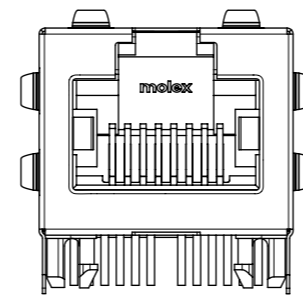
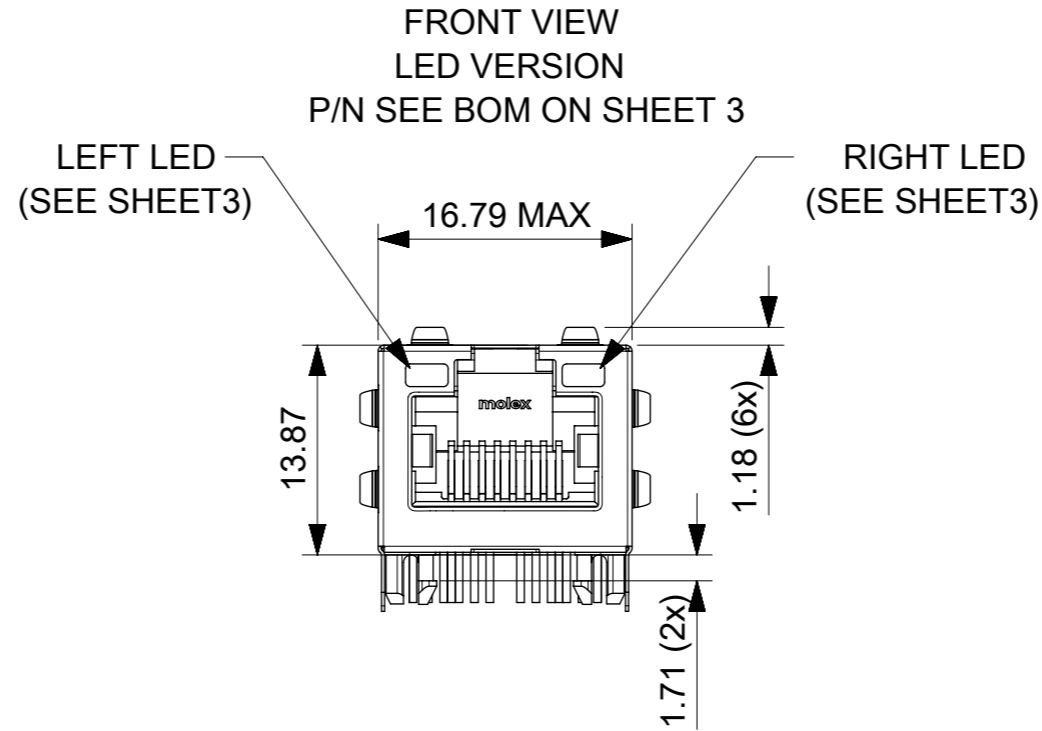
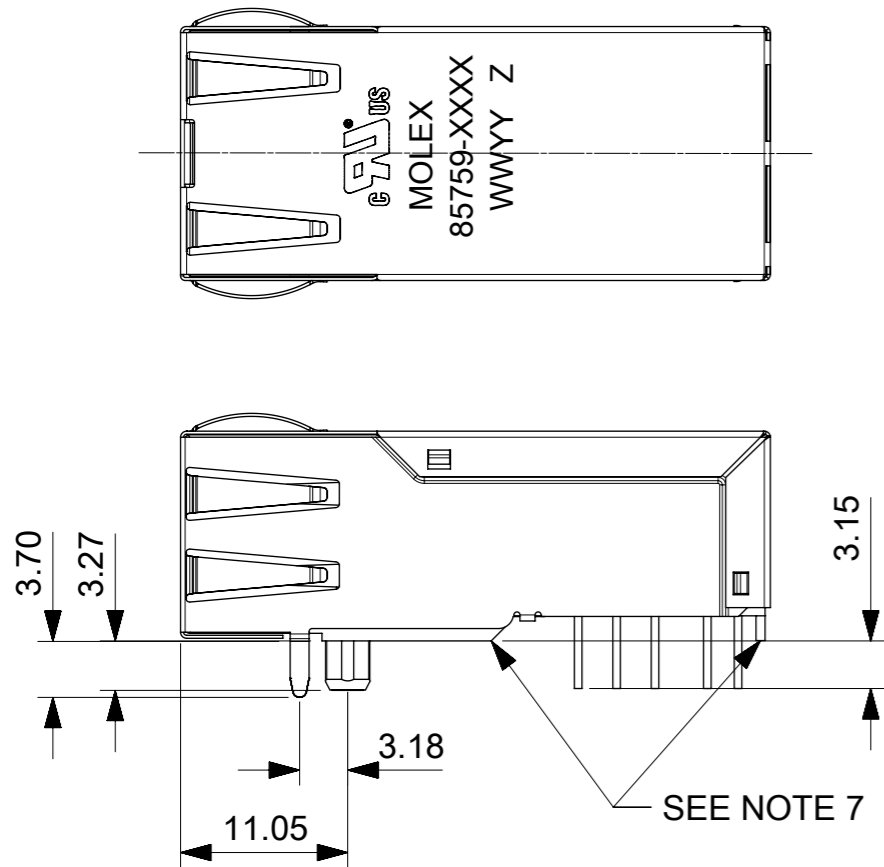


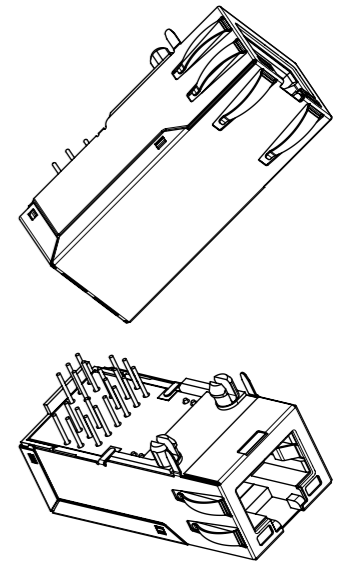
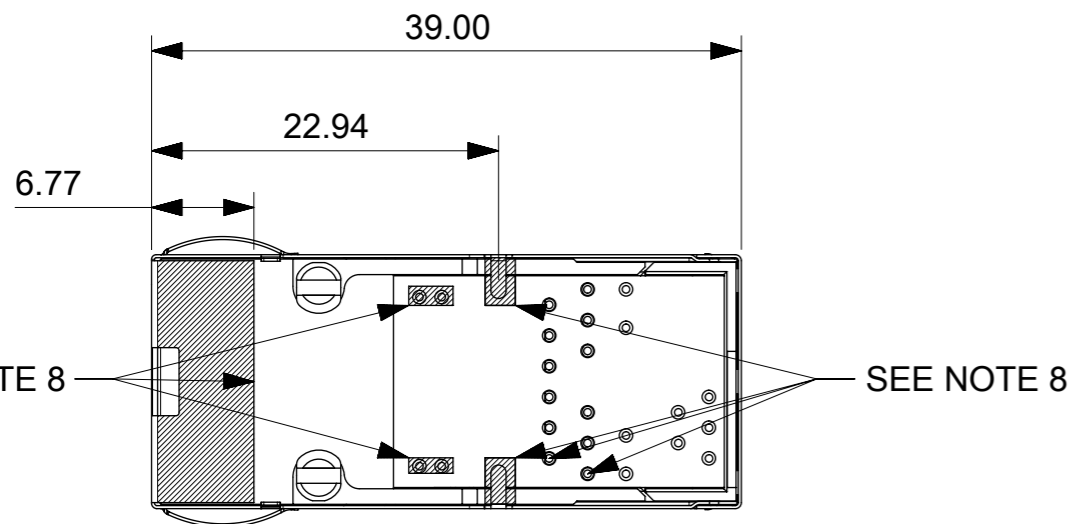
GIGABIT SINGLE PORT MAGNETIC JACK WITH OR WITHOUT LEDs AND INTEGRATED POWER OVER ETHERNET PLUS CONTROL CIRCUITRY ACCORDING TO IEEE802.3at

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)

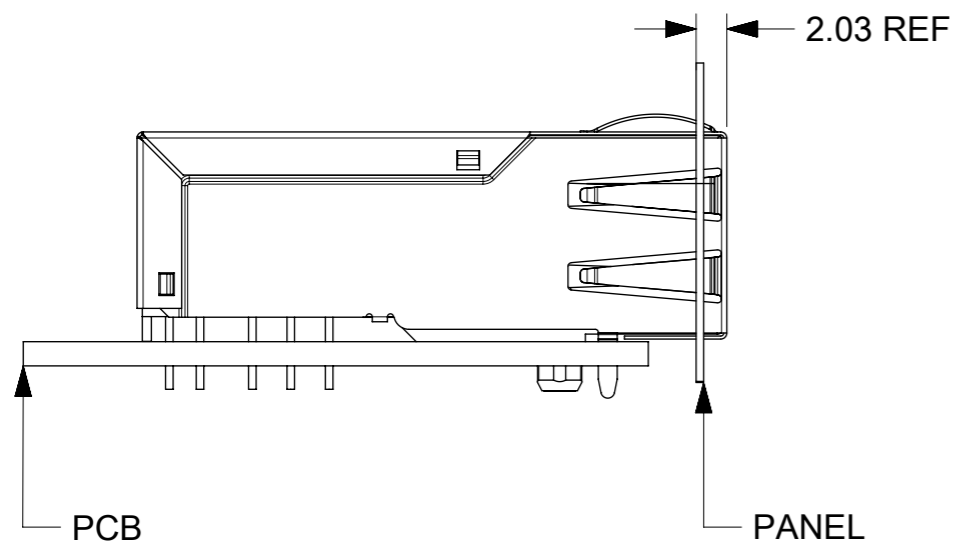


NOTE
PRE-RELEASE
FOR REFERENCE
USE ONLY
P/N 857591020

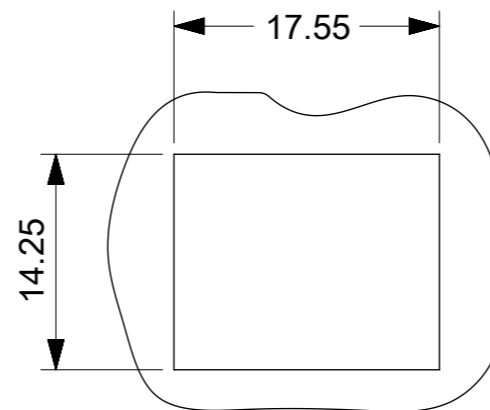


SCALE 1:1

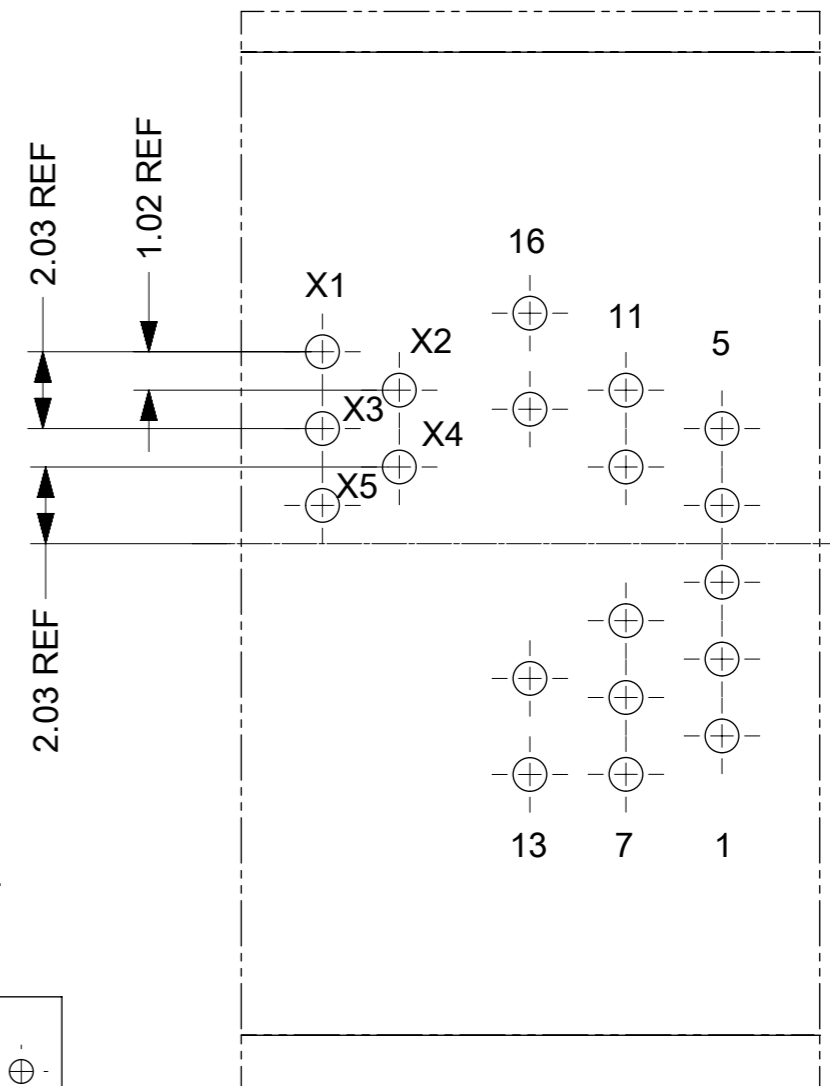
THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION											
EC DESCRIPTION EC NO: 102949 DRWN: MFURKEL CHK'D: CBRUNS APPR: CBRUNS	2015/10/14	2016/03/14	2016/03/14	QUALITY SYMBOLS ∇ = 0 ∇ = 0 ∇ = 0 ▼ = 0 ∇ = 0 ⊠ = 0 ■ = 0 ∇ =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



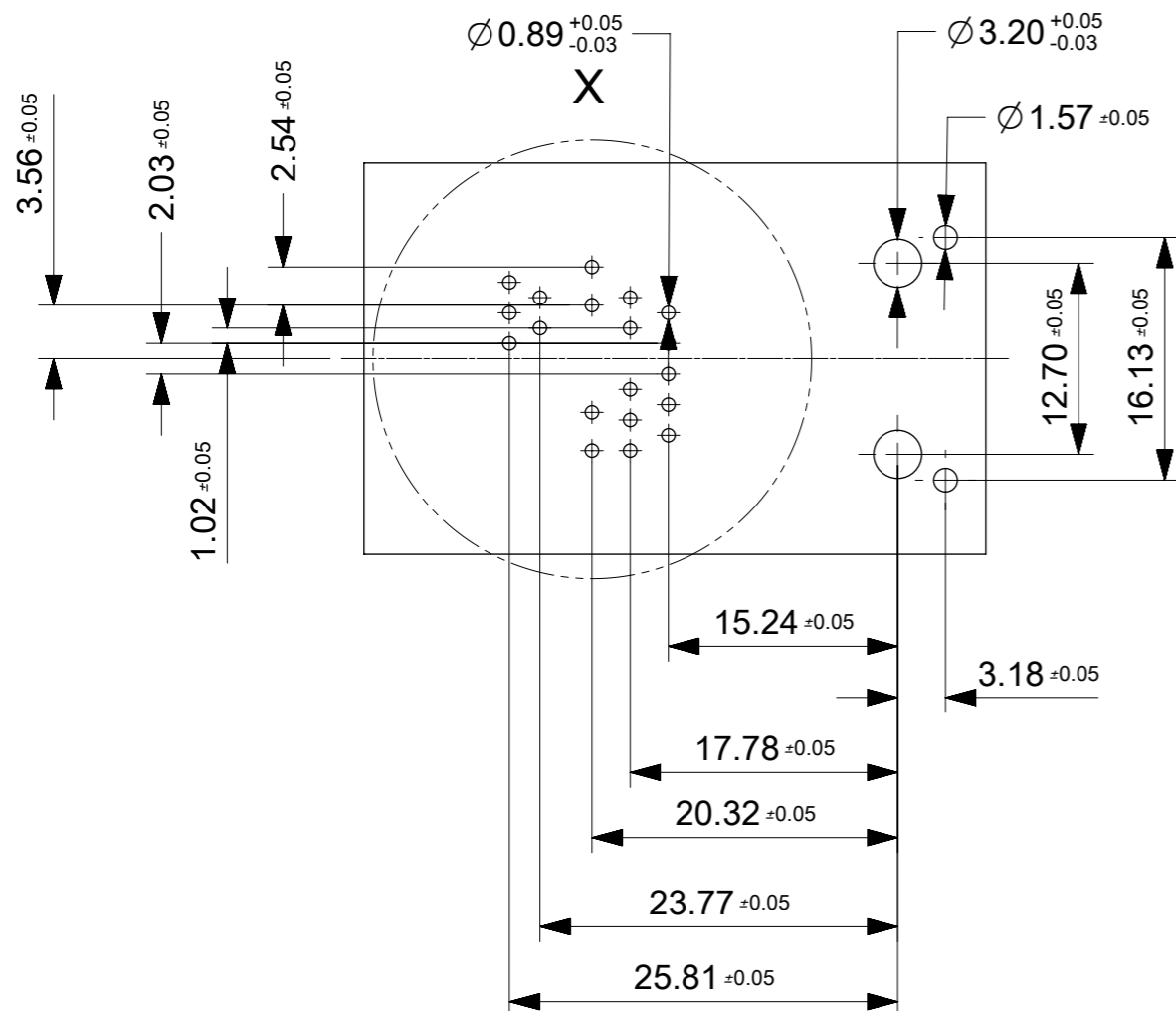
SUGGESTED PANEL CUTOUT



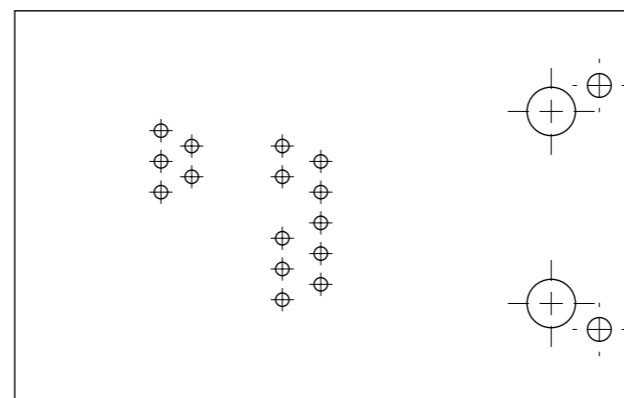
PIN CONFIGURATION



SUGGESTED BOARD LAYOUT - COMPONENT SIDE



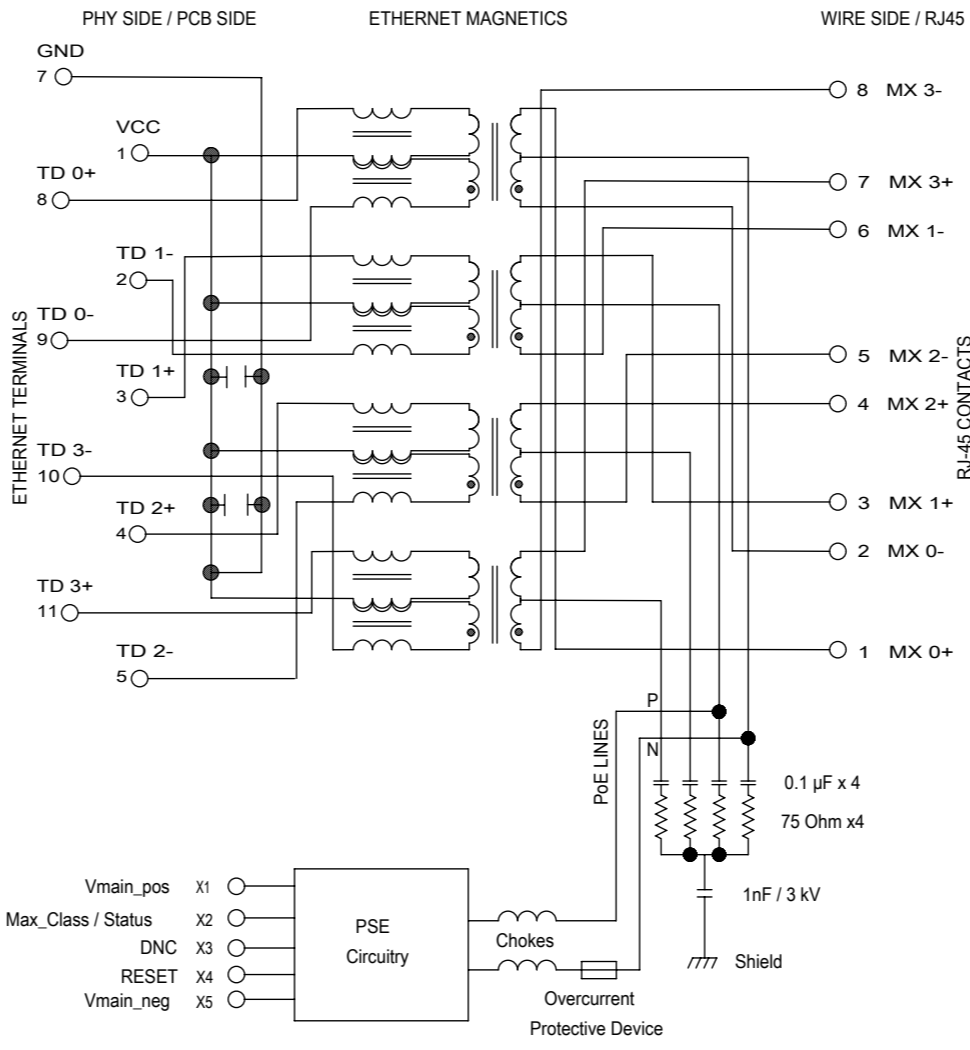
SUGGESTED BOARD LAYOUT FOR NON LED VERSION



DETAIL X
SCALE 5:1

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

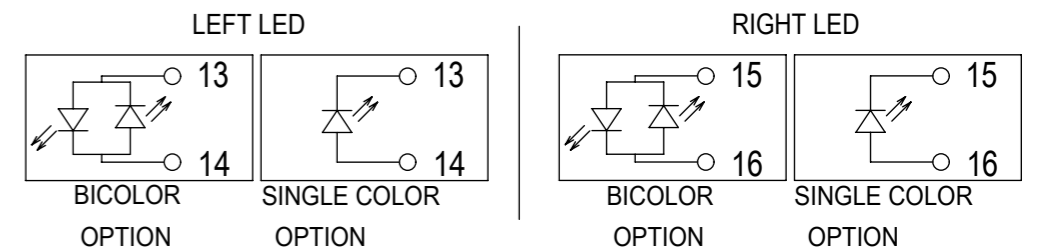


PART NUMBER AND LED OPTIONS

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



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EC DESCRIPTION EC NO: 102949 DRWN: MFURKEL CHK'D: CBRUNS APPR: CBRUNS	2015/10/14 2016/03/14 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 mm	SCALE 2:1				
	DRWN BY: MFURKEL DATE: 2015/06/11		CHK'D BY: CBRUNS DATE: 2016/03/14		APPR BY: CBRUNS DATE: 2016/03/14		PRODUCT CUSTOMER DRAWING		
	DRAWING SIZE: A3 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				