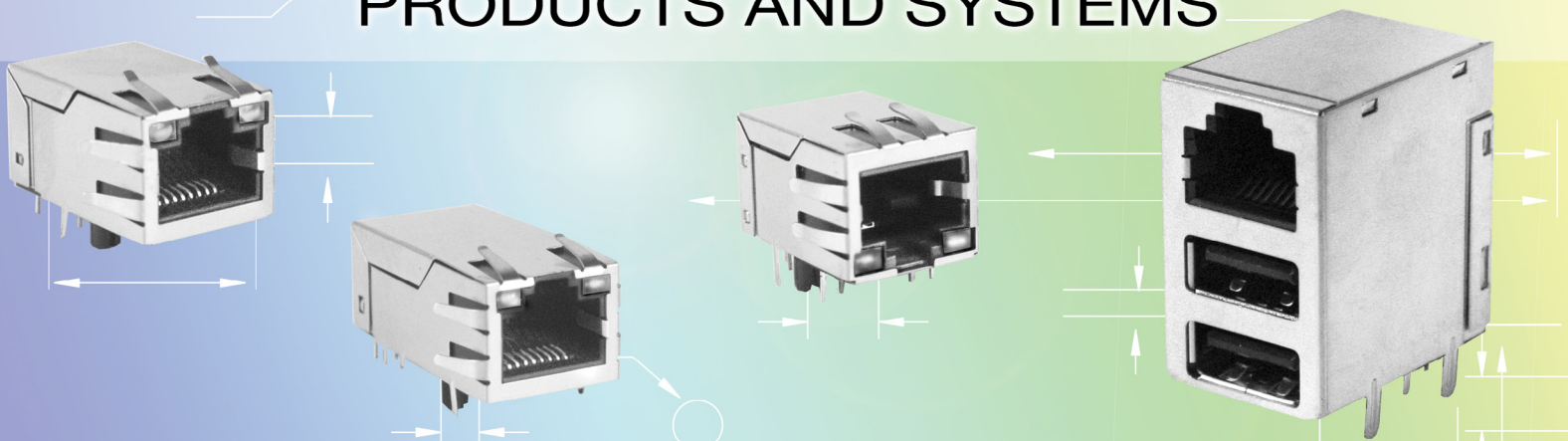


Integrated Magnetic Jacks

ADAM TECH®

ADVANCED INTERCONNECT PRODUCTS AND SYSTEMS



INTRODUCTION:

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

FEATURES:

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

MATING PLUGS:

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

SPECIFICATIONS:

MATERIAL:

Insulator: PBT, glass filled, rated UL94V-0
Insulator Color: Black
Contacts: Phosphor Bronze or Brass
Shield: Copper Alloy, Nickel or Tin plated

CONTACT PLATING:

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

ELECTRICAL:

Operating Voltage: 150V AC
Current Rating: 1.5 Amps Max.
Contact Resistance: 20 mΩ Max.
Insulation Resistance: 500 MΩ Min.
Dielectric Withstanding Voltage: 1500V AC for 1 Minute
DC resistance: 1.2 Ohms Max.
Interwinding capacitance: 35pF @ 1MHz
Insertion loss: 100KHz to 80MHz = -1.1dB Min.
Return loss: 1MHz to 30MHz = -18dB Min.
30MHz to 80MHz = -12dB Min.
Rise time: 30nS Max.
Cross talk: 1MHz to 100MHz = 40dB TYP.
Common to Common mode Attenuation: 35dB TYP.

MECHANICAL:

Insertion force: 8 Contacts: 22.5N
10 Contacts: 24.5N
Temperature Rating:
Operation Temperature: -40°C ~ +85°C

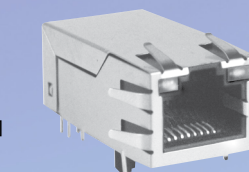
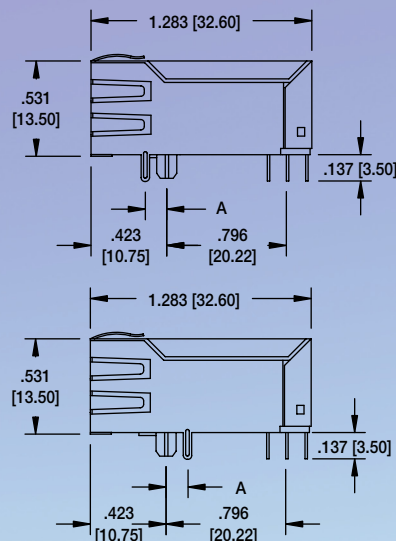
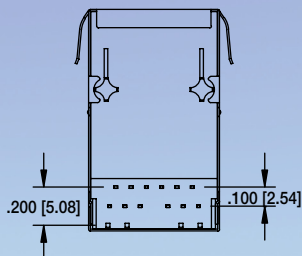
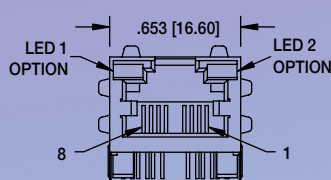
PACKAGING:

Anti-ESD plastic trays or tubes

SAFETY AGENCY APPROVALS:

UL Recognized File no. E224049





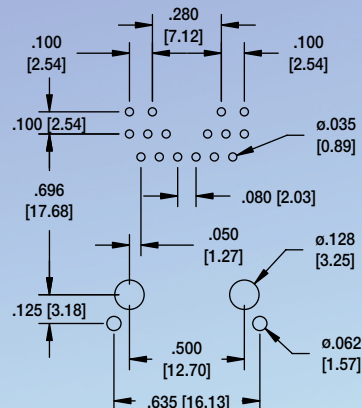
MTJ-88CX1-FSP-PG-LG-M3

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

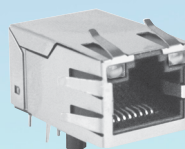
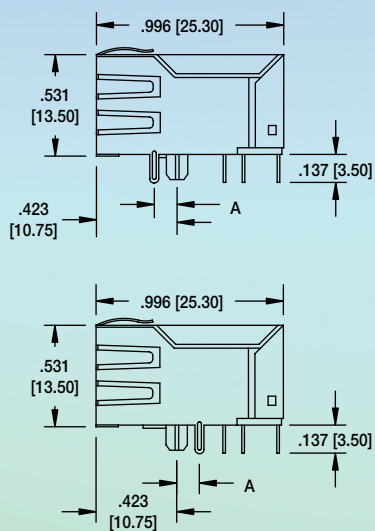
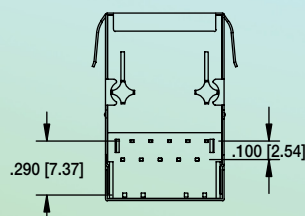
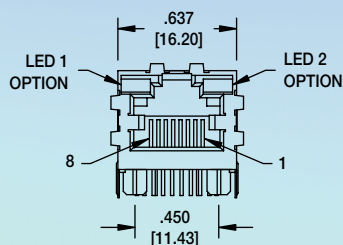
AVAILABLE WITH MAGNETIC TRANSFORMERS: M1, M3, M4, M5, M6, M7, M8, M9, M10, M11, M12, M13, M16 & M20.

TYPE C

TAB UP & TOP LEDs,
EXTENDED BODY



Recommended PCB Layout
FSP Option Shown



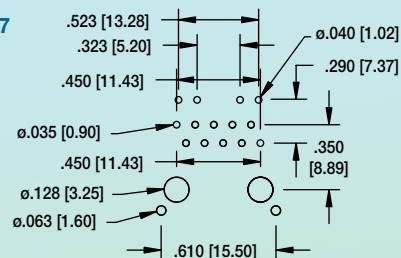
MTJ-88SX1-FSP-PG-LG-M7

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

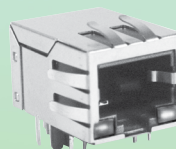
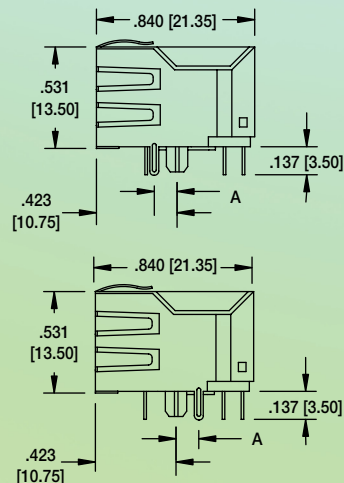
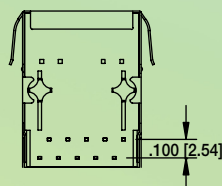
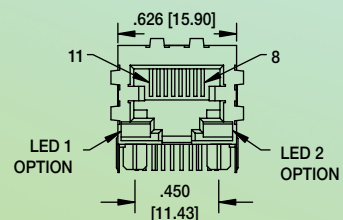
AVAILABLE WITH MAGNETIC TRANSFORMERS: M1, M3, M4, M5, M6, M7, M9, M10, M11, M12 & M13. See pgs. 44-45

TYPE S

TAB UP & TOP LEDs,
STANDARD BODY



Recommended PCB Layout
FSP Option Shown



MTJ-88TX1-FSP-PG-LG-M5

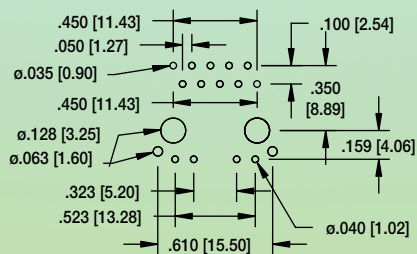
Tab Up Type also available

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

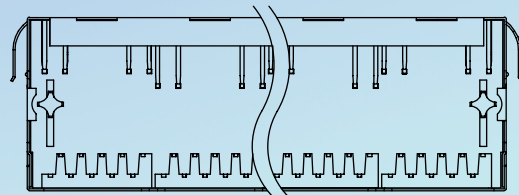
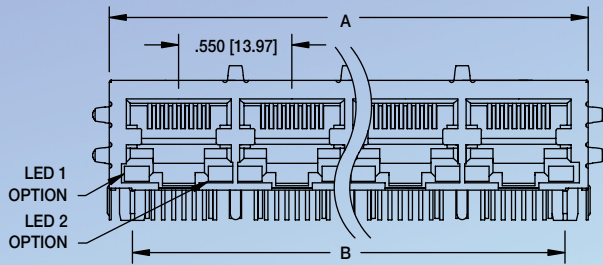
AVAILABLE WITH MAGNETIC TRANSFORMERS: M1, M3, M4, M5, M6, M7, M9, M10, M11, M12 & M13. See pgs. 44-45

TYPE T

TAB DOWN & BOTTOM LEDs,
SHORT BODY



Recommended PCB Layout
FSP Option Shown

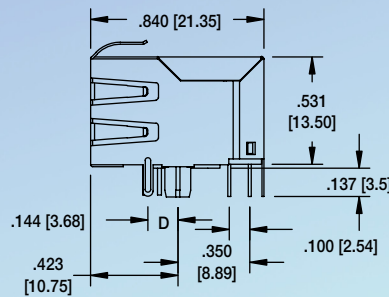


MTJG-4-88TX1-FSB-PG

Drawing shown with metal shield, panel ground tabs, LEDs and magnetics option

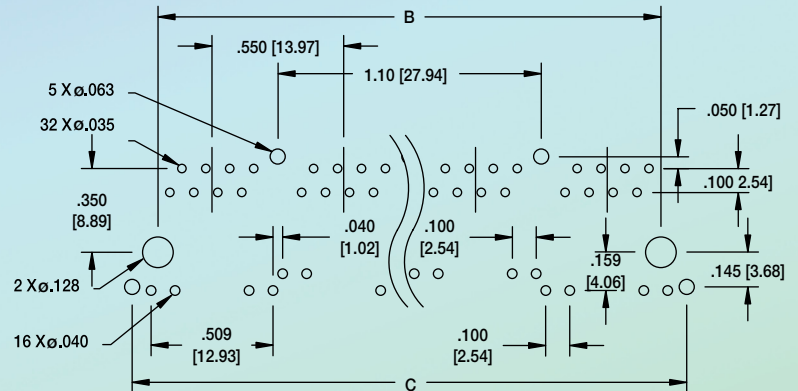
A = .550 [13.97] X (NO OF PORTS - 1) + .679 [17.27]
B = .550 [13.97] X (NO OF PORTS - 1) + .450 [11.43]

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

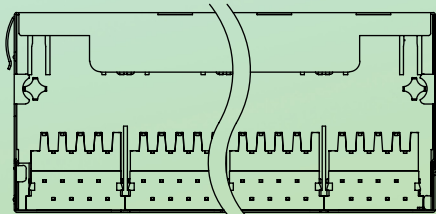
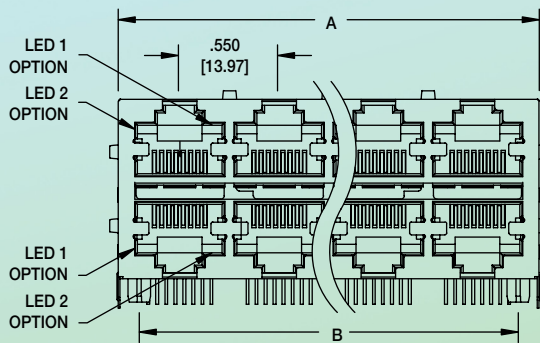


TYPE T TAB DOWN, SHORT BODY MAGNETICS & LED_s 2, 4 & 5 PORTS GANGED

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



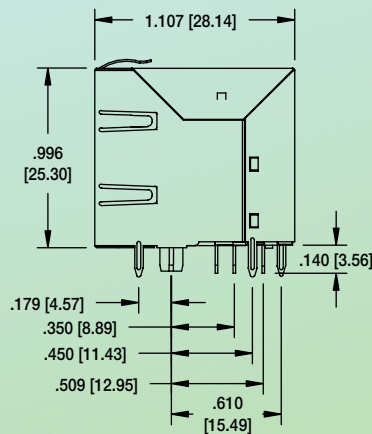
Recommended PCB Layout



MTJG-8-88JX1-FSE-LD-M1

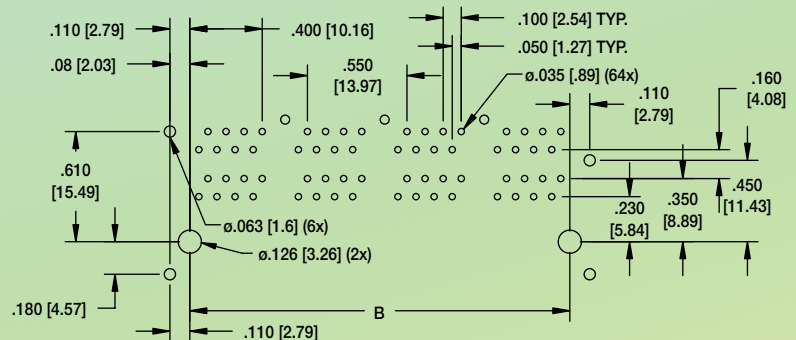
Drawing shown with metal shield, panel ground tabs & LEDs.

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

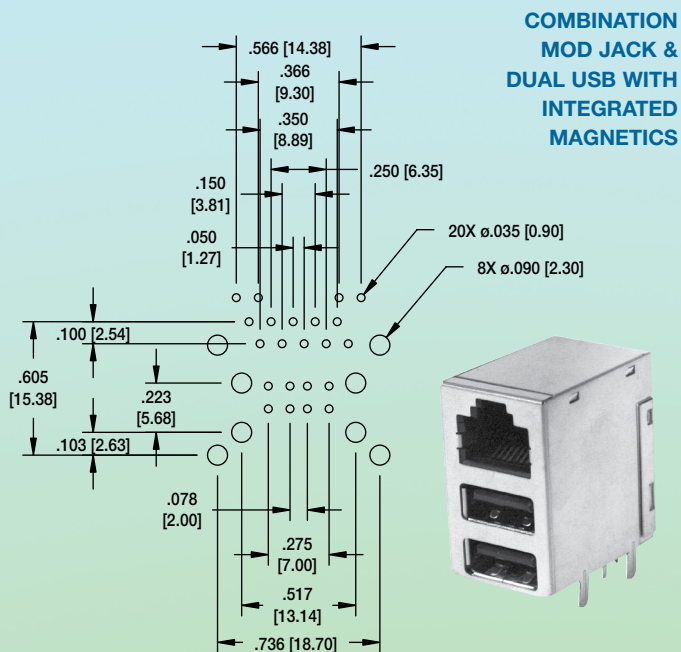
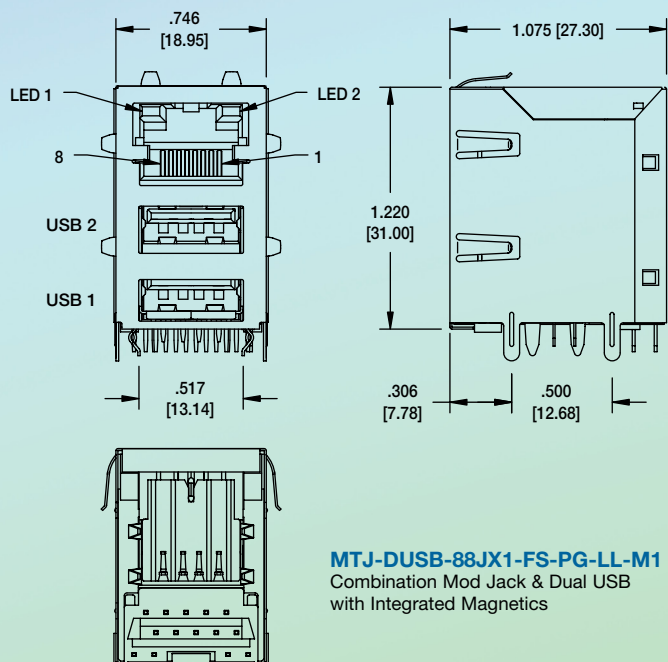


TYPE J STACKED

DIMENSIONS		
PORTS	A	B
2 X 1	.677 [17.20]	.450 [11.43]
2 X 2	1.227 [31.17]	1.00 [25.40]
2 X 4	2.331 [59.22]	2.100 [53.34]
2 X 5	2.876 [73.07]	2.650 [67.31]
2 X 6	3.426 [87.04]	3.200 [81.28]
2 X 8	4.527 [115.00]	4.300 [109.22]



Recommended PCB Layout



Recommended PCB Layout

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

OTHER LED COLOR
COMBINATIONS AVAILABLE

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

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

ORDERING INFORMATION FOR JACKS WITH INTEGRATED MAGNETICS & LEDs

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

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



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Adam Tech is pleased to provide you with our full line brochure in our third decade of business.

It is our continuing goal to offer a wide range of connectors and cable assemblies from our Taiwan and China manufacturing facilities with one simple promise:

We will provide you with the **Highest Quality Product** with the **Best Service Available** at the **Lowest Possible Price.**