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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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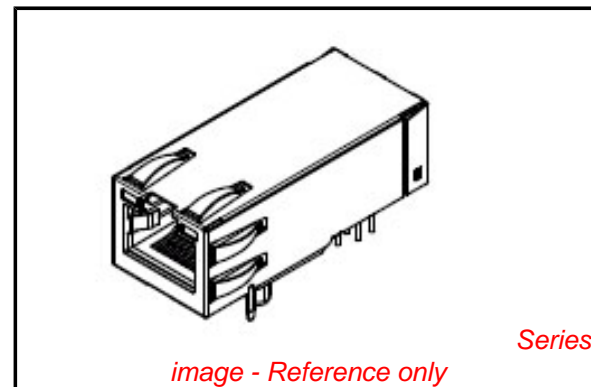


image - Reference only

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](#)

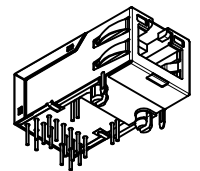
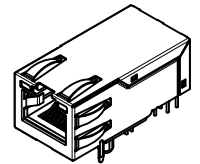
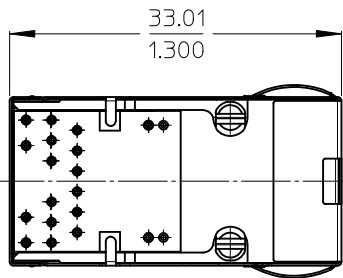
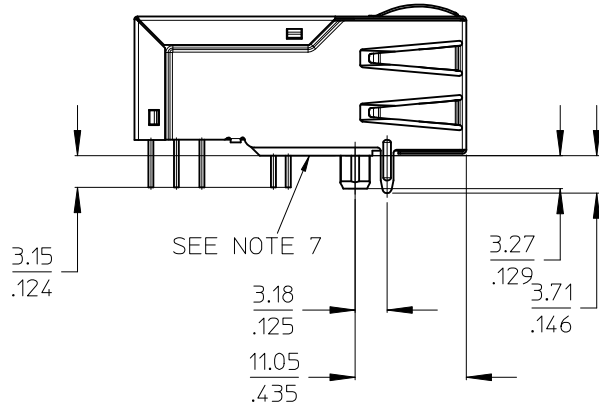
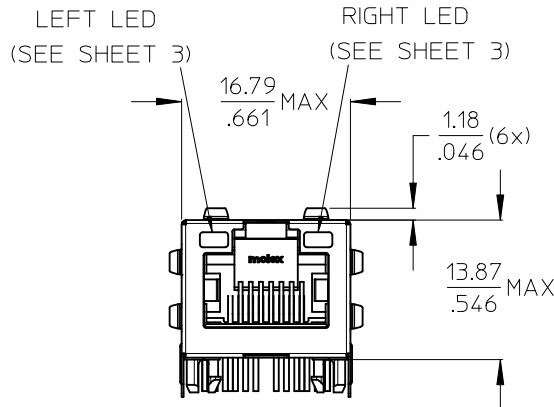
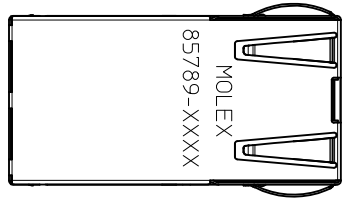
Please visit the [Contact Us](#) section for any
 non-product compliance questions.

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

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

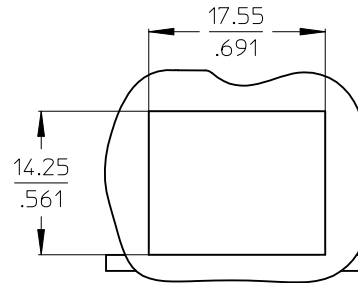
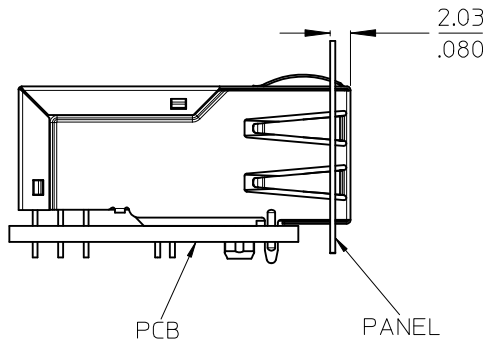
NOTES:

- 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



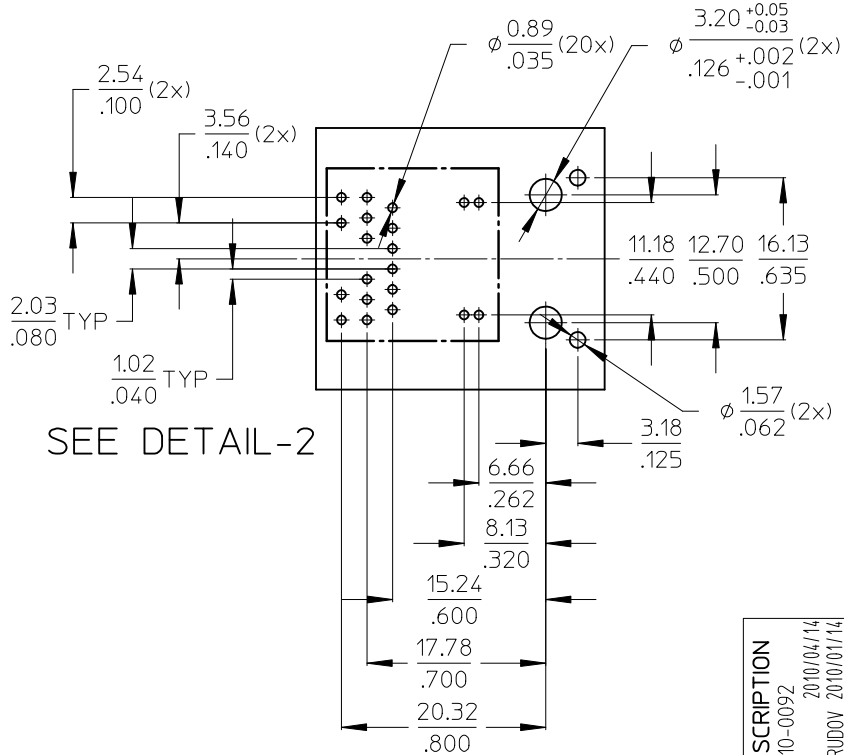
SCALE 1:1

ENTER DESCRIPTION EC NO: MG2010-0092 DRWN: JBADER 2010/04/14 CHKD: MMANGARUDOV 2010/01/14 APPR: SSTEINKE 2010/05/25	QUALITY SYMBOLS ▽=0 ▽=0	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE MM ONLY		SCALE 2:1	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION	
REV 2	DESCRIPTION	4 PLACES	± .05	± .0015	DRAWN BY JBADER	DATE 2010/01/14	TITLE HYPERJACK POE PLUS ENABLED 1X1 4P		
		3 PLACES	± .05	± .0015	CHECKED BY MMANGARUDOV	DATE 2010/01/14			
		2 PLACES	± 0.10	± .002	APPROVED BY SSTEINKE	DATE 2010/03/09	MOLEX INCORPORATED		
		1 PLACE	± 0.10	± .002	MATERIAL NO.	DOCUMENT NO.			
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		ANGULAR ± .5°		SEE SHEET 3		SD-85789-001		SHEET NO. 1 OF 3	
THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION									



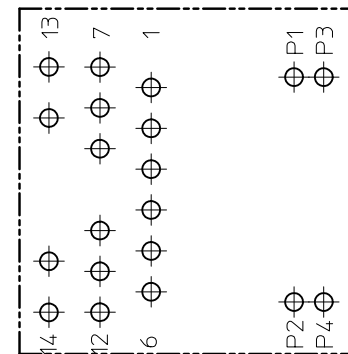
SUGGESTED PANEL CUTOUT

SUGGESTED BOARD LAYOUT - COMPONENT SIDE



SEE DETAIL-2

PIN CONFIGURATION

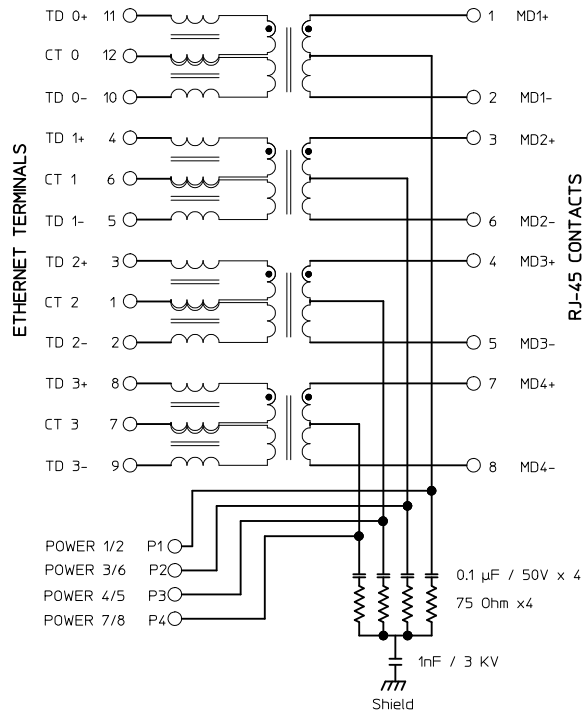


DETAIL-2
SCALE 4:1

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

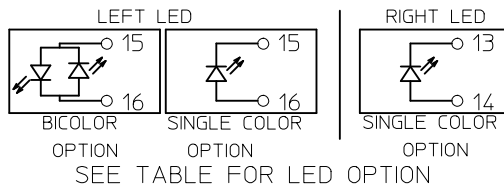
Electrical Specifications @25°C		
Operating temperature (0°C to +70°C)		
Description	Value	
OCL POE+TRANSF. 24mA bias (0°C to +70°C)	350µH min.	
OCL NONPOE TRANSF. 8mA bias (0°C to +70°C)	350µH min.	
Turns Ratio	1CT:1CT	
Insertion Loss	Limits (dB max.)	Typical Values (dB max.)
Frequency (MHz)	0.4+0.1*log(F)	0.5 @ 10MHz
1.0-9.9 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	Limits (dB min.)	TYPICAL Values (dB min.)
Frequency (MHz)	27dB min.	27 @ 10MHz
1-9.9 MHz	27-17*log(F/10)	10 @ 100MHz
CMR	Limits (dB min.)	TYPICAL Values (dB min.)
Frequency (MHz)	34dB min.	34 @ 10MHz
1-9.9 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	Limits (dB min.)	TYPICAL Values (dB min.)
Frequency (MHz)	50	50 @ 6MHz
1-5.9 MHz	45-16*log(F/10)	34 @ 50MHz
6-49.9 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



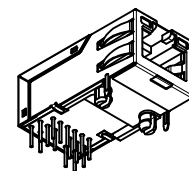
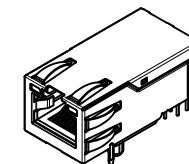
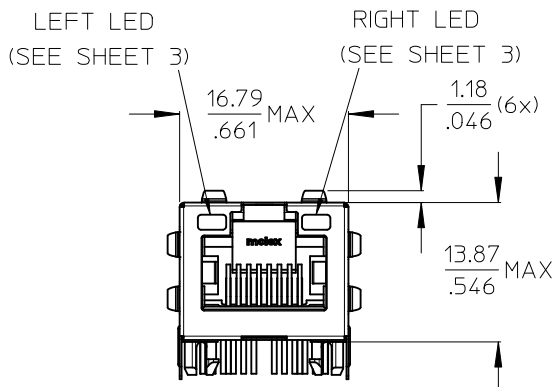
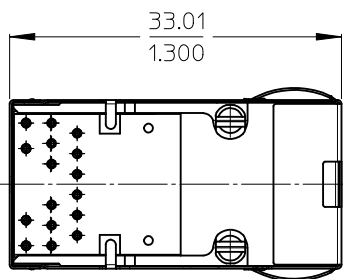
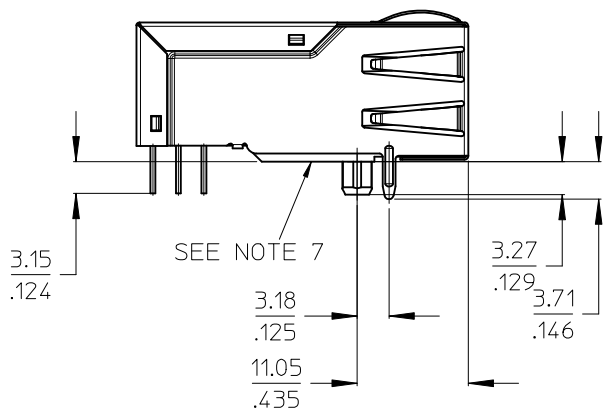
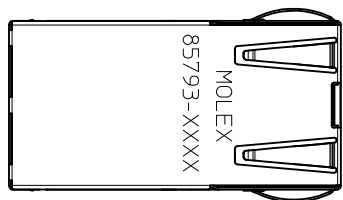
PART NUMBER	LED1 POLARITY			LED2 POLARITY		
	LEFT LED		COLOUR	RIGHT LED		COLOUR
	PIN15	PIN16		PIN13	PIN14	
85789-1001	-	+	GREEN	-	+	GREEN
85789-1003	-	+	GREEN	-	+	GREEN
85789-1006	+	-	ORANGE	-	+	YELLOW
	-	+	GREEN	-	+	YELLOW

ADDITIONAL LED COLORS AND CONFIGURATIONS AVAILABLE ON REQUEST



ENTER DESCRIPTION EC NO: MGZ010-0092 DRWN: JBADER 2010/04/14 CHYKD: MMANGARUDOV 2010/01/14 APPR: SSTE INKE 2010/05/25	QUALITY SYMBOLS 	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE MM ONLY	SCALE 5:1	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION		
		4 PLACES ± --- ± --- 3 PLACES ± --- ± --- 2 PLACES ± 0.05 ± --- 1 PLACE ± 0.10 ± ---	mm INCH	DRAWN BY JBADER	DATE 2010/01/14	TITLE HYPERJACK POE PLUS ENABLED 1X1 4P			
		ANGULAR ± .5 °		CHECKED BY MMANGARUDOV	DATE 2010/01/14	MOLEX INCORPORATED			
		DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		APPROVED BY SSTE INKE	DATE 2010/03/09	MATERIAL NO. SEE BOM		DOCUMENT NO. SD-85789-001	SHEET NO. 3 OF 3

GIGABIT SINGLE PORT MAGNETIC JACK WITH LEDs

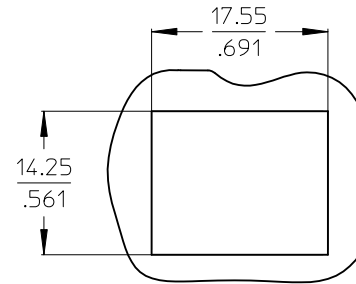
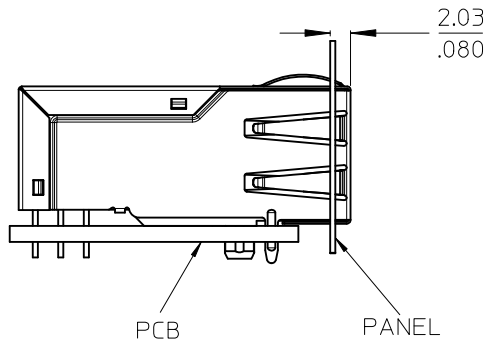


SCALE 1:1

NOTES:

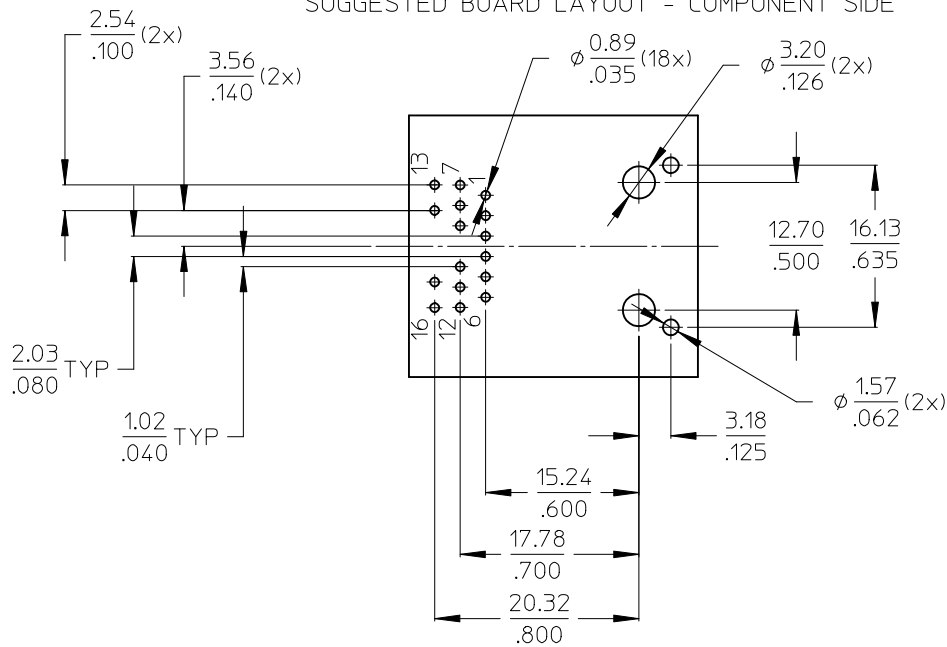
- 1 - SHIELD MATERIAL: STAINLESS STEEL
(GROUND PINS ARE SOLDER DIPPED)
- 2 - PLASTIC MATERIAL: PBT, BLACK, UL 94V-0
- 3 - TERMINALS MATERIAL: PHOSPOR BRONZE CuSn8
RJ45 CONTACTS PLATING: 1.27µm GOLD OVER
1.9µm Ni ON MATING AREA
SOLDER TERMINALS: 3µm Sn
- 4 - JACK TO BE MATED WITH FCC 68.5 PLUGS /
IEC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

ENTER DESCRIPTION EC NO: MG2010-0092 DRWN: JBADER 2010/04/16 CH'KD: MMANGARUDOV 2010/04/16 APPR: SSIE INKE 2010/05/25	REV 1	DESCRIPTION QUALITY SYMBOLS ▽=0 ▽=0	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE	SCALE	DESIGN UNITS	THIRD ANGLE PROJECTION				
					MM ONLY	2:1	METRIC					
					mm	INCH	DRAWN BY		DATE		TITLE	
					4 PLACES	± ---	± ---	JBADER	2010/04/16		HYPERJACK 1000 BASE-T 1X1	
		3 PLACES	± ---	± ---	CHECKED BY		DATE					
		2 PLACES	± 0.05	± ---	MMANGARUDOV		2010/04/16					
		1 PLACE	± 0.10	± ---	APPROVED BY		DATE					
		ANGULAR ± .5 °		SSTEINKE		2010/05/21		MOLEX INCORPORATED				
		DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		MATERIAL NO.		DOCUMENT NO.		SHEET NO.				
				SEE SHEET 3		SD-85793-101		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



REV	DESCRIPTION
1	ENTER DESCRIPTION EC NO: MG2010-0092 2010/04/16 DRWN: JBADER 2010/04/16 CHKD: MMANGARUDOV 2010/04/16 APPR: SSTE INKE 2010/05/25

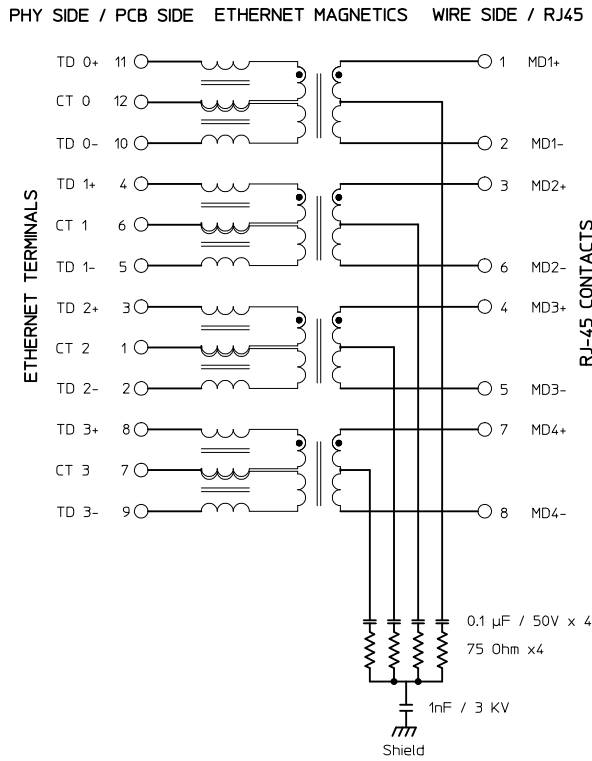
QUALITY SYMBOLS
▽=0
∇=0

GENERAL TOLERANCES (UNLESS SPECIFIED)	
	mm INCH
4 PLACES	± .05 ± .002
3 PLACES	± .05 ± .002
2 PLACES	± 0.10 ± .004
1 PLACE	± 0.15 ± .006
ANGULAR ± .5 °	
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS	

DIMENSION STYLE	
MM ONLY	
DRAWN BY	DATE
JBADER	2010/04/16
CHECKED BY	DATE
MMANGARUDOV	2010/04/16
APPROVED BY	DATE
SSTE INKE	2010/05/21
MATERIAL NO.	
SEE SHEET 3	

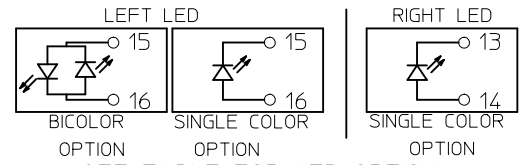
SCALE	DESIGN UNITS	THIRD ANGLE PROJECTION
2:1	METRIC	
TITLE		
HYPERJACK 1000 BASE-T 1X1		
MOLEX INCORPORATED		SHEET NO. 2 OF 3
DOCUMENT NO. SD-85793-101		
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Electrical Specifications @25°C		
Operating temperature (0°C to +70°C)		
Description	Value	
OCL 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.)
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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	



PART NUMBER	LED1 POLARITY			LED2 POLARITY		
	LEFT LED			RIGHT LED		
	PIN15	PIN16	COLOUR	PIN13	PIN14	COLOUR
85793-1001	-	+	GREEN	-	+	GREEN
85793-1003	-	+	GREEN	-	+	GREEN
85793-1006	+	-	ORANGE	-	+	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 2010/05/21	QUALITY SYMBOLS 	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE MM ONLY	SCALE 5:1	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION
		4 PLACES ± --- ± --- 3 PLACES ± --- ± --- 2 PLACES ± 0.05 ± --- 1 PLACE ± 0.10 ± ---	mm INCH	DRAWN BY DATE JBADER 2010/04/16	TITLE HYPERJACK 1000 BASE-T 1X1		
		ANGULAR ± .5 °		CHECKED BY DATE MMANGARUDOV 2010/04/16	MOLEX INCORPORATED		
		DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		APPROVED BY DATE SSTE INKE 2010/05/21	SEE BOM	MATERIAL NO. SD-85793-101	SHEET NO. 3 OF 3

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