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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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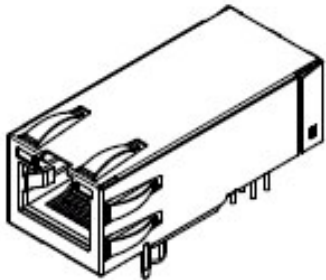


image - Reference only

Series

EU RoHS

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

China RoHS



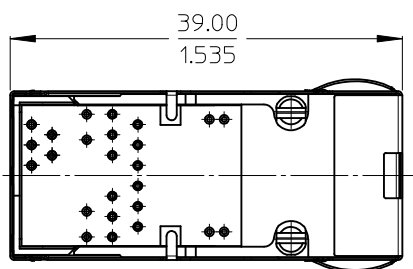
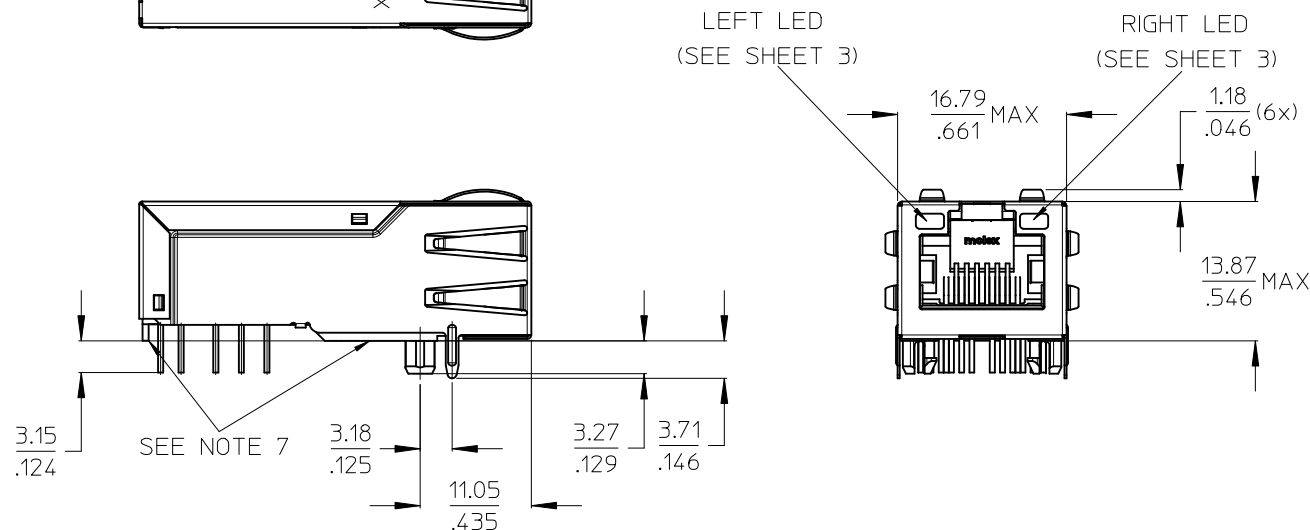
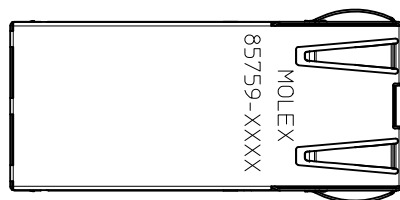
**Need more information on product
environmental compliance?**

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.

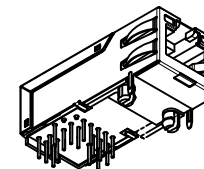
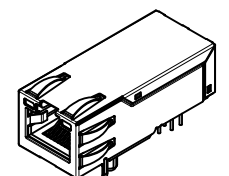
Search Parts in this Series
85759Series

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



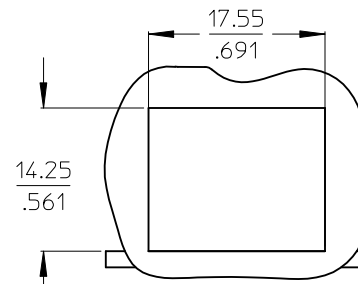
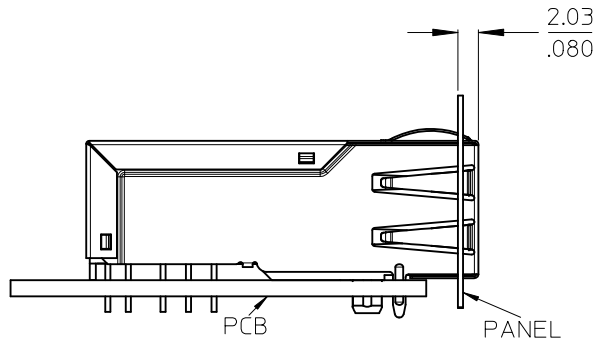
NOTES:

- 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



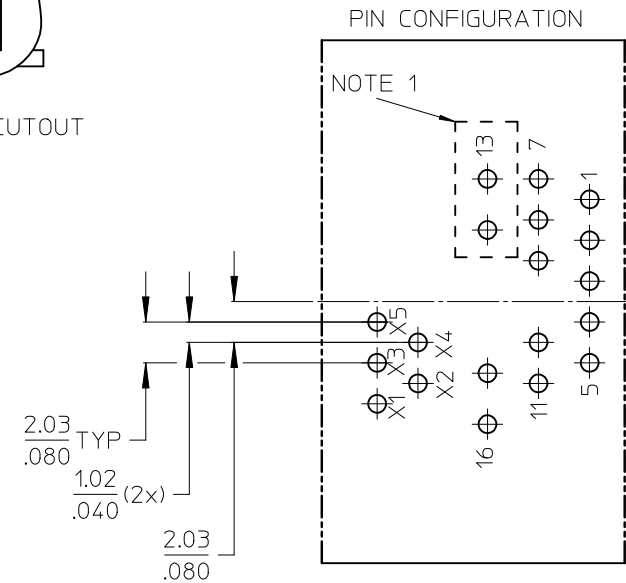
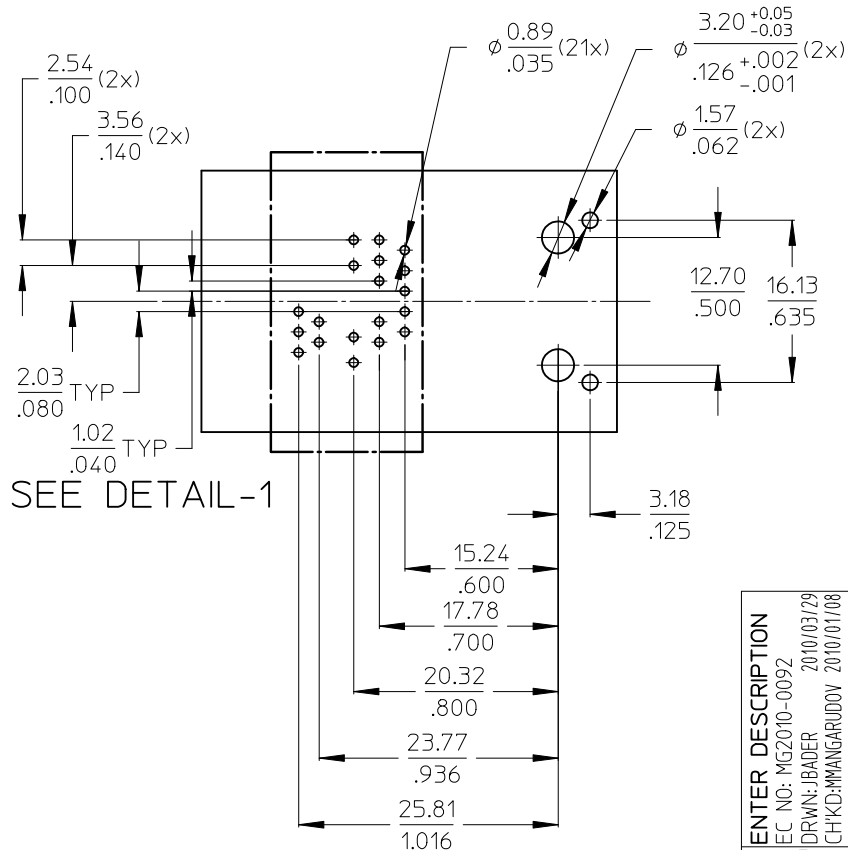
SCALE 1:1

ENTER DESCRIPTION			QUALITY SYMBOLS		GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE		SCALE	DESIGN UNITS	THIRD ANGLE PROJECTION	
EC NO: MG2010-0092			=0				MM ONLY		2:1	METRIC		
DRWN: JBADER 2010/03/29			=0		mm INCH		DRAWN BY DATE		TITLE			
CHK'D:MMANGARUDOV 2010/01/08					4 PLACES ± --- ± ---		JBADER 2009/11/13		HYPERJACK POE PLUS			
APPR:SSTEINKE 2010/05/25					3 PLACES ± --- ± ---		CHECKED BY DATE		PSE ICM 1X1			
					2 PLACES ± 0.05 ± ---		MMANGARUDOV 2010/01/08		MOLEX INCORPORATED			
					1 PLACE ± 0.10 ± ---		APPROVED BY DATE					
					ANGULAR ± .5 °		SSTEINKE 2010/03/09		DOCUMENT NO.		SHEET NO.	
					DRAFT WHERE APPLICABLE		SEE SHEET 3		SD-85759-001		1 OF 3	
					MUST REMAIN WITHIN DIMENSIONS		THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION					
							SIZE A3					



SUGGESTED PANEL CUTOUT

SUGGESTED BOARD LAYOUT - COMPONENT SIDE

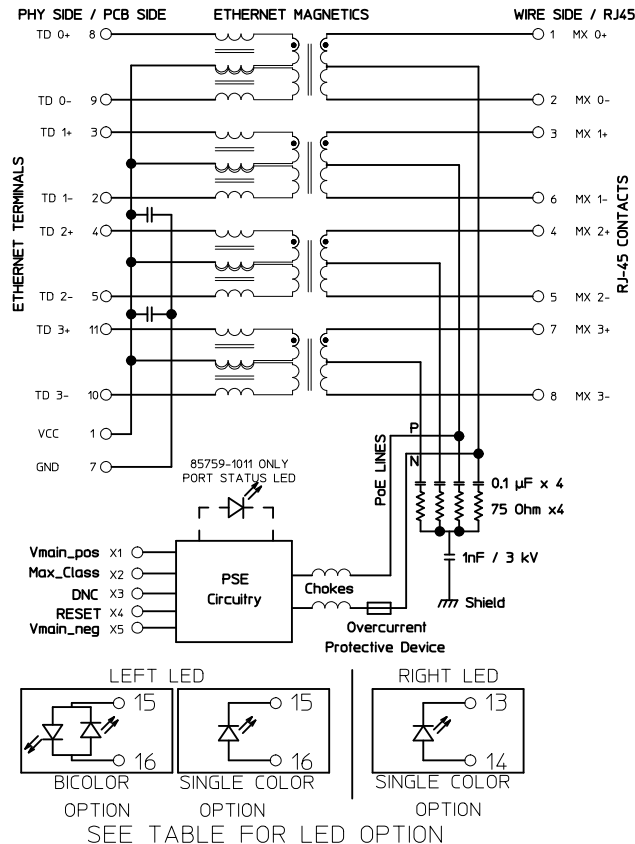


DETAIL-1
SCALE 4:1

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

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

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

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