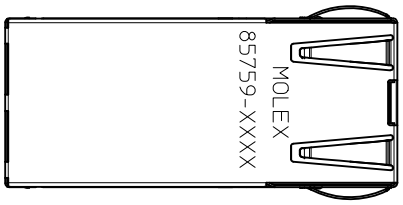
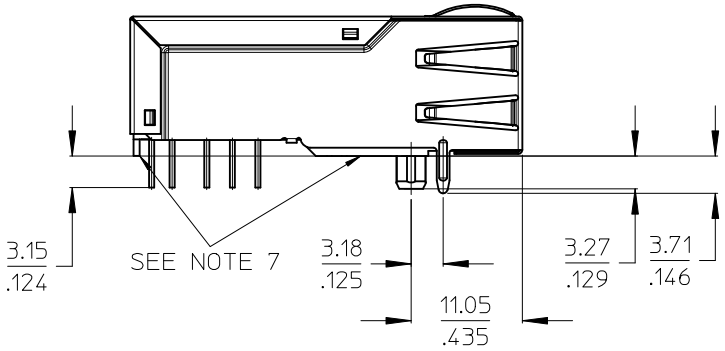
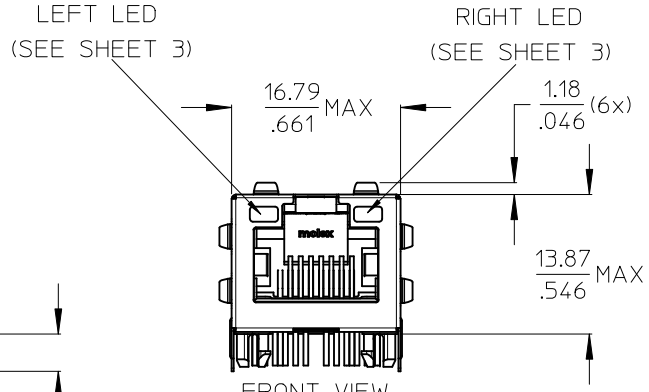
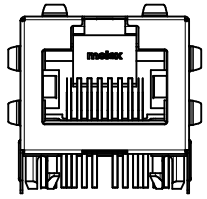
GIGABIT SINGLE PORT MAGNETIC JACK WITH OR WITHOUT LEDs AND INTEGRATED POWER OVER ETHERNET PLUS CONTROL CIRCUITRY ACCORDING TO IEEE802.3at



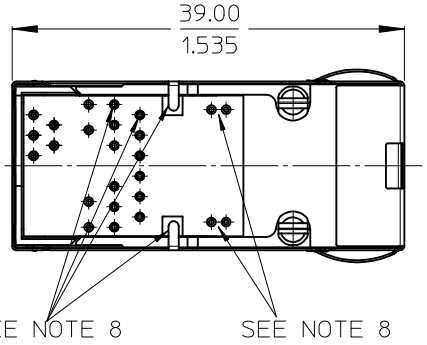




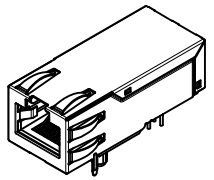
FRONT VIEW
LED VERSION
P/N SEE BOM ON SHEET 3



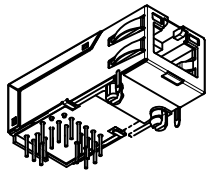
FRONT VIEW
NON LED VERSION
P/N 857591020



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 - 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
8 - STUB PINS AND SHIELD LATCHES: AVOID TO ROUTE TRACES OR TO PLACE ANY VIAS OR PADS BELOW THESE PINS



NON LED VERSION
SCALE 1:1



LED VERSION
SCALE 1:1

ENTER DESCRIPTION
EC NO: MG2011-0042 2010/06/01
DRWN:MMANGARUDOV 2010/10/28
CH'KD:JBADER 2010/12/22
APPR:SSTEINKE
DESCRIPTION
REV
4

QUALITY SYMBOLS
▼=0
Ⓒ=0

GENERAL TOLERANCES (UNLESS SPECIFIED)

	mm	INCH
4 PLACES	± ---	± ---
3 PLACES	± ---	± ---
2 PLACES	± 0.05	± ---
1 PLACE	± 0.10	± ---
ANGULAR ± .5 °		

DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS

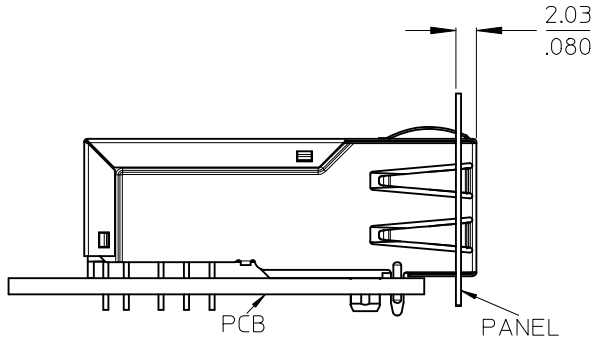
DIMENSION STYLE: MM ONLY
SCALE: 2:1
DESIGN UNITS: METRIC
THIRD ANGLE PROJECTION

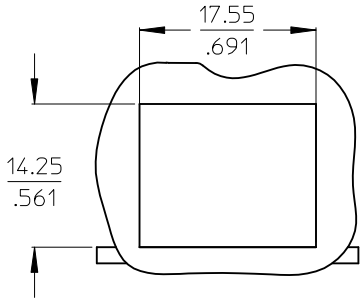
DRAWN BY	JBADER	DATE 2009/11/13
CHECKED BY	MMANGARUDOV	DATE 2010/01/08
APPROVED BY	SSTEINKE	DATE 2010/03/09

TITLE: HYPERJACK POE PLUS PSE ICM 1X1

MOLEX INCORPORATED

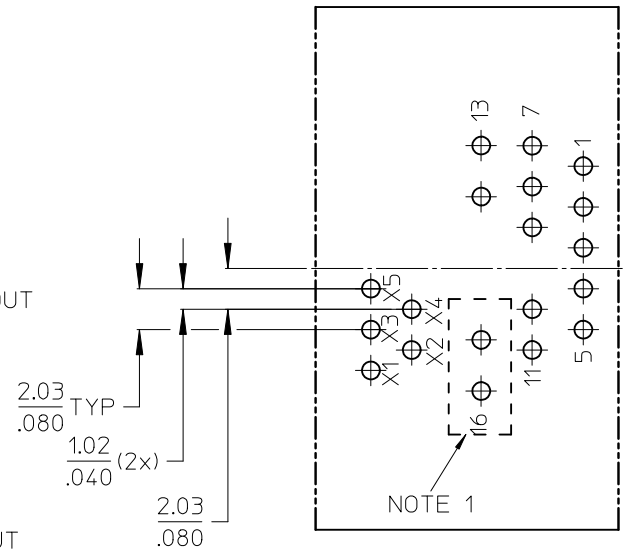
MATERIAL NO.: SEE SHEET 3
DOCUMENT NO.: SD-85759-001
SHEET NO.: 1 OF 3
SIZE: A3





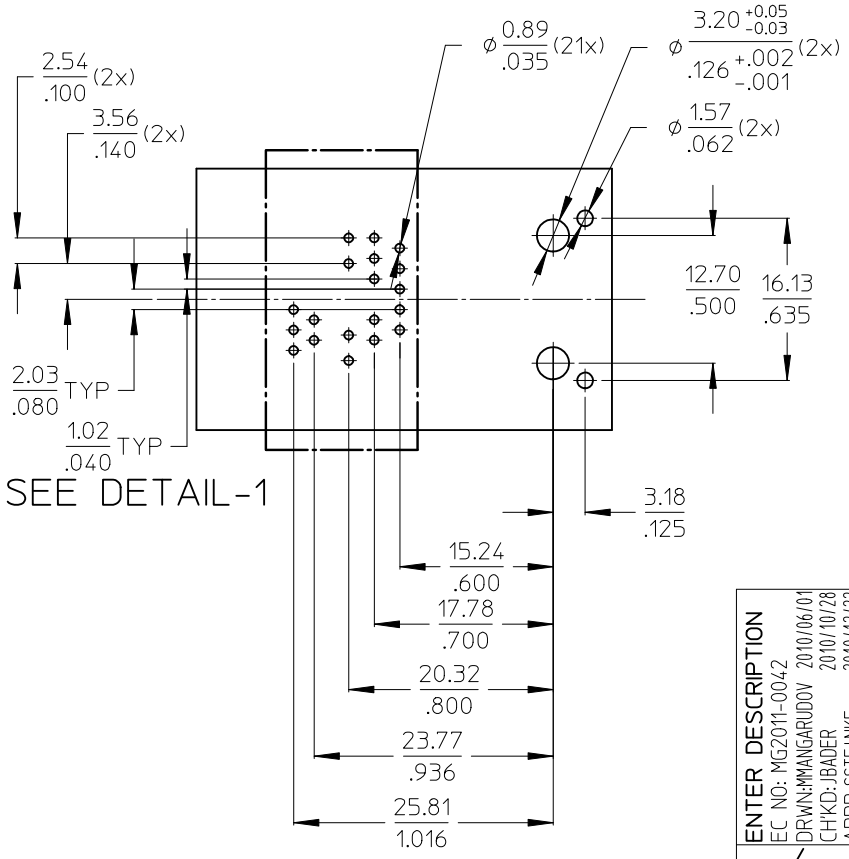
SUGGESTED PANEL CUTOUT

PIN CONFIGURATION



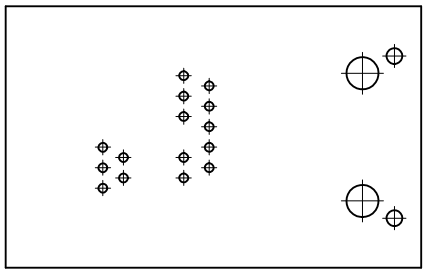
DETAIL-1
SCALE 4:1

SUGGESTED BOARD LAYOUT - COMPONENT SIDE



SEE DETAIL-1

SUGGESTED BOARD LAYOUT
FOR NON LED VERSION



NOTE:
1 - PINS 15 AND 16 NOT PRESENT ON VERSION WITH INTEGRATED POWER INDICATION LED

ENTER DESCRIPTION	EC NO: MG2011-0042	DRWN:MMANGARUDOV	2010/06/01
	CH'KD:JBADER	2010/10/28	
	APPR:SSTEINKE	2010/12/22	
DESCRIPTION			
REV	4		

QUALITY SYMBOLS
▼=0
Ⓒ=0

GENERAL TOLERANCES (UNLESS SPECIFIED)

	mm	INCH
4 PLACES	± ---	± ---
3 PLACES	± ---	± ---
2 PLACES	± 0.05	± ---
1 PLACE	± 0.10	± ---
ANGULAR ± .5 °		

DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS

DIMENSION STYLE	MM ONLY
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
SIZE	A3

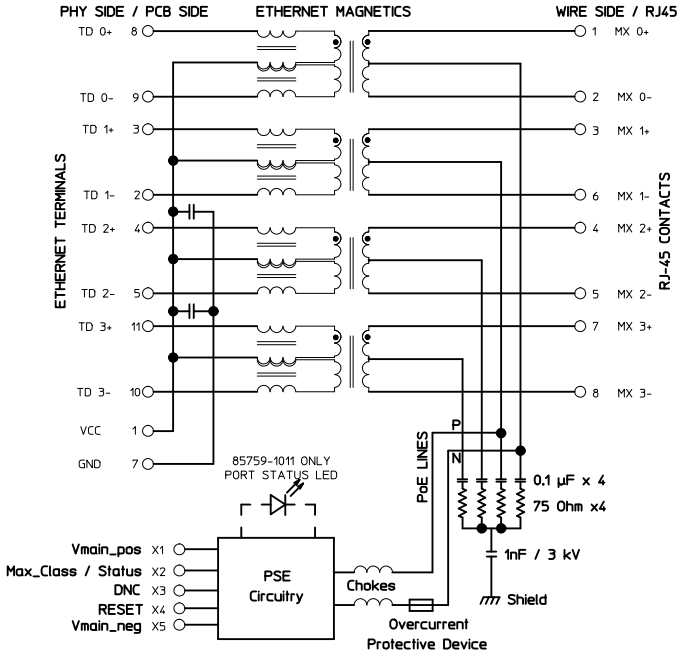
TITLE: HYPERJACK POE PLUS PSE ICM 1X1

MOLEX INCORPORATED

DOCUMENT NO. SD-85759-001

SHEET NO. 2 OF 3

Electrical Specifications @25°C		
Operating temperature (0°C to +70°C)		
Description	Value	
OCL POE+TRANSF. 24mA 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	

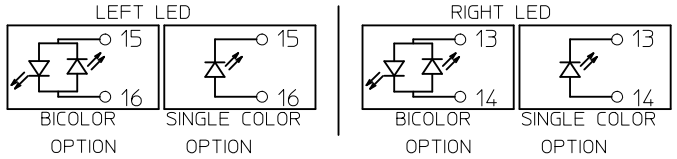


PART NUMBER	LEFT LED			RIGHT LED			
	PIN15	PIN16	COLOR	PIN13	PIN14	COLOR	
85759-1001	-	+	GREEN	-	+	GREEN	COLOR 1
							COLOR 2
85759-1003	-	+	GREEN	-	+	GREEN	COLOR 1
	+	-	ORANGE				COLOR 2
85759-1006	-	+	GREEN	-	+	YELLOW	COLOR 1
							COLOR 2
85759-1015	-	+	YELLOW	-	+	GREEN	COLOR 1
	+	-	GREEN				COLOR 2
85759-1013	-	+	YELLOW	-	+	YELLOW	COLOR 1
	+	-	GREEN	+	-	GREEN	COLOR 2
85759-1014	-	+	YELLOW	-	+	GREEN	COLOR 1
							COLOR 2
85759-1020	NON LED						

VERSION WITH INTEGRATED PoE POWER INDICATION LED

PART NUMBER	POWER INDICATION					
	LEFT LED			RIGHT LED		
	PIN15	PIN16	COLOR 1	PIN13	PIN14	COLOR 1
85759-1012	NOT PRESENT		GREEN	-	+	ORANGE

ADDITIONAL LED COLORS AND CONFIGURATIONS AVAILABLE ON REQUEST



SEE TABLE FOR LED OPTION

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	

ENTER DESCRIPTION
EC NO: MG2011-0042
DRWN:MMANGARUDOV 2010/06/01
CH'KD:JBADER 2010/10/28
APPR:SSTEINKE 2010/12/22
DESCRIPTION
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GENERAL TOLERANCES (UNLESS SPECIFIED)

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DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS

DIMENSION STYLE: MM ONLY
SCALE: 5:1
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

TITLE: HYPERJACK POE PLUS PSE ICM 1X1

molex MOLEX INCORPORATED

MATERIAL NO.: SEE BOM
DOCUMENT NO.: SD-85759-001
SHEET NO.: 3 OF 3
SIZE: A3