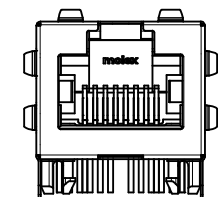
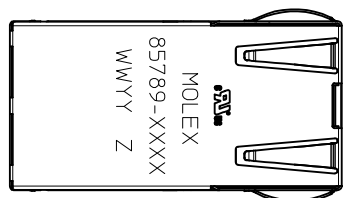
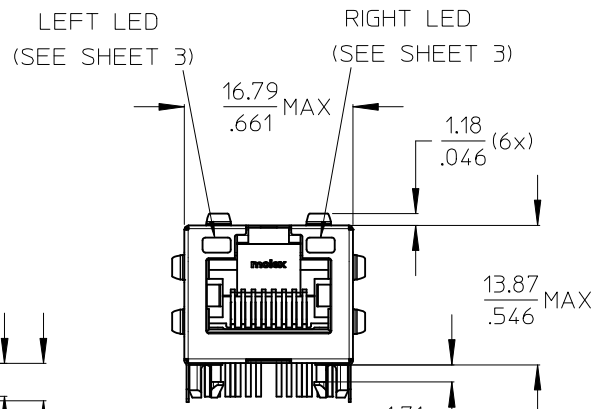


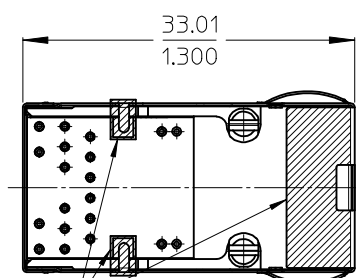
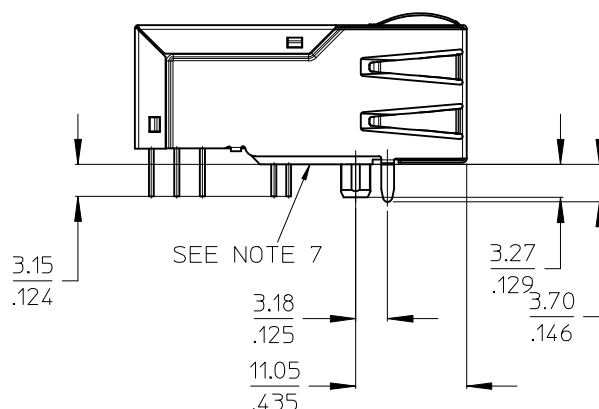
GIGABIT SINGLE PORT MAGNETIC JACK
PoE+ MAGNETICS ACC. TO IEEE802.3at
FOR PSE OR PD APPLICATIONS



FRONT VIEW
 NON LED VERSION
 P/N 85789-1020



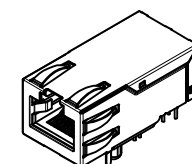
FRONT VIEW
 LED VERSION
 P/N SEE BOM ON SHEET 3



SEE NOTE 9

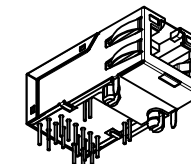
NOTES:

- 1 - SHIELD MATERIAL: STAINLESS STEEL
(GROUND PINS ARE SOLDER DIPPED)
- 2 - PLASTIC MATERIAL: PBT, BLACK, UL 94V-0
- 3 - TERMINALS MATERIAL: PHOSPOR BRONZE
RJ45 CONTACTS PLATING: 0.76 MICROMETER GOLD
OVER 1.9 MICROMETER NICKEL ON MATING AREA
SOLDER TERMINALS: 3 MICROMETER TIN
- 4 - MATING INTERFACE ACCORDING TO IEC 60603-7
- 5 - PRODUCT SPECIFICATION: PS-85789-001
- 6 - PACKAGING SPECIFICATION: PK-85759-001
- 7 - STAND OFF TO SYSTEM BOARD
- 8 - RECOMMENDED PCB THICKNESS: 1.6mm / 0.067inch
- 9 - SHIELD AND SHIELD LATCHES: AVOID TO ROUTE
TRACES OR TO PLACE ANY VIAS OR PADS IN THIS AREA.
- 10 - INSCRIPTION MARKED BY LASER:
UL LOGO
1st : MOLEX
2st : P/N (SEE BOM)
3rd : DATE CODE(WEEK/YEAR)
Z=> MANUFACTURER CODE



NON LED VERSION

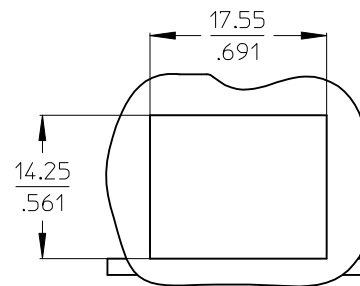
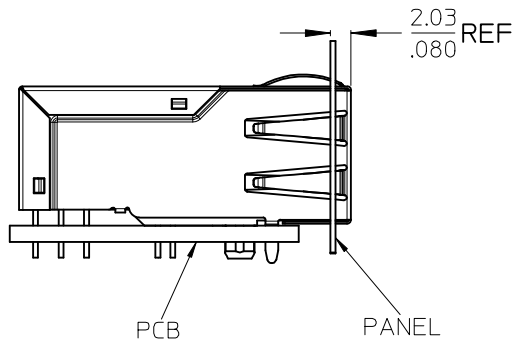
SCALE 1:1



LED VERSION

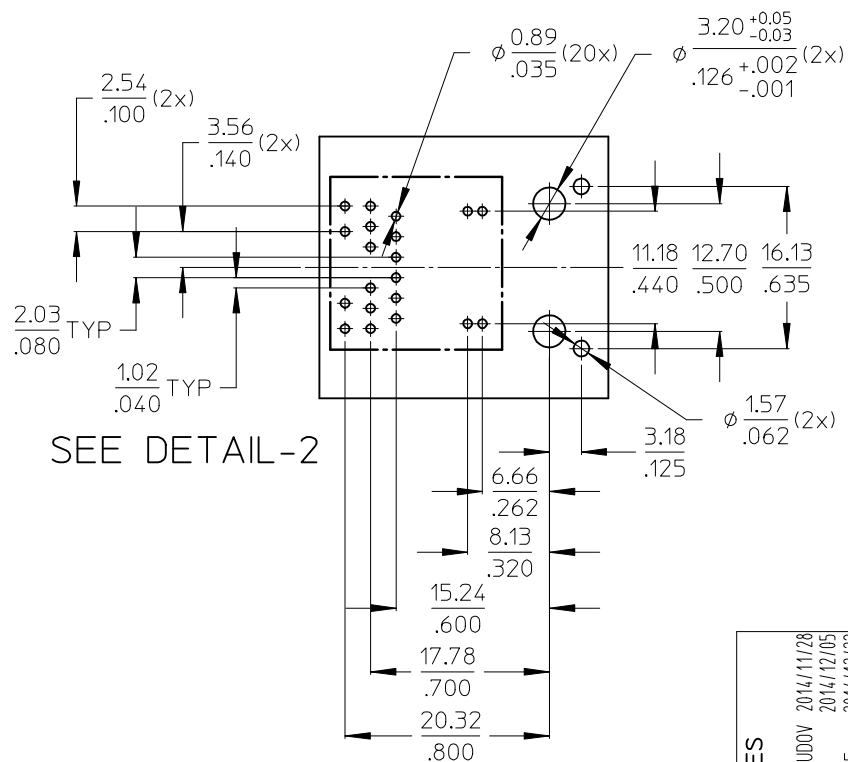
SCALE 1:1

NOTES UPDATE	EC NO: DRWN:MMANGARUDOV 2014/11/28 CHKD:DBYRNES 2014/12/05 APPR:SSTEINKE 2014/12/22	DESCRIPTION	QUALITY SYMBOLS ▽=0 ◻=0	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE		SCALE	DESIGN UNITS	THIRD ANGLE PROJECTION						
						MM/IN		2:1	METRIC							
					mm	INCH	DRAWN BY	DATE	TITLE GIGABIT MAGNETIC JACK POE PLUS ENABLED 1X1							
				4 PLACES	± ---	± ---	JBADER	2010/01/14								
				3 PLACES	± ---	± .010	CHECKED BY	DATE	molex							
				2 PLACES	± 0.25	± .020	MMANGARUDOV	2010/01/14								
				1 PLACE	± 0.5	± ---	APPROVED BY	DATE					DOCUMENT NO. SD-85789-001			
				0 PLACE	±	±	SSTEINKE	2010/03/09								
				ANGULAR ± .5 °		MATERIAL NO.		DOCUMENT NO.		SHEET NO.						
				DRAFT WHERE APPLICABLE		SEE SHEET 3/4		SD-85789-001		1 OF 4						
MUST REMAIN WITHIN DIMENSIONS		SIZE A3		THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION												

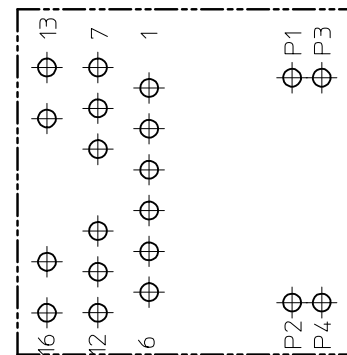


SUGGESTED PANEL CUTOUT

SUGGESTED BOARD LAYOUT - COMPONENT SIDE

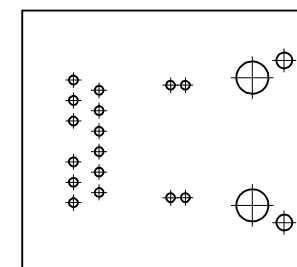


PIN CONFIGURATION



DETAIL-2
SCALE 4:1

SUGGESTED BOARD LAYOUT
NON LED VERSION



NO CHANGES EC NO: D	DESCRIPTION REV	QUALITY SYMBOLS ▽=0 ◻=0	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE MM/IN		SCALE 2:1	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION 		
					DRAWN BY JBADER	DATE 2010/01/14	TITLE GIGABIT MAGNETIC JACK POE PLUS ENABLED 1X1				
					CHECKED BY MMANGARUDOV	DATE 2010/01/14					
					APPROVED BY SSTEINKE	DATE 2010/03/09	molex				
			ANGULAR ± .5 °		MATERIAL NO.						
			DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		SEE SHEET 3/4		SD-85789-001			2 OF 4	
					SIZE A3	THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION					

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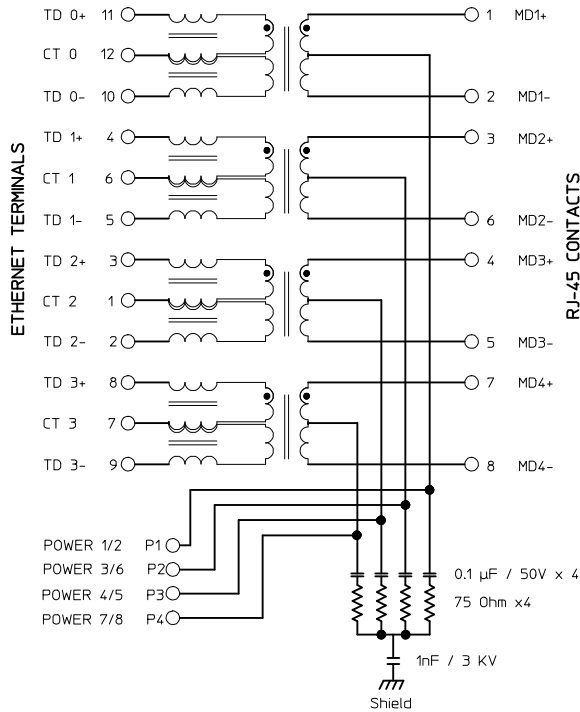
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Electrical Specifications @25°C		
Operating temperature (0°C to +70°C)		
Description	Value	
OCL POE+TRANSF. 20mA bias (0°C to +70°C)	350μH min.	
OCL NONPOE TRANSF. 8mA bias (0°C to +70°C)	350μH min.	
Turns Ratio	1CT:1CT	
Insertion Loss		
Frequency (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	

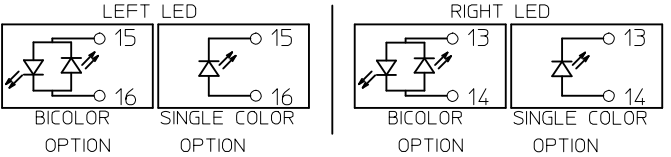
PHY SIDE / PCB SIDE ETHERNET MAGNETICS WIRE SIDE / RJ45



PART NUMBER	LED1 POLARITY			LED2 POLARITY		
	LEFT LED			RIGHT LED		
	PIN15	PIN16	COLOR	PIN13	PIN14	COLOR
85789-1001	-	+	GREEN	-	+	GREEN
85789-1003	-	+	GREEN	-	+	GREEN
85789-1006	-	+	GREEN	-	+	YELLOW
85789-1007	-	+	GREEN	-	+	GREEN
85789-1012	-	+	YELLOW	-	+	GREEN
85789-1013	-	+	YELLOW	-	+	YELLOW
85789-1014	-	+	YELLOW	-	+	GREEN
85789-1015	-	+	YELLOW	-	+	GREEN
85789-1017	-	+	GREEN	-	+	YELLOW
85789-1020	NON LED					

ADDITIONAL LED COLORS AND CONFIGURATIONS
AVAILABLE ON REQUEST

SEE TABLE FOR
LED OPTIONS



NO CHANGES	EC NO: DRWN:MANGARUDOV 2014/11/28 CHKD:BYRNES 2014/12/05 APPR:SSTEINKE 2014/12/22	DESCRIPTION	REV	QUALITY SYMBOLS ▽=0 ▽=0	GENERAL TOLERANCES (UNLESS SPECIFIED)			DIMENSION STYLE MM/IN		SCALE 5:1	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION				
						mm	INCH	DRAWN BY JBADER	DATE 2010/01/14	TITLE GIGABIT MAGNETIC JACK POE PLUS ENABLED 1X1						
					4 PLACES	± ---	± ---	CHECKED BY	DATE							
					3 PLACES	± ---	± .010	MMANGARUDOV	2010/01/14							
					2 PLACES	± 0.25	± .020	APPROVED BY SSTEINKE		DATE 2010/03/09	molex					
					1 PLACE	± 0.5	± ---	MATERIAL NO.		DOCUMENT NO.						SHEET NO.
					0 PLACE	±	±	SEE BOM		SD-85789-001						3 OF 4
					ANGULAR ± .5 °			SIZE A3		THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION						
					DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS											

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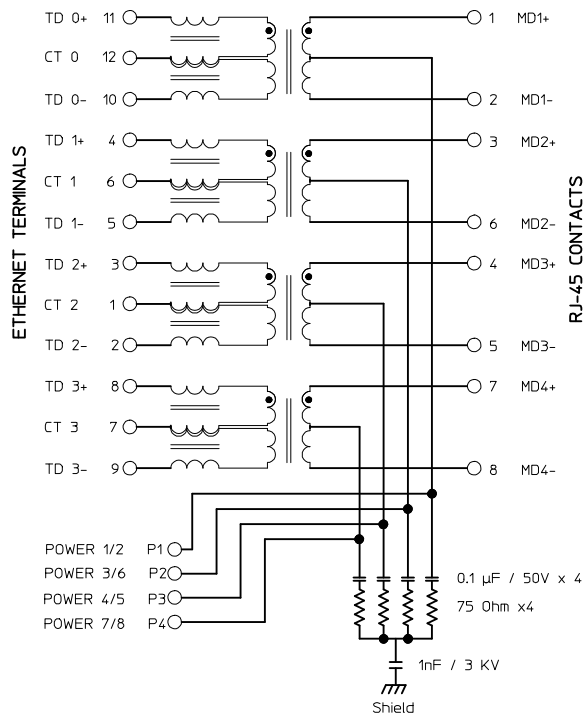
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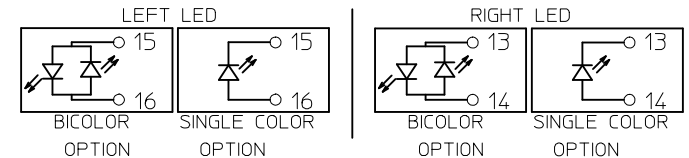
Electrical Specifications @25°C		
Operating temperature (-40°C to +85°C)		
Description	Value	
OCL POE+TRANSF. 20mA bias (-40°C to +85°C)	350uH min.	
OCL NONPOE TRANSF. 8mA bias (-40°C to +85°C)	350uH min.	
Turns Ratio	1CT:1CT	
Insertion Loss		
Frequency (MHz)	Limits (dB max.)	Typical Values (dB max.)
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	

PHY SIDE / PCB SIDE ETHERNET MAGNETICS WIRE SIDE / RJ45



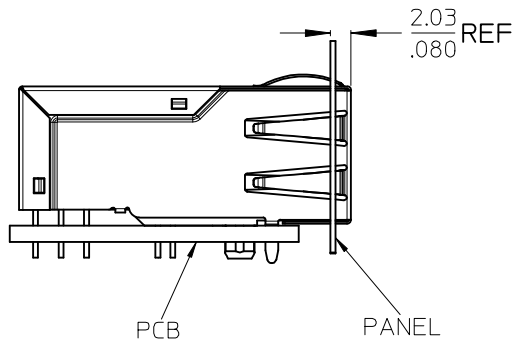
PART NUMBER	LED1 POLARITY			LED2 POLARITY		
	LEFT LED			RIGHT LED		
	PIN15	PIN16	COLOR	PIN13	PIN14	COLOR
85789-3006	-	+	GREEN	-	+	YELLOW
85789-3016	-	+	GREEN	+	-	GREEN
	+	-	YELLOW			

ADDITIONAL LED COLORS AND CONFIGURATIONS
AVAILABLE ON REQUEST

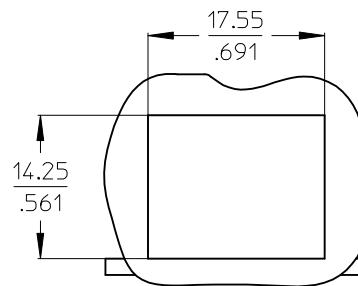


SEE TABLE FOR LED OPTIONS

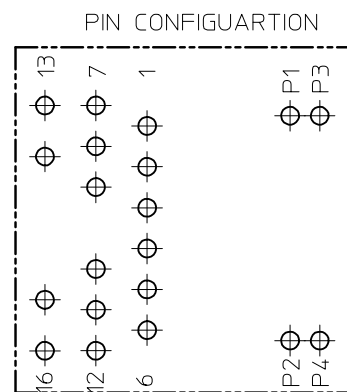
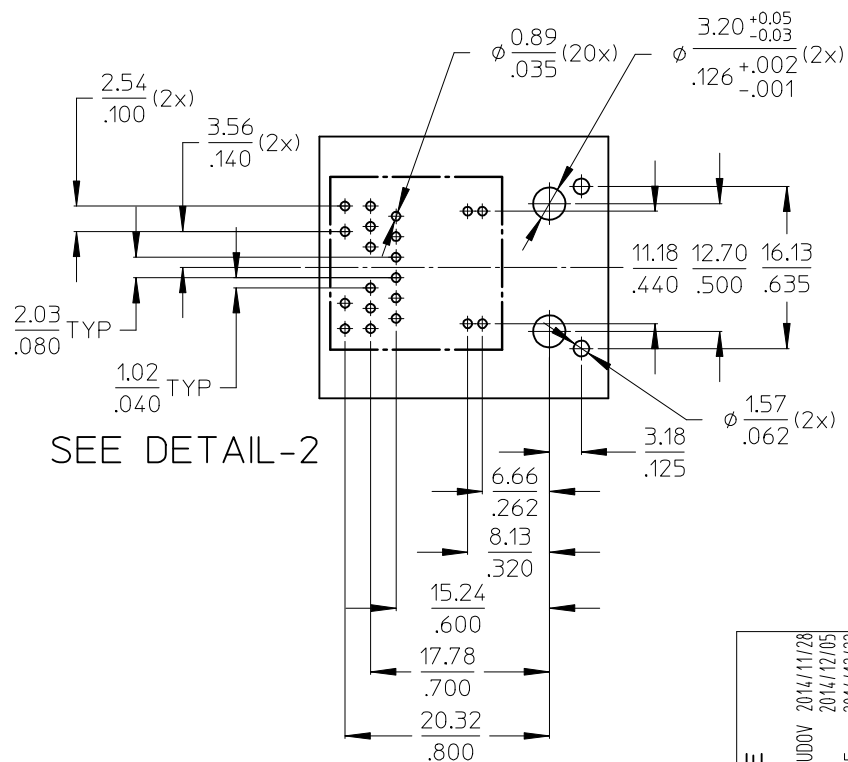
BOM CHANGED EC NO: 0 DRAWN:MANGARUDOV 2014/11/28 CHKD:DBYRNES 2014/12/05 APPR:SSTEINKE 2014/12/22		DESCRIPTION	QUALITY SYMBOLS ▽=0 ▽=0	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE MM/IN		SCALE 5:1	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION 		
					mm	INCH	DRAWN BY JBADER	DATE 2010/01/14	TITLE GIGABIT MAGNETIC JACK POE PLUS ENABLED 1X1			
				4 PLACES	± ---	± ---	CHECKED BY MMANGARUDOV	DATE 2010/01/14				
				3 PLACES	± ---	± .010	APPROVED BY SSTEINKE		DATE 2010/03/09	DOCUMENT NO. SD-85789-001		
2 PLACES	± 0.25	± .020	MATERIAL NO. SEE BOM		SHEET NO. 4 OF 4							
1 PLACE	± 0.5	± ---	SIZE A3						THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION			
0 PLACE	±	±										
		REV		ANGULAR ± .5 °								
				DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS								



SUGGESTED BOARD LAYOUT - COMPONENT SIDE

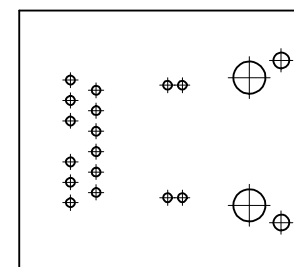


SUGGESTED PANEL CUTOUT



DETAIL-2
SCALE 4:1

SUGGESTED BOARD LAYOUT
NON LED VERSION



NO CHANGE EC NO: B DRAWN: MMANGARUDOV 2014/11/28 CHKD: DBYRNES 2014/12/05 APPR: SSTEINKE 2014/12/12	DESCRIPTION REV	QUALITY SYMBOLS ▽=0 ▽=0	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE MM/IN		SCALE 2:1	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION			
				mm	INCH	DRAWN BY JBADER	DATE 2014/04/25	TITLE GIGABIT MAGNETIC JACK POE PLUS ENABLED 1X1				
			4 PLACES	± ---	± ---	CHECKED BY MMANGARUDOV	DATE 2014/05/05					
			3 PLACES	± ---	± .010	APPROVED BY SSTEINKE	DATE 2014/06/11					
			2 PLACES	± 0.25	± .020	MATERIAL NO.		DOCUMENT NO.		SHEET NO.		
			1 PLACE	± 0.5	± ---	SEE SHEET 3		SD-85789-401		2 OF 3		
			0 PLACE	±	±	DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION				

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Electrical Specifications @25°C

Operating temperature (-40°C to +85°C)

Description	Value	
OCL POE+TRANSF. 20mA bias (-40°C to +85°C)	350μH min.	
OCL NONPOE TRANSF. 8mA bias (-40°C to +85°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	

PHY SIDE / PCB SIDE ETHERNET MAGNETICS

WIRE SIDE / RJ45

ETHERNET TERMINALS

TD 0+ 11

CT 0 12

TD 0- 10

TD 1+ 4

CT 1 6

TD 1- 5

TD 2+ 3

CT 2 1

TD 2- 2

TD 3+ 8

CT 3 7

TD 3- 9

1 MD1+

2 MD1-

3 MD2+

6 MD2-

4 MD3+

5 MD3-

7 MD4+

8 MD4-

POWER 1/2 P1

POWER 3/6 P2

POWER 4/5 P3

POWER 7/8 P4

0.1 μF / 50V x 4

75 Ohm x4

1nF / 3 KV

Shield

PART NUMBER

DIM-A-SHEET 1

LED1 POLARITY

LED2 POLARITY

85789-4008	2.50mm	LEFT LED			RIGHT LED		
		PIN15	PIN16	COLOR	PIN13	PIN14	COLOR
		-	+	GREEN	-	+	GREEN
		+	-	YELLOW	+	-	YELLOW
85789-4020	2.50mm	NON LED					

ADDITIONAL LED COLORS AND CONFIGURATIONS ARE AVAILABLE ON REQUEST

LEFT LED

RIGHT LED

BICOLOR OPTION

SINGLE COLOR OPTION

BICOLOR OPTION

SINGLE COLOR OPTION

SEE TABLE FOR LED OPTIONS

BOM UPDATE

EC NO:

DRWN:MANGARUDOV 2014/11/28

CHKD:DBYRNES 2014/12/05

APPR:SSTEINKE 2014/12/22

REV

QUALITY SYMBOLS

DESCRIPTION

REV

GENERAL TOLERANCES (UNLESS SPECIFIED)

	mm	INCH
4 PLACES	± ---	± ---
3 PLACES	± ---	± .010
2 PLACES	± 0.25	± .020
1 PLACE	± 0.5	± ---
0 PLACE	±	±

ANGULAR ± .5 °

DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS

DIMENSION STYLE

MM/IN

DRAWN BY	DATE
JBADER	2014/04/25
CHECKED BY	DATE
MMANGARUDOV	2014/05/05
APPROVED BY	DATE
SSTEINKE	2014/06/11

MATERIAL NO.

SEE BOM

SIZE

A3

THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION

SCALE

5:1

DESIGN UNITS

METRIC

THIRD ANGLE PROJECTION

TITLE

GIGABIT MAGNETIC JACK

POE PLUS ENABLED 1X1

molex

SD-85789-401

3 OF 3

DOCUMENT NO.

SHEET NO.

tb_frame_A3_P_AM_T

Rev E1 2012/01/25

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Данный компонент на территории Российской Федерации

Вы можете приобрести в компании MosChip.

Для оперативного оформления запроса Вам необходимо перейти по данной ссылке:

<http://moschip.ru/get-element>

Вы можете разместить у нас заказ для любого Вашего проекта, будь то серийное производство или разработка единичного прибора.

В нашем ассортименте представлены ведущие мировые производители активных и пассивных электронных компонентов.

Нашей специализацией является поставка электронной компонентной базы двойного назначения, продукции таких производителей как XILINX, Intel (ex.ALTERA), Vicor, Microchip, Texas Instruments, Analog Devices, Mini-Circuits, Amphenol, Glenair.

Сотрудничество с глобальными дистрибьюторами электронных компонентов, предоставляет возможность заказывать и получать с международных складов практически любой перечень компонентов в оптимальные для Вас сроки.

На всех этапах разработки и производства наши партнеры могут получить квалифицированную поддержку опытных инженеров.

Система менеджмента качества компании отвечает требованиям в соответствии с ГОСТ Р ИСО 9001, ГОСТ РВ 0015-002 и ЭС РД 009

Офис по работе с юридическими лицами:

105318, г.Москва, ул.Щербаковская д.3, офис 1107, 1118, ДЦ «Щербаковский»

Телефон: +7 495 668-12-70 (многоканальный)

Факс: +7 495 668-12-70 (доб.304)

E-mail: info@moschip.ru

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moschip.ru_6

moschip.ru_9