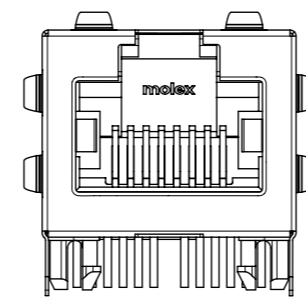
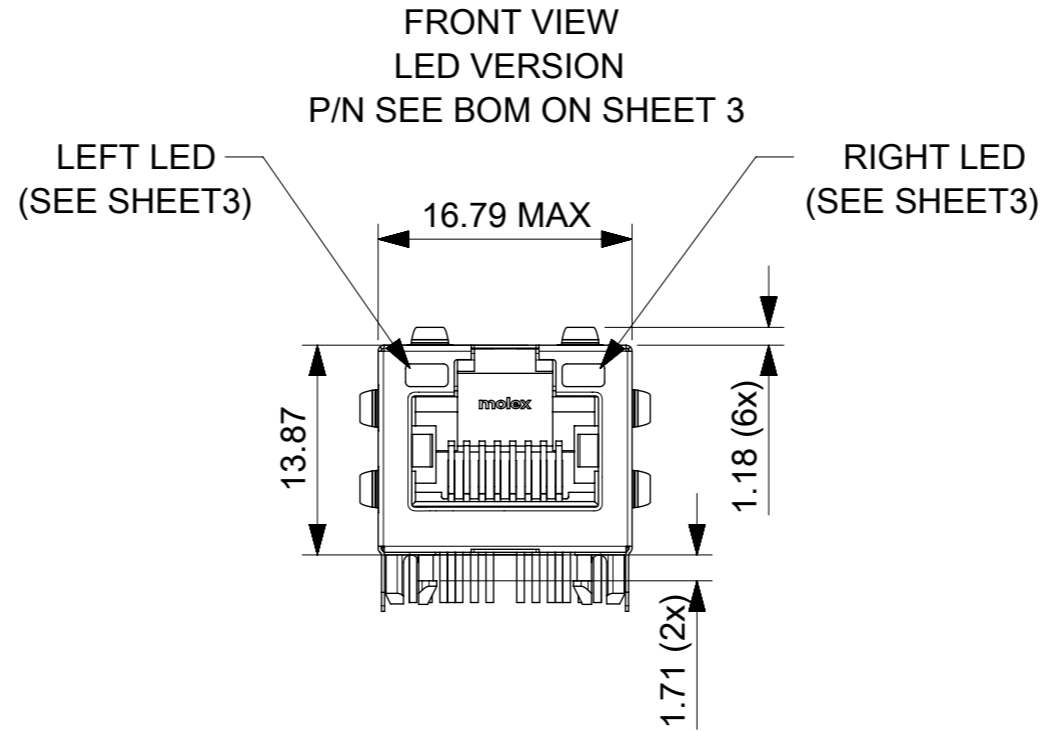
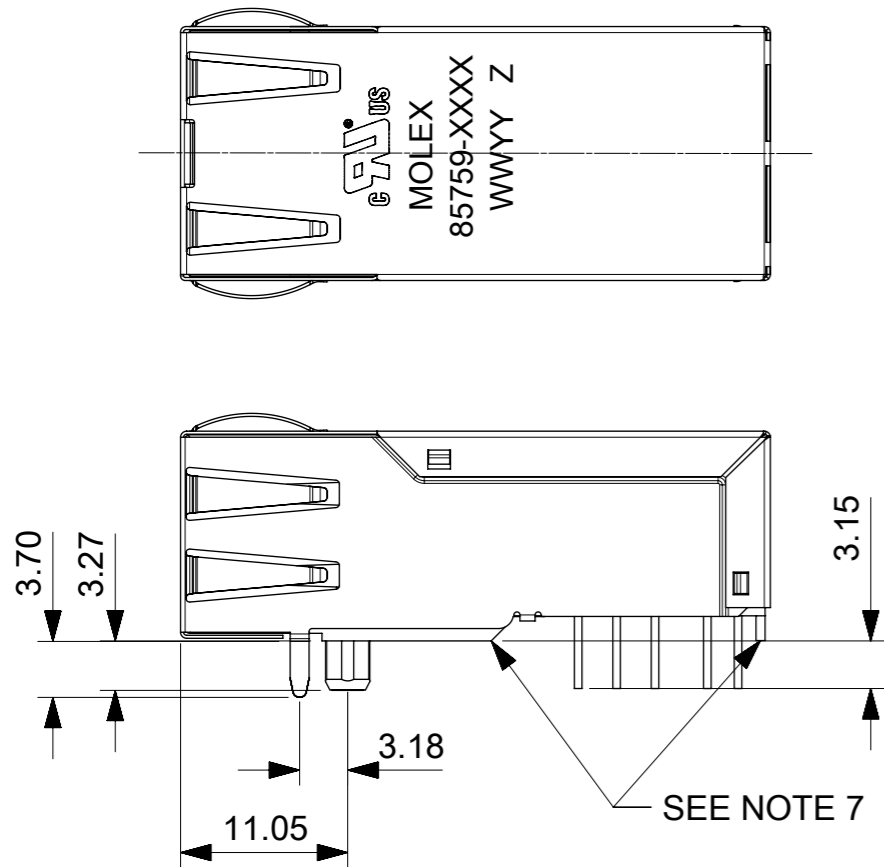


GIGABIT SINGLE PORT MAGNETIC JACK WITH OR WITHOUT LEDs AND INTEGRATED POWER OVER ETHERNET PLUS CONTROL CIRCUITRY ACCORDING TO IEEE802.3at

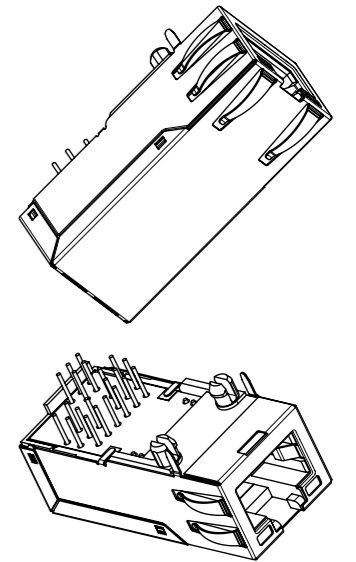
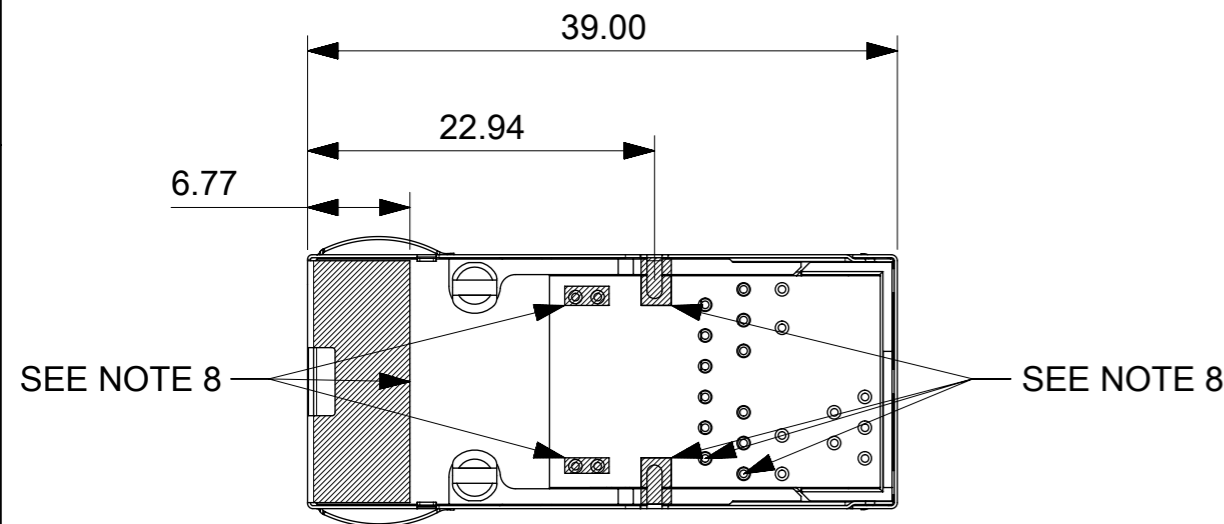
NOTES:

- 1 - SHIELD MATERIAL: STAINLESS STEEL  
(GROUND PINS ARE SOLDER DIPPED)
- 2 - PLASTIC MATERIAL: PBT, BLACK, UL 94V-0
- 3 - RJ45 TERMINALS MATERIAL: COPPER ALLOY  
CONTACT PLATING: 0.76 MICROMETER GOLD OVER 1.9 MICROMETER NICKEL  
PHY TERMINALS: TIN PLATED
- 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  
1st : MOLEX  
2st : P/N (SEE BOM)  
3rd : DATE CODE(WEEK/YEAR)



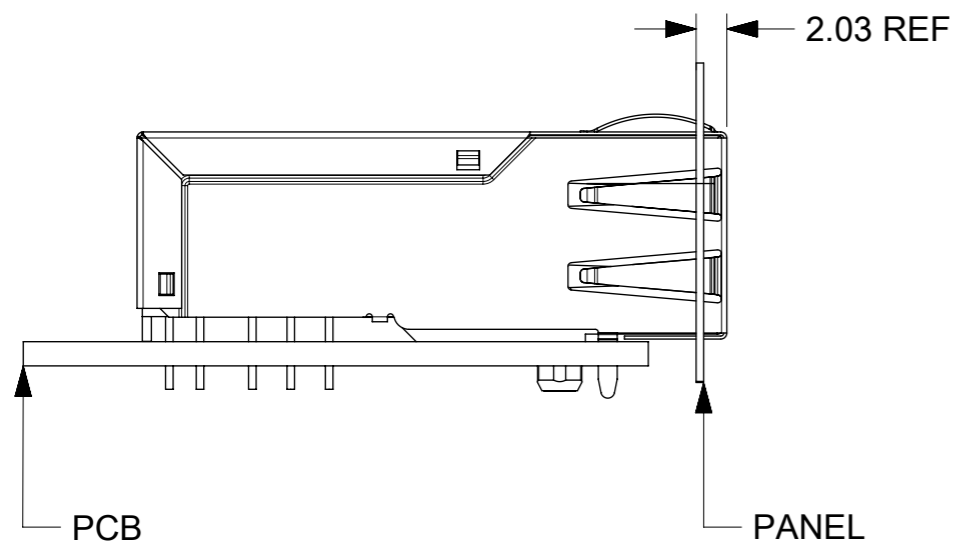
NOTE  
PRE-RELEASE  
REFERENCE  
USE ONLY

FRONT VIEW  
NON LED VERSION  
P/N 857591020

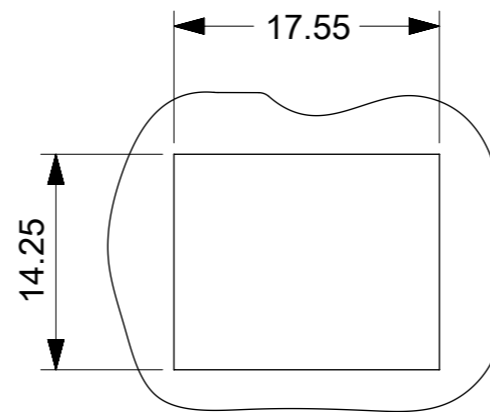


SCALE 1:1

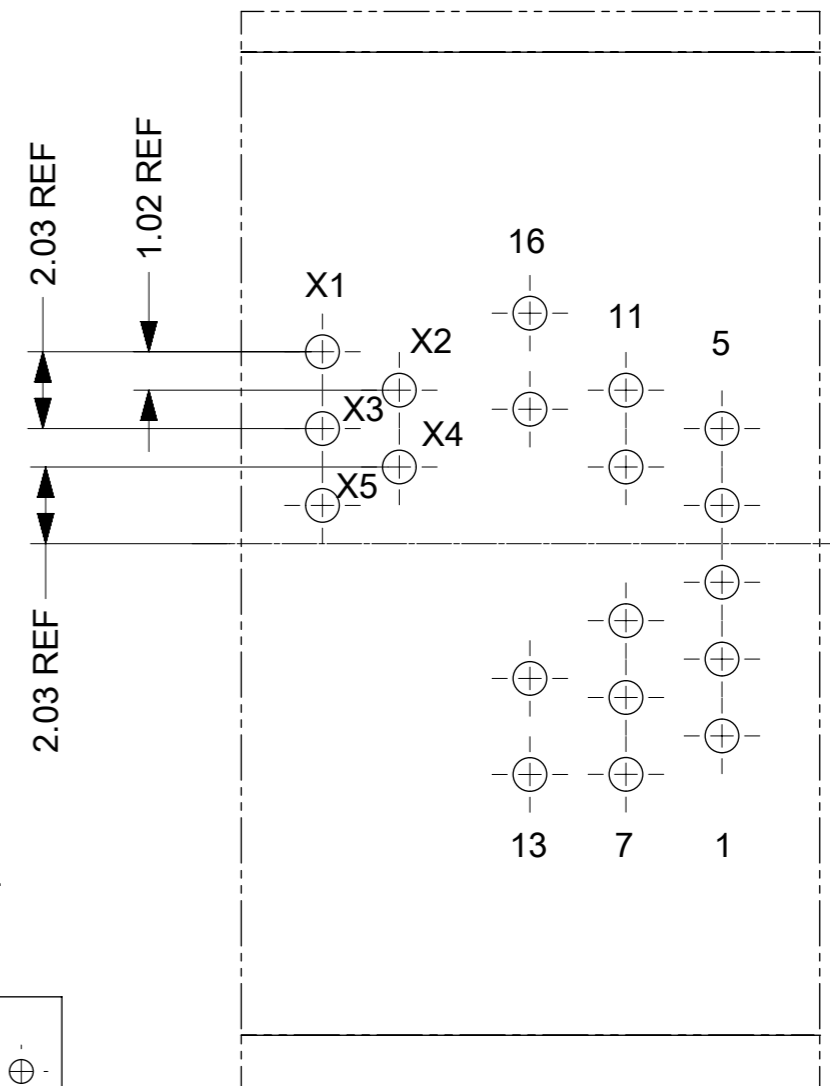
THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION										
EC DESCRIPTION EC NO: 102949 DRWN: MFURKEL CHK'D: REV: C	2015/10/14	2016/03/14	QUALITY SYMBOLS	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION UNITS	SCALE			
			▽ = 0 ▽ = 0 ▽ = 0 ▽ = 0 ▽ = 0 ▽ = 0 ▽ = 0 ▽ = 0 ▽ = 0	ANGULAR TOL ± 0.5 ° 4 PLACES ± 3 PLACES ± 2 PLACES ± 0.25 1 PLACE ± 0.2 0 PLACES ±		MM	2:1			
			DRWN BY: MFURKEL CHK'D BY: CBRUNS	DRWN BY: MFURKEL DATE: 2015/06/11		PRODUCT CUSTOMER DRAWING				
			APPR BY: CBRUNS	APPR BY: CBRUNS DATE:		SERIES: 85759 MATERIAL NUMBER: SEE BOM / SHEET 3 CUSTOMER:				
DRAWING SIZE: A3 THIRD ANGLE PROJECTION		DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS			DOCUMENT NUMBER: 857591001 DOC TYPE: PSD DOC PART: 000 SHEET NUMBER: 1 OF 3					



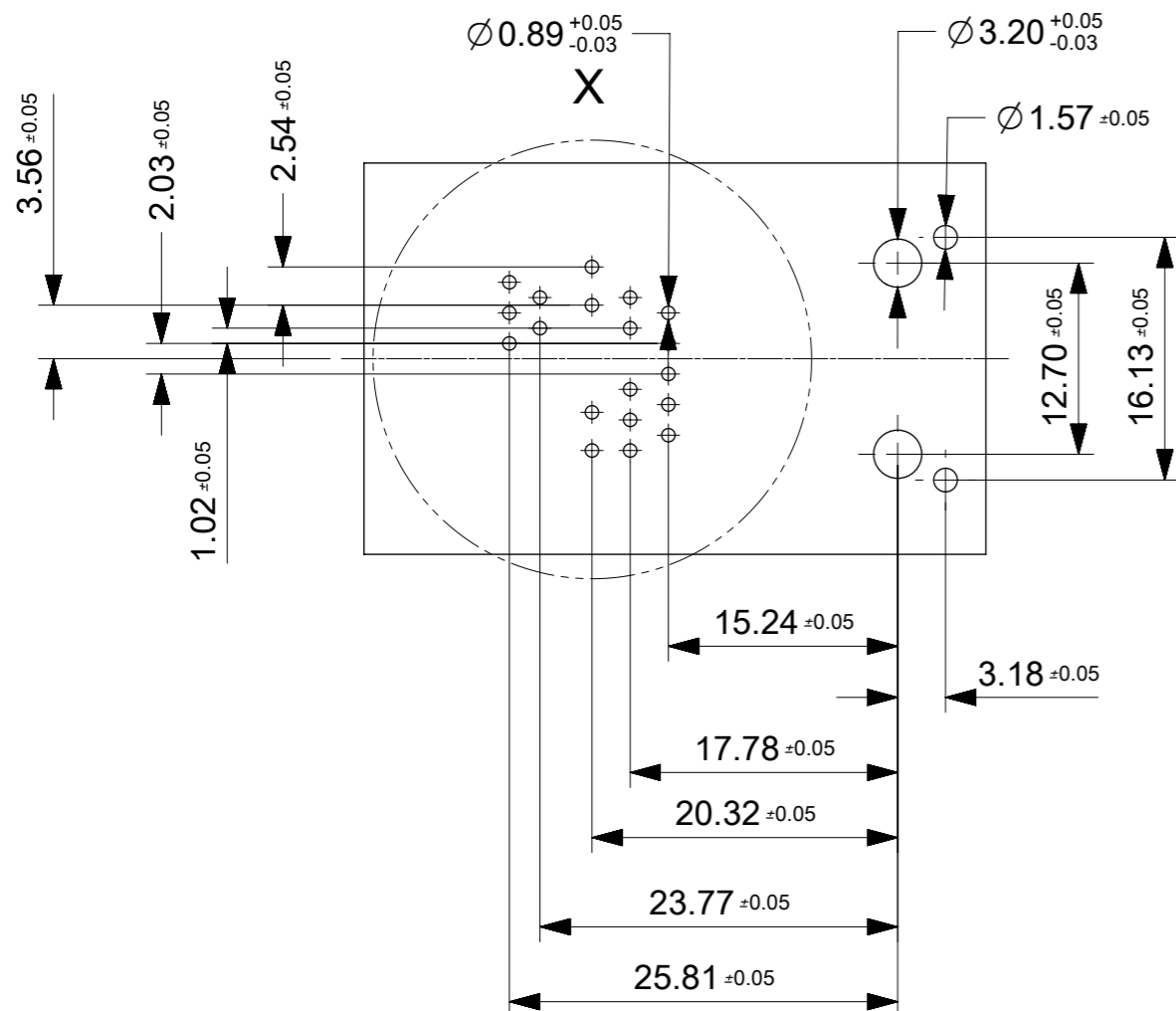
SUGGESTED PANEL CUTOUT



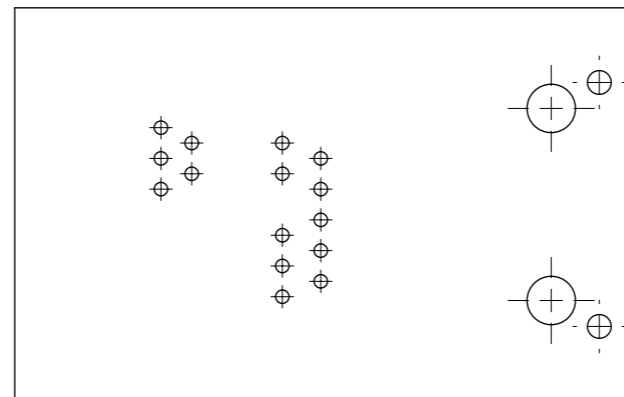
PIN CONFIGURATION



SUGGESTED BOARD LAYOUT - COMPONENT SIDE



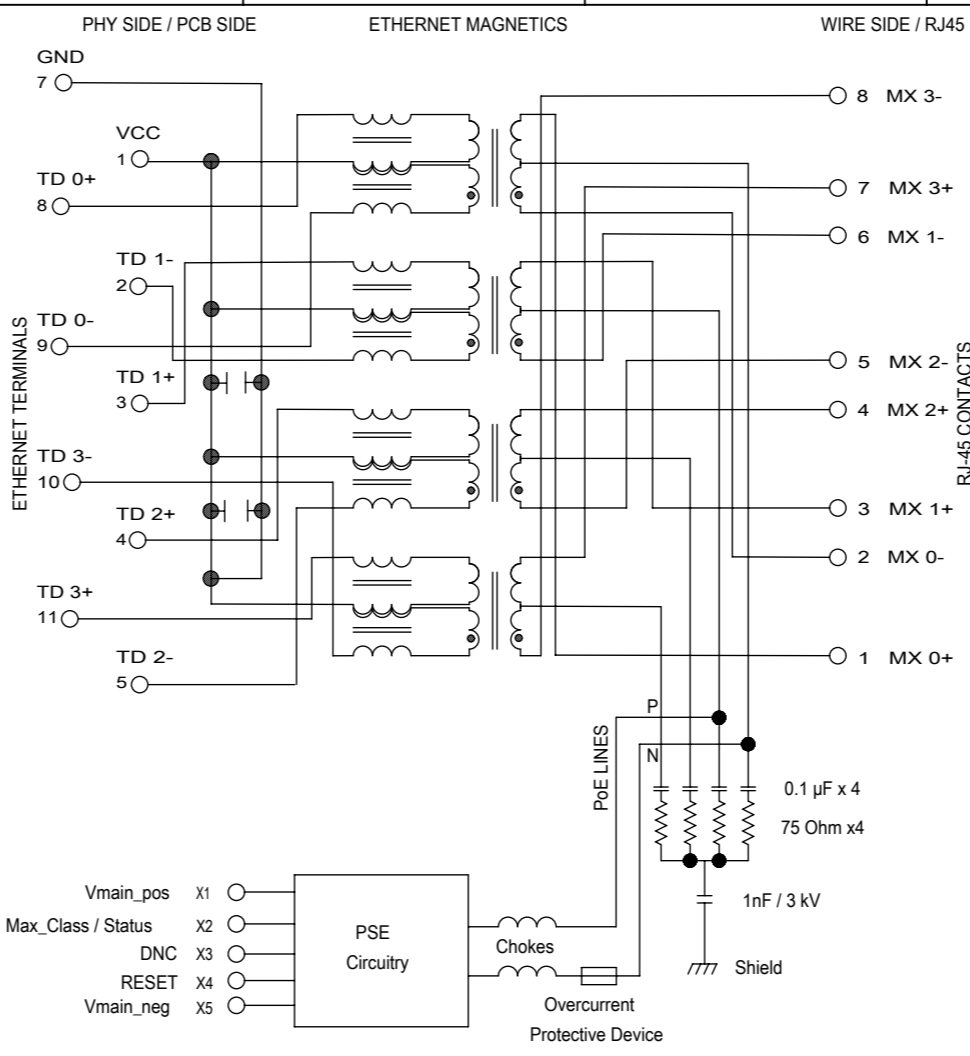
SUGGESTED BOARD LAYOUT FOR NON LED VERSION



DETAIL X  
SCALE 5:1

THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION										
EC DESCRIPTION EC NO: 102949 DRWN: MFURKEL CHK'D: REV: C	2015/10/14	2016/03/14	QUALITY SYMBOLS	GENERAL TOLERANCES (UNLESS SPECIFIED)	DIMENSION UNITS	SCALE	<b>molex</b>			
			▽ = 0	ANGULAR TOL ± 0.5 °	MM	2:1				
			∇ = 0	4 PLACES ±	DRWN BY	DATE	GIGABIT MAGNETIC JACK POE PLUS ICM 1X1			
			∇ = 0	3 PLACES ±	MFURKEL	2015/06/11				
∇ = 0	2 PLACES ± 0.25	CHK'D BY	DATE	PRODUCT CUSTOMER DRAWING						
∇ = 0	1 PLACE ± 0.2	APPR BY	DATE							
∇ = 0	0 PLACES ±	DRAWING SIZE	THIRD ANGLE PROJECTION	SERIES	MATERIAL NUMBER	CUSTOMER	SEE BOM / SHEET 3			
∇ = 0	DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS	A3		85759	SEE BOM / SHEET 3					
					DOCUMENT NUMBER	DOC TYPE	DOC PART	SHEET NUMBER		
					857591001	PSD	000	2 OF 3		

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	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	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	

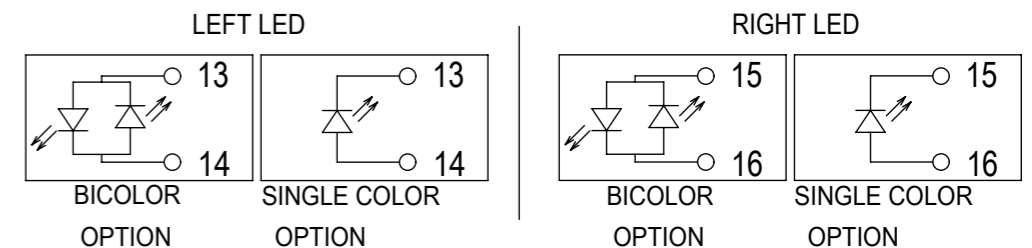


### PART NUMBER AND LED OPTIONS

PART NUMBER	RIGHT LED			LEFT LED			COLOR 1
	PIN15	PIN16	COLOR	PIN13	PIN14	COLOR	
857591001	-	+	GRN	-	+	GRN	COLOR 2
857591003	-	+	GRN	-	+	GRN	COLOR 1
857591006	+	-	ORG				COLOR 2
857591006	-	+	GRN	-	+	YW	COLOR 1
857591020	NON LED						COLOR 2

### 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	



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EC DESCRIPTION EC NO: 102949 DRWN: MFURKEL CHK'D: APPR: CBRUNS	2015/10/14 2016/03/14	QUALITY SYMBOLS ▽ = 0 ▽ = 0 ▽ = 0 ▼ = 0 ▽ = 0 ☒ = 0 ■ = 0 ▽ = 0	GENERAL TOLERANCES (UNLESS SPECIFIED) ANGULAR TOL ± 0.5 ° 4 PLACES ± 3 PLACES ± 2 PLACES ± 0.25 1 PLACE ± 0.2 0 PLACES ± DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS	DIMENSION UNITS <b>MM</b>	SCALE <b>2:1</b>	molex						
						DRWN BY: MFURKEL		DATE: 2015/06/11		GIGABIT MAGNETIC JACK POE PLUS ICM 1X1		
						CHK'D BY:		DATE:				
						APPR BY:		DATE:		PRODUCT CUSTOMER DRAWING		
DRAWING SIZE: <b>A3</b>		THIRD ANGLE PROJECTION		SERIES: 85759	MATERIAL NUMBER: SEE BOM / SHEET 3	CUSTOMER:						
				DOCUMENT NUMBER: 857591001		DOC TYPE: PSD	DOC PART: 000	SHEET NUMBER: 3 OF 3				