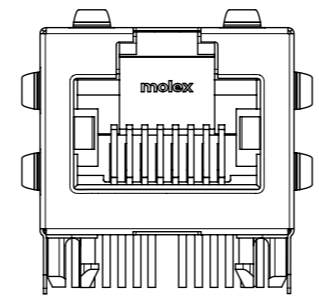
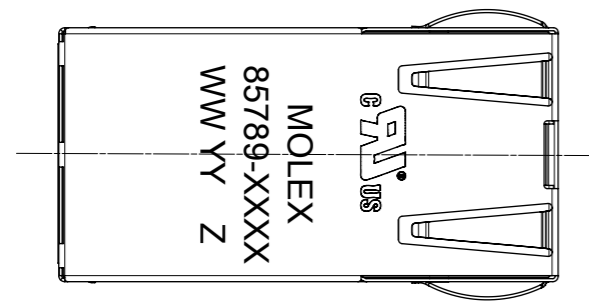
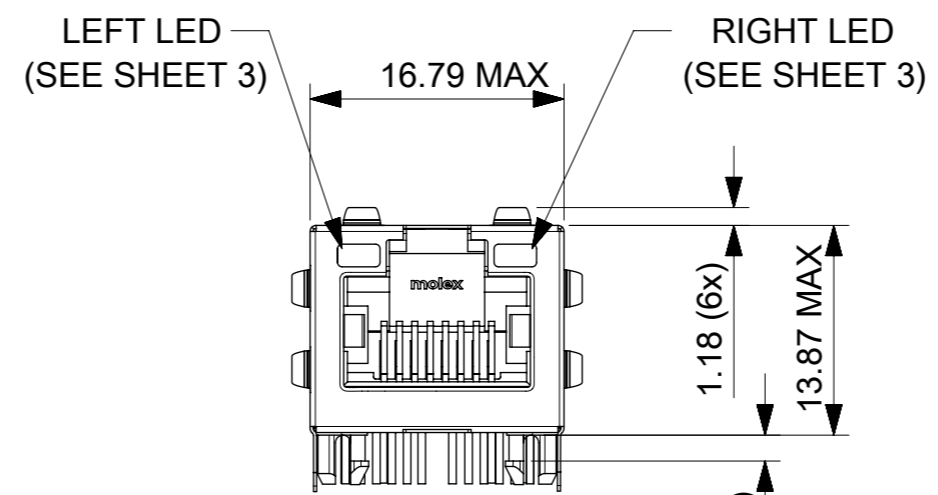
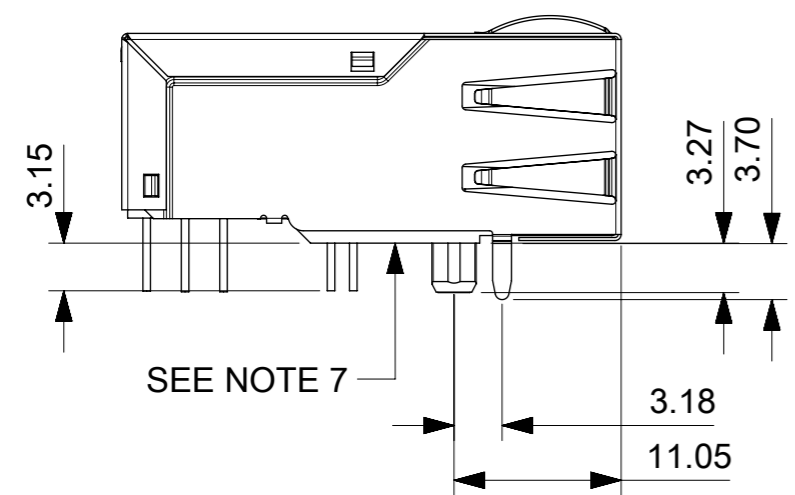


GIGABIT SINGLE PORT MAGNETIC JACK
PoE+ MAGNETICS ACC. TO IEEE802.3at
FOR PSE OR PD APPLICATIONS

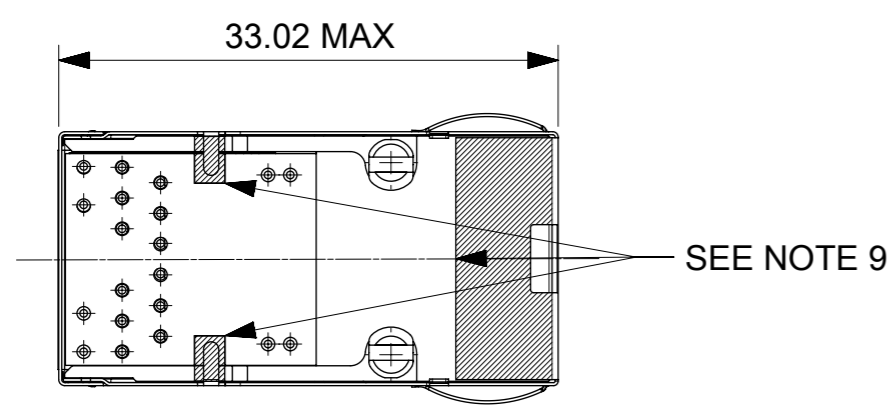
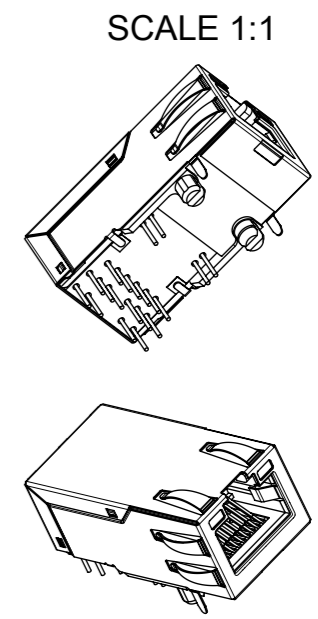
- NOTES:**
- 1 - SHIELD MATERIAL: STAINLESS STEEL
(GROUND PINS ARE SOLDER DIPPED)
 - 2 - PLASTIC MATERIAL: PBT, BLACK, UL 94V-0
 - 3 - RJ45 TERMINALS MATERIAL: COPPER ALLOY
CONTACT PLATING: 0.76 MICROMETER GOLD
OVER 1.9 MICROMETER NICKEL
PHY TERMINALS: TIN PLATED
 - 4 - MATING INTERFACE ACCORDING TO IEC 60603-7
 - 5 - PRODUCT SPECIFICATION: PS-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



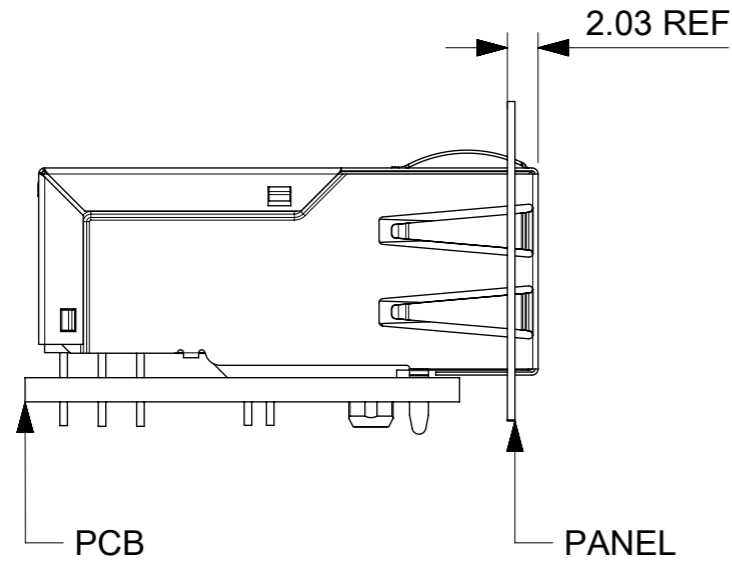
FRONT VIEW
NON LED VERSION
P/N 85789-1020



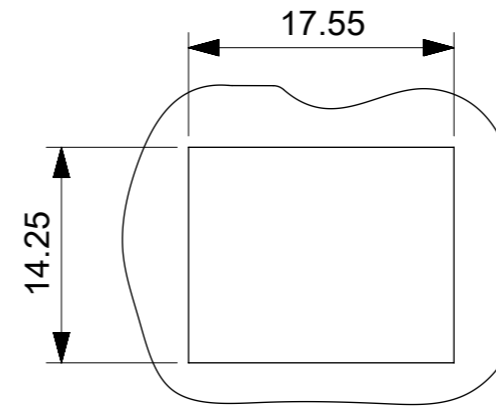
FRONT VIEW
LED VERSION
P/N SEE BOM ON SHEET 3



THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION									
EC DESCRIPTION EC NO: 102890 DRWN: MFURKEL CHK'D: RSILLER APPR: RSILLER	2015/09/28	QUALITY SYMBOLS ∇ = 0 ∇ = 0 ∇ = 0 ▼ = 0 ∇ = 0 ⊠ = 0 ■ = 0 ∇ = 0	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION UNITS	SCALE			
	2016/02/23		ANGULAR TOL ± 0.5 °		mm	2:1			
	2016/02/23		4 PLACES ±	DRWN BY		DATE	GIGABIT MAGNETIC JACK POE PLUS ENABLED		
			3 PLACES ±	MFURKEL		2015/06/15			
	2 PLACES ± 0.25	CHK'D BY		DATE	PRODUCT CUSTOMER DRAWING				
	1 PLACE ± 0.5	RSILLER		2016/02/23					
	0 PLACES ±	APPR BY		DATE	SERIES	MATERIAL NUMBER	CUSTOMER		
	DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS	DRAWING SIZE		THIRD ANGLE PROJECTION	85789	SEE BOM/SHEET 3/4			
F	REV	A3				DOCUMENT NUMBER	DOC TYPE	DOC PART	SHEET NUMBER
						857891001	PSD	000	1 OF 4

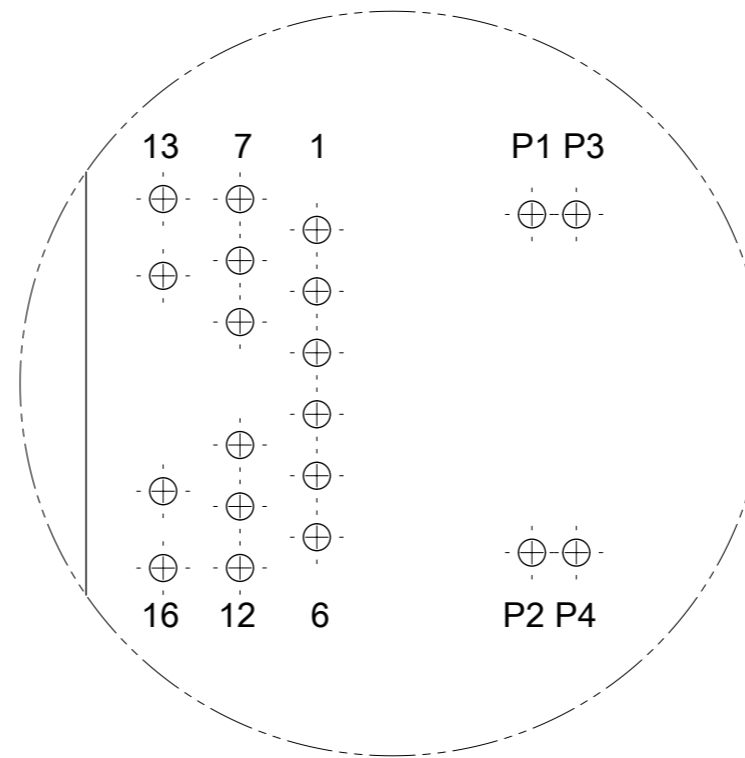


SUGGESTED PANEL CUTOUT

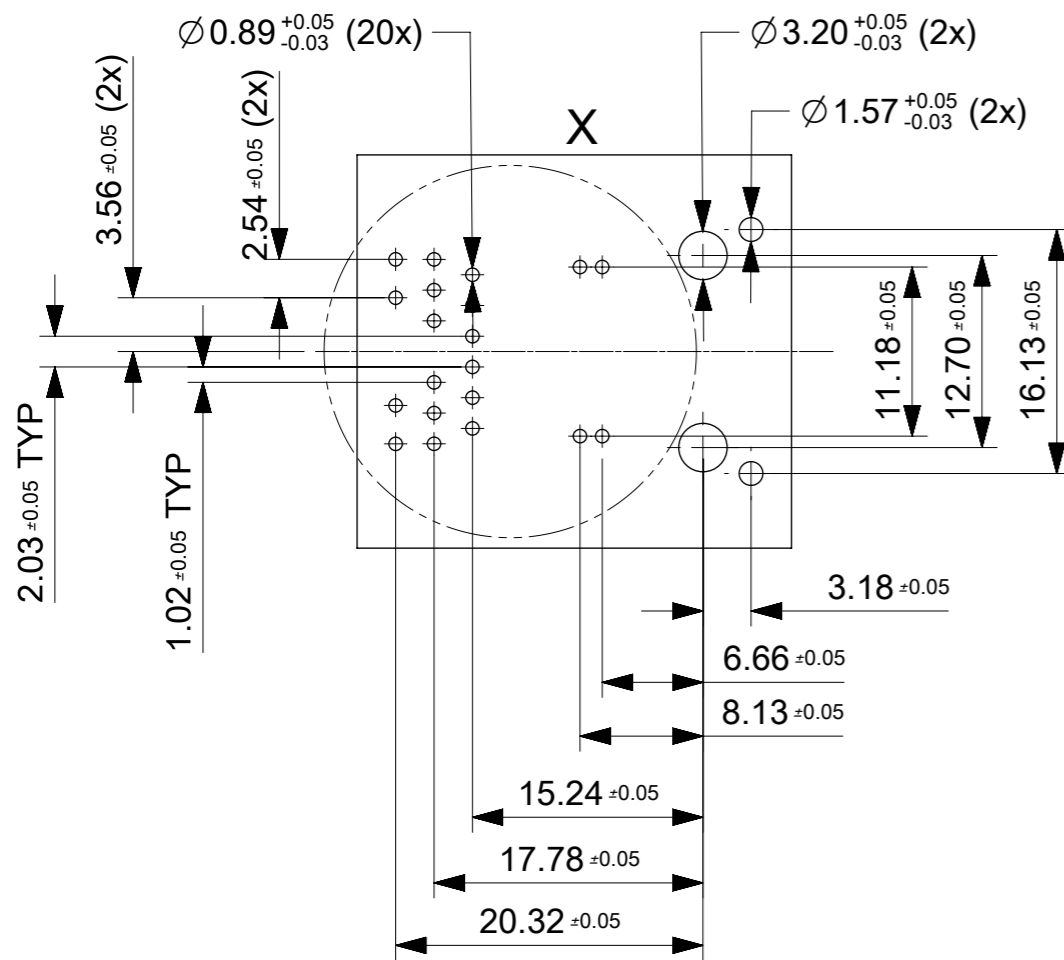


DETAIL X
SCALE 4:1

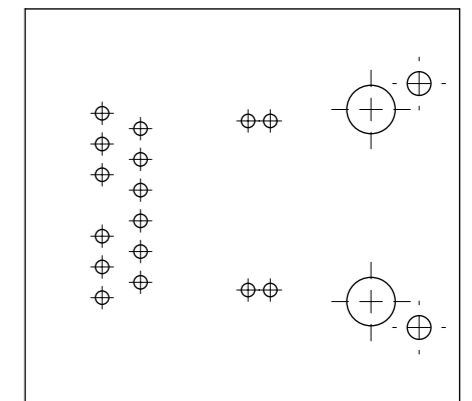
PIN CONFIGURATION



SUGGESTED BOARD LAYOUT- COMPONENT SIDE

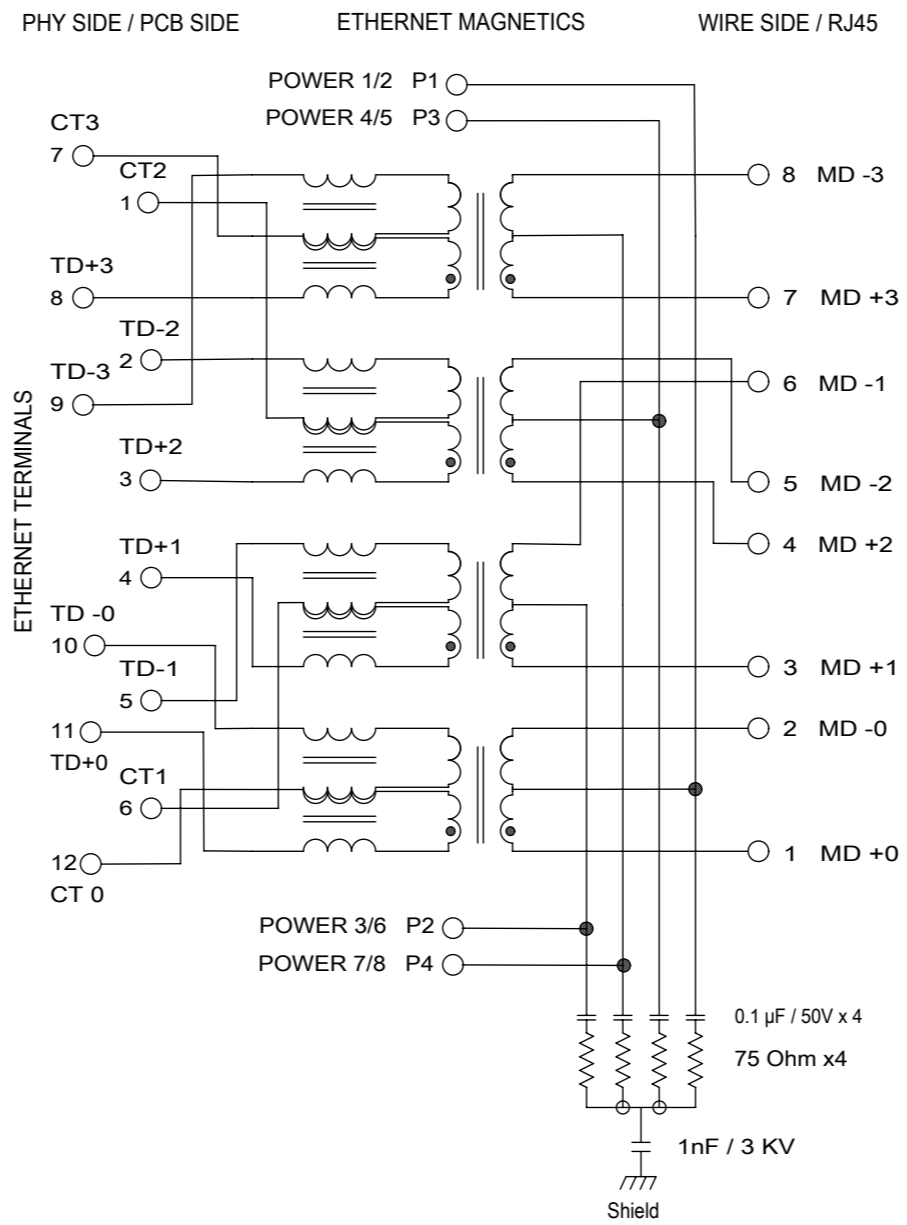


SUGGESTED BOARD LAYOUT FOR NON LED VERSION



THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION										
EC DESCRIPTION EC NO: 102890 DRWN: MFURKEL CHK'D: RSILLER APPR: RSILLER	2015/09/28	2016/02/23	2016/02/23	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 ±	DRWN BY MFURKEL		DATE 2015/06/15		
					3 PLACES ±	CHK'D BY		DATE		
			2 PLACES ± 0.25	APPR BY RSILLER		DATE 2016/02/23	PRODUCT CUSTOMER DRAWING			
			1 PLACE ± 0.5	DRAWING SIZE		THIRD ANGLE PROJECTION	SERIES 85789	MATERIAL NUMBER SEE BOM/SHEET 3/4	CUSTOMER	
			0 PLACES ±	DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		A3	DOCUMENT NUMBER 857891001	DOC TYPE PSD	DOC PART 000	SHEET NUMBER 2 OF 4

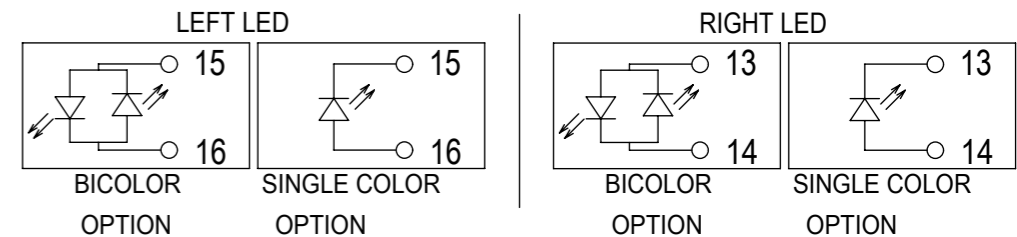
Electrical Specifications @25°C		
Operating temperature (0°C to +70°C)		
Description	VALUE	
OCL POE+TRANSF. 20mA bias (0°C to +70°C)	350µH min.	
OCL NONPOE TRANSF. 8mA bias (0°C to +70°C)	350µH min.	
Turns Ratio	1CT:1CT	
Insertion Loss		
Frequency (MHz)	Limits (dB max.)	Typical Values (dB max.)
1.0-9.9 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	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	LED1 POLARITY			LED2 POLARITY		
	PIN15	PIN16	COLOR	PIN13	PIN14	COLOR
857891001	-	+	GRN	-	+	GRN
857891003	-	+	GRN	-	+	GRN
857891006	-	+	GRN	-	+	YW
857891007	-	+	GRN	-	+	GRN
857891012	-	+	YW	-	+	GRN
857891013	-	+	YW	-	+	YW
857891014	-	+	GRN	+	-	GRN
857891015	-	+	GRN	-	+	GRN
857891017	-	+	GRN	-	+	YW
857891020	NON LED					

ADDITIONAL LED COLORS AND CONFIGURATIONS ARE AVAILABLE ON REQUEST

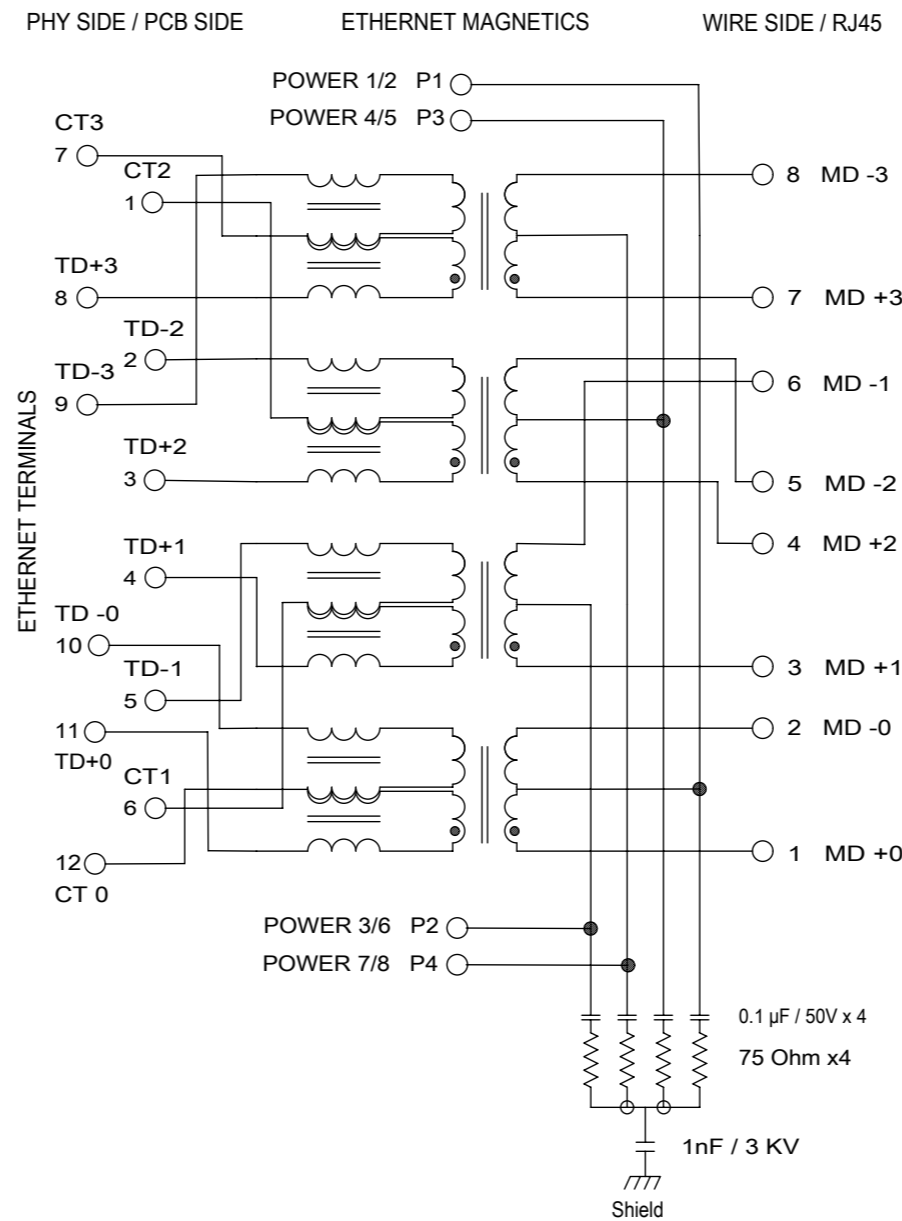
SEE TABLE FOR LED OPTIONS



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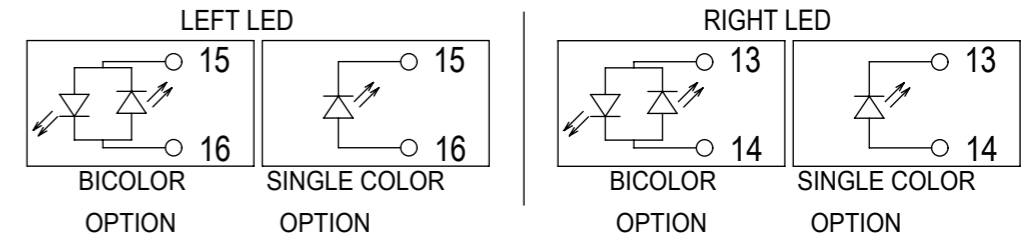
EC DESCRIPTION EC NO: 102890 DRWN: MFURKEL CHK'D: RSILLER APPR: RSILLER	2015/09/28 2016/02/23 2016/02/23	QUALITY SYMBOLS ▽ = 0 ▽ = 0 ▽ = 0 ▼ = 0 ▽ = 0 ☒ = 0 ■ = 0 ▽ = 0	GENERAL TOLERANCES (UNLESS SPECIFIED) ANGULAR TOL ± 0.5 ° 4 PLACES ± 3 PLACES ± 2 PLACES ± 0.25 1 PLACE ± 0.5 0 PLACES ± DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS	DIMENSION UNITS: mm SCALE: 5:1 DRWN BY: MFURKEL DATE: 2015/06/15 CHK'D BY: DATE: APPR BY: RSILLER DATE: 2016/02/23 DRAWING SIZE: A3 THIRD ANGLE PROJECTION	
	PRODUCT CUSTOMER DRAWING			SERIES: 85789 MATERIAL NUMBER: SEE BOM/SHEET 3/4 CUSTOMER:	
	DOCUMENT NUMBER: 857891001		DOC TYPE: PSD DOC PART: 000 SHEET NUMBER: 3 OF 4		

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.)
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Return Loss	Limits (dB min.)	TYPICAL Values (dB min.)
Frequency (MHz)		
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.)
Frequency (MHz)		
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
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400-1000 MHz	10	10 @ 1000MHz
NEXT	Limits (dB min.)	TYPICAL Values (dB min.)
Frequency (MHz)		
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	LED1 POLARITY			LED2 POLARITY		
	LEFT LED			RIGHT LED		
	PIN15	PIN16	COLOR	PIN13	PIN14	COLOR
857893006	-	+	GRN	-	+	YW
857893016	-	+	GRN	-	+	GRN
	+	-	YW			

ADDITIONAL LED COLORS AND CONFIGURATIONS ARE AVAILABLE ON REQUEST



SEE TABLE FOR LED OPTIONS

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EC DESCRIPTION EC NO: 102890 DRWN: MFURKEL CHK'D: RSILLER APPR: RSILLER	2015/09/28 2016/02/23 2016/02/23	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 ± 0.5 0 PLACES ± DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS	DIMENSION UNITS: mm SCALE: 5:1 DRWN BY: MFURKEL DATE: 2015/06/15 CHK'D BY: RSILLER DATE: 2016/02/23 APPR BY: RSILLER DATE: 2016/02/23 DRAWING SIZE: A3 THIRD ANGLE PROJECTION	
	GIGABIT MAGNETIC JACK POE PLUS ENABLED			PRODUCT CUSTOMER DRAWING	
	SERIES: 85789 MATERIAL NUMBER: SEE BOM/SHEET 3/4 CUSTOMER:		DOCUMENT NUMBER: 857891001 DOC TYPE: PSD DOC PART: 000 SHEET NUMBER: 4 OF 4		