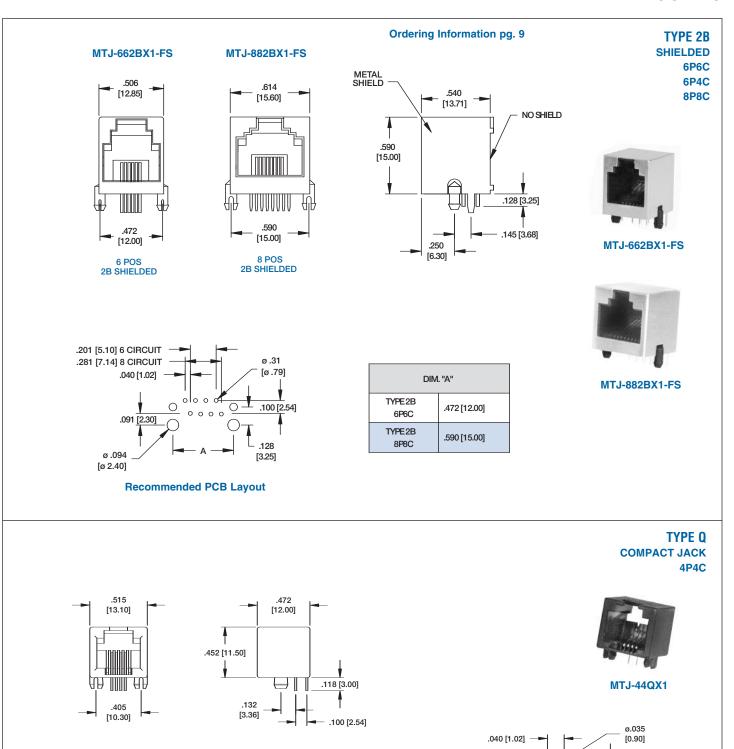
405

[10.30]

Recommended PCB Layout

ø.126

[3.02]

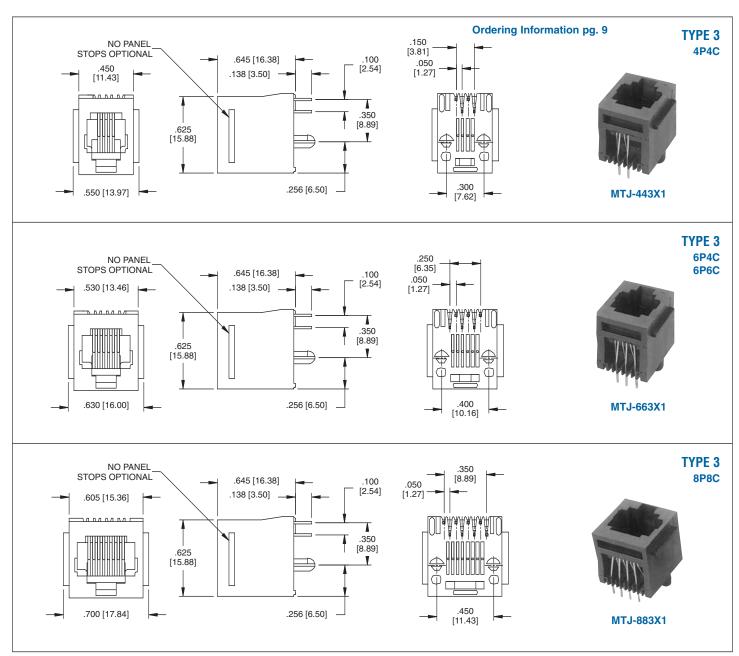


ØD

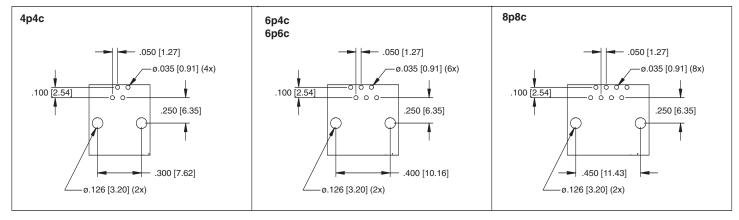
.212 [5.40]



.645" HEIGHT, TOP ENTRY, OPEN BODY - TYPE 3
MTJ SERIES



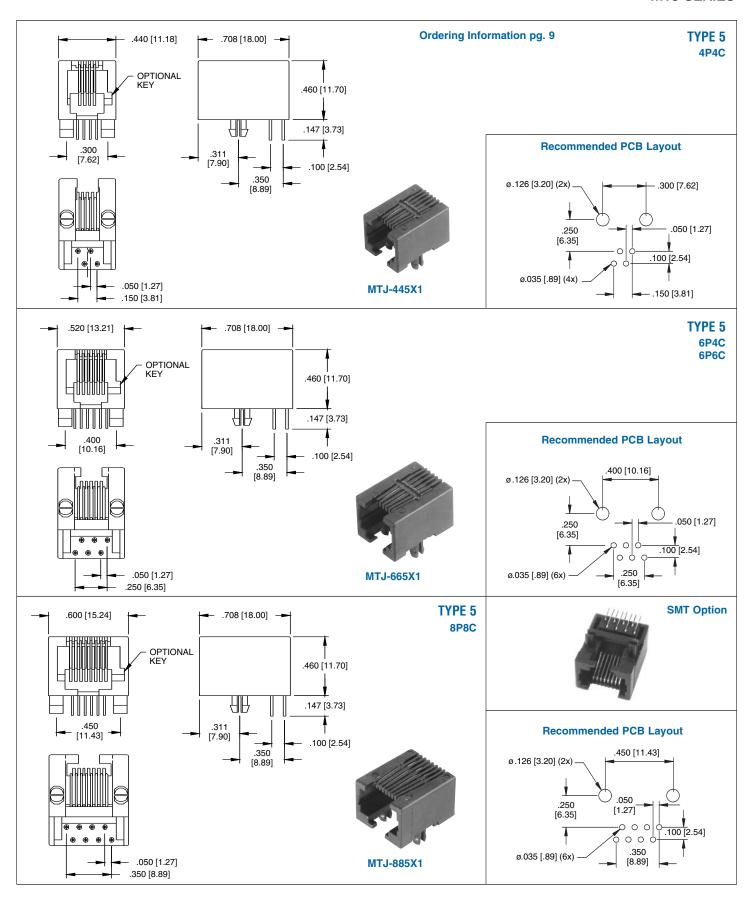
Recommended PCB Layout





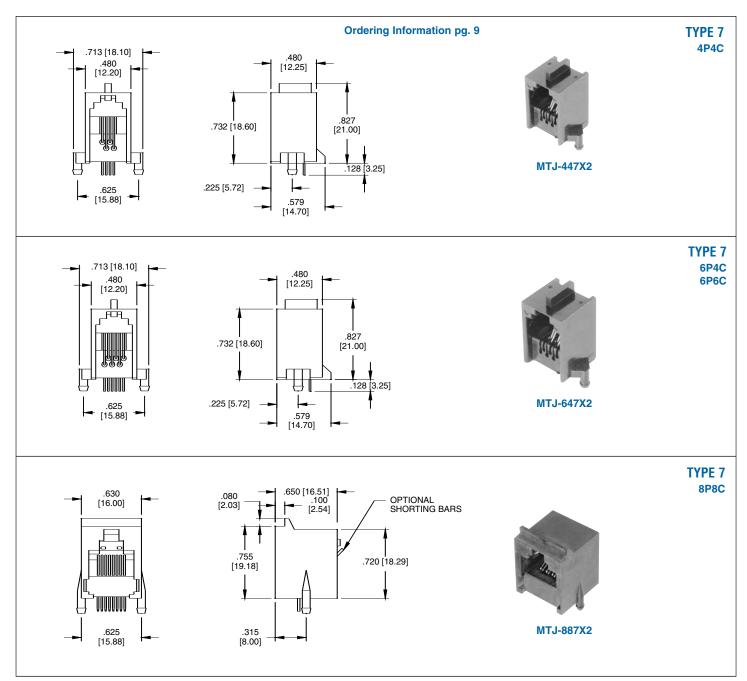
.460" HEIGHT, SIDE ENTRY - TYPE 5

MTJ SERIES

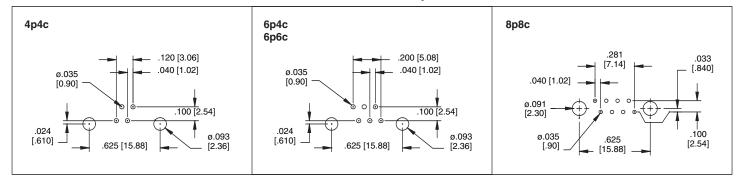




THRU HOLE SIDE ENTRY - TYPE 7
MTJ SERIES



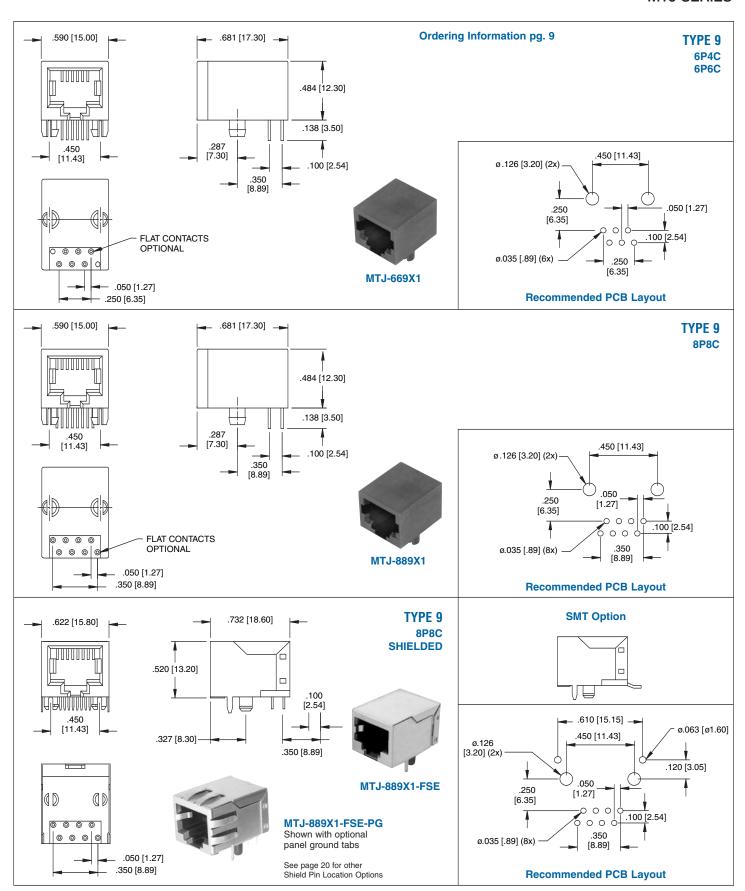
Recommended PCB Layout





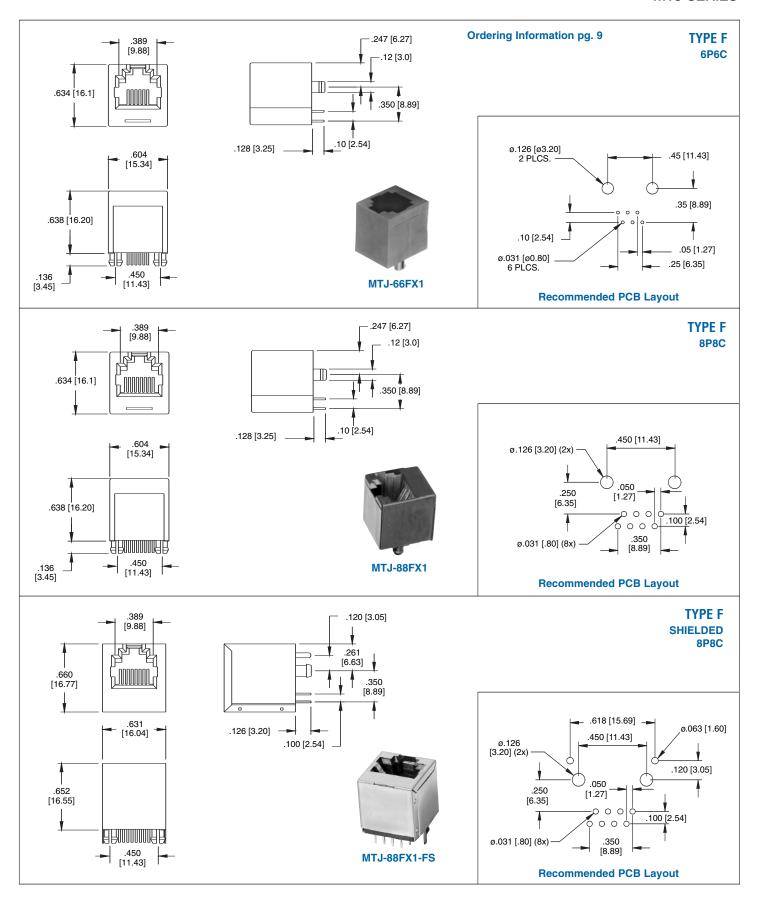
.484" HEIGHT, SIDE ENTRY - TYPE 9

MTJ SERIES



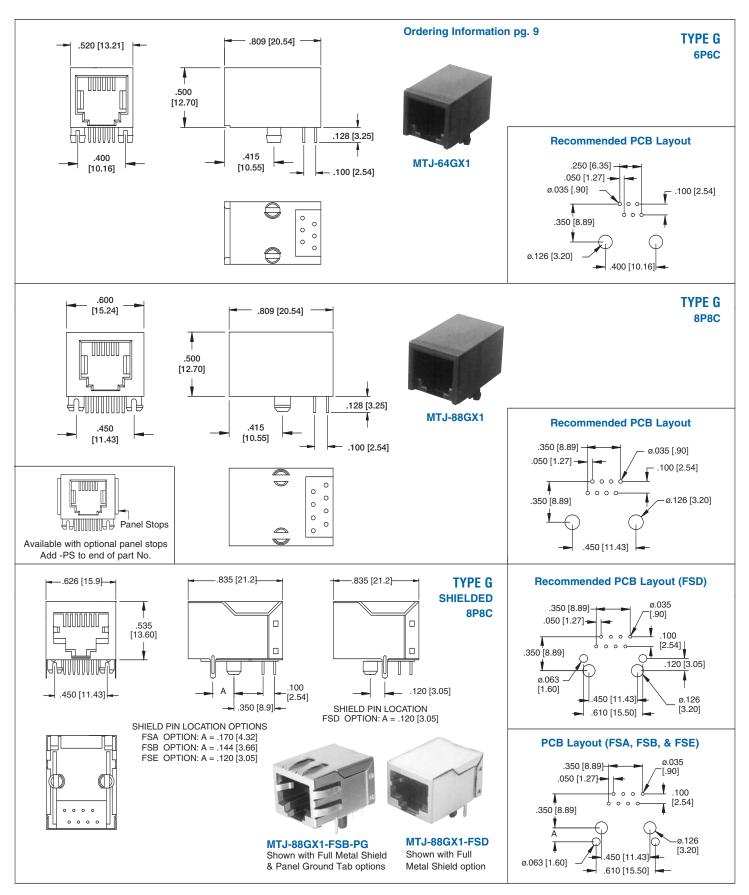


TOP ENTRY, ENCLOSED BODY - TYPE F
MTJ SERIES



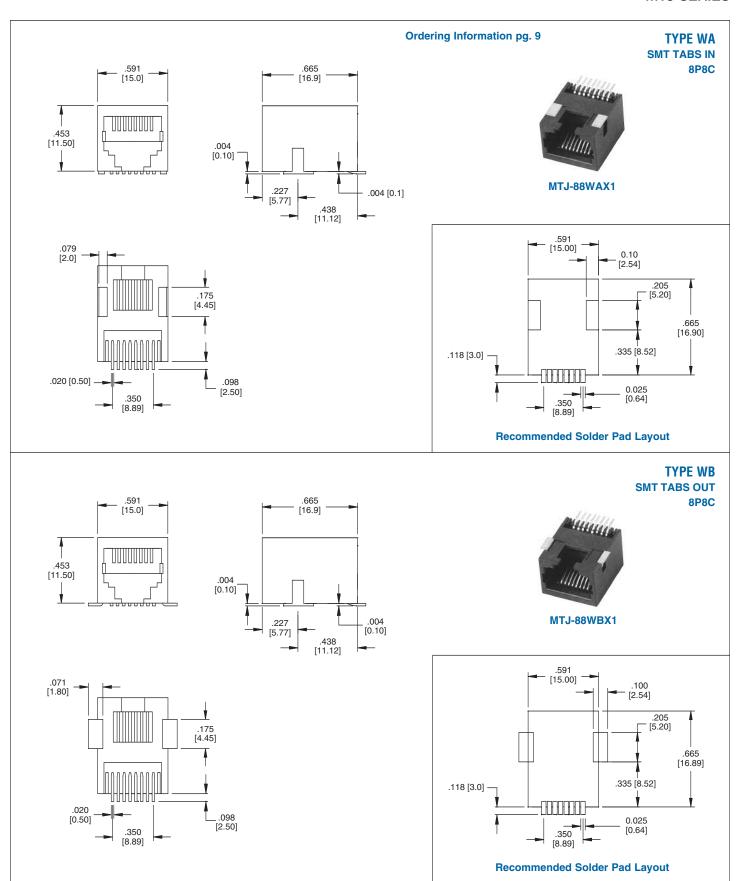


.500" HEIGHT, SIDE ENTRY - TYPE G





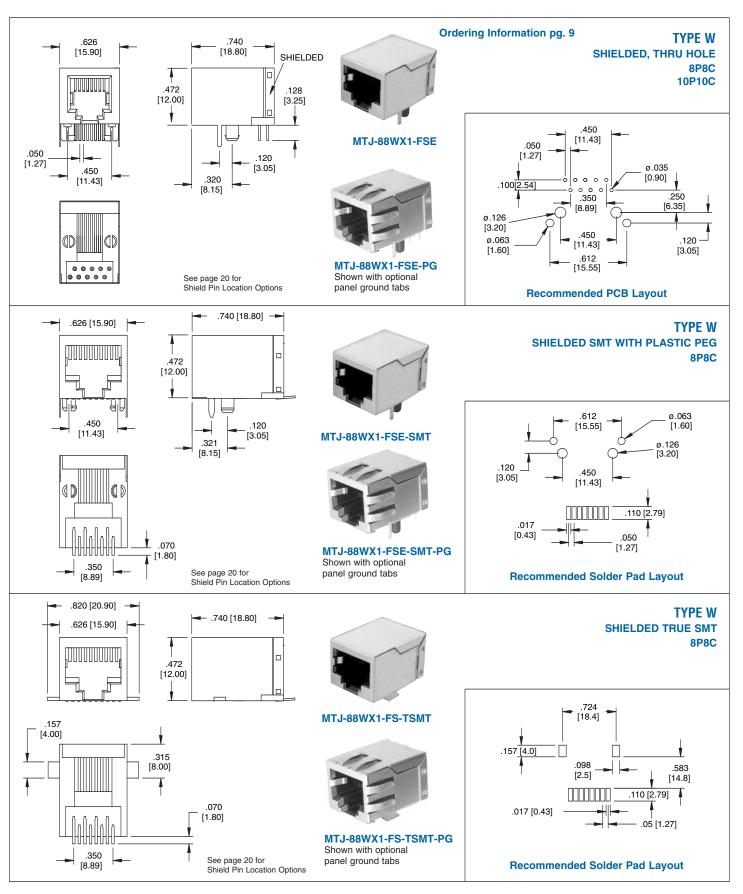
SMT, .453" HEIGHT, SIDE ENTRY - TYPE W
MTJ SERIES



ADAM TECH Adam Technologies, Inc.

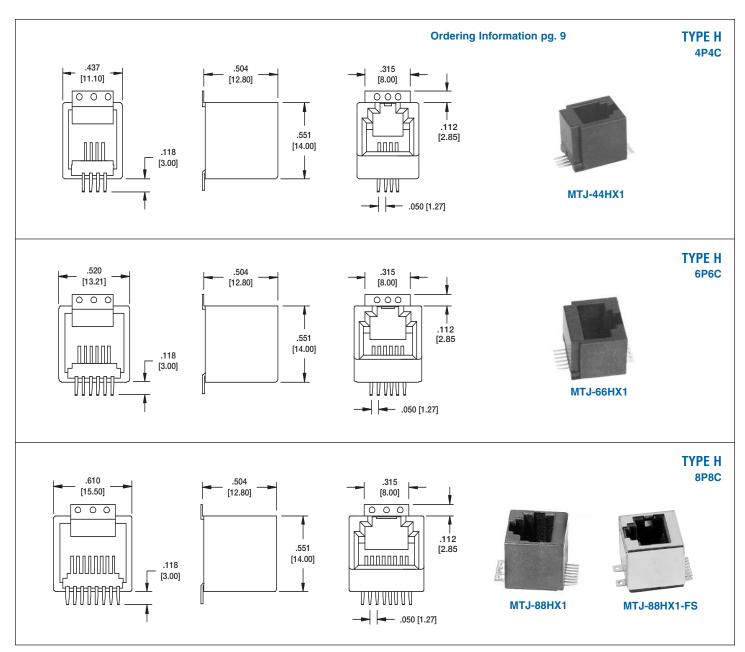
MODULAR TELEPHONE JACKS

.472" HEIGHT, THRU HOLE & SMT - TYPE W

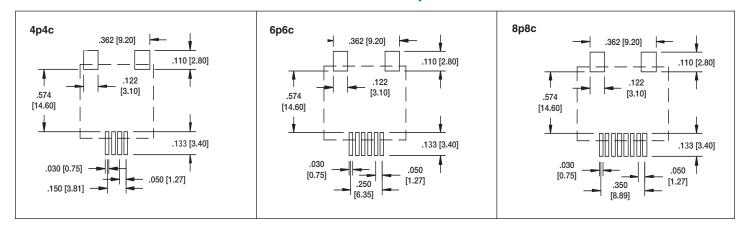




.504" HEIGHT, SMT, TOP ENTRY-TYPE H

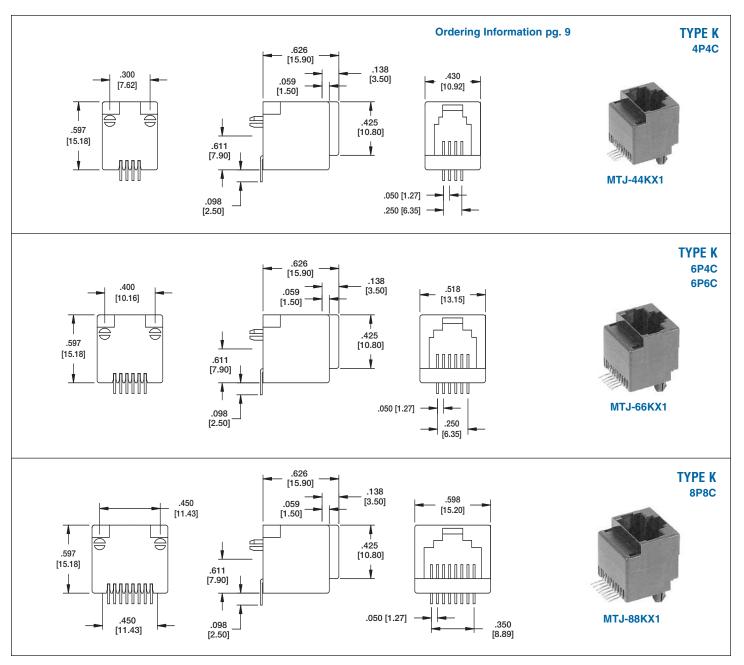


Recommended PCB Layout

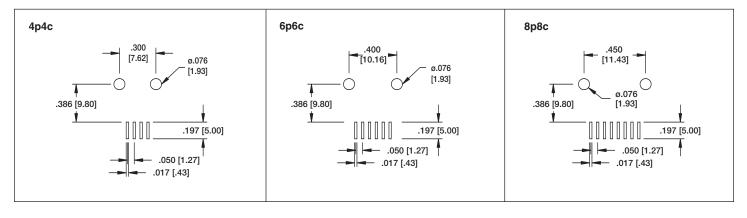




.626" HEIGHT, SMT, TOP ENTRY-TYPE K

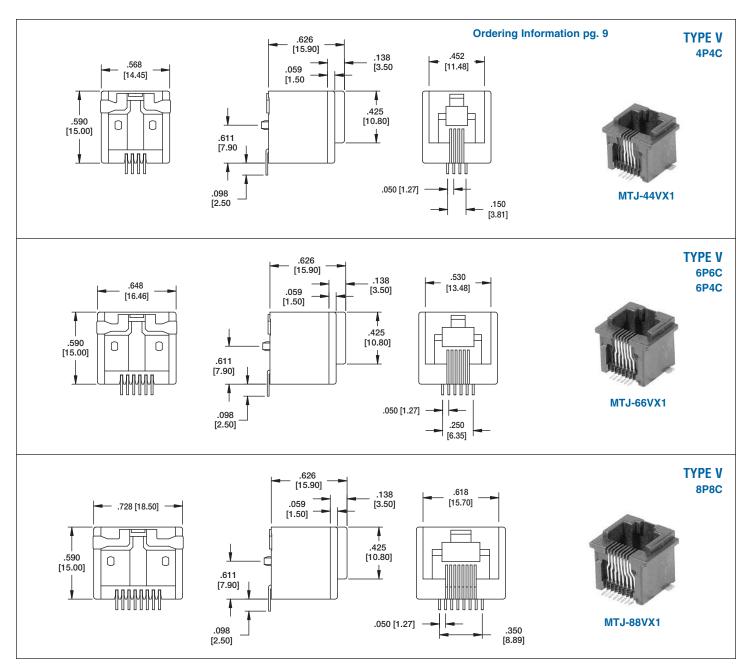


Recommended PCB Layout

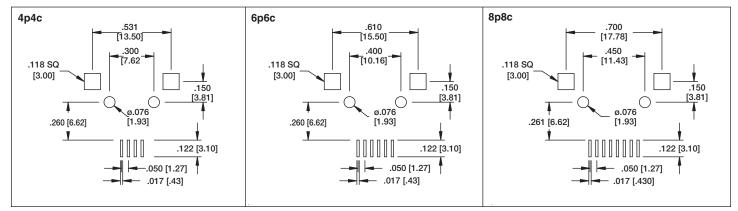




.626" HEIGHT, SMT, TOP ENTRY-TYPE V

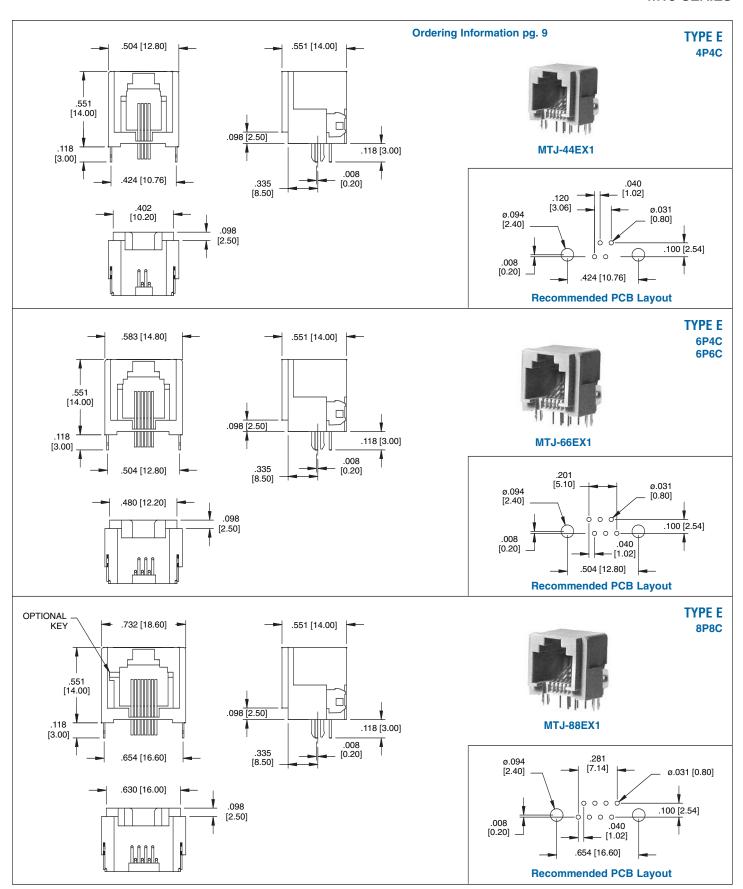






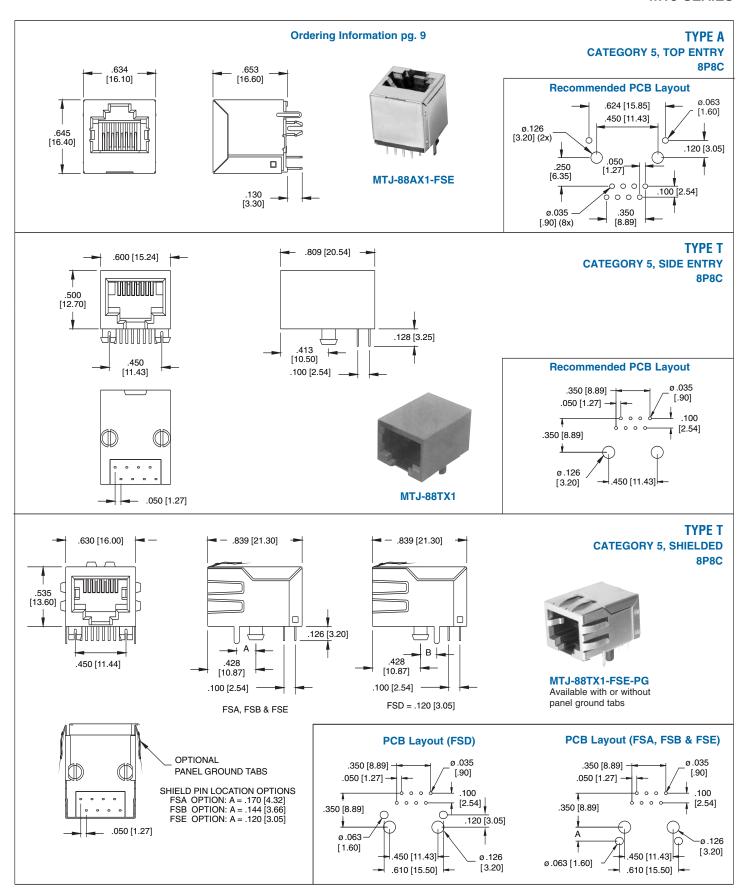


.551" HEIGHT, SIDE ENTRY - TYPE E





CATEGORY 5, 5e, SIDE & TOP ENTRY MTJ SERIES

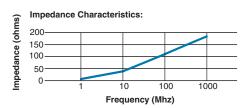




FERRITE FILTERED AND SHIELDED JACKS **MTJ SERIES**

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



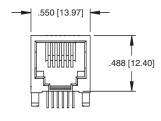
MTJ-88MX1-FSE Metal Shielded

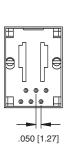
6p6c

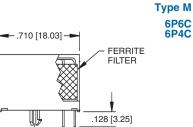


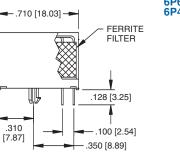
MTJ-88MX1-FSE-PG Metal Shielded with panel ground tabs

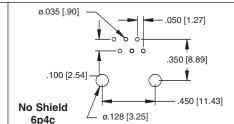
EMI FERRITE FILTERED JACK

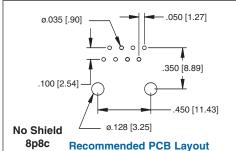






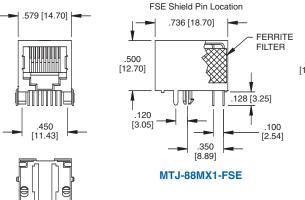


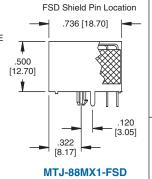




Recommended PCB Layout

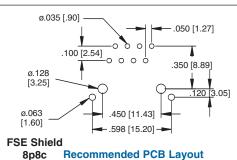
EMI FERRITE FILTERED & SHIELDED JACK

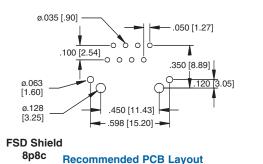




Type M

8P8C





- .050 [1.27]



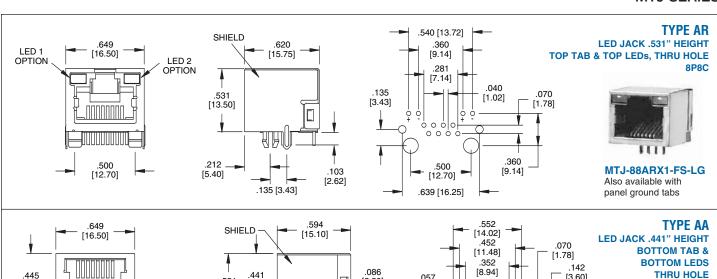
ADAM TECH TELEPHONE JACKS WITH LEDS

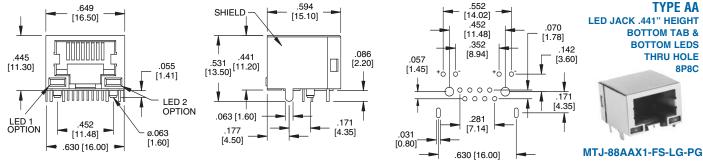
LED JACKS, TYPE AA, AR & D

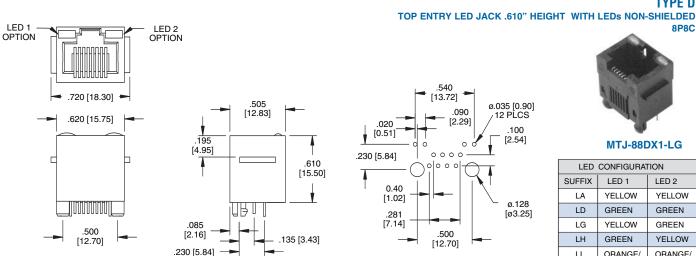
MTJ SERIES

8P8C

TYPE D





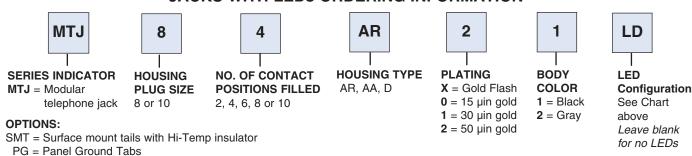




LED CONFIGURATION			
SUFFIX	LED 1	LED 2	
LA	YELLOW	YELLOW	
LD	GREEN	GREEN	
LG	YELLOW	GREEN	
LH	GREEN	YELLOW	
LI	ORANGE/ GREEN	ORANGE/ GREEN	

JACKS WITH LEDS ORDERING INFORMATION

Recommended PCB Layout



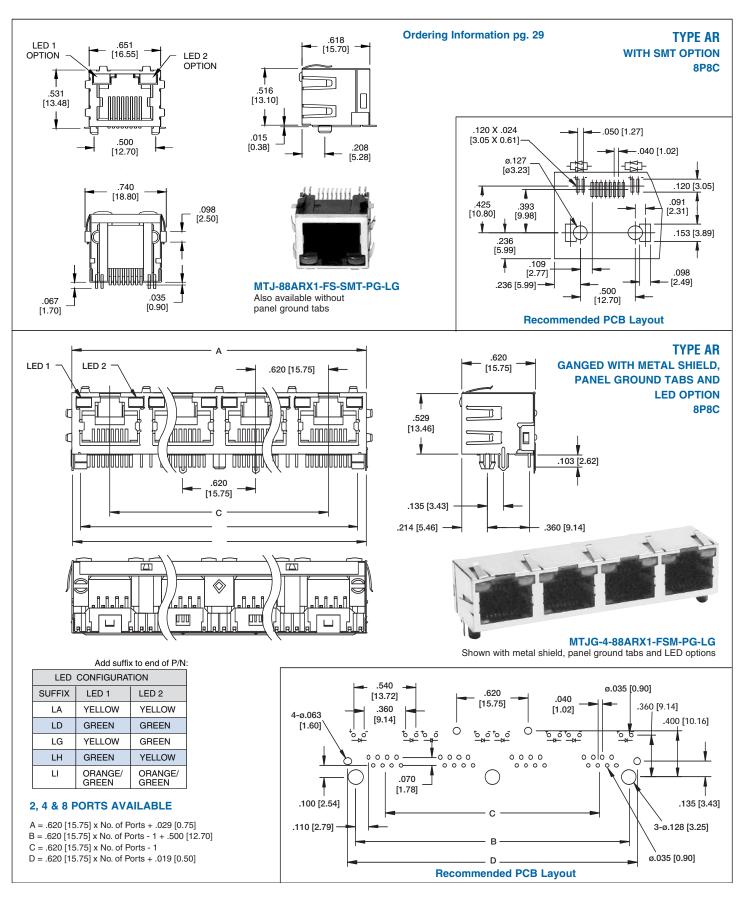
LX = LED's, use LA, LD, LG, LH, LI, see LED Configuration Chart



MODULAR JACKS WITH LEDS

SINGLE & GANGED LED JACKS
MTJ SERIES

Adam Technologies, Inc.

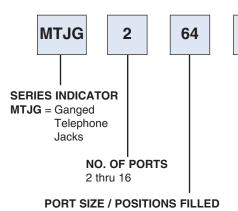




GANGED & STACKED JACKS MTJG SERIES - ORDERING INFORMATION

ORDERING INFORMATION **GANG JACK WITHOUT LEDs**

2



64 = 6 position, 4 contacts (6P4C) 66 = 6 position, 6 contacts (6P6C)

88 = 8 position, 8 contacts (8P8C)

2 1 HOUSING COLOR 1 = Black

2 = Medium Gray

X = Gold flash

 $0 = 15 \mu in. gold$

CONTACT PLATING

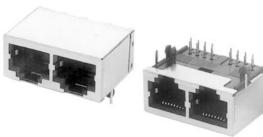
 $1 = 30 \mu in. gold$

 $2 = 50 \mu in. gold$

HOUSING TYPE

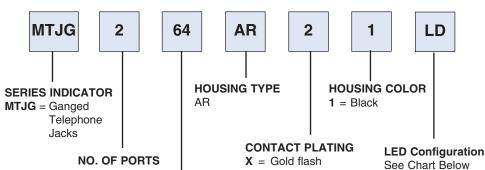
2, 2B, 2C, 5, 7H, 7V, AR, C, G, J, N





MTJG-2-88GX1-FSG

ORDERING INFORMATION **GANG JACK WITH LEDs**



2, 4, 6, 8, 12 or 16 $0 = 15 \mu in. gold$

 $1 = 30 \mu in. gold$ $2 = 50 \mu in. gold$

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-4-88GX1-FSB

MTJG-3-667HX2

OPTIONS:

Add as suffix to basic part no.

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)

FSX = Full metal shield

PG = Panel ground tabs

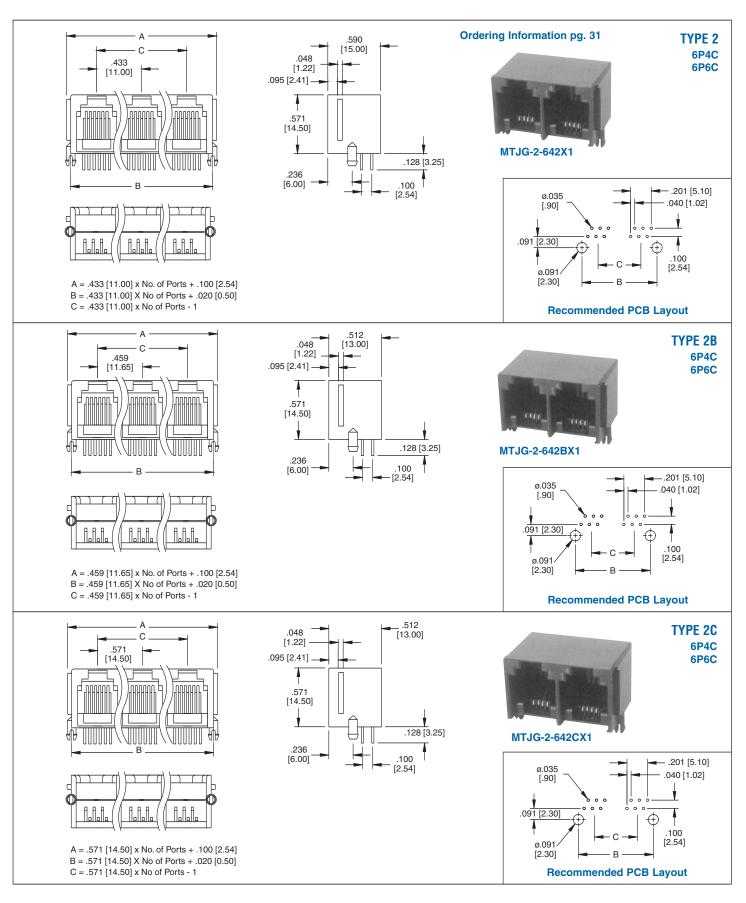
SMT = Surface mount tails with Hi-Temp insulator for hi-temp soldering processes up to 260°C





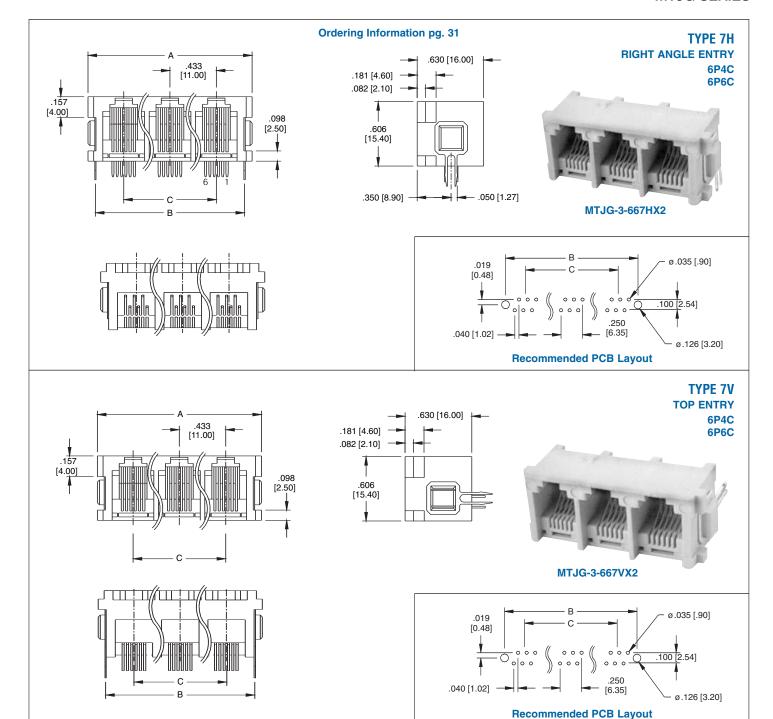


GANGED JACKS, SIDE ENTRY-TYPE 2, 2B & 2C
MTJG SERIES





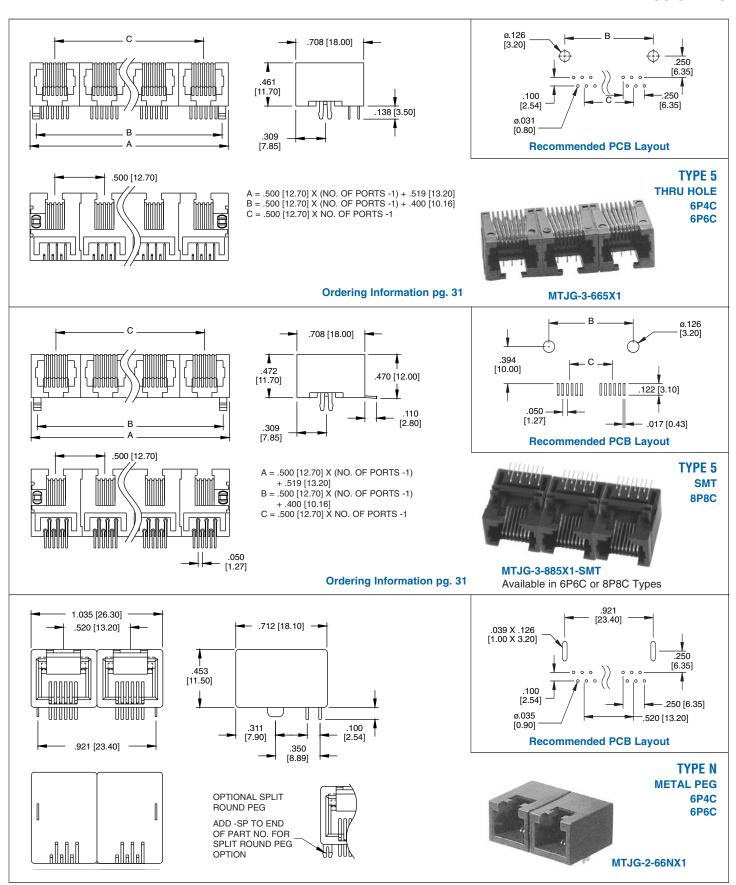
GANGED JACK, TOP & SIDE ENTRY-TYPE 7
MTJG SERIES



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



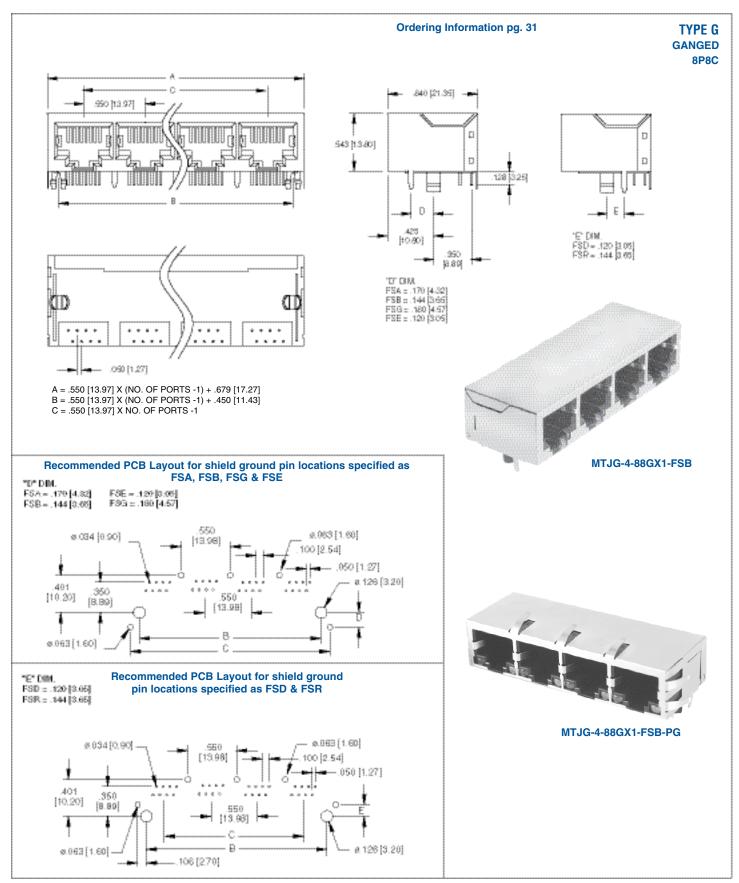
GANGED JACKS, THRU HOLE & SMT-TYPE 5, N
MTJG SERIES





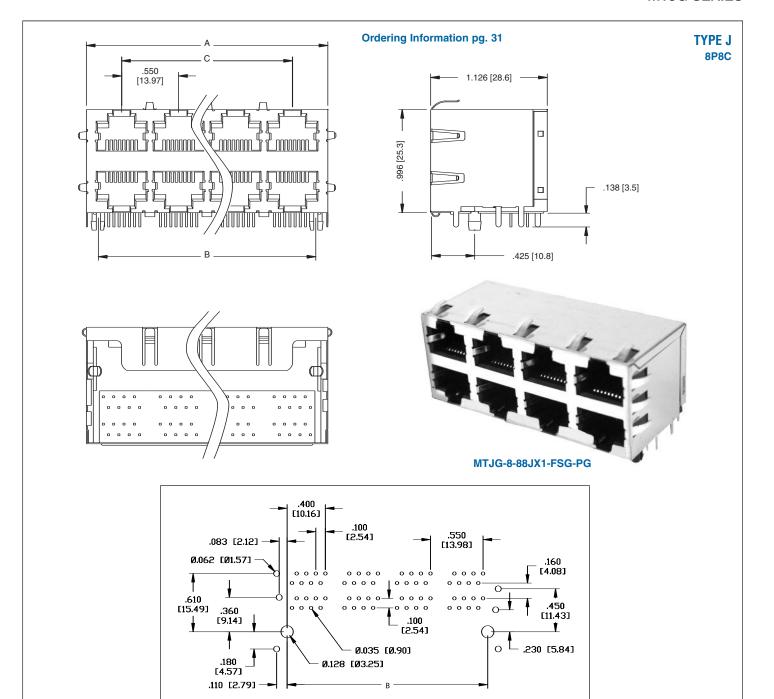
GANGED JACK, SIDE ENTRY-TYPE G

MTJG SERIES





GANGED & STACKED SIDE ENTRY JACK
MTJG SERIES



			MENSIONS		
PART NUMBER	PORTS	Α	В	С	
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]	

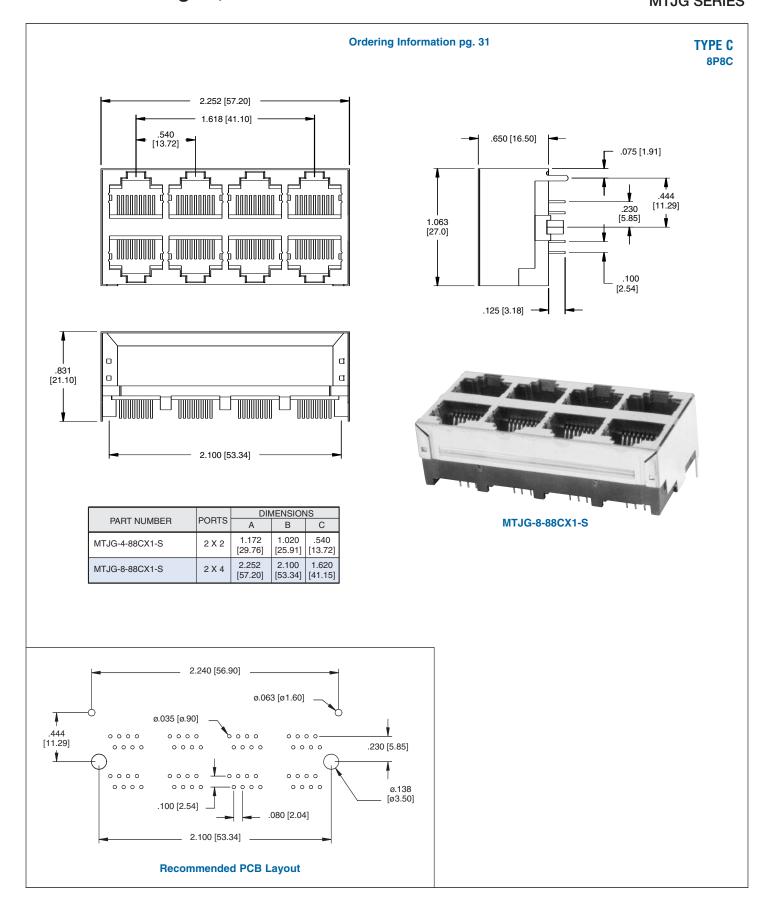
- 1			DIMENSIONS			
	PART NUMBER	PORTS	Α	В	С	
	MTJG-8-88JX1-FSG-PG	2 X 4	2.33 [59.18]	2.100 [53.34]	1.650 [41.91]	
	MTJG-12-88JX1-FSG-PG	2 X 6	3.43 [87.10]	3.200 [81.28]	2.750 [69.85]	
	MTJG-16-88JX1-FSG-PG	2 X 8	4.537 [115.25]	4.30 [109.22]	3.850 [97.79]	

Recommended PCB Layout



STACKED TOP ENTRY JACK-TYPE C

MTJG SERIES





MAGNETICS TELEPHONE JACK

INTEGRATED MAGNETICS & LEDs 10/100 BASE T & 1000 BASE T

MTJ SERIES

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 availableAll 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: $20 \text{ m}\Omega$ Max. Insulation Resistance: $500 \text{ M}\Omega$ 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 ~ +70°C

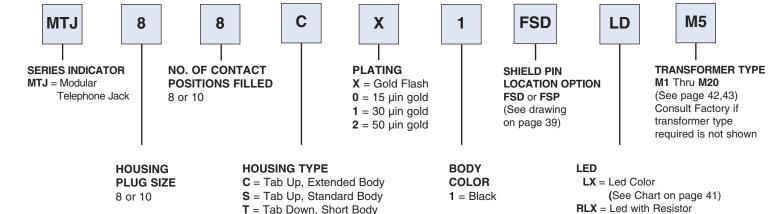
PACKAGING:

Anti-ESD plastic trays or tubes

SAFETY AGENCY APPROVALS:

UL Recognized E224049

MAGNETICS TELEPHONE JACK ORDERING INFORMATION



OPTIONS:

Add designator(s) to end of part number **HT** = Hi-Temp insulator for Hi-Temp

soldering processes up to 260°C

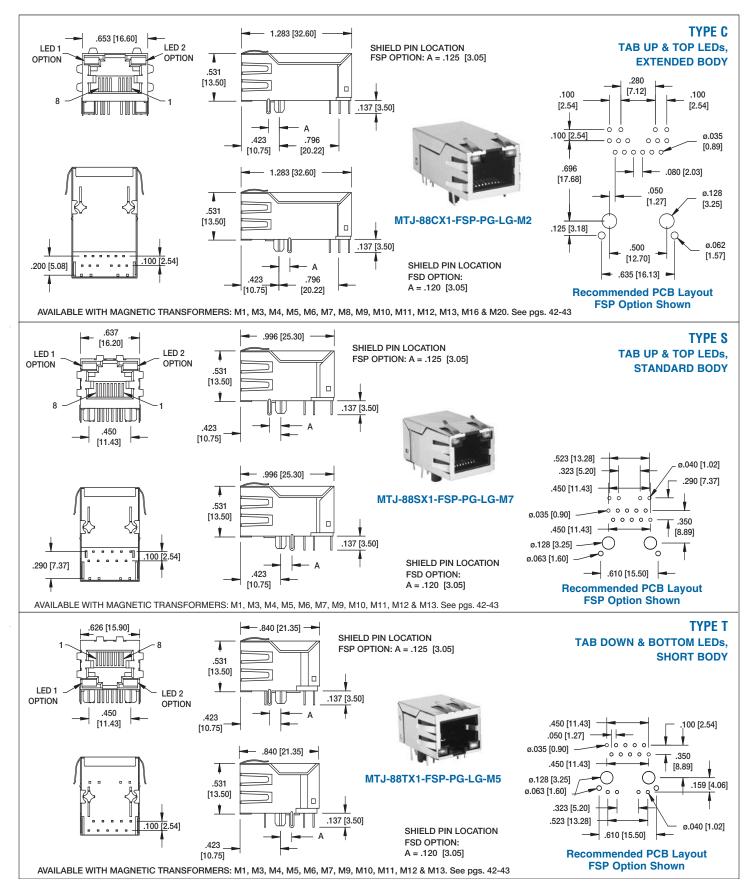




MAGNETICS TELEPHONE JACK

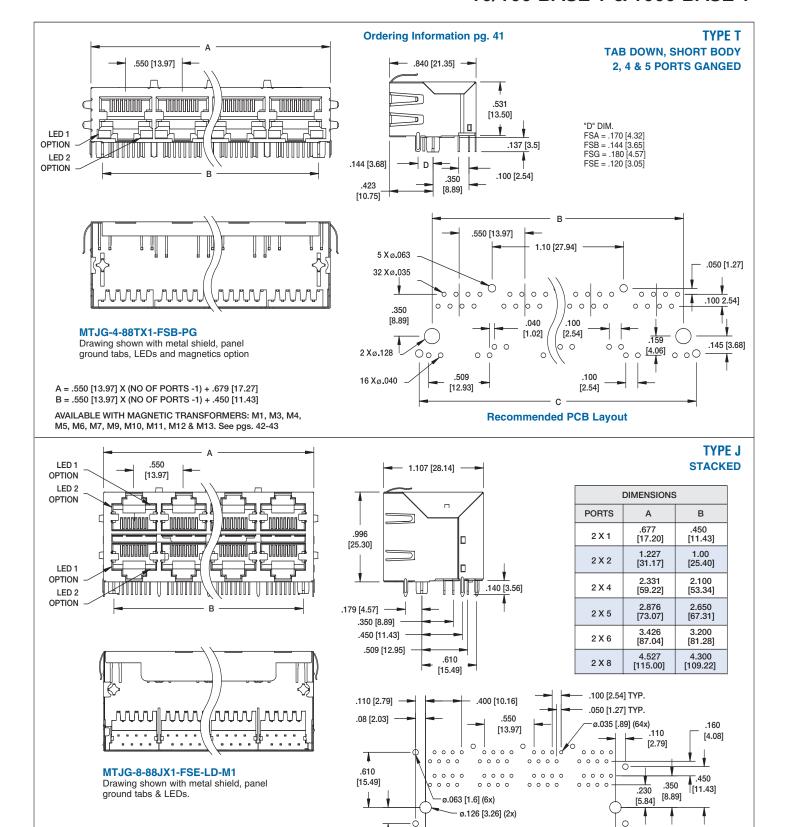
INTEGRATED MAGNETICS & LEDs 10/100 BASE T & 1000 BASE T

Adam Technologies, Inc.





WITH INTEGRATED MAGNETICS & LEDS 10/100 BASE T & 1000 BASE T



.110 [2.79]

Recommended PCB Layout

.180 [4.57]

AVAILABLE WITH MAGNETIC TRANSFORMERS: M1, M3, M4, M5, M6, M7, M9, M10, M11, M12 & M13. See pgs. 42-43