

PLEASE CHECK WWW.MOLEX.COM FOR LATEST PART INFORMATION

Part Number: [0857891003](#)
Status: **Active**
Description: PoE PLUS ENABLED ICM 1x1 LEDs: GREEN - GREEN/ORANGE

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
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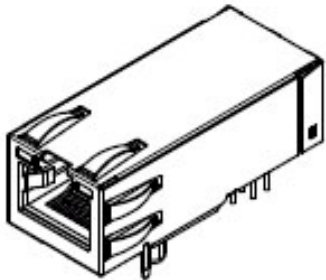


image - Reference only

Series

EU RoHS
ELV and RoHS
Compliant
REACH SVHC
Not Reviewed
Halogen-Free
Status
Not Reviewed

China RoHS



Need more information on product environmental compliance?

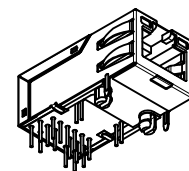
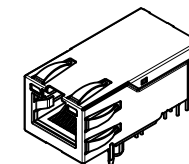
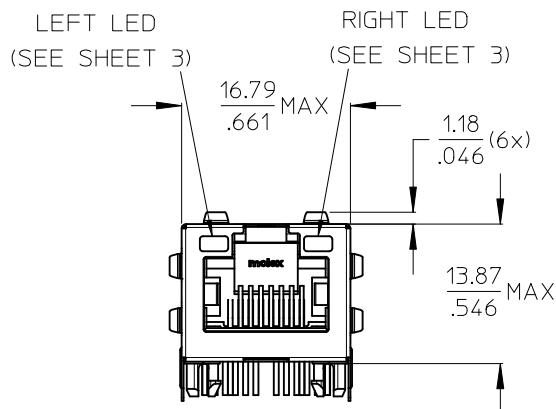
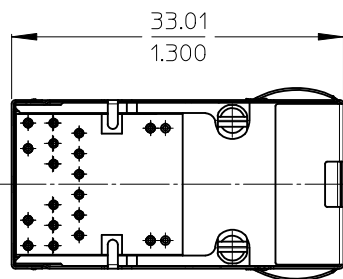
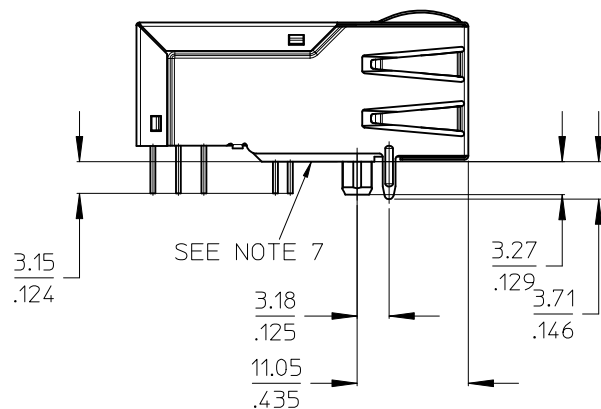
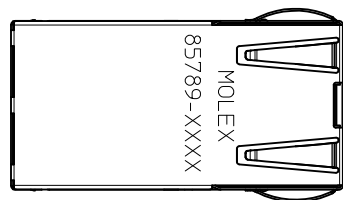
Email productcompliance@molex.com
For a multiple part number RoHS Certificate of Compliance, [click here](#)

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

Search Parts in this Series
[85789Series](#)

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

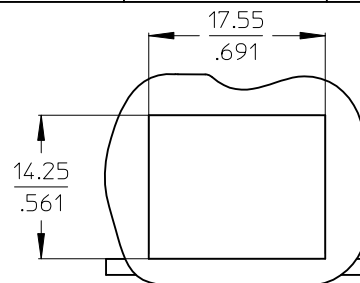
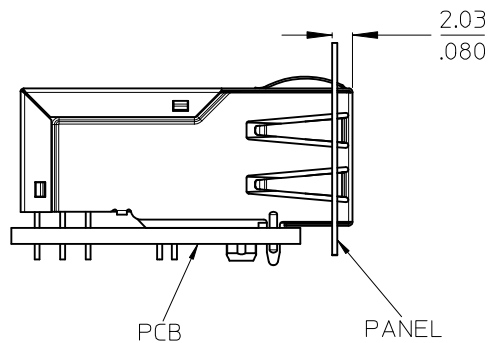


SCALE 1:1

NOTES:

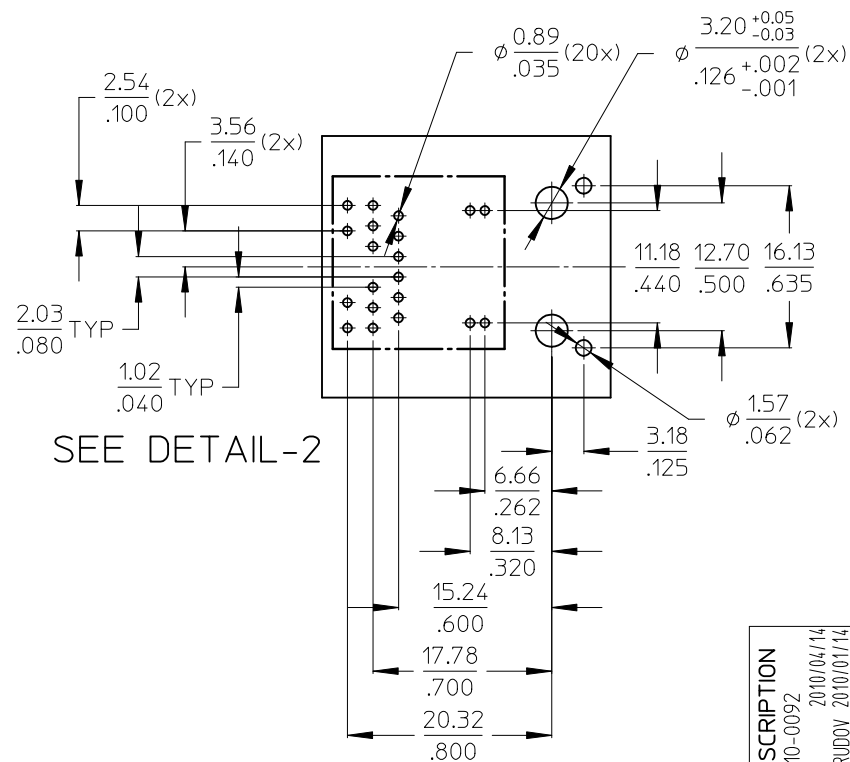
- 1 - SHIELD MATERIAL: STAINLESS STEEL
(GROUND PINS ARE SOLDER DIPPED)
- 2 - PLASTIC MATERIAL: PBT, BLACK, UL 94V-0
- 3 - TERMINALS MATERIAL: PHOSPOR BRONZE CuSn8
RJ45 CONTACTS PLATING: 1.27μm GOLD OVER
1.9μm Ni ON MATING AREA
SOLDER TERMINALS: 3μm Sn
- 4 - JACK TO BE MATED WITH FCC 68.5 PLUGS /
IEC 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
				mm	INCH	DRAWN BY JBADER	DATE 2010/01/14	TITLE HYPERJACK POE PLUS ENABLED 1X1 4P		
2	REV			4 PLACES	± ---	± ---	CHECKED BY			DATE
				3 PLACES	± ---	± ---	MMANGARUDOV	2010/01/14		
				2 PLACES	± 0.05	± ---	APPROVED BY	DATE		
				1 PLACE	± 0.10	± ---	SSTE INKE	2010/03/09		
				ANGULAR ± .5 °		MATERIAL NO.	DOCUMENT NO.	SHEET NO.		
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS				SEE SHEET 3		SD-85789-001		1 OF 3		
THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION										

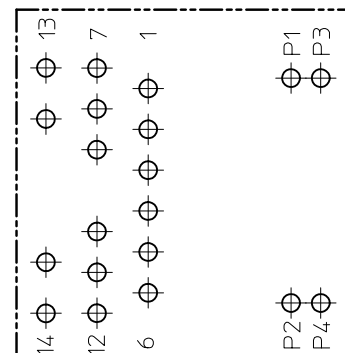


SUGGESTED PANEL CUTOUT

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
▽=0
▽=0

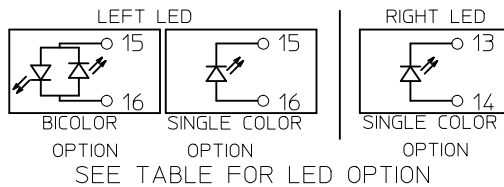
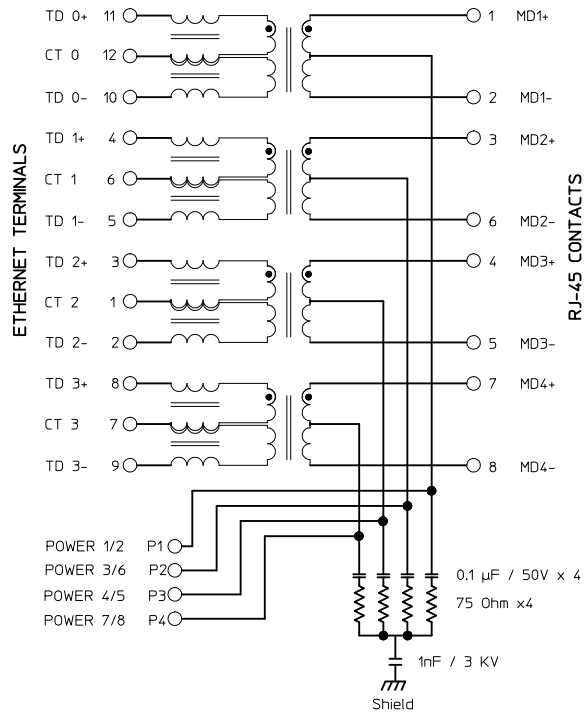
GENERAL TOLERANCES (UNLESS SPECIFIED)		
	mm	INCH
4 PLACES	± ---	± ---
3 PLACES	± ---	± ---
2 PLACES	± 0.05	± ---
1 PLACE	± 0.10	± ---
ANGULAR ± .5 °		
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		

DIMENSION STYLE	SCALE	DESIGN UNITS
MM ONLY	2:1	METRIC
DRAWN BY	DATE	TITLE
JBADER	2010/01/14	HYPERJACK POE PLUS
CHECKED BY	DATE	ENABLED 1X1 4P
MMANGARUDOV	2010/01/14	
APPROVED BY	DATE	
SSTE INKE	2010/03/09	
MATERIAL NO.		
SEE SHEET 3		

THIRD ANGLE PROJECTION
MOLEX INCORPORATED
DOCUMENT NO. SD-85789-001
SHEET NO. 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

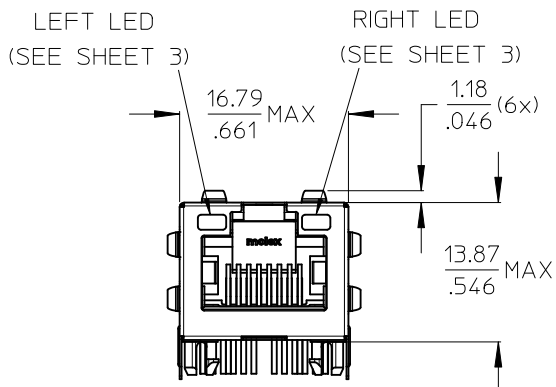
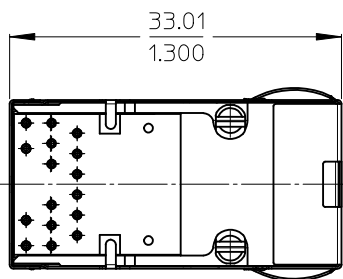
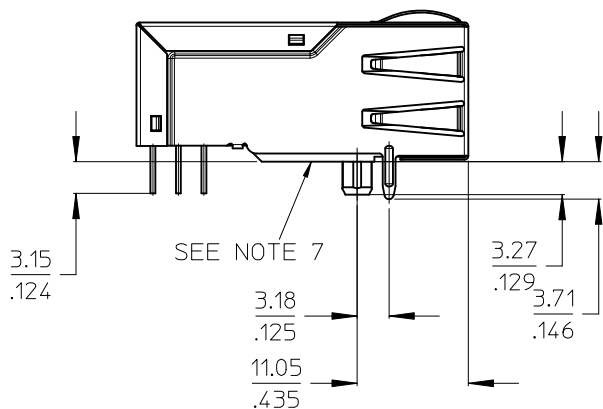
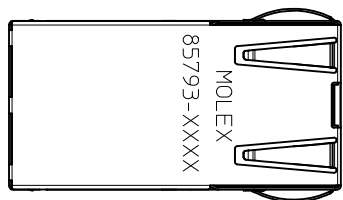


PART NUMBER	LED1 POLARITY			LED2 POLARITY		
	LEFT LED			RIGHT LED		
	PIN15	PIN16	COLOUR	PIN13	PIN14	COLOUR
85789-1001	-	+	GREEN	-	+	GREEN
85789-1003	-	+	GREEN	-	+	GREEN
85789-1006	-	+	GREEN	-	+	YELLOW

ADDITIONAL LED COLORS AND CONFIGURATIONS AVAILABLE ON REQUEST

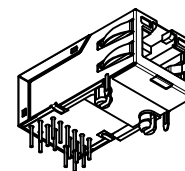
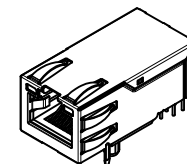
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					mm	INCH	DRAWN BY JBADER	DATE 2010/01/14	TITLE HYPERJACK POE PLUS ENABLED 1X1 4P						
2		REV		4 PLACES	± ---	± ---	CHECKED BY	DATE					MOLEX INCORPORATED  SD-85789-001		
				3 PLACES	± ---	± ---	MMANGARUDOV	2010/01/14							
				2 PLACES	± 0.05	± ---	APPROVED BY	DATE	DOCUMENT NO.		SHEET NO.				
				1 PLACE	± 0.10	± ---	SSTE INKE	2010/03/09	SD-85789-001		3 OF 3				
				ANGULAR ± .5 °		MATERIAL NO.									
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS				SEE BOM											
		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



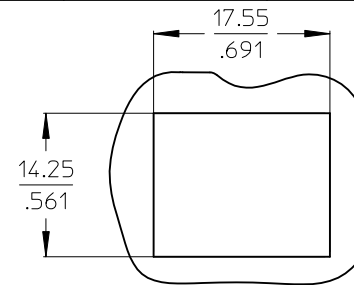
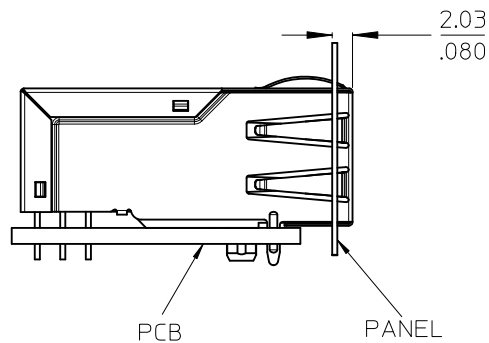
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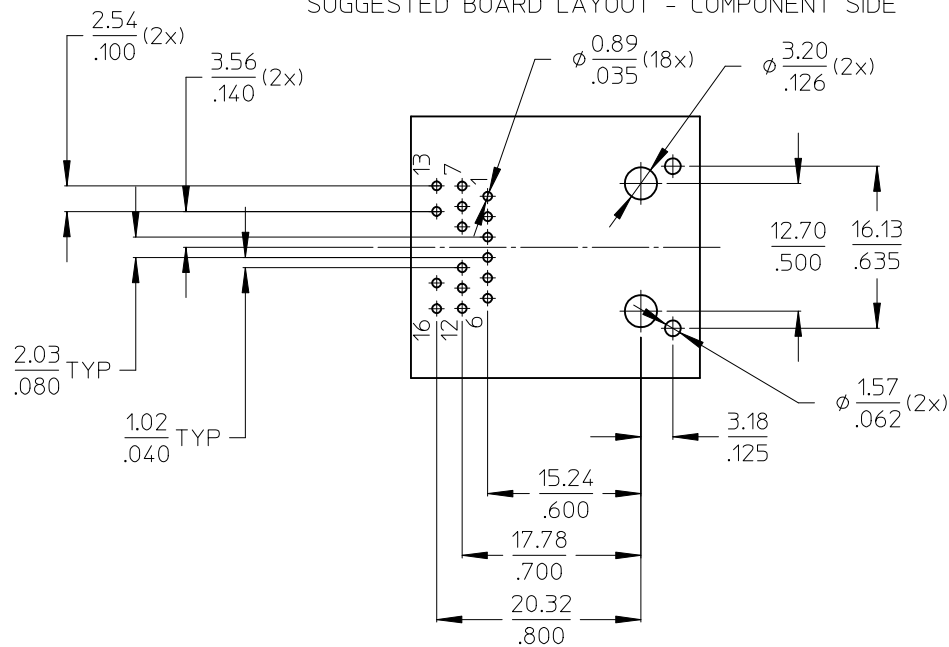
SCALE 1:1

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				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	± ---	MATERIAL NO. SEE SHEET 3		DOCUMENT NO. SD-85793-101	SHEET NO. 1 OF 3			
				1 PLACE	± 0.10	± ---							
				DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS									
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SUGGESTED PANEL CUTOUT

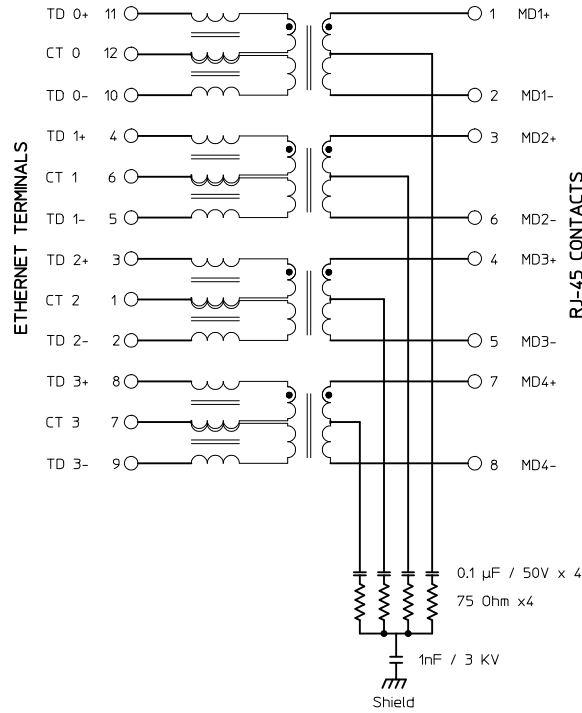
SUGGESTED BOARD LAYOUT - COMPONENT SIDE



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			mm INCH		DRAWN BY JBADER		DATE 2010/04/16		TITLE HYPERJACK 1000 BASE-T 1X1		
					CHECKED BY MMANGARUDOV		DATE 2010/04/16				
			4 PLACES ± --- ± ---						MOLEX INCORPORATED MOLEX		
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1 PLACE ± 0.10 ± ---				APPROVED BY SSTE INKE		DATE 2010/05/21		DOCUMENT NO. SD-85793-101			
ANGULAR ± .5 °											
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS				MATERIAL NO. SEE SHEET 3				SHEET NO. 2 OF 3			
1	REV				SIZE A3	THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION					

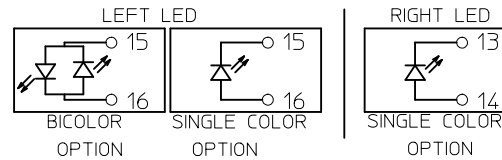
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PHY SIDE / PCB SIDE ETHERNET MAGNETICS WIRE SIDE / RJ45



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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 			
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				4 PLACES	± ---	± ---	CHECKED BY MMANGARUDOV	DATE 2010/04/16					
				3 PLACES	± ---	± ---	MOLEX INCORPORATED						
				2 PLACES	± 0.05	± ---							
				1 PLACE	± 0.10	± ---	APPROVED BY SSTE INKE	DATE 2010/05/21	DOCUMENT NO. SD-85793-101				
				ANGULAR ± .5 °		MATERIAL NO.		SHEET NO. 3 OF 3					
				DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		SIZE A3							THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION