

# MODULAR JACKS

#### 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 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 m $\Omega$  max. initial Insulation resistance: 500 M $\Omega$  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: 260C

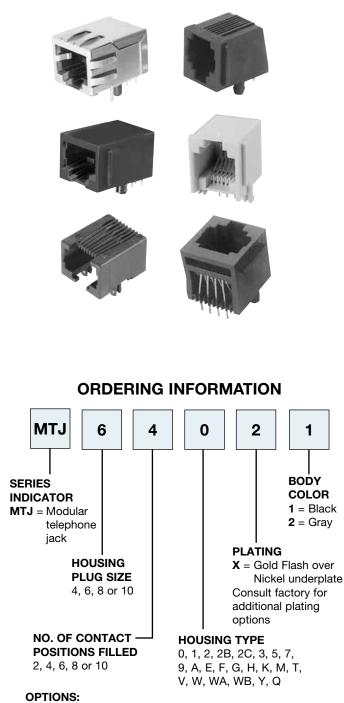
#### PACKAGING:

Anti-ESD plastic trays

### SAFETY AGENCY APPROVALS:

UL Recognized & CSA Certified, File no. E224049





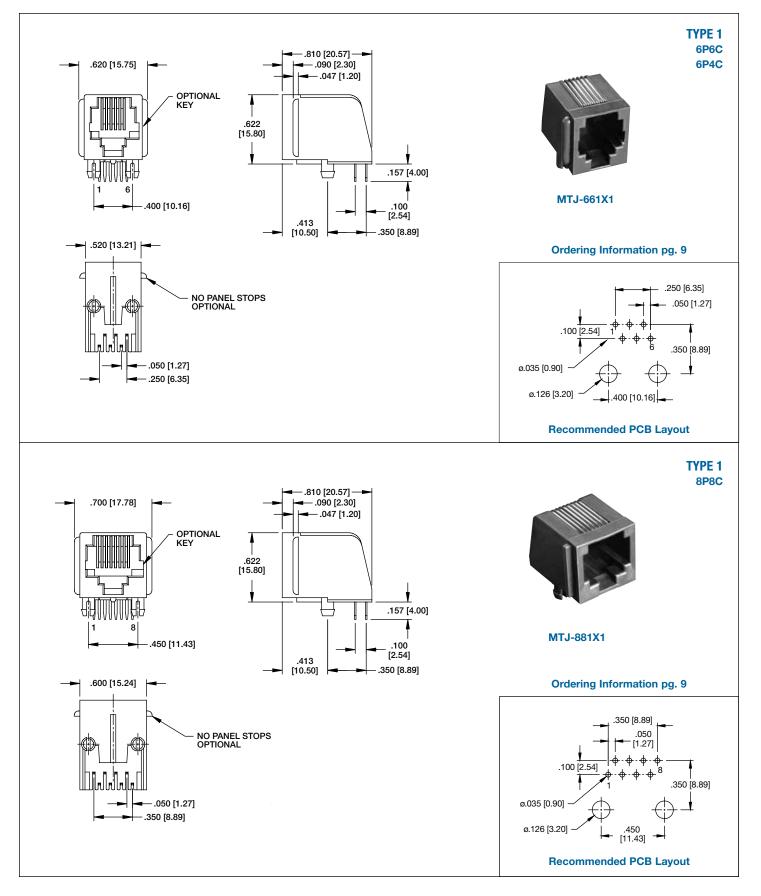
Add designator(s) to end of part number

- **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
  - $\mathbf{N}$  = No panel stops (Types: 1, 0, 2, 3, D)
  - **K** = Keyed telephone jack
  - HT = Hi-Temp insulator for Hi-Temp soldering processes up to 260C (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



ADVANCED INTERCONNECT PRODUCTS AND SYSTEMS

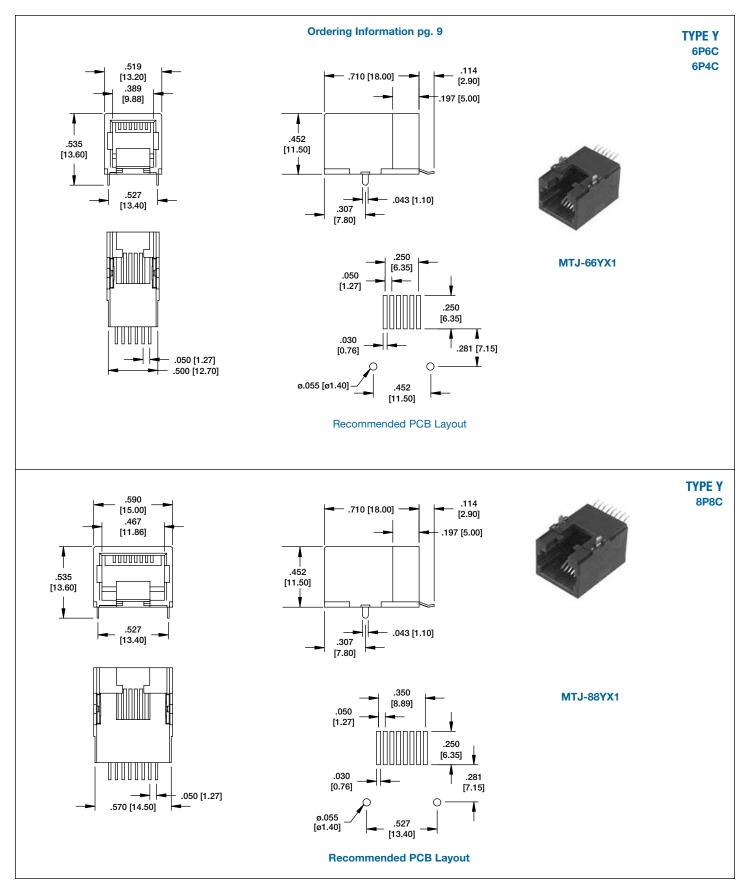
.622" HEIGHT, SIDE ENTRY - TYPE 1 MTJ SERIES





ADVANCED INTERCONNECT PRODUCTS AND SYSTEMS

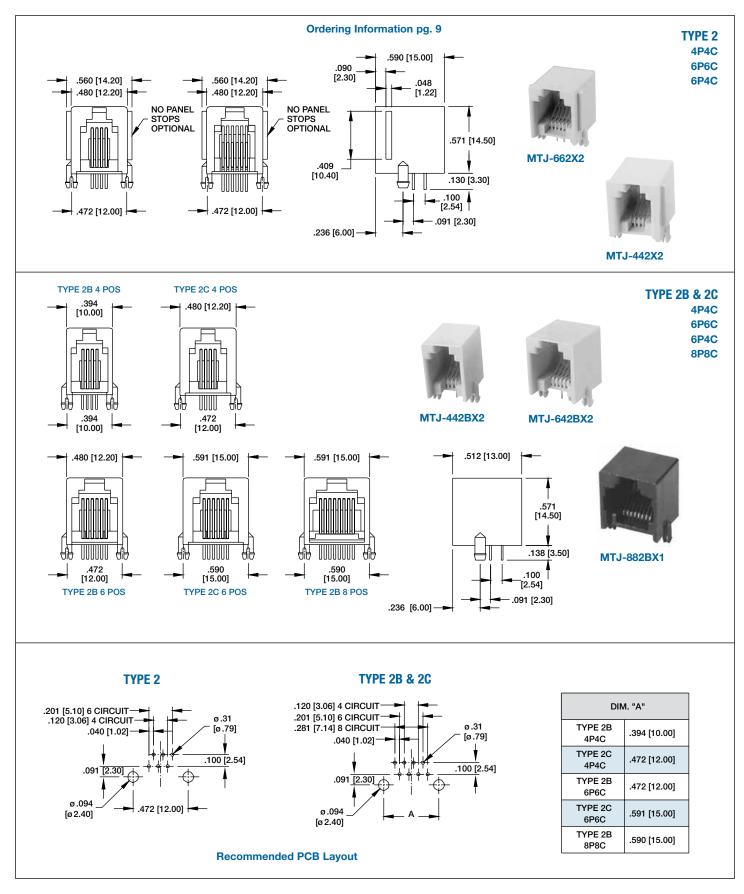
INTERNAL SHIELD LOW PROFILE SMT- TYPE Y MTJ SERIES





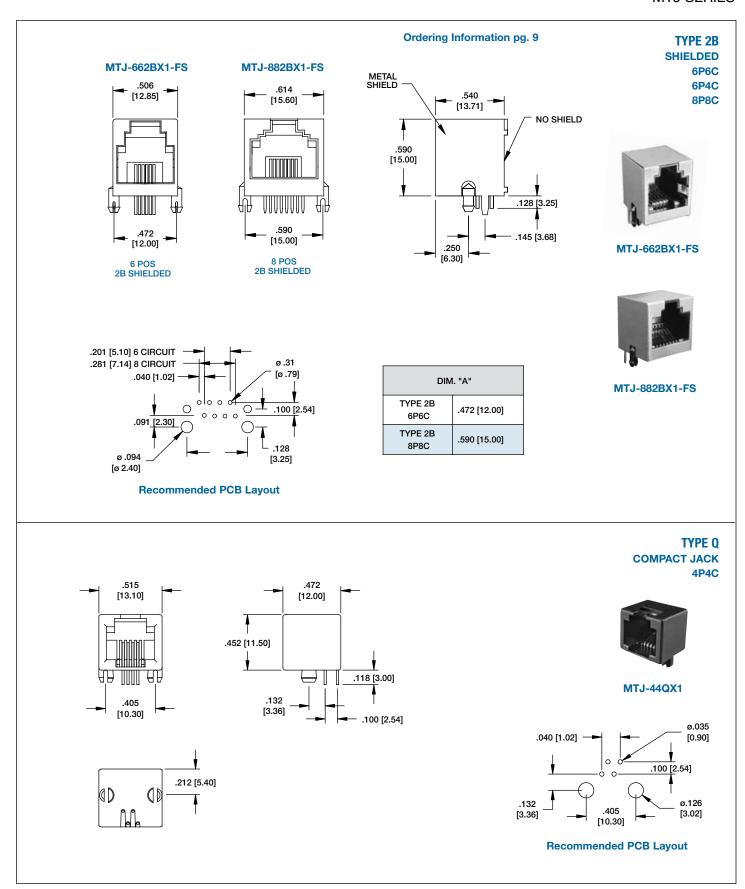
COMPACT & SHIELDED JACK - TYPE 2, 2B & 2C MTJ SERIES

ADVANCED INTERCONNECT PRODUCTS AND SYSTEMS





COMPACT TYPE Q & SHIELDED- TYPE 2B MTJ SERIES





.100 [2.54]

0

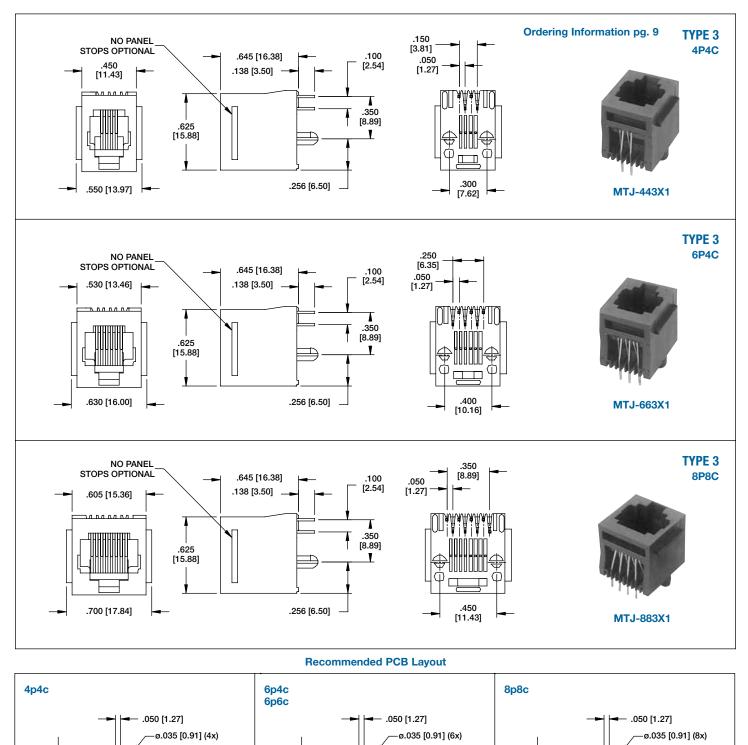
ø.126 [3.20] (2x)

.250 [6.35]

.300 [7.62]

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

MTJ SERIES



ø.126 [3.20] (2x)

0 0

.250 [6.35]

.400 [10.16]

ò

.100 [2.54] 0

ŧ

.250 [6.35]

C

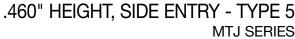
-0 0 0 0

.450 [11.43]

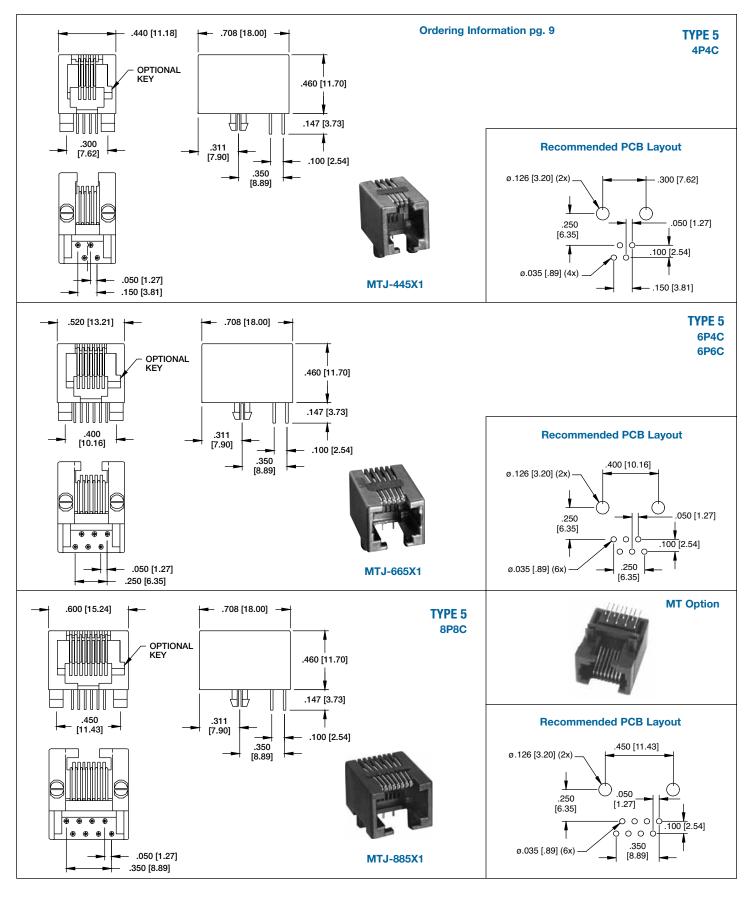
ø.126 [3.20] (2x)

.100 [2.54]

# 



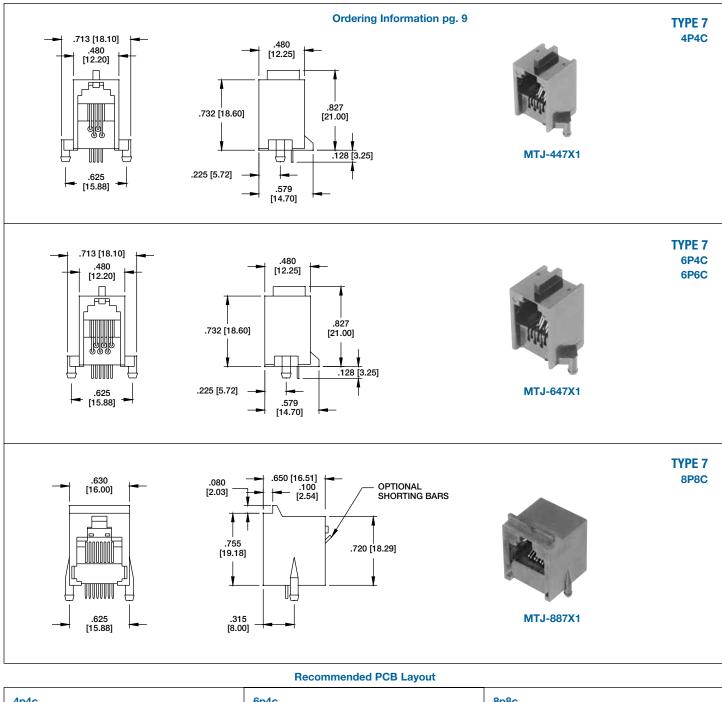


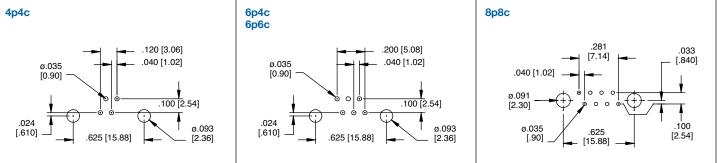




ADVANCED INTERCONNECT PRODUCTS AND SYSTEMS

THRU HOLE SIDE ENTRY - TYPE 7 MTJ SERIES



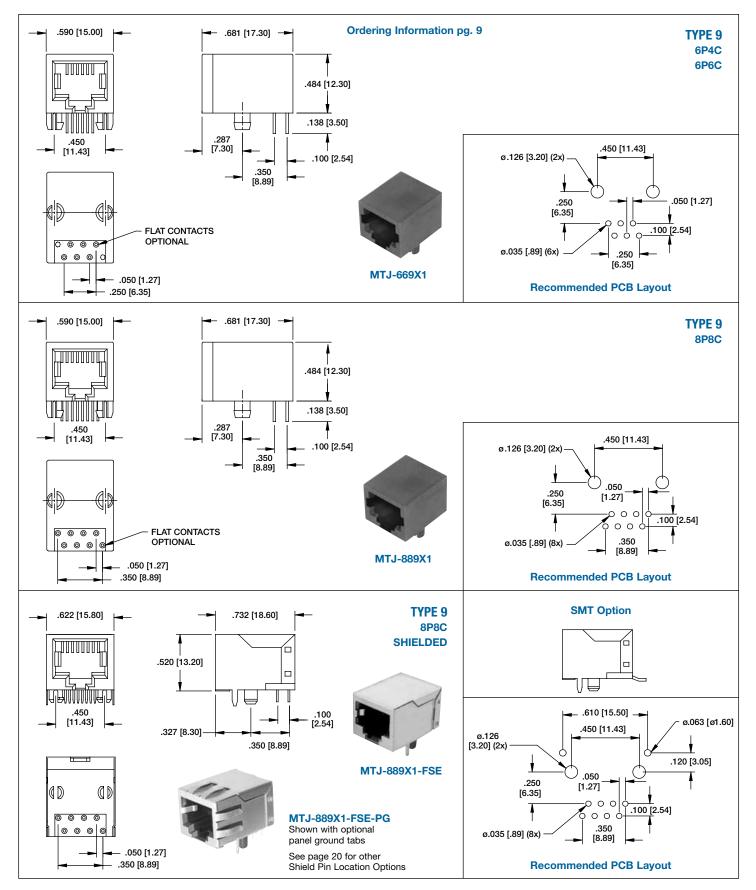




ADVANCED INTERCONNECT PRODUCTS AND SYSTEMS

.484" HEIGHT, SIDE ENTRY - TYPE 9

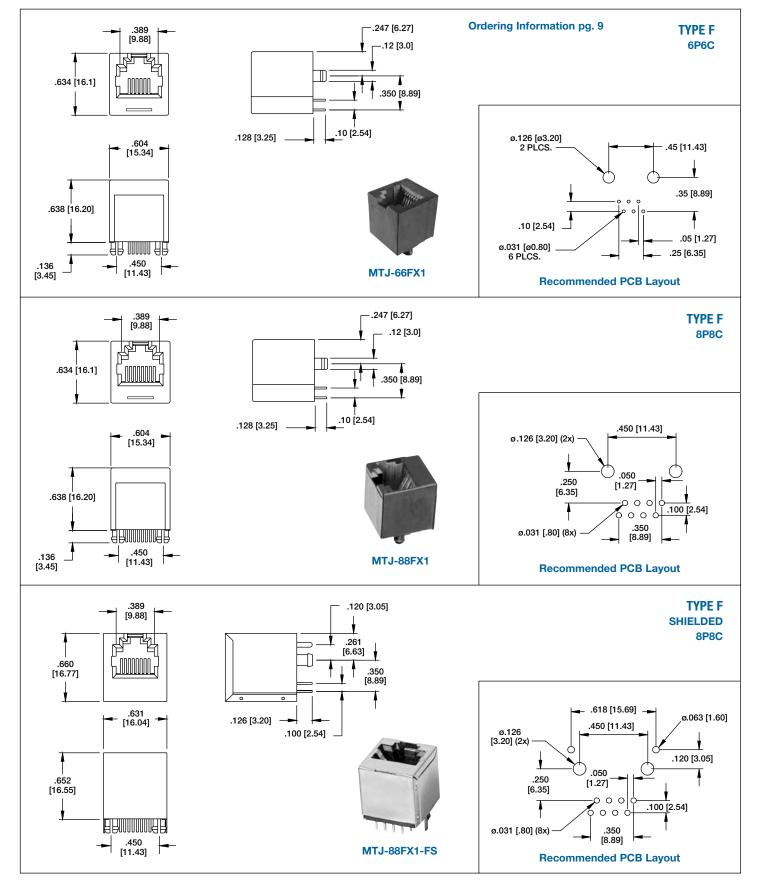
MTJ SERIES



MODULAR JACKS TOP ENTRY, ENCLOSED BODY - TYPE F MTJ SERIES



ADVANCED INTERCONNECT PRODUCTS AND SYSTEMS

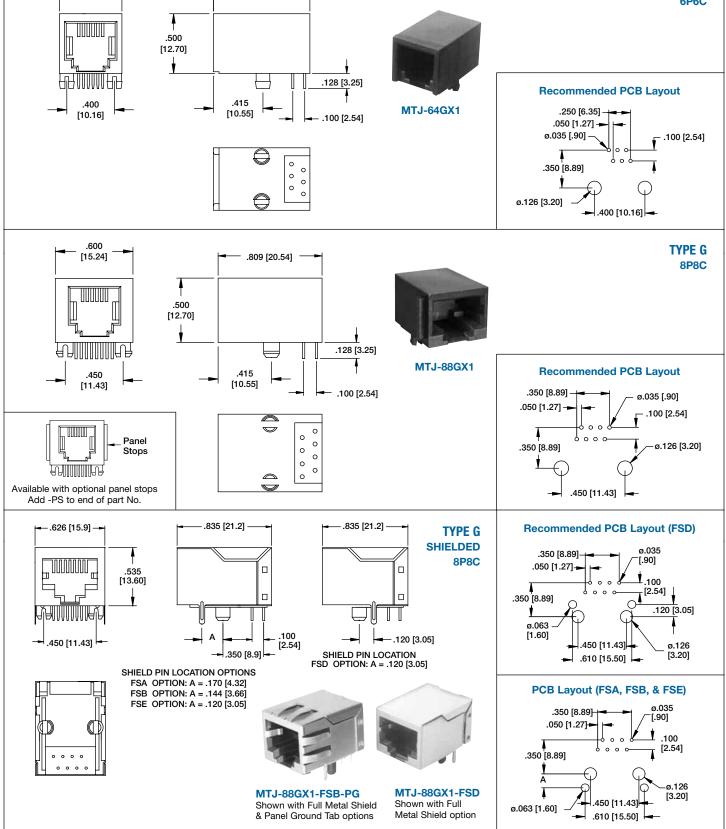




ADVANCED INTERCONNECT PRODUCTS AND SYSTEMS

.520 [13.21]

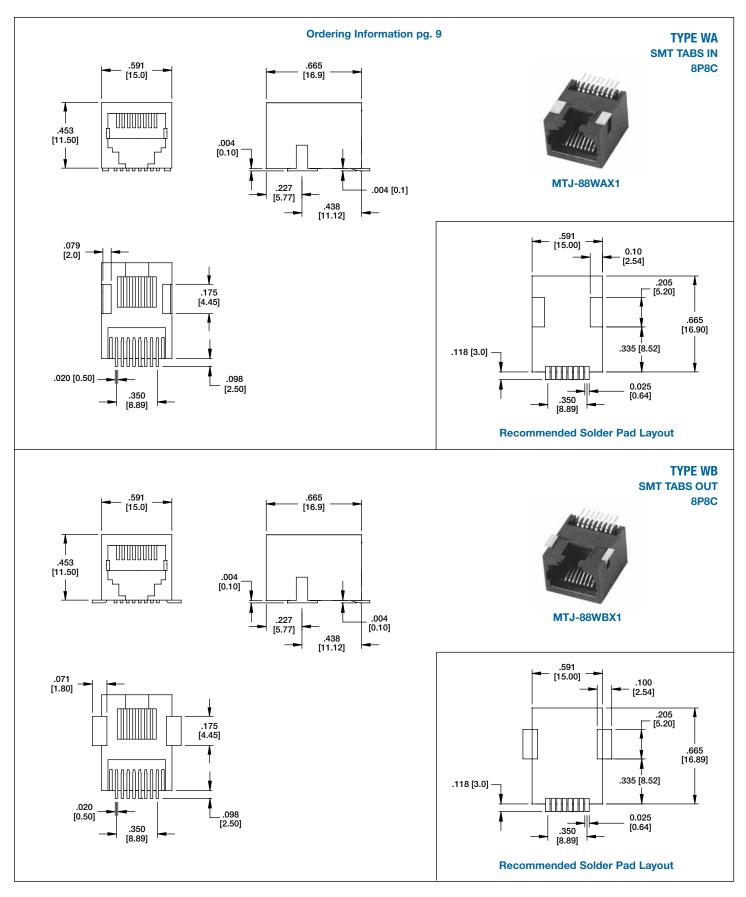
.500" HEIGHT, SIDE ENTRY - TYPE G MTJ SERIES **Ordering Information pg. 9 TYPE G** .809 [20.54] 6P6C .128 [3.25] **Recommended PCB Layout** .415 MTJ-64GX1 .250 [6.35] [10.55] .100 [2.54] .050 [1.27]





ADVANCED INTERCONNECT PRODUCTS AND SYSTEMS

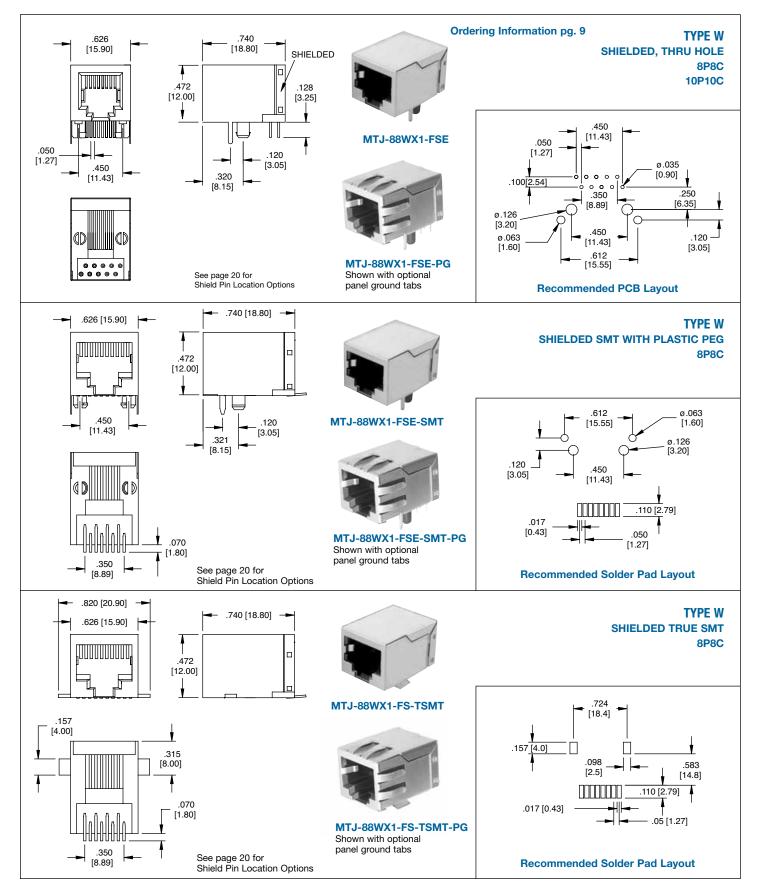
.453" HEIGHT, SIDE ENTRY, SMT - TYPE W MTJ SERIES





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

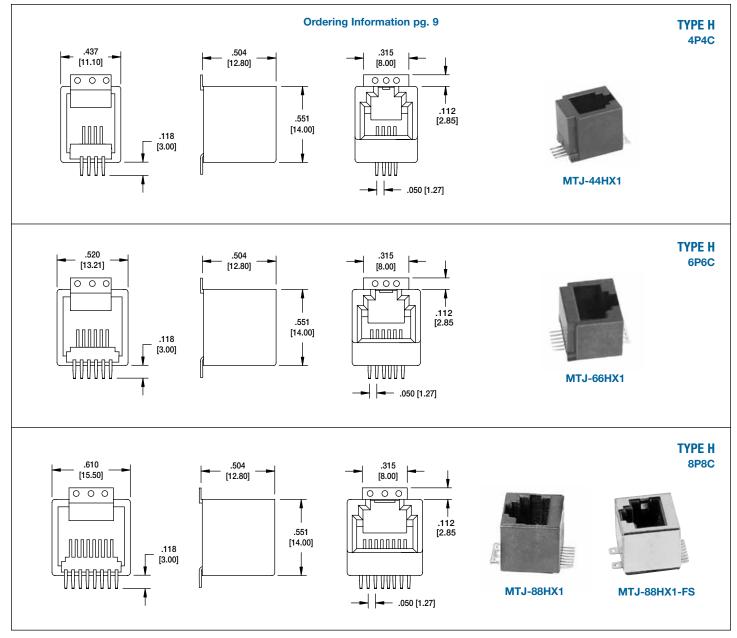
MTJ SERIES



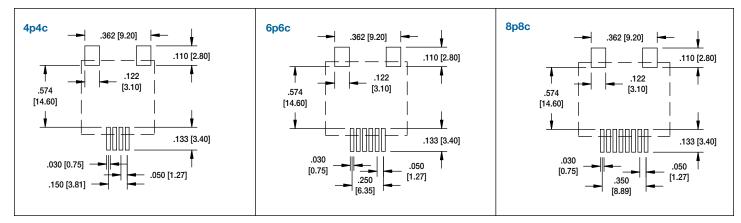
.504" HEIGHT, TOP ENTRY, SMT - TYPE H MTJ SERIES



ADVANCED INTERCONNECT PRODUCTS AND SYSTEMS



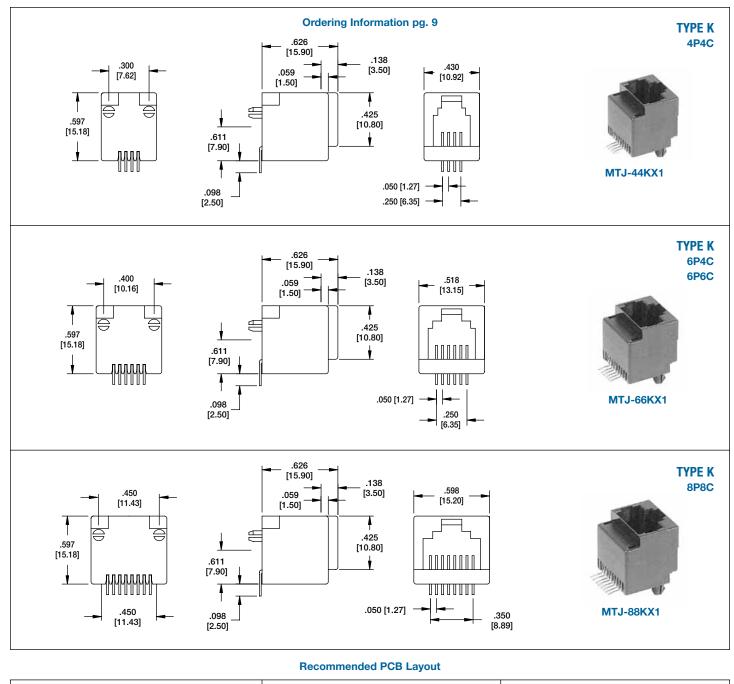
**Recommended PCB Layout** 

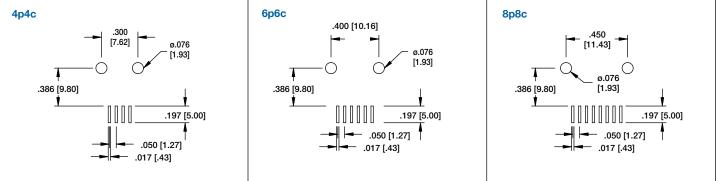




.626" HEIGHT, TOP ENTRY, SMT - TYPE K MTJ SERIES

ADVANCED INTERCONNECT PRODUCTS AND SYSTEMS



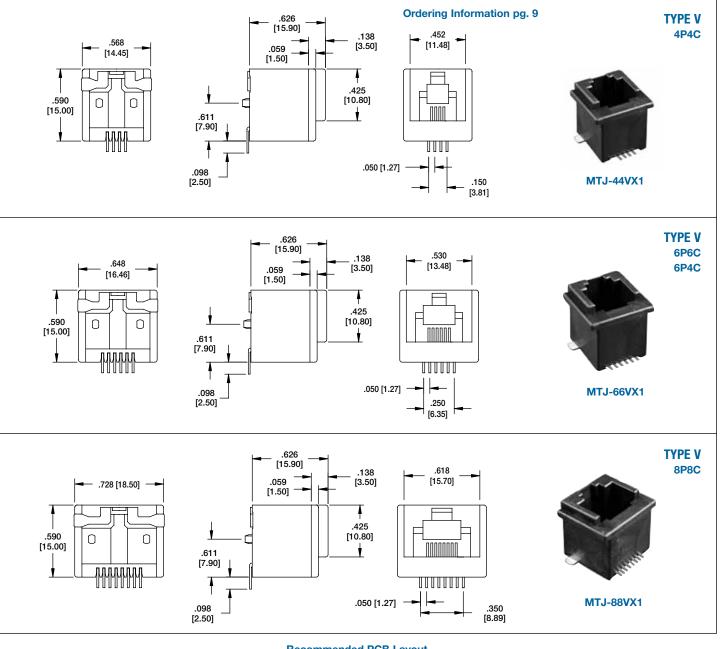


# .626" HEIGHT, TOP ENTRY, SMT - TYPE V

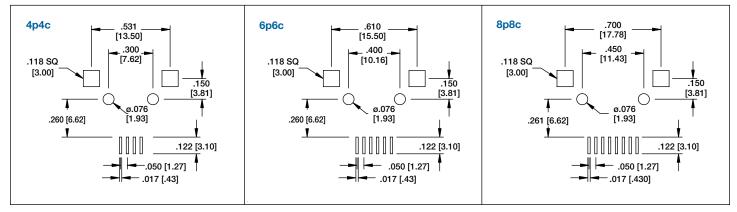
MTJ SERIES



ADVANCED INTERCONNECT PRODUCTS AND SYSTEMS



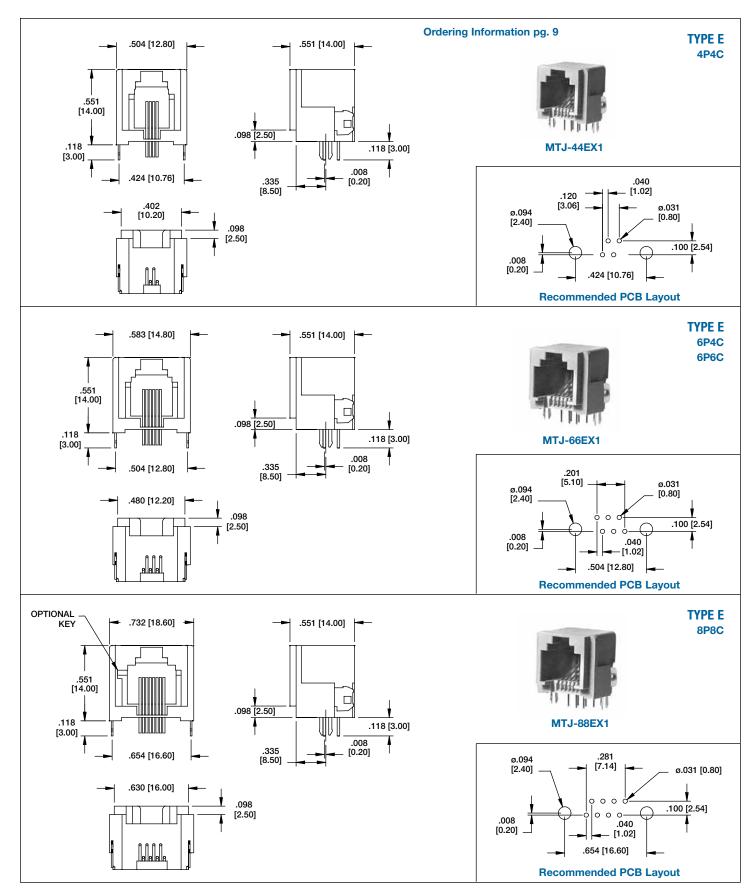
**Recommended PCB Layout** 





## **MODULAR JACKS** .551" HEIGHT, SIDE ENTRY - TYPE E

MTJ SERIES



MTJ SERIES

CAT. 5, SIDE & TOP ENTRY - TYPE A & T



ADVANCED INTERCONNECT PRODUCTS AND SYSTEMS

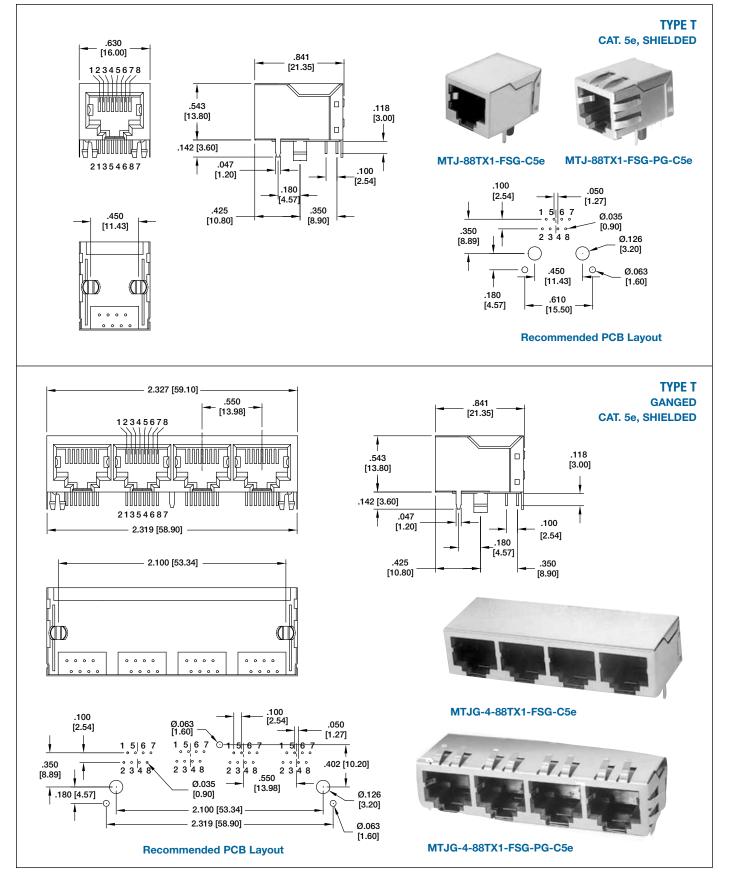
**Ordering Information pg. 9 TYPE A** CAT. 5, TOP ENTRY .634 .653 8P8C [16.10] [16.60] **Recommended PCB Layout** ø.063 .624 [15.85] [1.60] .450 [11.43] ø.126 .645 [3.20] (2x) [16.40] .120 [3.05] .050 .250 [6.35] [1.27] MTJ-88AX1-FSE 0 0 0 .100 [2.54] 4 .130 00 [3.30] ø.035 .350 [8.89] [.90] (8x) .809 [20.54] **TYPE T** .600 [15.24] CAT. 5, SIDE ENTRY 8P8C HIHII .500 [12.70] 1 ĿП -11-.128 [3.25] UUUUUU .413 [10.50] .450 [11.43] .100 [2.54] **Recommended PCB Layout** ø.035 .350 [8.89] [.90] .050 [1.27] 1 .100 [2.54] .350 [8.89] Œ ŧ • • ø.126 .450 [11.43] [3.20] **MTJ-88TX1** .050 [1.27] **TYPE T** .630 [16.00] .839 [21.30] .839 [21.30] CAT. 5, SHIELDED 8P8C .535 [13.60] ЪЛ .126 [3.20] HI А в .428 .450 [11.44] .428 [10.87] [10.87] MTJ-88TX1-FSE-PG .100 [2.54] .100 [2.54] Available with or without panel ground tabs FSD = .120 [3.05] FSA, FSB & FSE PCB Layout (FSD) PCB Layout (FSA, FSB & FSE) OPTIONAL ø.035 ø.035 .350 [8.89] .350 [8.89] PANEL GROUND TABS [.90] [.90] .050 [1.27] .050 [1.27] Dimensions A & B .100 .100 0 0 0 0 T • • • SHIELD PIN LOCATION OPTIONS **T** [2.54] 0 0 **T** [2.54] Y 0 0 0 0 .350 [8.89] FSA OPTION: A = .170 [4.32] FSB OPTION: A = .144 [3.66] .350 [8.89] .  $\cap$ .120 [3.05] FSE OPTION: A = .120 [3.05] .050 [1.27] ø.063 FSD OPTION: B = .120 [3.05] -ø.126 [1.60] [3.20] 450 [11.43] ø.126 450 [11.43] ø.063 [1.60] [3.20] .610 [15.50] .610 [15.50]



# **MODULAR JACKS**

CAT. 5, 5e, SINGLE & GANGED - TYPE T

MTJ SERIES

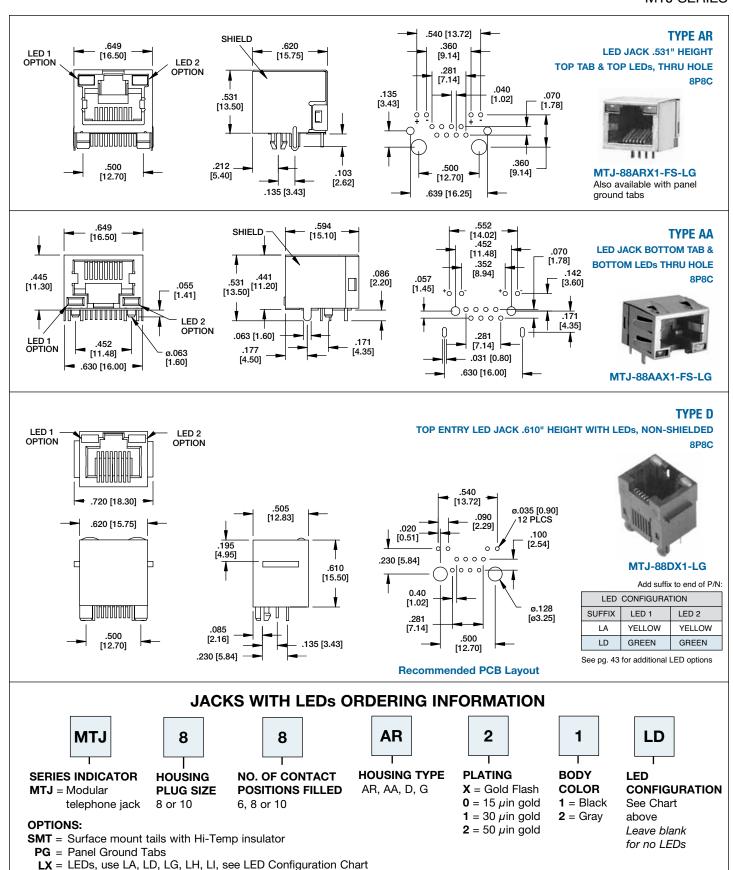


# MODULAR JACKS WITH LEDs



ADVANCED INTERCONNECT PRODUCTS AND SYSTEMS

LED JACKS - TYPE AA, AR & D MTJ SERIES



**MODULAR JACKS WITH LEDs** 



ADVANCED INTERCONNECT PRODUCTS AND SYSTEMS

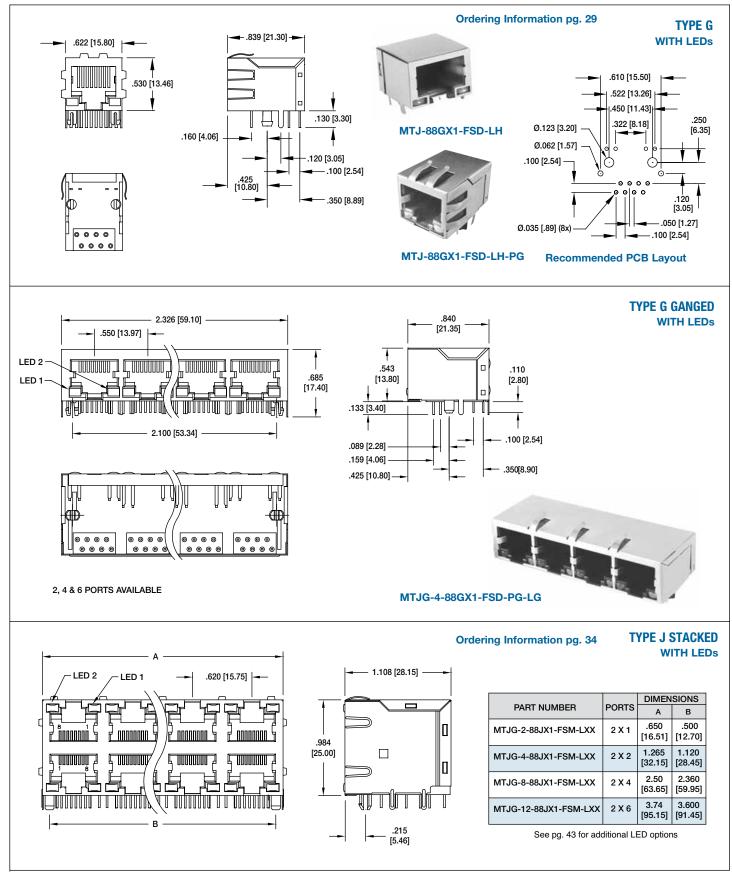
SINGLE & GANGED LED JACKS - TYPE AR MTJ SERIES

Ordering Information pg. 29 **TYPE AR** .618 LED 1 .651 [15.70] WITH SMT OPTION OPTION [16.55] LED 2 OPTION 8**P8C** דכ .516 .531 [13.48] [13.10] .120 X .024 -.050 [1.27] [3.05 X 0.61] -.040 [1.02] .015 ø.127 .500 [12.70] t) [0.38] [ø3.23] .208 [5.28] .120 [3.05] T T .740 [18.80] .425 [10.80] .091 .393 1111111 [2.31] [9.98] .098 1 ۲ [2.50] .153 [3.89] .236 [5.99] .109 [2.77] Ā .098 [2.49] .236 [5.99] .500 MTJ-88ARX1-FS-SMT-PG-LG [12.70] .067 .035 Also available without [1.70] [0.90] panel ground tabs **Recommended PCB Layout Ordering Information pg. 34 TYPE AR GANGED WITH METAL** .620 LED 1 I FD 2 .620 [15.75] [15.75] SHIELD, PANEL GROUND **TABS AND** ł LED OPTION IJ 8P8C .529 [13.46] h Г TÌ t Ū <u> I</u> .103 [2.62] Ш Ш .620 [15.75] .135 [3.43] С в .214 [5.46] — .360 [9.14] D  $\Box$ Ď  $\diamond$ l l l l 000 000 MTJG-4-88ARX1-FSM-PG-LG Shown with metal shield, panel ground tabs and LED options .540 ø.035 [0.90] .620 [13.72] .040 [15.75] .400 [10.16] .360 [1.02] 4-ø.063 Add suffix to end of P/N: [9.14] .360 [9.14] [1.60] Ο 0 LED CONFIGURATION ō ۲ ۲ ъ å, SUFFIX LED 1 LED 2 Loooo 0000 0000 0 0 0 0 Ο 0 0 0-0000 0 0 0 0 0 0 0 0 YELLOW LA YELLOW .070 LD GREEN GREEN [1.78] .100 [2.54] .135 [3.43] 2, 4 & 8 Ports available See pg. 43 for additional LED options .110 [2.79] 3-ø.128 [3.25] A = .620 [15.75] x No. of Ports + .029 [0.75] в B = .620 [15.75] x No. of Ports - 1 + .500 [12.70] ø.035 [0.90] C = .620 [15.75] x No. of Ports - 1 D D = .620 [15.75] x No. of Ports + .019 [0.50] **Recommended PCB Layout** 

# MODULAR JACKS WITH LEDs



SINGLE & GANGED LED JACKS - TYPE G & J MTJ SERIES

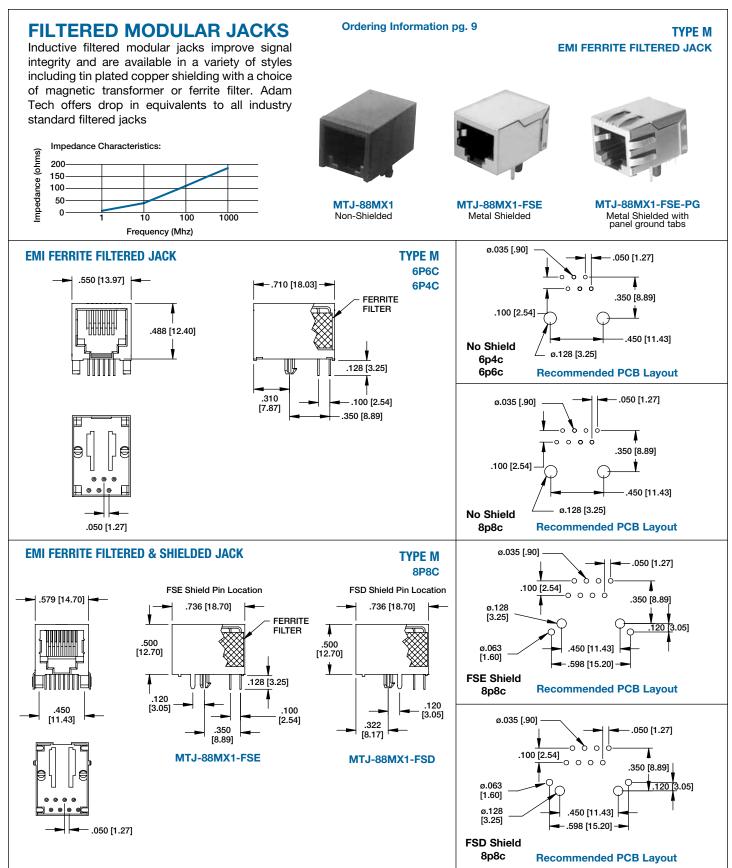




## **MODULAR JACKS**

FERRITE FILTERED & SHIELDED JACKS- TYPE M

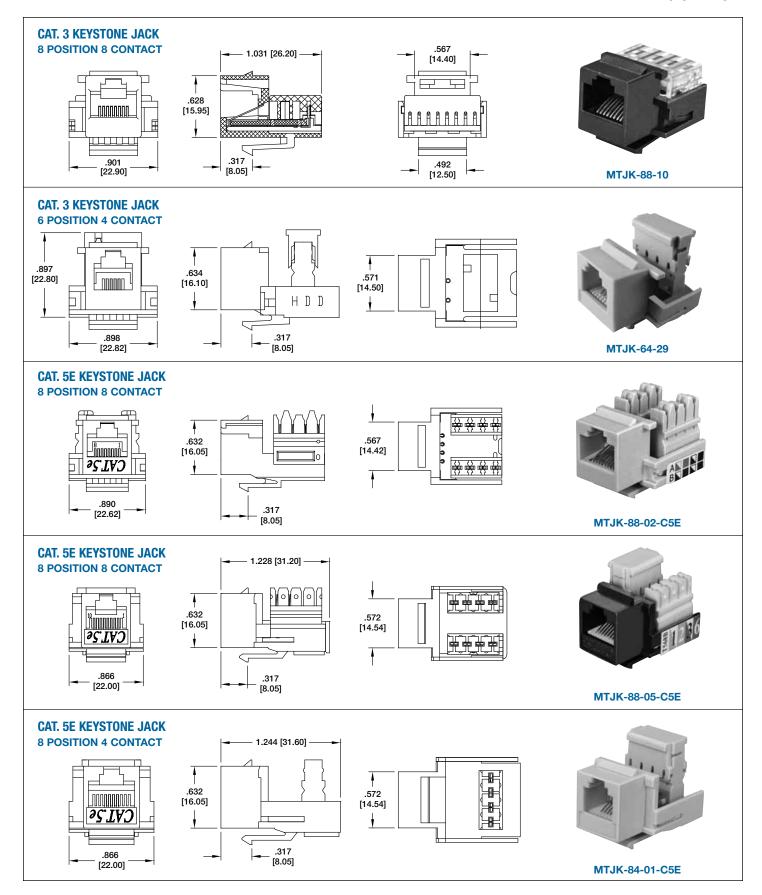
MTJ SERIES





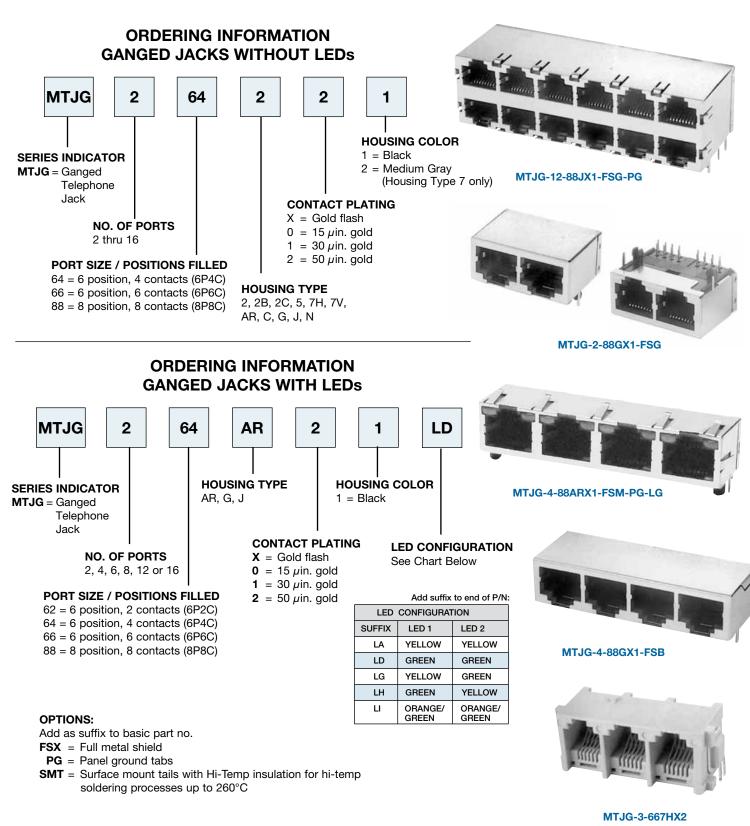
# MODULAR JACKS

CAT. 3 & 5e KEYSTONE JACKS MTJ SERIES





**GANGED & STACKED JACKS** MTJG SERIES - ORDERING INFORMATION

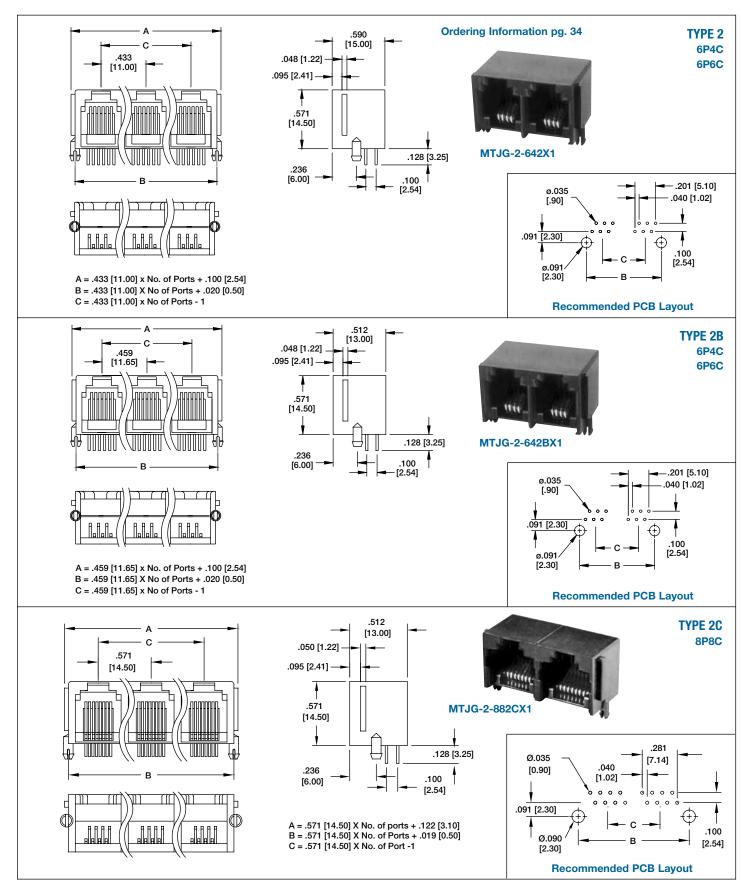






ADVANCED INTERCONNECT PRODUCTS AND SYSTEMS

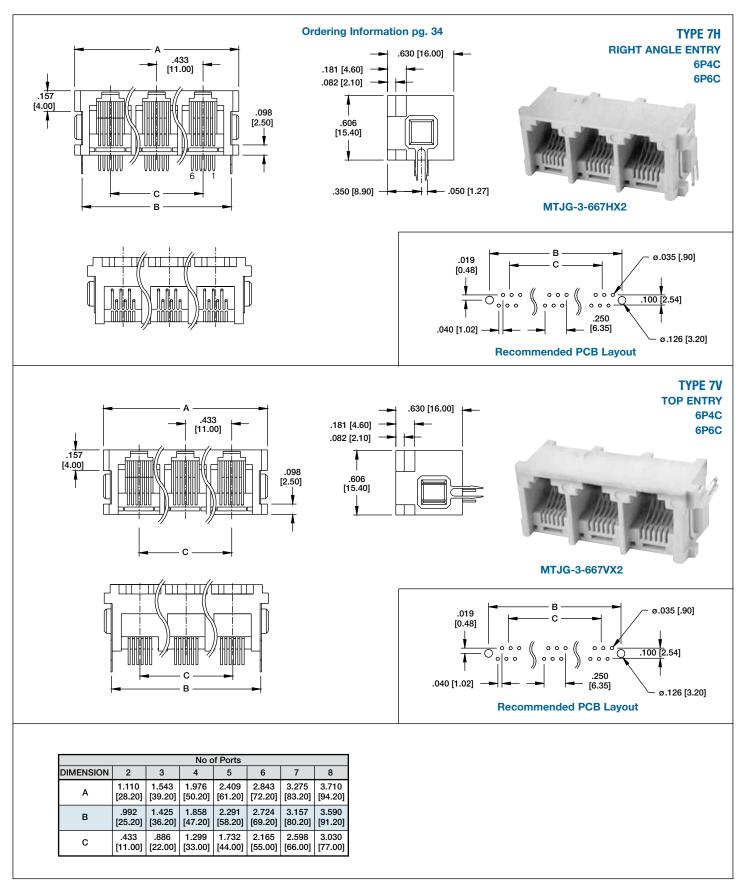
GANGED JACKS, SIDE ENTRY - TYPE 2, 2B & 2C MTJG SERIES





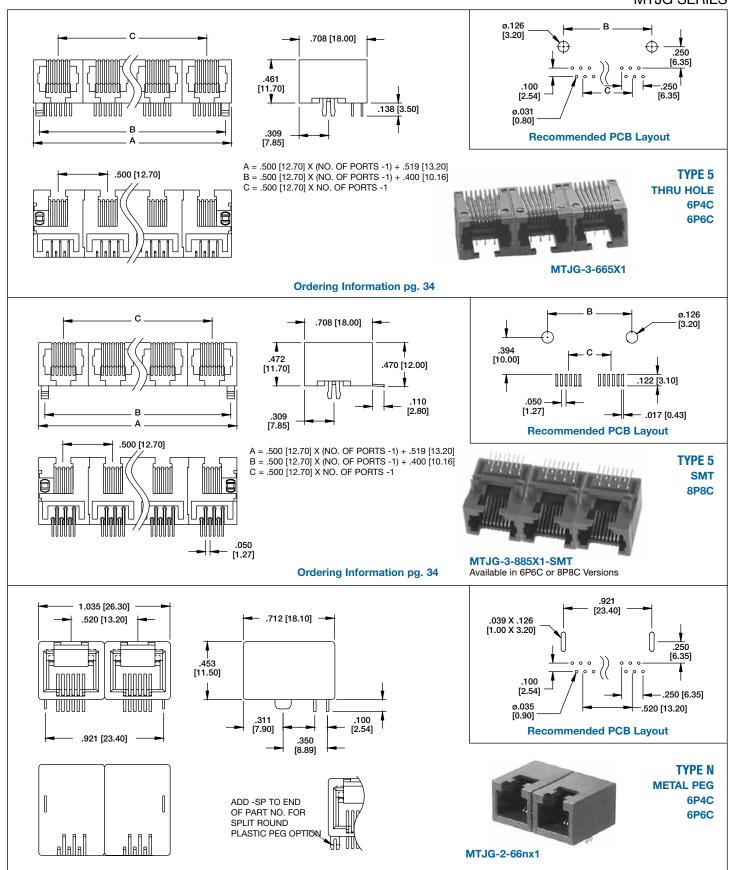
GANGED JACK, TOP & SIDE ENTRY - TYPE 7 MTJG SERIES

ADVANCED INTERCONNECT PRODUCTS AND SYSTEMS





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

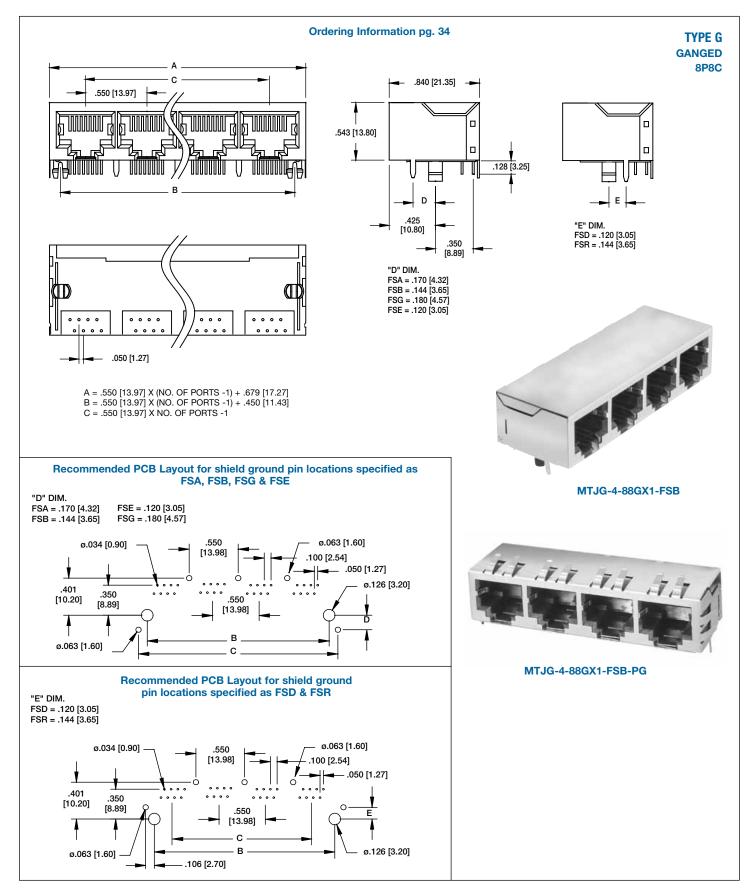




ADVANCED INTERCONNECT PRODUCTS AND SYSTEMS

GANGED JACK, SIDE ENTRY - TYPE G

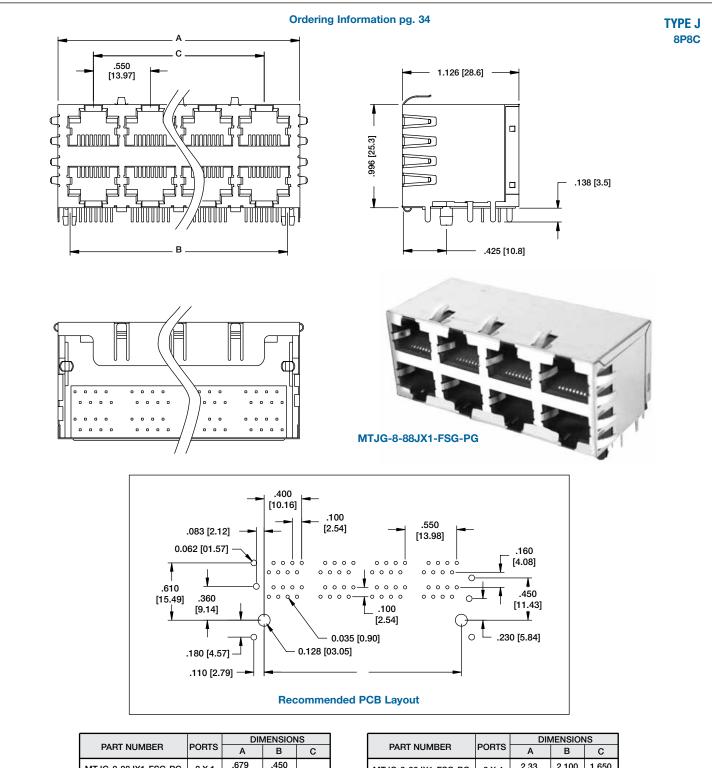
MTJG SERIES





ADVANCED INTERCONNECT PRODUCTS AND SYSTEMS

GANGED & STACKED SIDE ENTRY JACK - TYPE J MTJG SERIES



PART NUMBER	PORTS	DIMENSIONS		
		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]

PART NUMBER	PORTS	DIMENSIONS		
		A	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]



### **INTEGRATED MAGNETICS 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 m $\Omega$  Max. Insulation Resistance: 500 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: 10Hz 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:

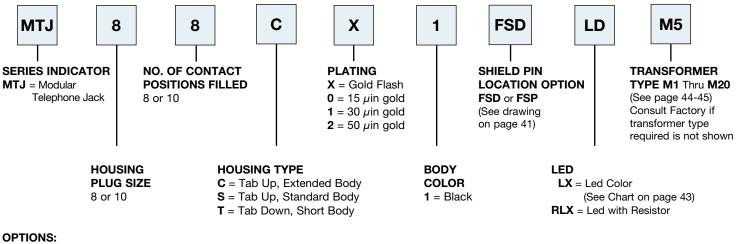
Anti-ESD plastic trays or tubes

#### SAFETY AGENCY APPROVALS:

UL Recognized & CSA Certified, File no. E224049



#### MAGNETICS TELEPHONE JACK ORDERING INFORMATION



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

soldering processes up to 260°C

**PG** = Panel ground tabs



# **INTEGRATED MAGNETICS JACK**

# **INTEGRATED MAGNETICS & LEDs**

10/100 BASE T & 1000 BASE T

**TYPE C** 

.100

[2.54]

ø.035

[0.89]

ø.128

[3.25]

ø.062

[1.57]

**TYPE S** 

ø.040 [1.02]

.290 [7.37]

**TYPE T** 

.100 [2.54]

.159 [4.06]

ø.040 [1.02]

.350

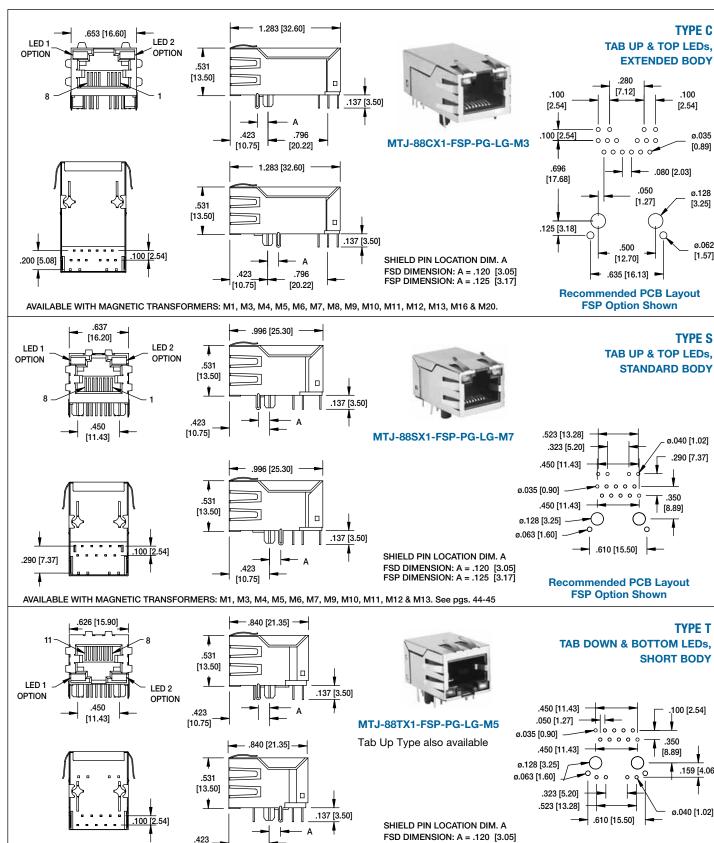
[8.89]

**Recommended PCB Layout** 

**FSP Option Shown** 

.350

[8.89]



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

www.adam-tech.com

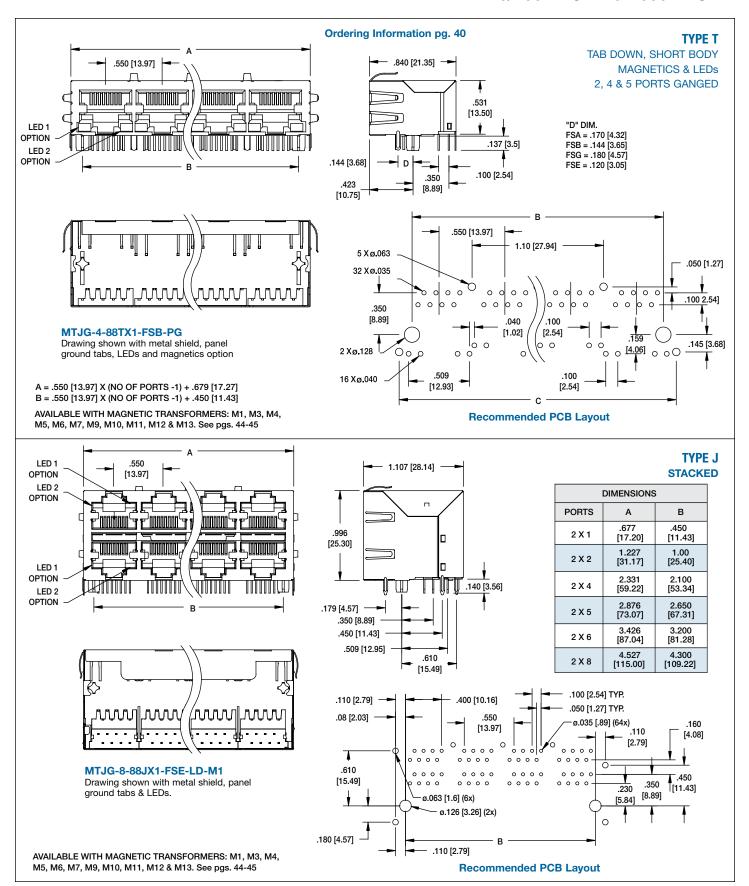
FSP DIMENSION: A = .125 [3.17]



# INTEGRATED MAGNETICS JACK

ADVANCED INTERCONNECT PRODUCTS AND SYSTEMS

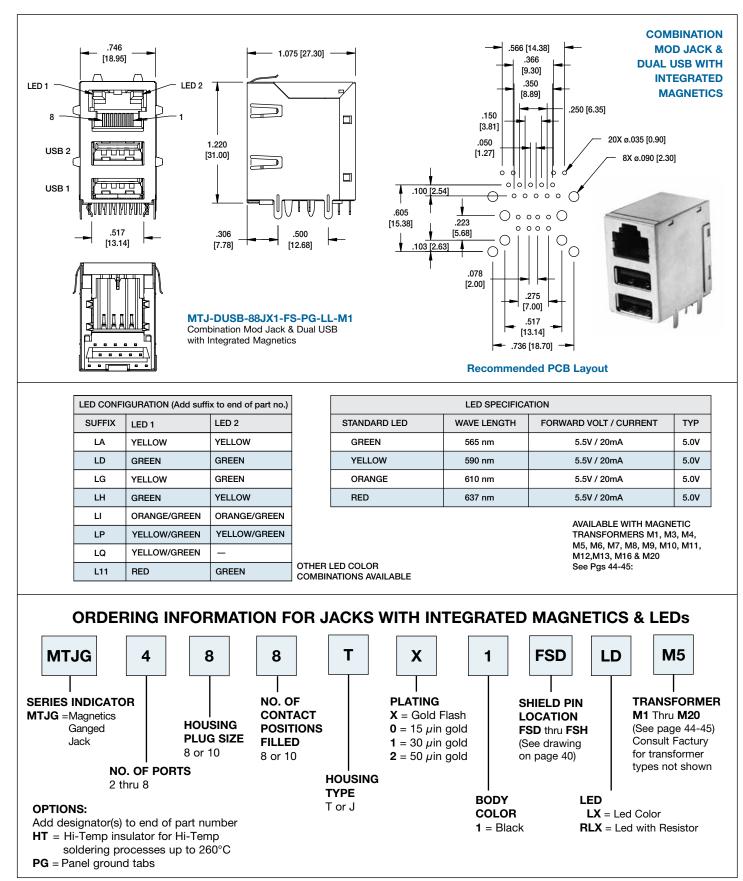
### WITH INTEGRATED MAGNETICS & LEDs 10/100 BASE T & 1000 BASE T





## **INTEGRATED MAGNETICS JACK**

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

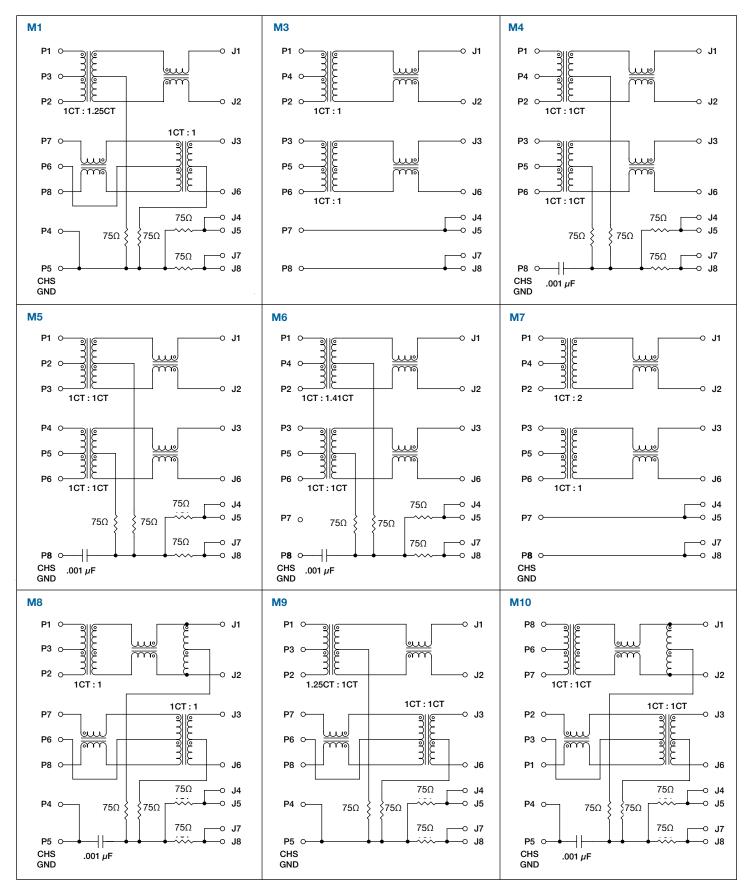




# **INTEGRATED MAGNETICS JACK**

ADVANCED INTERCONNECT PRODUCTS AND SYSTEMS

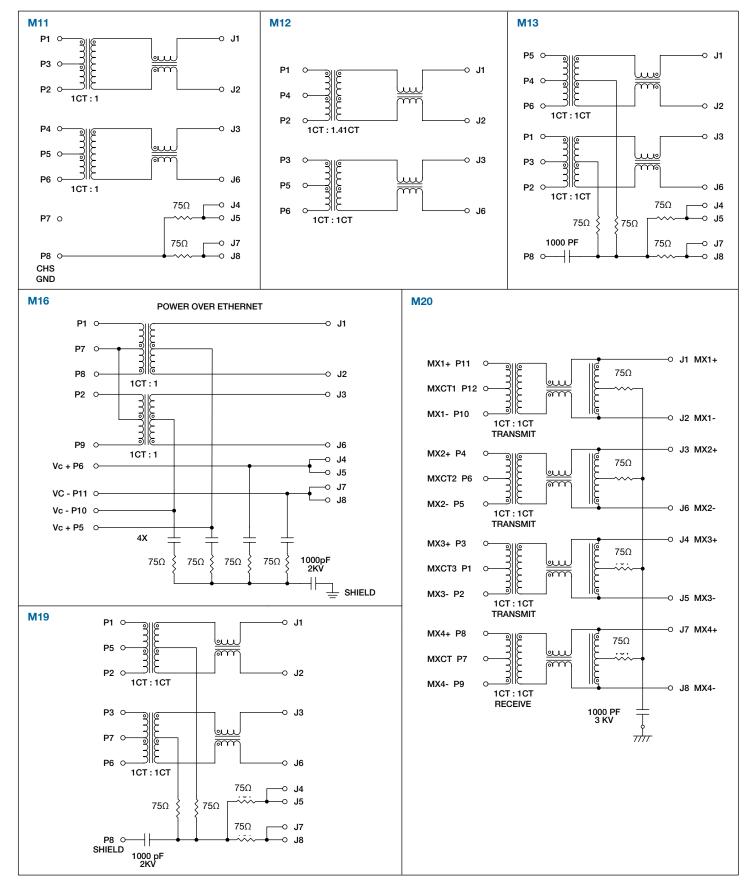
### MAGNETIC TRANSFORMER TYPES 10/100 BASE T & 1000 BASE T





# **INTEGRATED MAGNETICS JACK**

MAGNETIC TRANSFORMER TYPES 10/100 BASE T & 1000 BASE T





#### **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 and CSA approved and meet all required FCC rules and regulations.

#### FEATURES:

UL & CSA 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 m $\Omega$  max. initial Insulation resistance: 500 M $\Omega$  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:

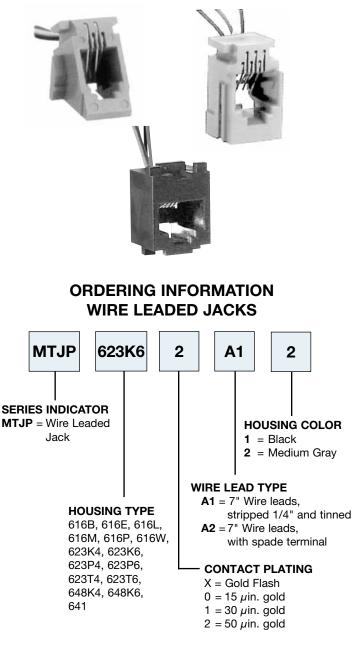
Anti-ESD plastic bags

#### APPROVALS AND CERTIFICATIONS:

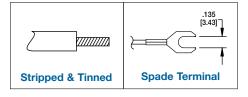
UL Recognized & CSA Certified, File no. E224049

### WIRE LEADED JACKS HANDSET & PANEL MOUNT

### MTJP SERIES





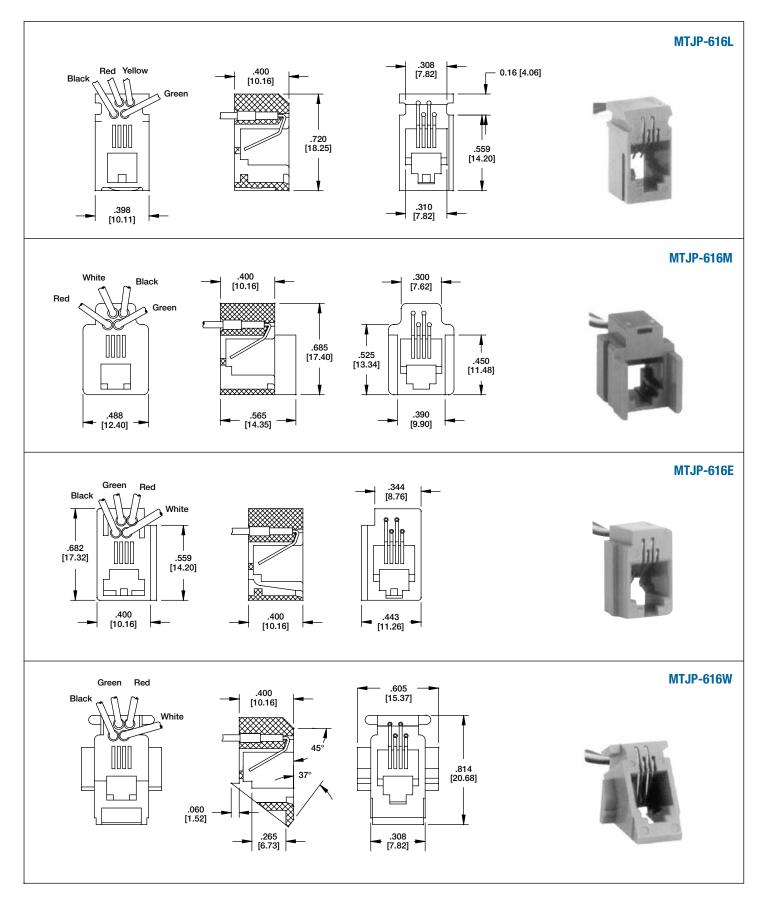






WIRE LEADED JACKS

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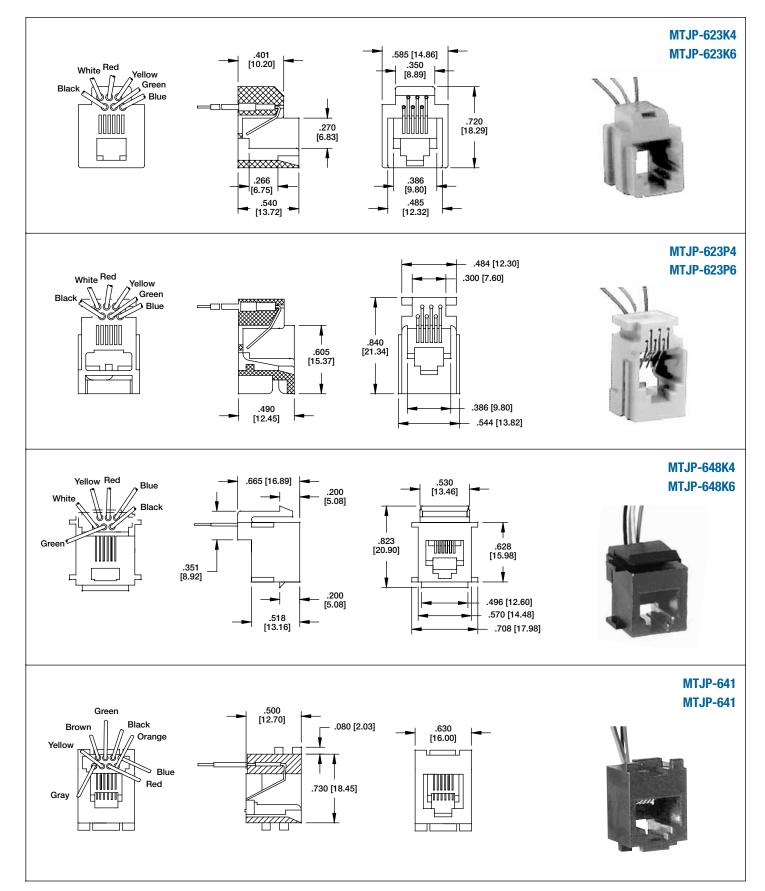


# **WIRE LEADED JACKS**



ADVANCED INTERCONNECT PRODUCTS AND SYSTEMS

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# LINE CORD COUPLER

### PANEL MOUNT COUPLER

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