This document was generated on 05/26/2010

PLEASE CHECK WWW.MOLEX.COM FOR LATEST PART INFORMATION

Part Number: 0857591006

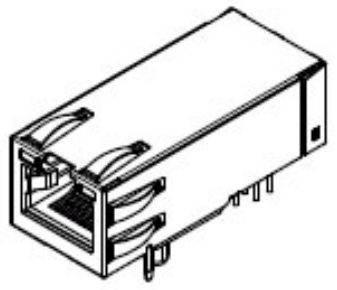
Status: Active

Description: PoE PLUS PSE ICM 1x1 LEDs: YELLOW - GREEN

Documents:

Drawing (PDF)

RoHS Certificate of Compliance (PDF)



Series image - Reference only

General

Product Family	Modular Jacks/Plugs
Series	85759
Component Type	PCB Jack
Magnetic	Yes
Performance Category	5e
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-85759-001

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

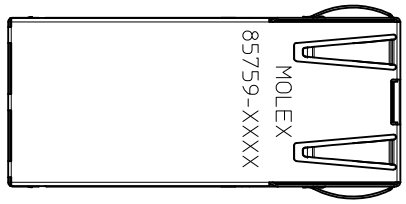
Please visit the Contact Us section for any non-product compliance questions.

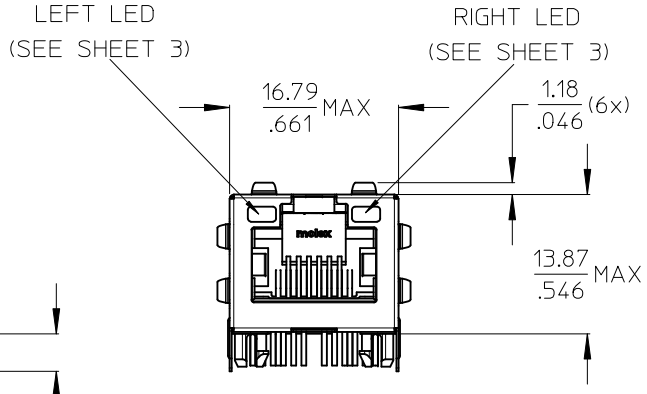
Search Parts in this Series
85759Series

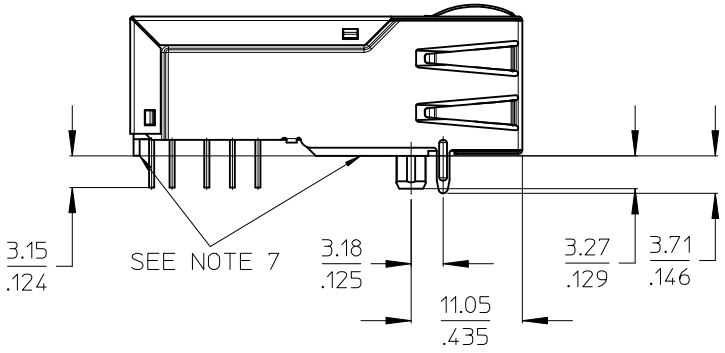
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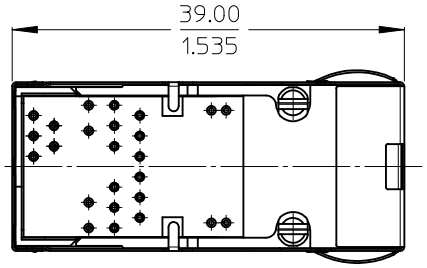
PLEASE CHECK WWW.MOLEX.COM FOR LATEST PART INFORMATION

GIGABIT SINGLE PORT MAGNETIC JACK WITH LEDs AND
INTEGRATED POWER OVER ETHERNET PLUS CONTROL CIRCUITRY
ACCORDING TO IEEE802.3at

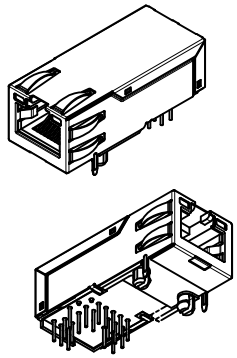








NOTES:
1 - SHIELD MATERIAL: STAINLESS STEEL
(GROUND PINS ARE SOLDER DIPPED)
2 - PLASTIC MATERIAL: PBT, BLACK, UL 94V-0
3 - TERMINALS MATERIAL: PHOSPHOR BRONZE CuSn8
RJ45 CONTACT PLATING: 1.27μm GOLD
OVER 1.9μm Ni ON MATING AREA
SOLDER TERMINALS: 3μm Sn
4 - JACK TO BE MATED WITH FCC 68.5 PLUGS /
IEC 60603-7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



SCALE 1:1

ENTER DESCRIPTION
EC NO: MG2010-0092 2010/03/29
DRWN: JBADER 2010/01/08
CHKD: MMANGARUDOV 2010/01/25
APPR: SSTEINKE
DESCRIPTION
REV
3

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: MM ONLY
SCALE: 2:1
DESIGN UNITS: METRIC
THIRD ANGLE PROJECTION

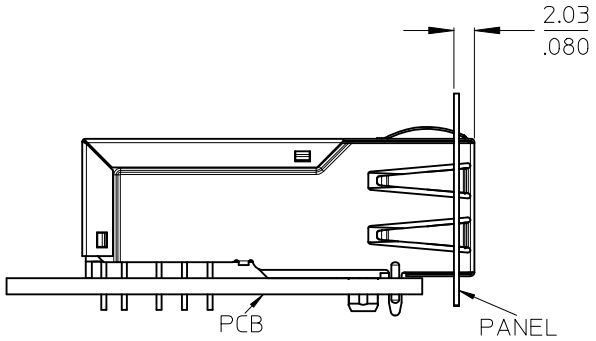
DRAWN BY: JBADER DATE: 2009/11/13
CHECKED BY: MMANGARUDOV DATE: 2010/01/08
APPROVED BY: SSTEINKE DATE: 2010/03/09

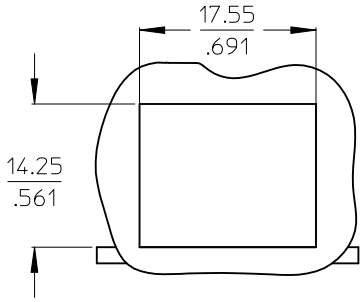
TITLE: HYPERJACK POE PLUS PSE ICM 1X1

MOLEX INCORPORATED

MATERIAL NO.: SEE SHEET 3
DOCUMENT NO.: SD-85759-001
SHEET NO.: 1 OF 3
SIZE: A3

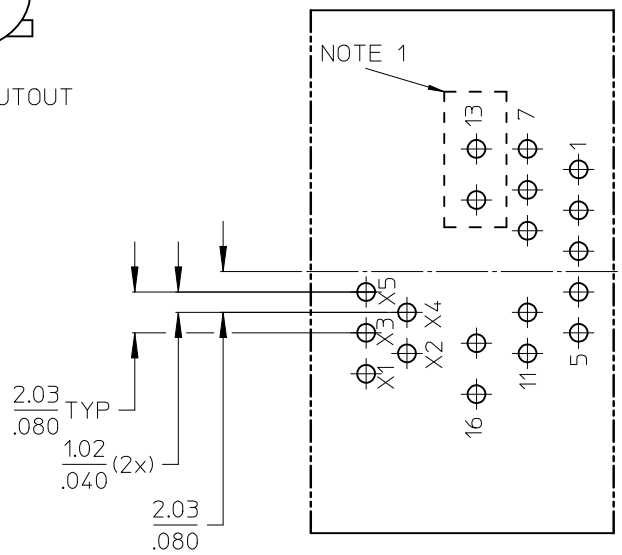
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SUGGESTED PANEL CUTOUT

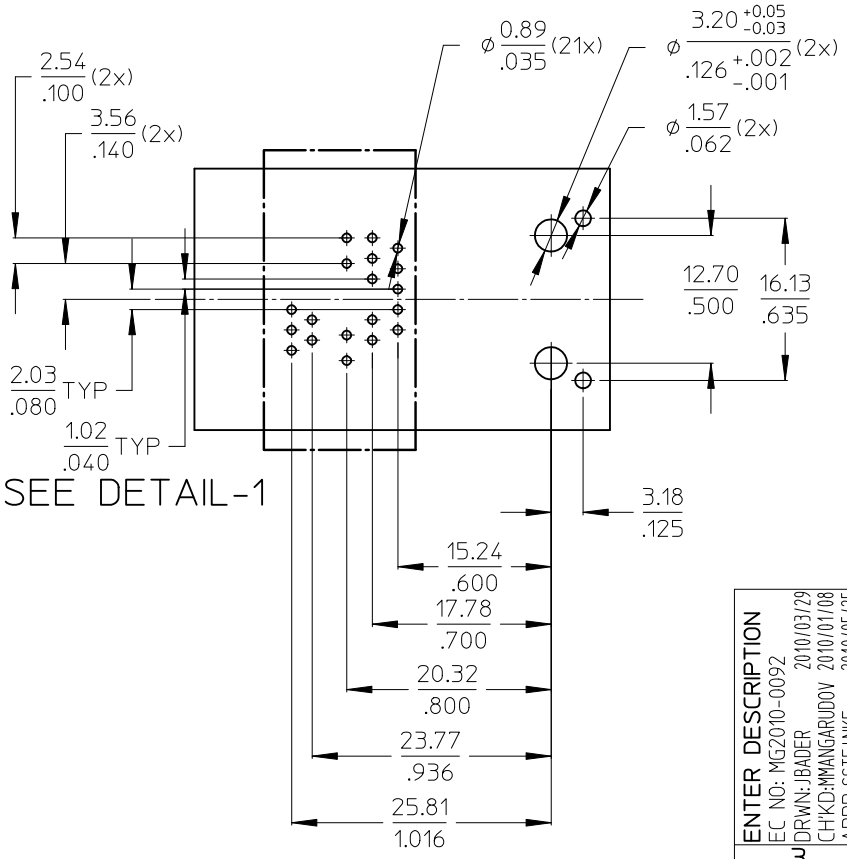
PIN CONFIGURATION



DETAIL-1

SCALE 4:1

SUGGESTED BOARD LAYOUT - COMPONENT SIDE



NOTE:

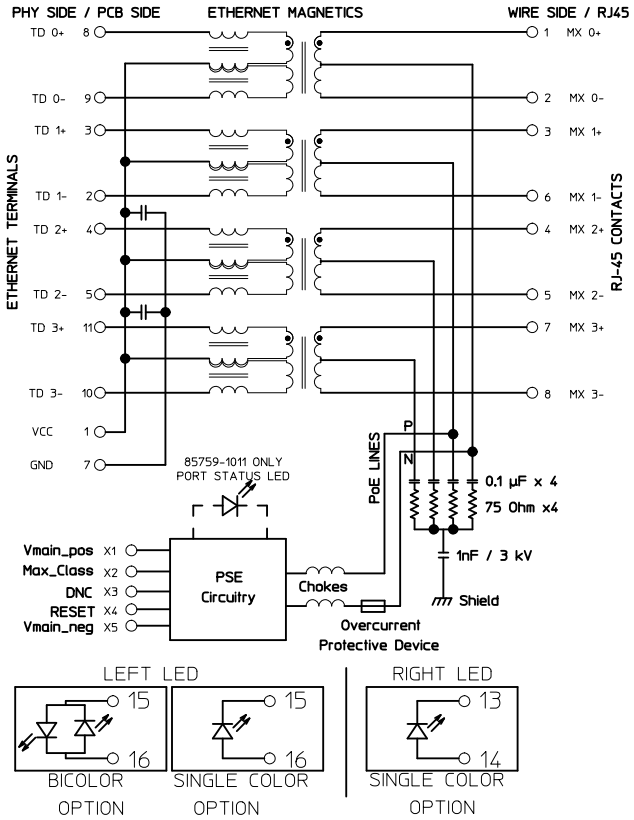
1 - PINS 13 AND 14 NOT PRESENT ON VERSION WITH INTEGRATED POWER INDICATION LED

ENTER DESCRIPTION EC NO: MG2010-0092 2010/03/29 DRWN:JBADER 2010/01/08 CH'KD:MMANGARUDOV 2010/05/25 APPR:SSTEINKE DESCRIPTION	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: MM ONLY DRAWN BY: JBADER DATE: 2009/11/13 CHECKED BY: MMANGARUDOV DATE: 2010/01/08 APPROVED BY: SSTEINKE DATE: 2010/03/09 MATERIAL NO.: SEE SHEET 3	SCALE: 2:1 DESIGN UNITS: METRIC THIRD ANGLE PROJECTION TITLE: HYPERJACK POE PLUS PSE ICM 1X1 MOLEX INCORPORATED DOCUMENT NO.: SD-85759-001 SHEET NO.: 2 OF 3	REV: 3

SIZE A3

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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.)
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	



SEE TABLE FOR LED OPTION

PART NUMBER	LEFT LED			RIGHT LED			
	PIN15	PIN16	COLOR	PIN13	PIN14	COLOR	
85759-1001	-	+	GREEN	-	+	GREEN	COLOR 1
							COLOR 2
85759-1003	-	+	GREEN	-	+	GREEN	COLOR 1
	+	-	ORANGE				COLOR 2
85759-1006	-	+	GREEN	-	+	YELLOW	COLOR 1
							COLOR 2

VERSION WITH INTEGATED PoE POWER INDICATION LED

PART NUMBER	POWER INDICATION					
	LEFT LED			RIGHT LED		
	PIN15	PIN16	COLOR 1	PIN13	PIN14	COLOR 1
85759-1011	-	+	GREEN	NOT PRESENT		ORANGE

ADDITIONAL LED COLORS AND CONFIGURATIONS AVAILABLE ON REQUEST

PIN	NAME	FUNCTION	PARAMETERS
X1	Vmain_pos	Vmain 51 to 56V DC IN	min. 470mA (Class0-3), min. 1000mA (Class 4)
X2	Max_Class / Port Status	INPUT (power up): Set Max Class	To be set by resistors to Vmain_neg
		Class 1 only	10k
		Class 1 or 2 only	20k
		All except class 4	30k
		All classes including class 4	Open
		OUTPUT (powered): Power indication	high if PD is powered up by 1x1 PSE
X3	DNC	reserved	remain floating
X4	Reset	Reset	Reset or to disable PSE
X5	Vmain_neg	Vmain Reference	

ENTER DESCRIPTION
EC NO: MG2010-0092 2010/03/29
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DESCRIPTION
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DIMENSION STYLE: MM ONLY
SCALE: 5:1
DESIGN UNITS: METRIC
THIRD ANGLE PROJECTION

DRAWN BY: JBADER DATE: 2009/11/13
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MOLEX INCORPORATED
DOCUMENT NO.: SD-85759-001
SHEET NO.: 3 OF 3
SIZE: A3

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