

PLEASE CHECK WWW.MOLEX.COM FOR LATEST PART INFORMATION

Part Number:

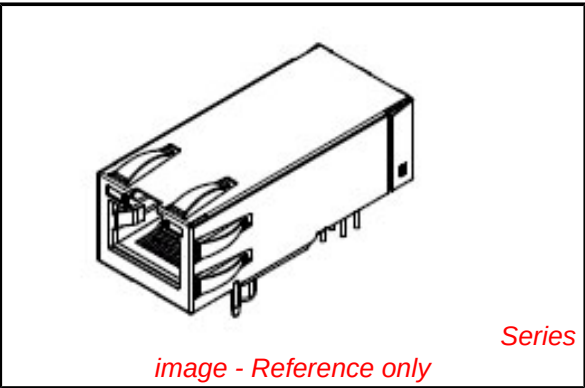
0857891001

Status:

Active

Description:

PoE PLUS ENABLED ICM 1x1 LEDs: GREEN - GREEN



Documents:

Drawing (PDF)

RoHS Certificate of Compliance (PDF)

General	
Product Family	Modular Jacks/Plugs
Series	85789
Component Type	PCB Jack
Magnetic	Yes
Performance Category	5
Power over Ethernet (PoE)	PoE+
Product Name	HyperJack™PoE
Physical	
Durability (mating cycles max)	750
Inverted / Top Latch	Yes
Keying to Mating Part	Yes
Lightpipes/LEDs	LEDs
Orientation	Right Angle (Side Entry)
PCB Retention	None
Packaging Type	Tray
Panel Mount	No
Ports	1
Positions / Loaded Contacts	8/8
Surface Mount Compatible (SMC)	Yes
Temperature Range - Operating	-40°C to +80°C
Termination Interface: Style	Through Hole
Wire/Cable Type	N/A
Electrical	
Current - Maximum per Contact	1.5A
Grounding to PCB	Yes
Shielded	Yes
Voltage - Maximum	57V
Material Info	
Reference - Drawing Numbers	
Sales Drawing	SD-85789-001

EU RoHS

ELV and RoHS

Compliant

REACH SVHC

Not Reviewed

Halogen-Free

Status

Not Reviewed

China RoHS



Need more information on product environmental compliance?

Email productcompliance@molex.com

For a multiple part number RoHS Certificate of Compliance, [click here](#)

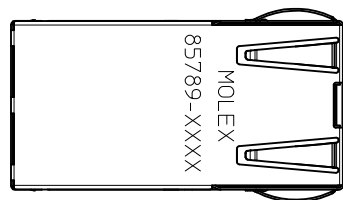
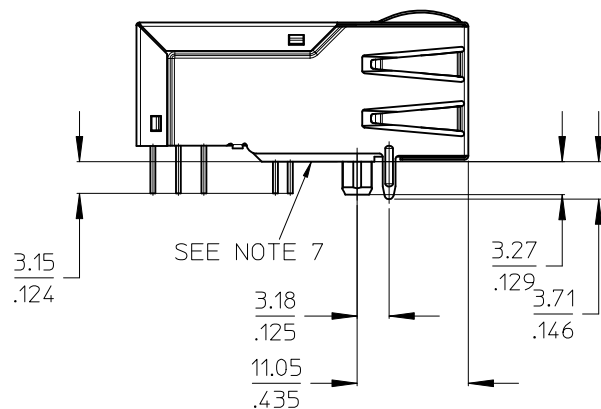
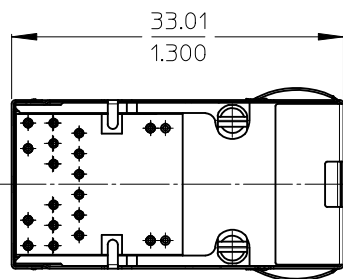
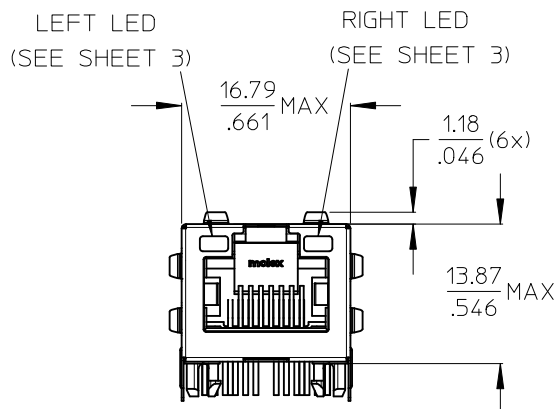
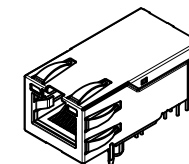
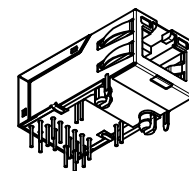
Please visit the [Contact Us](#) section for any non-product compliance questions.

Search Parts in this Series

85789Series

PLEASE CHECK WWW.MOLEX.COM FOR LATEST PART INFORMATION

GIGABIT SINGLE PORT MAGNETIC JACK WITH LEDs
PoE+ MAGNETICS ACC. TO IEEE802.3at FOR PSE OR PD APPLICATIONS

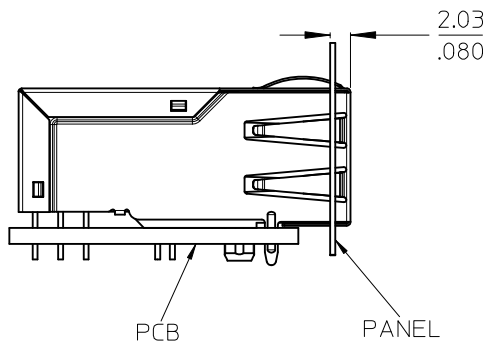
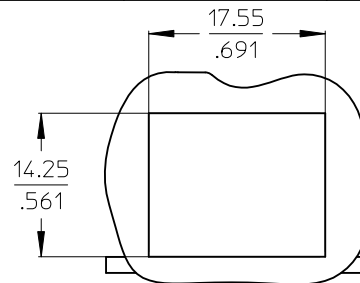


SCALE 1:1

NOTES:

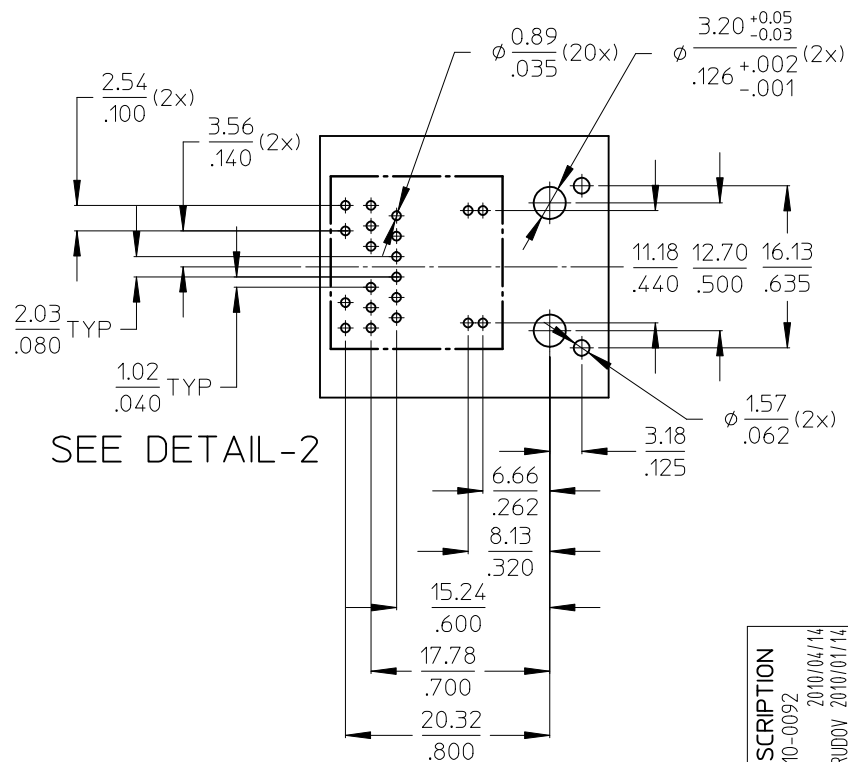
- 1 - SHIELD MATERIAL: STAINLESS STEEL
(GROUND PINS ARE SOLDER DIPPED)
- 2 - PLASTIC MATERIAL: PBT, BLACK, UL 94V-0
- 3 - TERMINALS MATERIAL: PHOSPOR BRONZE CuSn8
RJ45 CONTACTS PLATING: 1.27μm GOLD OVER
1.9μm Ni ON MATING AREA
SOLDER TERMINALS: 3μm Sn
- 4 - JACK TO BE MATED WITH FCC 68.5 PLUGS /
IEC 60603-7 PLUGS
- 5 - PRODUCT SPECIFICATION: PS-85789-001
- 6 - PACKAGING SPECIFICATION: PK-85759-001
- 7 - STAND OFF TO SYSTEM BOARD

ENTER DESCRIPTION EC NO: MG2010-0092 DRWN:JBADER 2010/04/14 CHKD:MMANGARUDOV 2010/01/14 APPR:SSSTE INKE 2010/05/25		DESCRIPTION	QUALITY SYMBOLS ▽=0 ▽=0	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE MM ONLY		SCALE 2:1	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION 		
2	REV				mm	INCH	DRAWN BY	DATE	TITLE HYPERJACK POE PLUS ENABLED 1X1 4P			
				4 PLACES	± ---	± ---	JBADER	2010/01/14				
				3 PLACES	± ---	± ---	CHECKED BY	DATE	MOLEX INCORPORATED			
				2 PLACES	± 0.05	± ---	MMANGARUDOV	2010/01/14				
				1 PLACE	± 0.10	± ---	APPROVED BY	DATE				
		ANGULAR ± .5 °		SSTE INKE	2010/03/09	DOCUMENT NO.		SD-85789-001		SHEET NO.		
				DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		SEE SHEET 3				1 OF 3		
						SIZE A3		THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION				

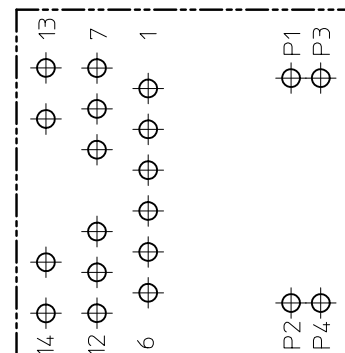


SUGGESTED PANEL CUTOUT

SUGGESTED BOARD LAYOUT - COMPONENT SIDE



PIN CONFIGURATION



DETAIL-2
SCALE 4:1

ENTER DESCRIPTION
EC NO: MG2010-0092
DRWN: JBADER 2010/04/14
CHKD: MMANGARUDOV 2010/01/14
APPR: SSTE INKE 2010/05/25
REV

QUALITY SYMBOLS
$\nabla = 0$
$\nabla C = 0$

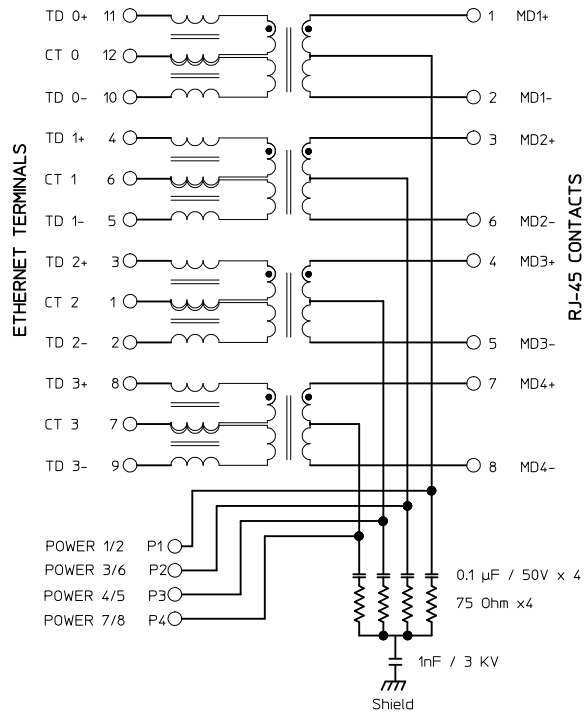
GENERAL TOLERANCES (UNLESS SPECIFIED)		
	mm	INCH
4 PLACES	± .005	± .0004
3 PLACES	± .008	± .0006
2 PLACES	± 0.05	± .001
1 PLACE	± 0.10	± .002
ANGULAR ± .5 °		
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		

DIMENSION STYLE	MM ONLY
DRAWN BY	DATE
JBADER	2010/01/14
CHECKED BY	DATE
MMANGARUDOV	2010/01/14
APPROVED BY	DATE
SSTE INKE	2010/03/09
MATERIAL NO.	
SEE SHEET 3	

SCALE	2:1
DESIGN UNITS	METRIC
THIRD ANGLE PROJECTION	
TITLE	
HYPERJACK POE PLUS ENABLED 1X1 4P	
MOLEX INCORPORATED	
DOCUMENT NO.	SHEET NO.
SD-85789-001	2 OF 3

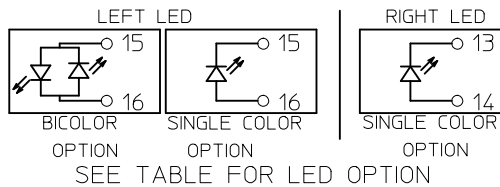
Electrical Specifications @25°C		
Operating temperature (0°C to +70°C)		
Description	Value	
OCL POE+TRANSF. 24mA bias (0°C to +70°C)	350μH min.	
OCL NONPOE TRANSF. 8mA bias (0°C to +70°C)	350μH min.	
Turns Ratio	1CT:1CT	
Insertion Loss		
Frequency (MHz)	Limits (dB max.)	Typical Values (dB max.)
1.0-9.9 MHz	0.4+0.1*log(F)	0.5 @ 10MHz
10-49.9 MHz	0.5+0.3*log(F/10)	0.7 @ 50MHz
50-79.9 MHz	1+1.4*log(F/80)	1.0 @ 80MHz
80-100 MHz	1.3+3*log(F/100)	1.3 @ 100MHz
Return Loss		
Frequency (MHz)	Limits (dB min.)	TYPICAL Values (dB min.)
1-9.9 MHz	27dB min.	27 @ 10MHz
10-100 MHz	27-17*log(F/10)	10 @ 100MHz
CMR		
Frequency (MHz)	Limits (dB min.)	TYPICAL Values (dB min.)
1-9.9 MHz	34dB min.	34 @ 10MHz
10-79.9 MHz	27dB min.	27 @ 80MHz
80-199.9 MHz	27-14.5*log(F/80)	21.5 @ 200MHz
200-399.9 MHz	21.5-39*log(F/200)	10 @ 400MHz
400-1000 MHz	10	10 @ 1000MHz
NEXT		
Frequency (MHz)	Limits (dB min.)	TYPICAL Values (dB min.)
1-5.9 MHz	50	50 @ 6MHz
6-49.9 MHz	45-16*log(F/10)	34 @ 50MHz
50-100 MHz	25-30*log(F/100)	25 @ 100MHz
Isolation PHY to Wire side	2.25kVDC/60sec	

PHY SIDE / PCB SIDE ETHERNET MAGNETICS WIRE SIDE / RJ45



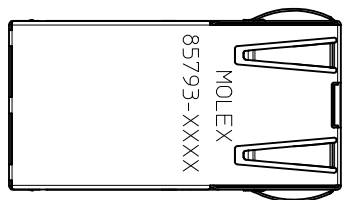
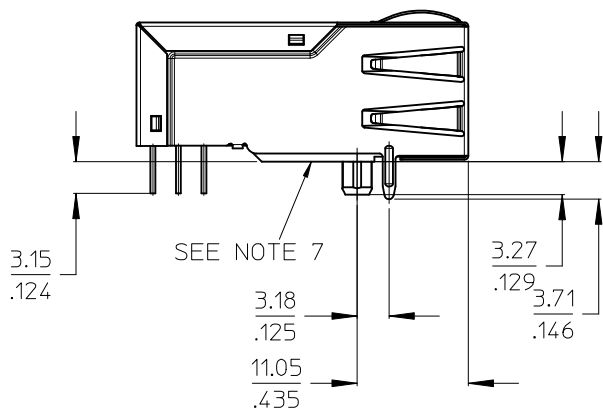
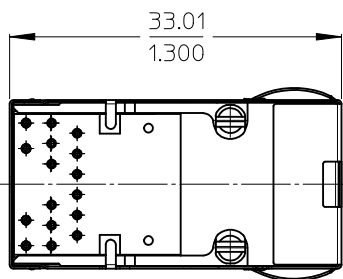
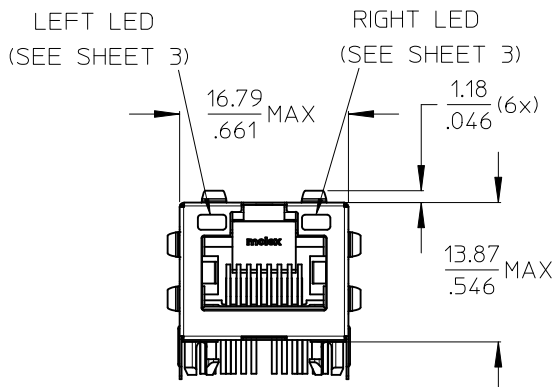
PART NUMBER	LED1 POLARITY			LED2 POLARITY		
	LEFT LED			RIGHT LED		
	PIN15	PIN16	COLOUR	PIN13	PIN14	COLOUR
85789-1001	-	+	GREEN	-	+	GREEN
85789-1003	-	+	GREEN	-	+	GREEN
85789-1006	+	-	ORANGE	-	+	YELLOW

ADDITIONAL LED COLORS AND CONFIGURATIONS AVAILABLE ON REQUEST



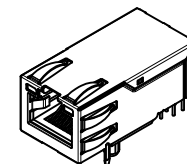
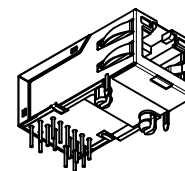
ENTER DESCRIPTION EC NO: MG2010-0092 DRWN:JBADER 2010/04/14 CHKD:MANGARUDOV 2010/01/14 APPR:SSTE INKE 2010/05/25		DESCRIPTION	QUALITY SYMBOLS ▽=0 ▽=0	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE MM ONLY		SCALE 5:1	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION	
				mm	INCH	DRAWN BY JBADER	DATE 2010/01/14	TITLE HYPERJACK POE PLUS ENABLED 1X1 4P			
2		REV	DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS	4 PLACES	± ---	± ---	CHECKED BY MMANGARUDOV				
				3 PLACES	± ---	± ---	MOLEX INCORPORATED				
				2 PLACES	± 0.05	± ---					
				1 PLACE	± 0.10	± ---					
				ANGULAR ± .5 °		APPROVED BY SSTE INKE	DATE 2010/03/09	MOLEX			
						MATERIAL NO.	DOCUMENT NO.		SHEET NO.		
						SEE BOM		SD-85789-001		3 OF 3	
						SIZE A3	THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION				

GIGABIT SINGLE PORT MAGNETIC JACK WITH LEDs



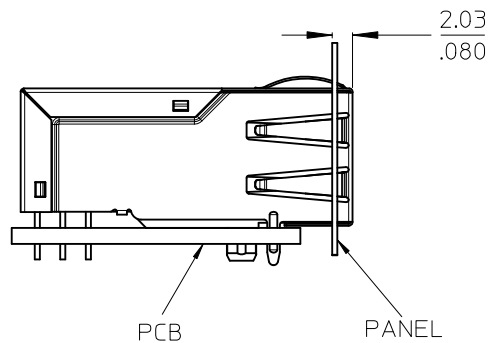
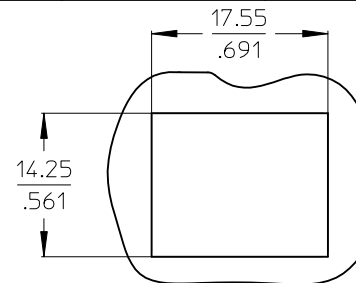
NOTES:

- 1 - SHIELD MATERIAL: STAINLESS STEEL
(GROUND PINS ARE SOLDER DIPPED)
- 2 - PLASTIC MATERIAL: PBT, BLACK, UL 94V-0
- 3 - TERMINALS MATERIAL: PHOSPOR BRONZE CuSn8
RJ45 CONTACTS PLATING: 1.27μm GOLD OVER
1.9μm Ni ON MATING AREA
SOLDER TERMINALS: 3μm Sn
- 4 - JACK TO BE MATED WITH FCC 68.5 PLUGS /
IEC 60603-7 PLUGS
- 5 - PRODUCT SPECIFICATION: PS-85793-001
- 6 - PACKAGING SPECIFICATION: PK-85759-001
- 7 - STAND OFF TO SYSTEM BOARD



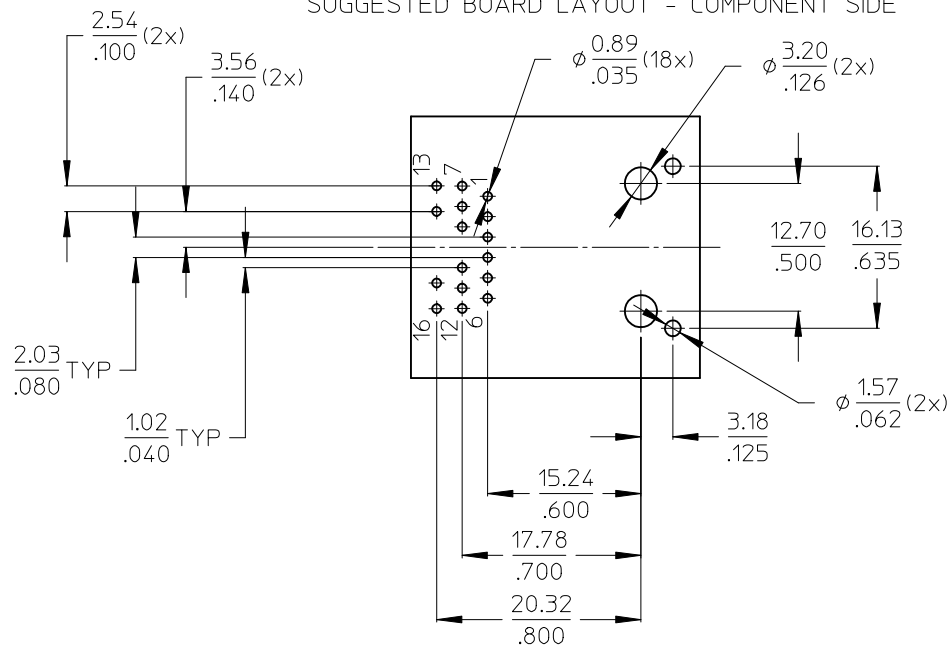
SCALE 1:1

ENTER DESCRIPTION EC NO: MG2010-0092 DRWN:JBADER 2010/04/16 CHKD:MMANGARUDOV 2010/04/16 APPR:SSTE INKE 2010/05/25		DESCRIPTION	QUALITY SYMBOLS ▽=0 ▽=0	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE MM ONLY		SCALE 2:1	DESIGN UNITS METRIC	 THIRD ANGLE PROJECTION	
				mm	INCH	DRAWN BY JBADER	DATE 2010/04/16	TITLE HYPERJACK 1000 BASE-T 1X1			
1		REV		4 PLACES	± ---	± ---	CHECKED BY MMANGARUDOV			DATE 2010/04/16	 MOLEX INCORPORATED
				3 PLACES	± ---	± ---	APPROVED BY SSTE INKE	DATE 2010/05/21			
				2 PLACES	± 0.05	± ---	DOCUMENT NO. SD-85793-101		SHEET NO. 1 OF 3		
				1 PLACE	± 0.10	± ---					
				ANGULAR ± .5 °		MATERIAL NO.					
				DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		SEE SHEET 3					
						SIZE A3		THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION			



SUGGESTED PANEL CUTOUT

SUGGESTED BOARD LAYOUT - COMPONENT SIDE



ENTER DESCRIPTION	REV
EC NO: MG2010-0092	1
DRWN: JBADER	
CHKD: MMANGARUDOV	
APPR: SSTE INKE	

QUALITY SYMBOLS
$\nabla = 0$
$\nabla = 0$

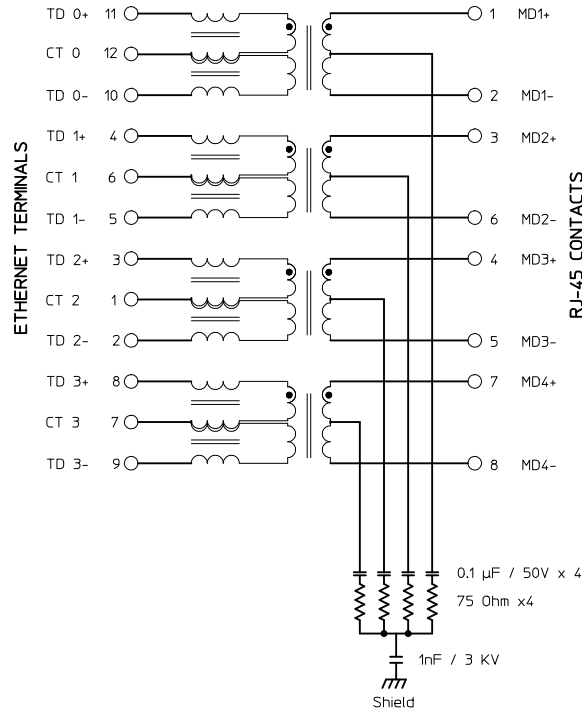
GENERAL TOLERANCES (UNLESS SPECIFIED)		
	mm	INCH
4 PLACES	± .05	± .002
3 PLACES	± .05	± .002
2 PLACES	± 0.05	± .002
1 PLACE	± 0.10	± .002
ANGULAR ± .5 °		
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		

DIMENSION STYLE	SCALE	DESIGN UNITS
MM ONLY	2:1	METRIC
DRAWN BY	DATE	TITLE
JBADER	2010/04/16	HYPERJACK 1000 BASE-T 1X1
CHECKED BY	DATE	
MMANGARUDOV	2010/04/16	
APPROVED BY	DATE	
SSTE INKE	2010/05/21	
MATERIAL NO.		
SEE SHEET 3		

MOLEX INCORPORATED	DOCUMENT NO.	SHEET NO.
SD-85793-101	2 OF 3	
THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION		

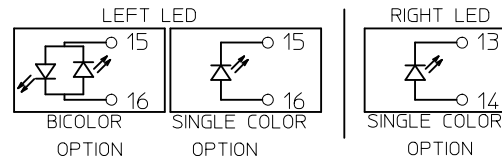
Electrical Specifications @25°C		
Operating temperature (0°C to +70°C)		
Description	Value	
OCL POE+TRANSF. 24mA bias (0°C to +70°C)	350uH min.	
OCL NONPOE TRANSF. 8mA bias (0°C to +70°C)	350uH min.	
Turns Ratio	1CT:1CT	
Insertion Loss		
Frequency (MHz)	Limits (dB max.)	Typical Values (dB max.)
1.0-9.9 MHz	0.4+0.1*log(F)	0.5 @ 10MHz
10-49.9 MHz	0.5+0.3*log(F/10)	0.7 @ 50MHz
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80-100 MHz	1.3+3*log(F/100)	1.3 @ 100MHz
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50-100 MHz	25-30*log(F/100)	25 @ 100MHz
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PHY SIDE / PCB SIDE ETHERNET MAGNETICS WIRE SIDE / RJ45



PART NUMBER	LED1 POLARITY			LED2 POLARITY		
	LEFT LED			RIGHT LED		
	PIN15	PIN16	COLOUR	PIN13	PIN14	COLOUR
85793-1001	-	+	GREEN	-	+	GREEN
85793-1003	-	+	GREEN	-	+	GREEN
	+	-	ORANGE			
85793-1006	-	+	GREEN	-	+	YELLOW

ADDITIONAL LED COLORS AND CONFIGURATIONS AVAILABLE ON REQUEST



SEE TABLE FOR LED OPTION

ENTER DESCRIPTION EC NO: MG2010-0092 DRWN:JBADER 2010/04/16 CHKD:MMANGARUDOV 2010/04/16 APPR:SSTE INKE 2010/05/25		DESCRIPTION	QUALITY SYMBOLS ▽=0 ▽=0	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE MM ONLY		SCALE 5:1	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION 						
					mm	INCH	DRAWN BY JBADER	DATE 2010/04/16	TITLE HYPERJACK 1000 BASE-T 1X1							
				4 PLACES	± ---	± ---	CHECKED BY MMANGARUDOV	DATE 2010/04/16								
				3 PLACES	± ---	± ---	APPROVED BY SSTE INKE					MOLEX INCORPORATED				
				2 PLACES	± 0.05	± ---										
1 PLACE	± 0.10	± ---	ANGULAR ± .5 °		MATERIAL NO. SEE BOM		DOCUMENT NO. SD-85793-101		SHEET NO. 3 OF 3							
1		REV	DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION											