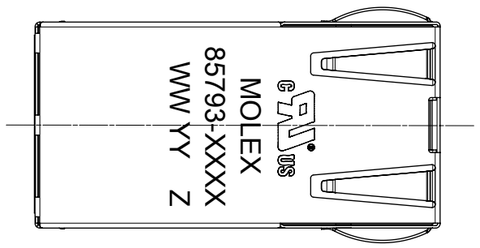
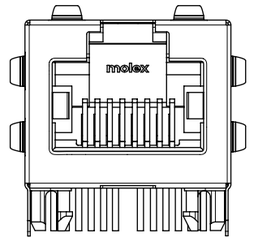
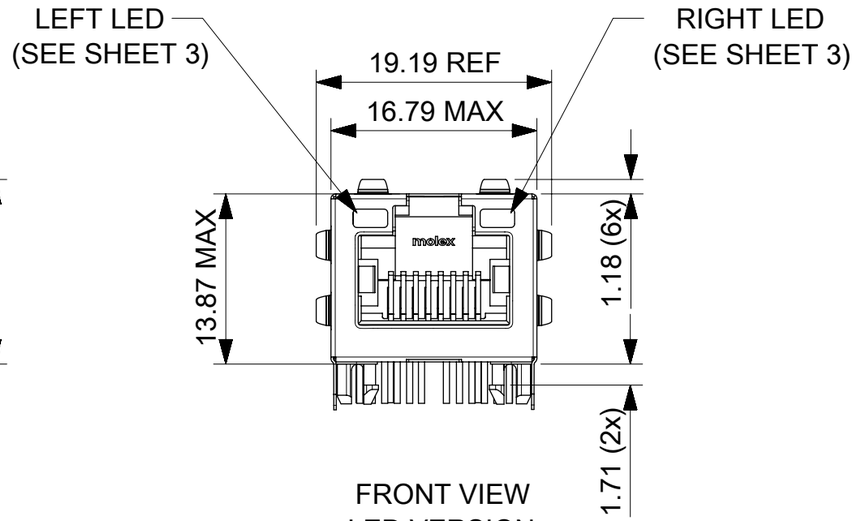
GIGABIT MAGNETIC JACK 1x1 LED



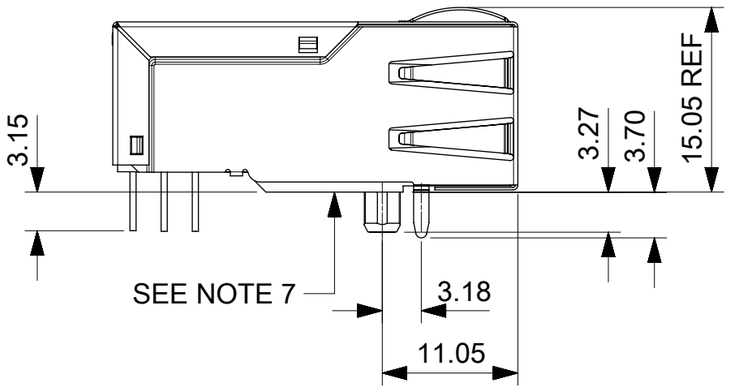


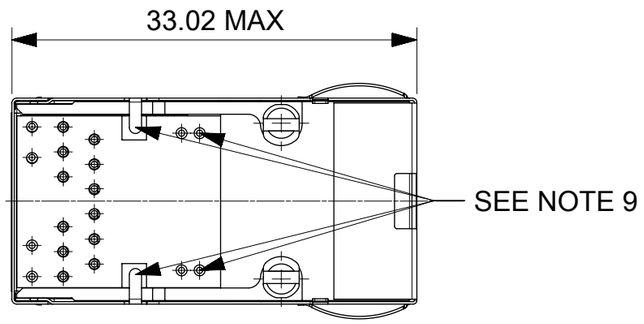
FRONT VIEW
NON LED VERSION
P/N 85793-1020

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-85793-001
6 - PACKAGING SPECIFICATION: PK-85759-001
7 - STAND OFF TO SYSTEM BOARD
8 - RECOMMENDED PCB THICKNESS: 1.6mm
9 - SHIELD LATCHES: AVOID TO ROUTE
TRACES OR TO PLACE ANY VIAS OR PADS
BELOW THESE LATCHES
10 - INSCRIPTION MARKED BY LASER:
UL LOGO
1st : MOLEX
2st : P/N (SEE BOM)
3rd : DATE CODE(WEEK/YEAR)

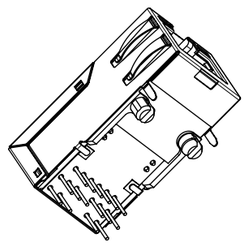


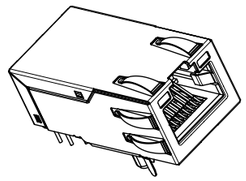
FRONT VIEW
LED VERSION
P/N SEE BOM ON SHEET 3





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: 101432 2015/09/24
DRWN: MFURKEL 2016/02/15
CHK'D: RSILLER 2016/02/15
APPR: RSILLER

REV: D

QUALITY SYMBOLS
E = 0
C = 0
P = 0
▼ = 0
V = 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: 2:1
DRWN BY: MFURKEL DATE: 2015/06/15
CHK'D BY: DATE:
APPR BY: RSILLER DATE: 2015/07/02
DRAWING SIZE: A3
THIRD ANGLE PROJECTION

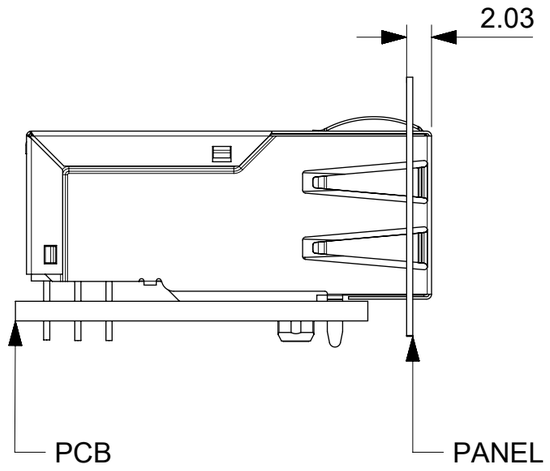
molex

GIGABIT MAGNETIC JACK 1X1 LED

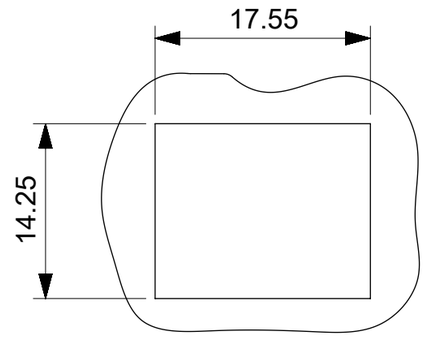
PRODUCT CUSTOMER DRAWING

SERIES	MATERIAL NUMBER	CUSTOMER
85793	SEE BOM/ SHEET 3/4	

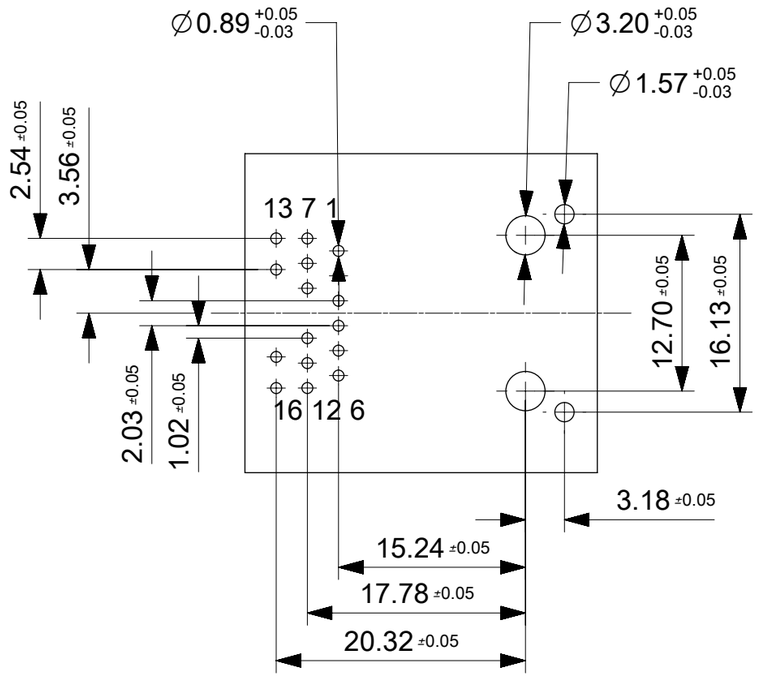
DOCUMENT NUMBER	DOC TYPE	DOC PART	SHEET NUMBER
857931001	PSD	000	1 OF 4



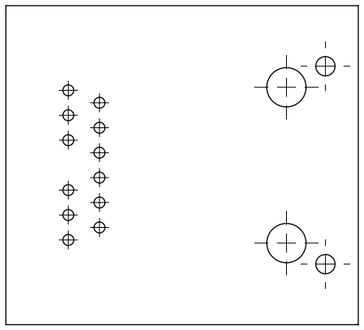
SUGGESTED PANEL CUTOUT



SUGGESTED BOARD LAYOUT- COMPONENT SIDE



SUGGESTED BOARD LAYOUT
FOR NON LED VERSION



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EC DESCRIPTION
EC NO: 101432 2015/09/24
DRWN: MFURKEL 2016/02/15
CHK'D: RSILLER 2016/02/15
APPR: RSILLER

REV: D

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: 2:1
DRWN BY: MFURKEL DATE: 2015/06/15
CHK'D BY: DATE:
APPR BY: RSILLER DATE: 2015/07/02
DRAWING SIZE: A3
THIRD ANGLE PROJECTION

molex

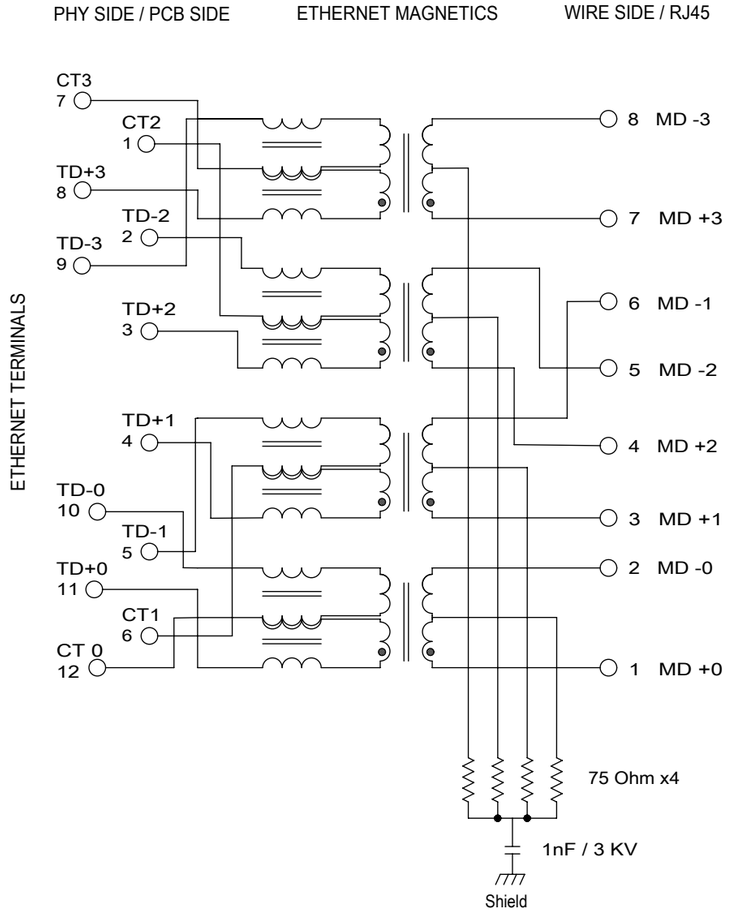
GIGABIT MAGNETIC JACK 1X1 LED

PRODUCT CUSTOMER DRAWING

SERIES	MATERIAL NUMBER	CUSTOMER
85793	SEE BOM/ SHEET 3/4	

DOCUMENT NUMBER	DOC TYPE	DOC PART	SHEET NUMBER
857931001	PSD	000	2 OF 4

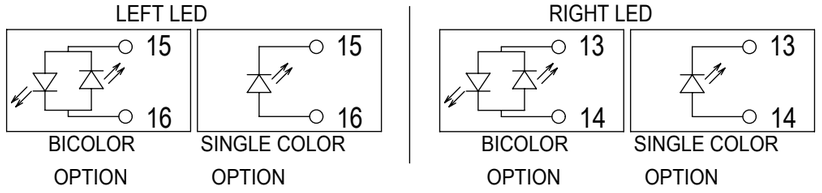
Electrical Specifications @25°C		
Operating temperature (0°C to +70°C)		
Description	VALUE	
OCL 8mA bias (0°C to +70°C)	350µH min.	
Turns Ratio	1CT:1CT	
Insertion Loss		
Frequency (MHz)	Limits (dB max.)	Typical Values (dB max.)
1.0-9.9 MHz	0.4+0.1*log(F)	0.5 @ 10MHz
10-49.9 MHz	0.5+0.3*log(F/10)	0.7 @ 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	



STANDARD VERSION

PART NUMBER	LED1 POLARITY			LED2 POLARITY		
	LEFT LED			RIGHT LED		
	PIN15	PIN16	COLOR	PIN13	PIN14	COLOR
857931001	-	+	GRN	-	+	GRN
0°C~+70°C						
857931003	-	+	GRN	-	+	GRN
0°C~+70°C	+	-	ORG			
857931006	-	+	GRN	-	+	YW
0°C~+70°C						
857931007	-	+	GRN	-	+	GRN
0°C~+70°C	+	-	YW			
857931010	-	+	GRN	-	+	YW
0°C~+70°C	+	-	YW	+	-	GRN
857931012	-	+	YW	-	+	GRN
0°C~+70°C	+	-	GRN			
857931013	-	+	YW	-	+	YW
0°C~+70°C	+	-	GRN	+	-	GRN
857931014	-	+	YW	-	+	GRN
0°C~+70°C						
857931020	NON LED					
0°C~+70°C						

ADDITIONAL LED COLORS AND CONFIGURATIONS ARE AVAILABLE ON REQUEST



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DRWN: MFURKEL 2016/02/15
CHK'D: RSILLER
APPR: RSILLER 2016/02/15
REV D

QUALITY SYMBOLS
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= 0
= 0
= 0
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1 PLACE ± 0.5
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DIMENSION UNITS: mm
SCALE: 5:1
DRWN BY: MFURKEL DATE: 2015/06/15
CHK'D BY: DATE:
APPR BY: RSILLER DATE: 2015/07/02
DRAWING SIZE: A3
THIRD ANGLE PROJECTION

molex

GIGABIT MAGNETIC JACK 1X1 LED

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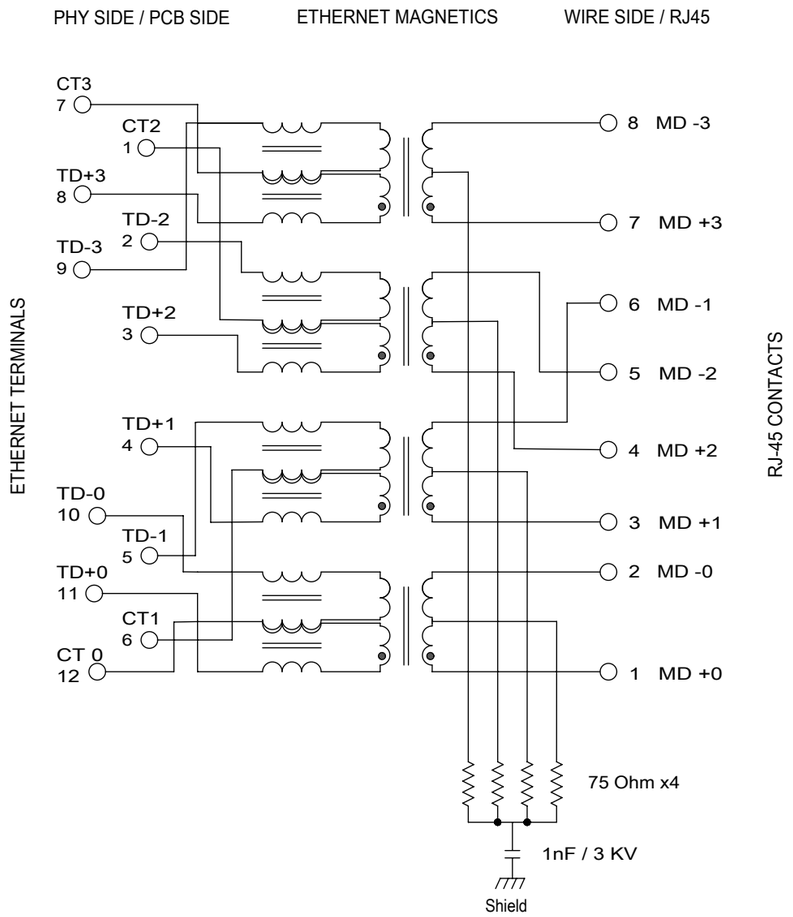
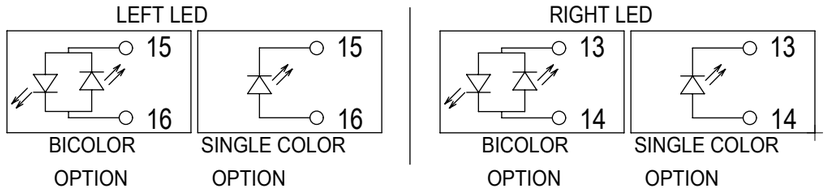


INDUSTRIAL VERSION / HIGH TEMP

857933006	-	+	GRN	-	+	YW
-40°C~+85°C						
857933007	-	+	GRN	-	+	GRN
-40°C~+85°C	+	-	YW			

ADDITIONAL LED COLORS AND CONFIGURATIONS ARE AVAILABLE ON REQUEST



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APPR: RSILLER 2016/02/15

REV: D

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= 0
= 0
= 0
= 0
= 0
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DOCUMENT NUMBER	DOC TYPE	DOC PART	SHEET NUMBER
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