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Part Number: [0857591001](#)
Status: **Active**
Description: PoE PLUS PSE ICM 1x1 LEDs: GREEN - GREEN

Documents:

[Drawing \(PDF\)](#) [RoHS Certificate of Compliance \(PDF\)](#)

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
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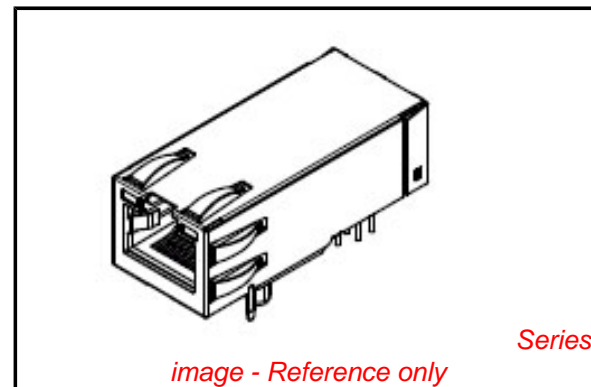


image - Reference only

EU RoHS

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

China RoHS



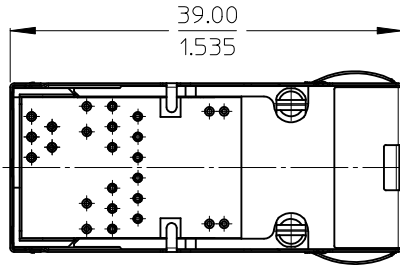
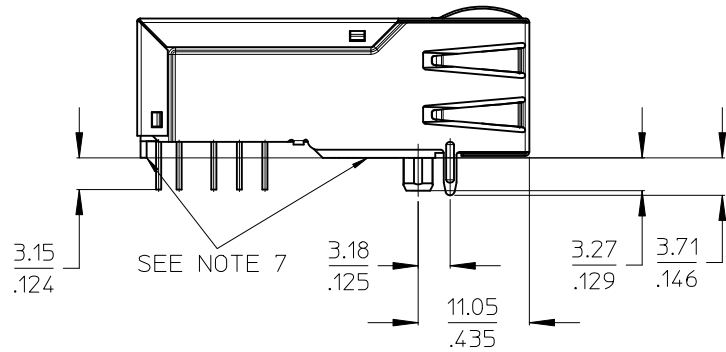
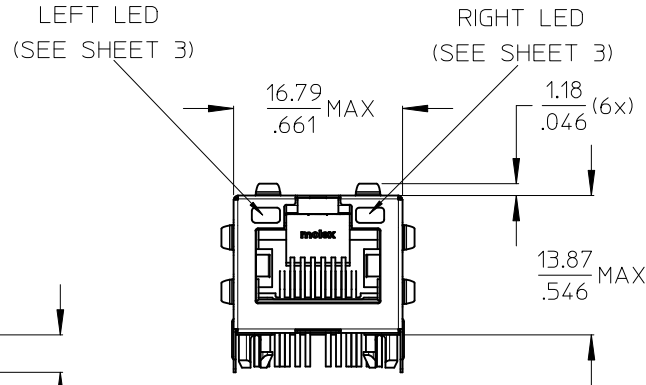
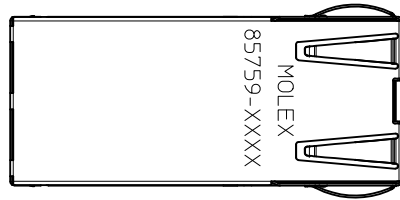
**Need more information on product
environmental compliance?**

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.

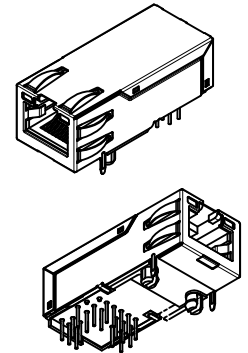
Search Parts in this Series
[85759Series](#)

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



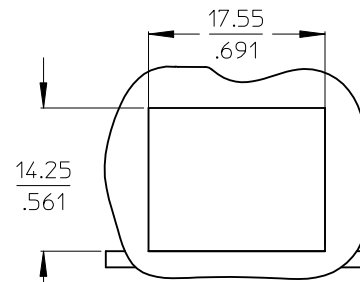
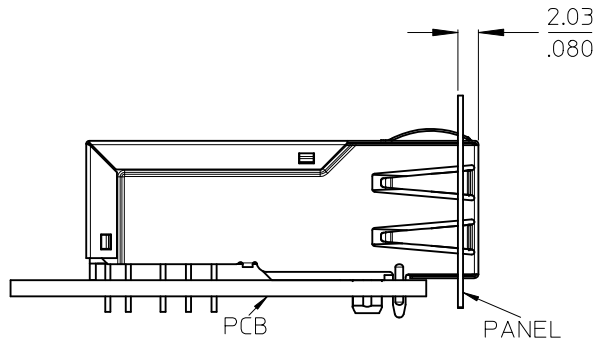
NOTES:

- 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: 34μm 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



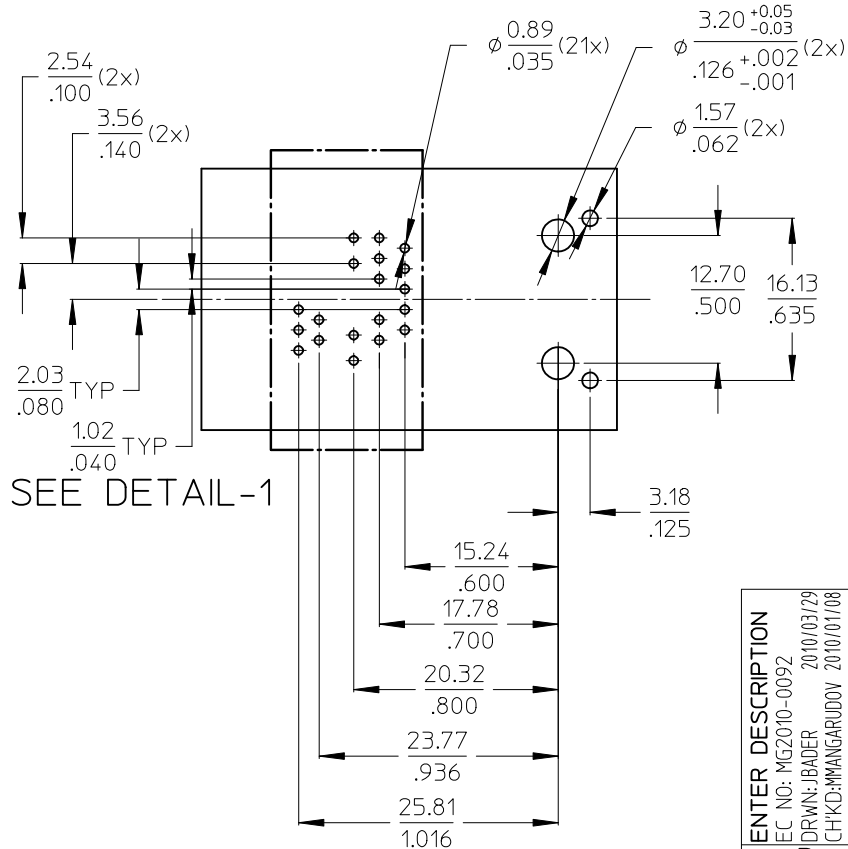
SCALE 1:1

ENTER DESCRIPTION EC NO: MG2010-0092 DRWN: JBADER 2010/03/29 CHKD: MANGARUDOV 2010/01/08 APPR: SSTEINKE 2010/05/25	QUALITY SYMBOLS ▽=0 □=0	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE	SCALE	DESIGN UNITS	THIRD ANGLE PROJECTION	
				MM ONLY	2:1	METRIC		
				DRAWN BY	DATE	TITLE		
				CHECKED BY	DATE	HYPERJACK POE PLUS PSE ICM 1X1		
				APPROVED BY	DATE	MOLEX INCORPORATED		
				SSTEINKE	2010/03/09	DOCUMENT NO.		
				MATERIAL NO.		SHEET NO.		
				SEE SHEET 3		SD-85759-001		
				DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS				1 OF 3
				THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION				

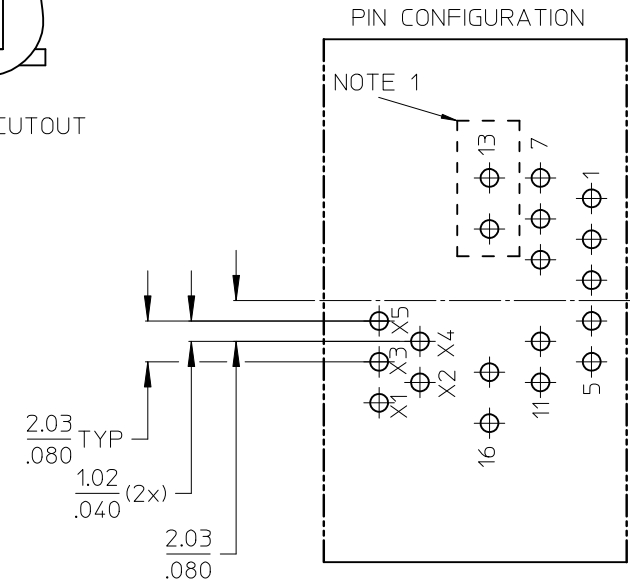


SUGGESTED PANEL CUTOUT

SUGGESTED BOARD LAYOUT - COMPONENT SIDE



SEE DETAIL-1



PIN CONFIGURATION

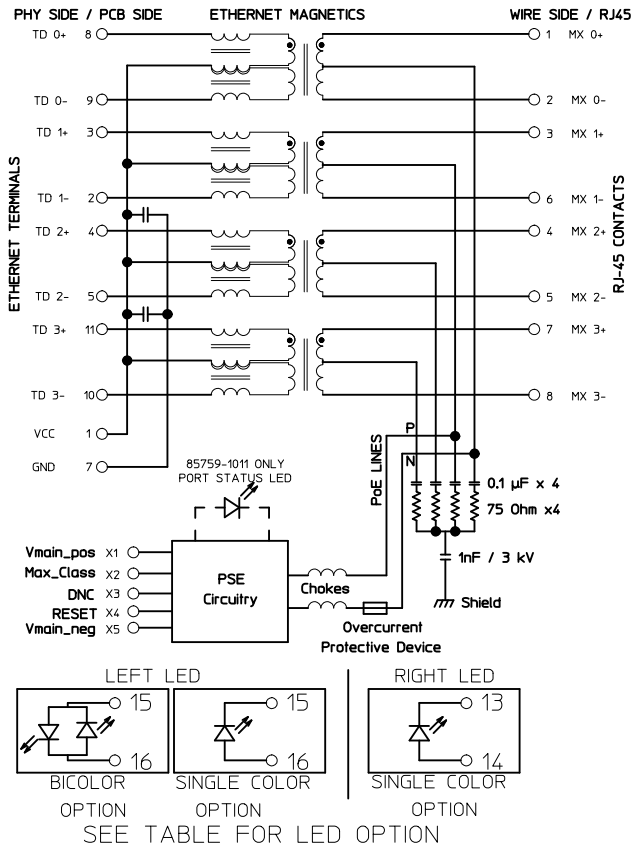
NOTE 1

DETAIL-1
SCALE 4:1

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 CHKD: MMANGARUDOV 2010/01/08 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		
			mm	INCH	DRAWN BY	DATE	TITLE			
		4 PLACES	± ---	± ---	JBADER	2009/11/13	HYPERJACK POE PLUS PSE ICM 1X1			
		3 PLACES	± ---	± ---	CHECKED BY	DATE				
2 PLACES	± 0.05	± ---	MMANGARUDOV	2010/01/08	MOLEX INCORPORATED					
1 PLACE	± 0.10	± ---	APPROVED BY	DATE						
ANGULAR ± .5 °		MATERIAL NO.		SSTEINKE	2010/03/09	DOCUMENT NO.		SHEET NO.		
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		SIZE		SEE SHEET 3		SD-85759-001		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)	350mH min.	
OCL NONPOE TRANSF. 8mA bias (0°C to +70°C)	350mH 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	



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

VERSION WITH INTEGRATED 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	

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		4 PLACES ± --- ± --- 3 PLACES ± --- ± --- 2 PLACES ± 0.05 ± --- 1 PLACE ± 0.10 ± ---	mm INCH ± --- ± --- ± 0.05 ± --- ± 0.10 ± ---	DRAWN BY JBADER	DATE 2009/11/13	TITLE HYPERJACK POE PLUS PSE ICM 1X1			
		ANGULAR ± .5 °		CHECKED BY MMANGARUDOV	DATE 2010/01/08	MOLEX INCORPORATED			
		DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		APPROVED BY SSTEINKE	DATE 2010/03/09	MATERIAL NO. SEE BOM	DOCUMENT NO. SD-85759-001	SHEET NO. 3 OF 3	