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Part Number: [0857591003](#)
Status: **Active**
Description: PoE PLUS PSE ICM 1x1 LEDs: GREEN - GREEN/ ORANGE

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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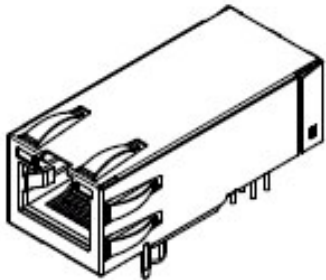


image - Reference only

Series

EU RoHS

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

China RoHS



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

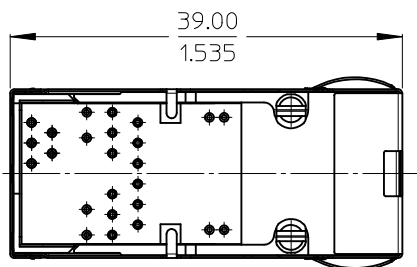
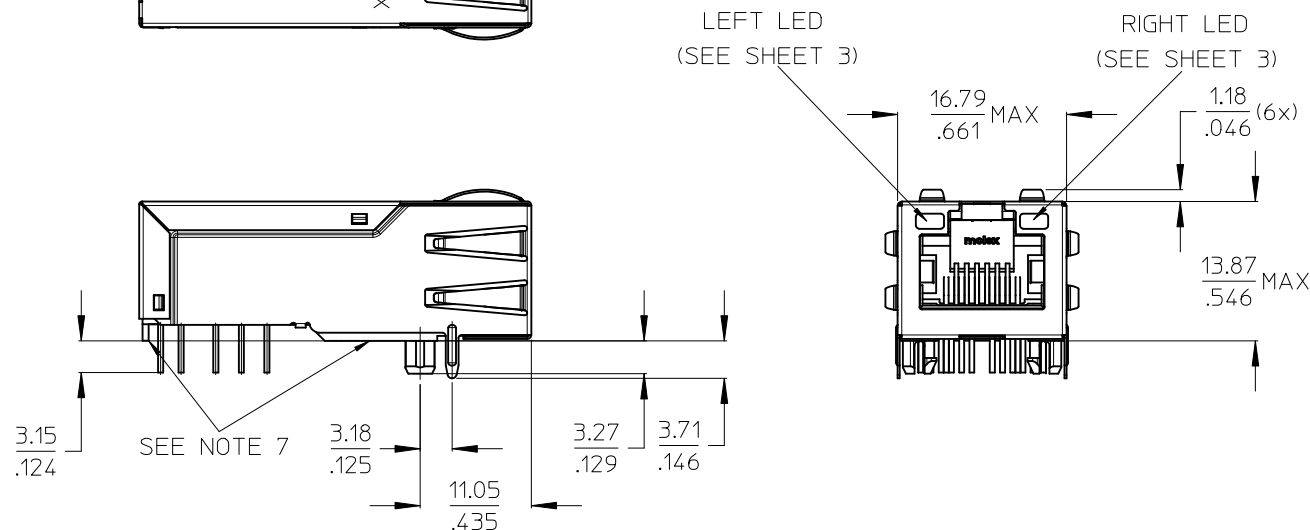
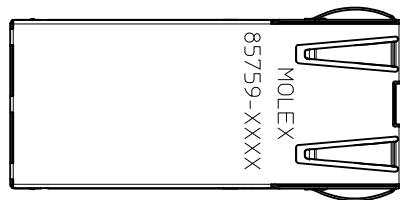
Email productcompliance@molex.com
For a multiple part number RoHS Certificate of
Compliance, [click here](#)

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

Search Parts in this Series
85759Series

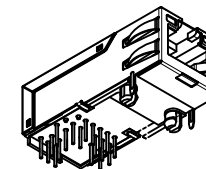
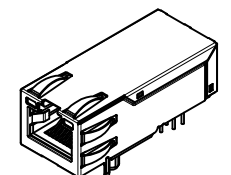
PLEASE CHECK WWW.MOLEX.COM FOR LATEST PART INFORMATION

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



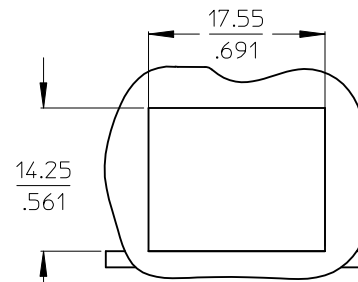
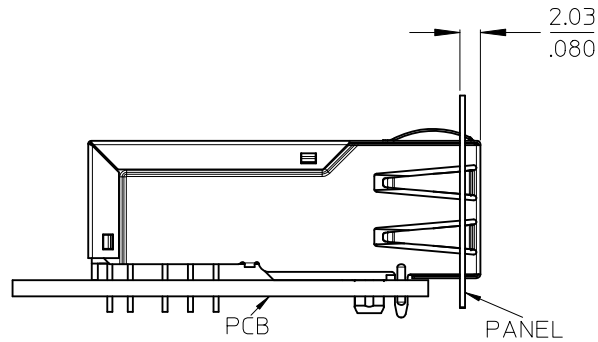
NOTES:

- 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



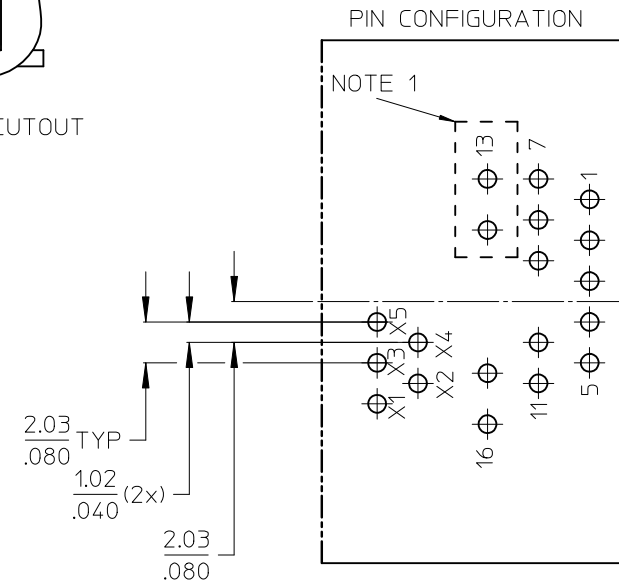
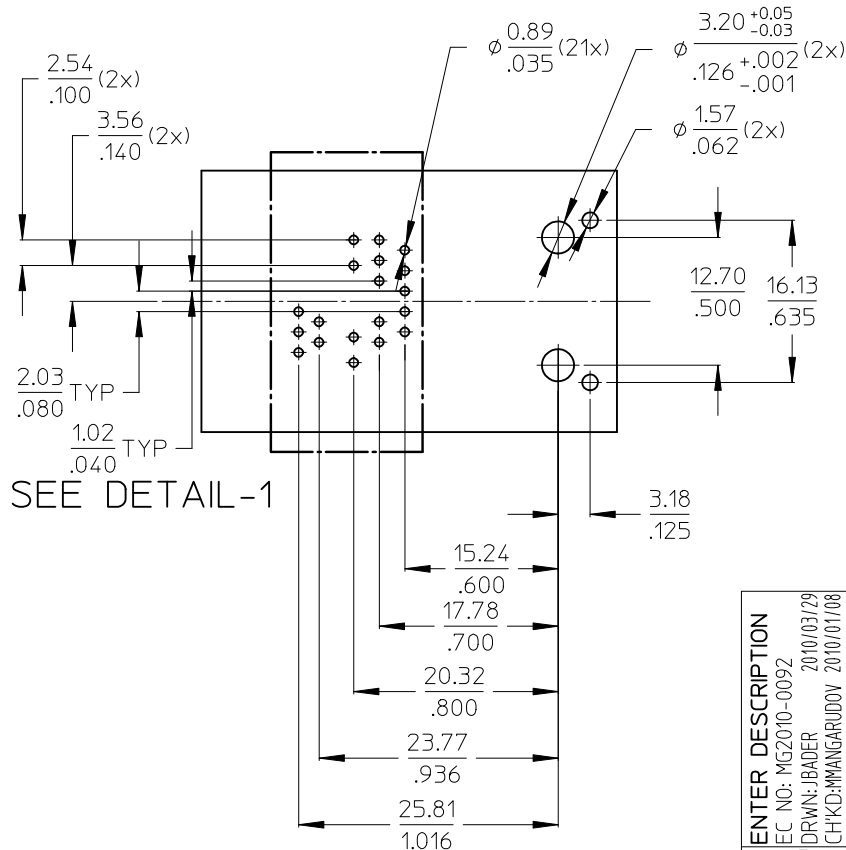
SCALE 1:1

ENTER DESCRIPTION EC NO: MG2010-0092 DRWN:JBADER 2010/03/29 CHKD:MMANGARUDOV 2010/01/08 APPR:SSTEINKE 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 	
w		REV			mm	INCH	DRAWN BY	DATE	TITLE HYPERJACK POE PLUS PSE ICM 1X1		
				4 PLACES	± ---	± ---	JBADER	2009/11/13			
				3 PLACES	± ---	± ---	CHECKED BY	DATE	MOLEX INCORPORATED		
				2 PLACES	± 0.05	± ---	MMANGARUDOV	2010/01/08			
				1 PLACE	± 0.10	± ---	APPROVED BY	DATE			
				ANGULAR ± .5 °		SSTEINKE	2010/03/09	molex			
				DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		MATERIAL NO.		DOCUMENT NO.		SHEET NO.	
			SEE SHEET 3			SD-85759-001		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

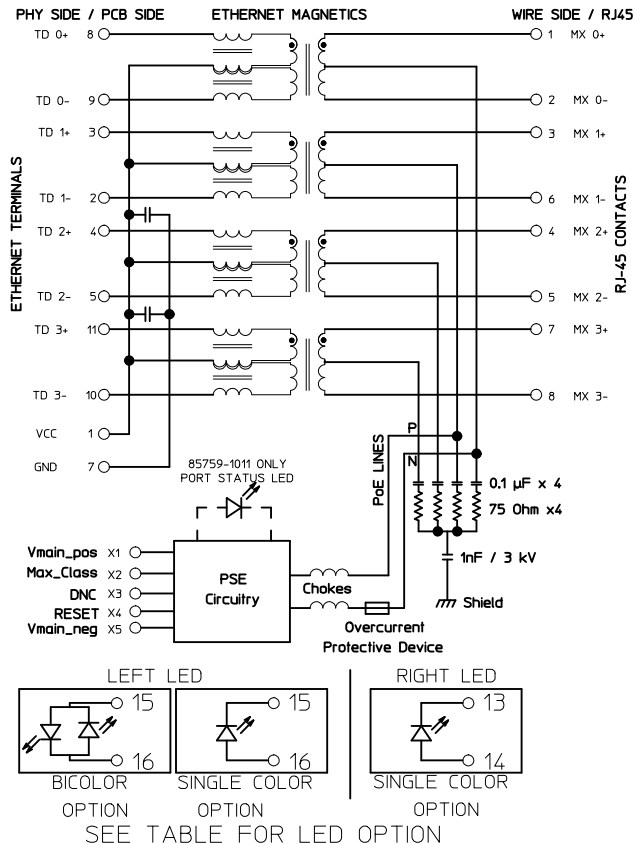


DETAIL-1
SCALE 4:1

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

ENTER DESCRIPTION		QUALITY SYMBOLS		GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE		SCALE		DESIGN UNITS		THIRD ANGLE PROJECTION	
EC NO: MG2010-0092		DRWN: JBADER		4 PLACES		MM ONLY		2:1		METRIC		THIRD ANGLE PROJECTION	
2010/03/29		CH'KD: MMANGARUDOV		3 PLACES		DRAWN BY		DATE		TITLE		HYPERJACK POE PLUS	
2010/01/08		APPR: SSTEINKE		2 PLACES		CHECKED BY		DATE		HYPERJACK POE PLUS		PSE ICM 1X1	
2010/05/25		REV		1 PLACE		APPROVED BY		DATE		MOLEX INCORPORATED		SHEET NO.	
				ANGULAR $\pm .5^\circ$		SSTEINKE		2010/03/09		DOCUMENT NO.		2 OF 3	
				DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		MATERIAL NO.		SEE SHEET 3		SD-85759-001			
						SIZE		THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION					
						A3							

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 1
85759-1003	-	+	GREEN	-	+	GREEN	COLOR 2
85759-1006	-	+	ORANGE	-	+	GREEN	COLOR 1
85759-1006	-	+	GREEN	-	+	YELLOW	COLOR 2

VERSION WITH INTEGRATED PoE POWER INDICATION LED

PART NUMBER	LEFT LED			RIGHT LED			COLOR 1
	PIN15	PIN16	COLOR	PIN13	PIN14	COLOR	
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
X3	DNC	OUTPUT (powered): Power indication	high if PD is powered up by 1x1 PSE
		reserved	remain floating
X4	Reset	Reset	Reset or to disable PSE
X5	Vmain_neg	Vmain Reference	

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					mm	INCH	DRAWN BY JBADER	DATE 2009/11/13	TITLE HYPERJACK POE PLUS PSE ICM 1X1			
3	REV	4 PLACES	± ---	± ---	CHECKED BY MMANGARUDOV	DATE 2010/01/08	MOLEX INCORPORATED					
		3 PLACES	± ---	± ---	APPROVED BY SSTEINKE	DATE 2010/03/09						DOCUMENT NO. SD-85759-001
		2 PLACES	± 0.05	± ---	DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		MATERIAL NO. SEE BOM		THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION			
		1 PLACE	± 0.10	± ---			ANGULAR ± .5 °		SIZE A3			