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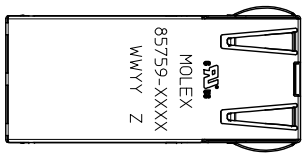
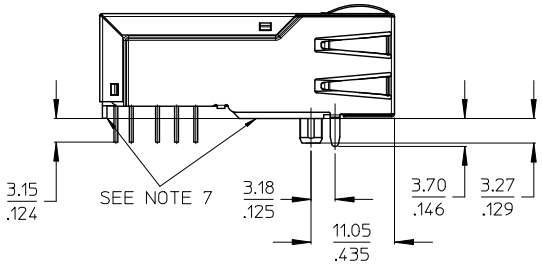
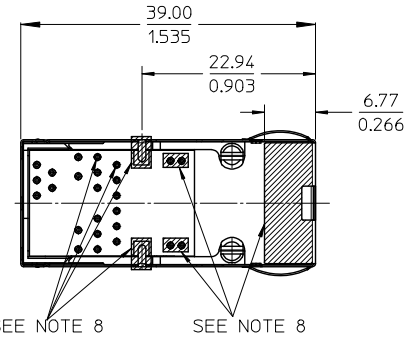
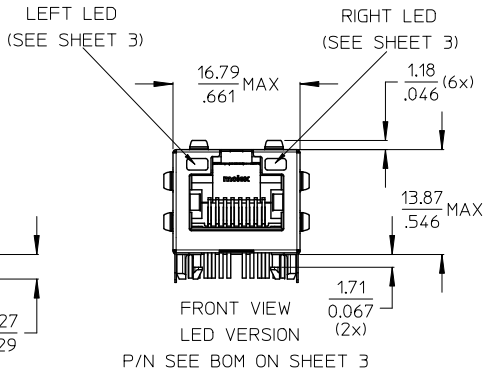
For any questions, you can email us directly:
sales@integrated-circuit.com

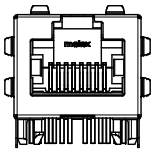
GIGABIT SINGLE PORT MAGNETIC JACK WITH OR WITHOUT LEDs AND INTEGRATED POWER OVER ETHERNET PLUS CONTROL CIRCUITRY ACCORDING TO IEEE802.3at



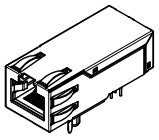


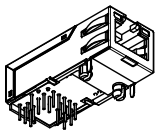






NOTES:
1 - SHIELD MATERIAL: STAINLESS STEEL
(GROUND PINS ARE SOLDER DIPPED)
2 - PLASTIC MATERIAL: PBT, BLACK, UL 94V-0
3 - TERMINALS MATERIAL: PHOSPHOR BRONZE
RJ45 CONTACT PLATING: 0.76 MICROMETER GOLD OVER 1.9 MICROMETER NICKEL ON MATING AREA
SOLDER TERMINALS: 3 MICROMETER TIN
4 - MATING INTERFACE ACCORDING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


NON LED VERSION
SCALE 1:1


LED VERSION
SCALE 1:1

NOTES UPDATE
EC NO: DRWN: JBADER 2014/05/27
CHKD: MMANGARUDOV 2014/05/27
APPR: SSTEINKE 2015/05/13
DESCRIPTION
REV B

QUALITY SYMBOLS
▼=0
Ⓒ=0

GENERAL TOLERANCES (UNLESS SPECIFIED)

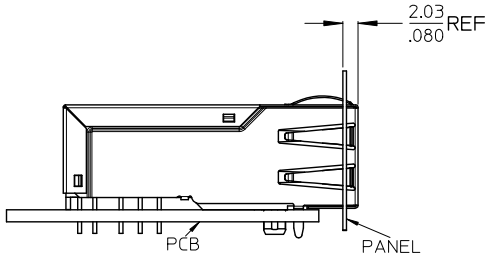
	mm	INCH
4 PLACES	± ---	± ---
3 PLACES	± ---	± .010
2 PLACES	± 0.25	± .020
1 PLACE	± 0.5	± ---

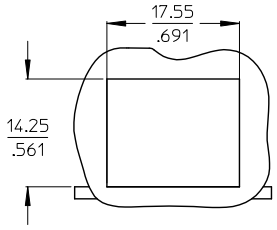
ANGULAR ± .5 °

DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS

DIMENSION STYLE	MM/IN
SCALE	2:1
DESIGN UNITS	METRIC
	THIRD ANGLE PROJECTION
DRAWN BY / DATE	JBADER 2009/11/13
CHECKED BY / DATE	MMANGARUDOV 2010/01/08
APPROVED BY / DATE	SSTEINKE 2010/03/09
MATERIAL NO.	SEE SHEET 3
TITLE	GIGABIT MAGNETIC JACK POE PLUS PSE ICM 1X1
	MOLEX INCORPORATED
DOCUMENT NO.	SD-85759-001
SHEET NO.	1 OF 3
SIZE	A3

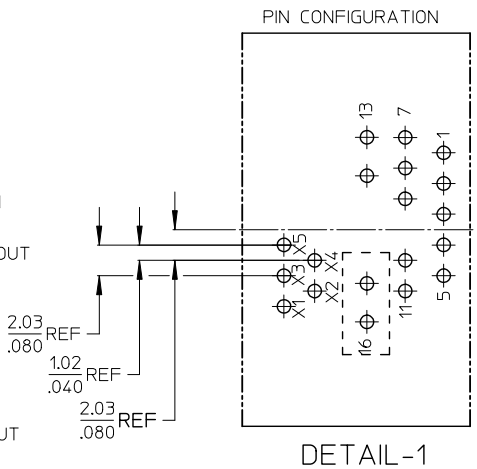
tb_frame_A3_P_AM_T
Rev. E 2006/04/15





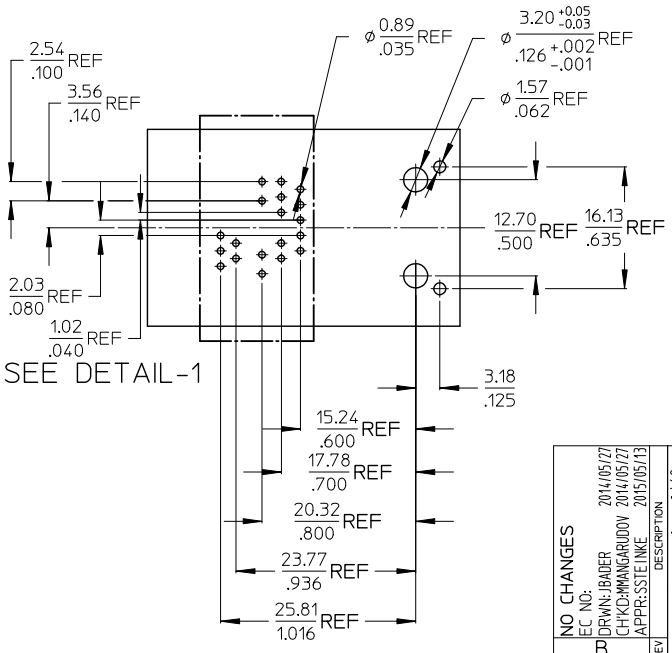
SUGGESTED PANEL CUTOUT

PIN CONFIGURATION

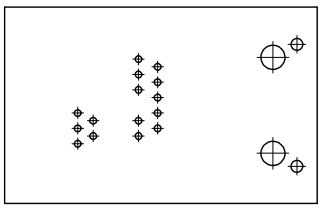


DETAIL-1
SCALE 4:1

SUGGESTED BOARD LAYOUT - COMPONENT SIDE



SUGGESTED BOARD LAYOUT
FOR NON LED VERSION



NO CHANGES	DESCRIPTION	REV
EC NO:		B
DRWN: JBADER	2014/05/27	
CHKD: MMANGARUDOV	2014/05/27	
APPR: SSTEINKE	2015/05/13	

QUALITY SYMBOLS
▼=0
▽=0

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4 PLACES	± ---	± ---
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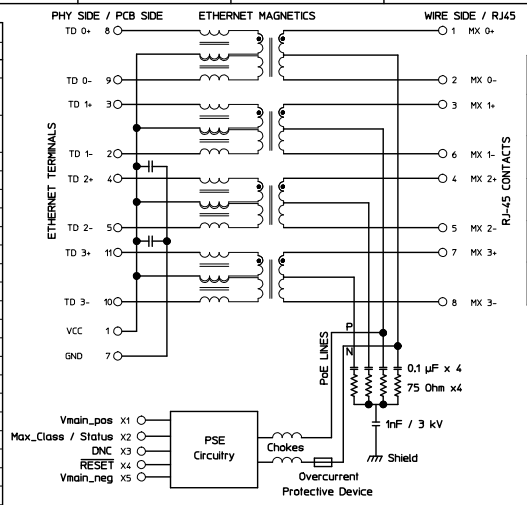
ANGULAR ± .5 °		

DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS

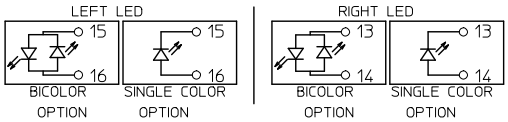
DIMENSION STYLE	MM/IN
SCALE	2:1
DESIGN UNITS	METRIC
	THIRD ANGLE PROJECTION
DRAWN BY	JBADER
DATE	2009/11/13
CHECKED BY	MMANGARUDOV
DATE	2010/01/08
APPROVED BY	SSTEINKE
DATE	2010/03/09
MATERIAL NO.	SEE SHEET 3
TITLE	GIGABIT MAGNETIC JACK POE PLUS PSE ICM 1X1
	MOLEX INCORPORATED
DOCUMENT NO.	SD-85759-001
SHEET NO.	2 OF 3
SIZE	A3

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	



PART NUMBER AND LED OPTIONS

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
85759-1020	NON LED						



CONTROL PINS

PIN	NAME	FUNCTION	PARAMETERS
X1	Vmain_pos	Vmain 51 to 56V DC IN	min. 470mA (Class0-3), min. 850mA (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	

NO CHANGES
EC NO: DRWN:JBADER CHKD:MMANGARUDOV APPR:SSTEINKE
2014/05/27 2014/05/27 2015/05/13
REV B
DESCRIPTION

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DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS

DIMENSION STYLE: MM/IN
SCALE: 5:1
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
MATERIAL NO.	SEE BOM	

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