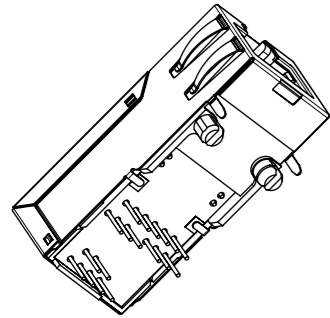
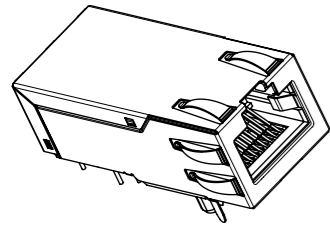
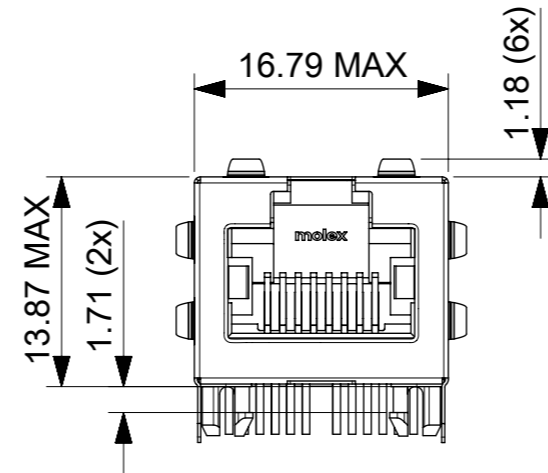


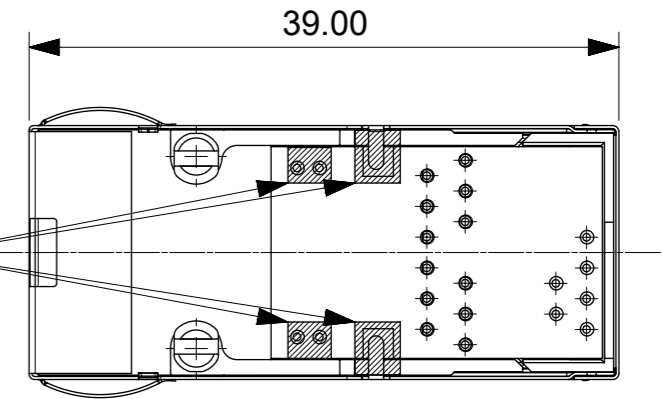
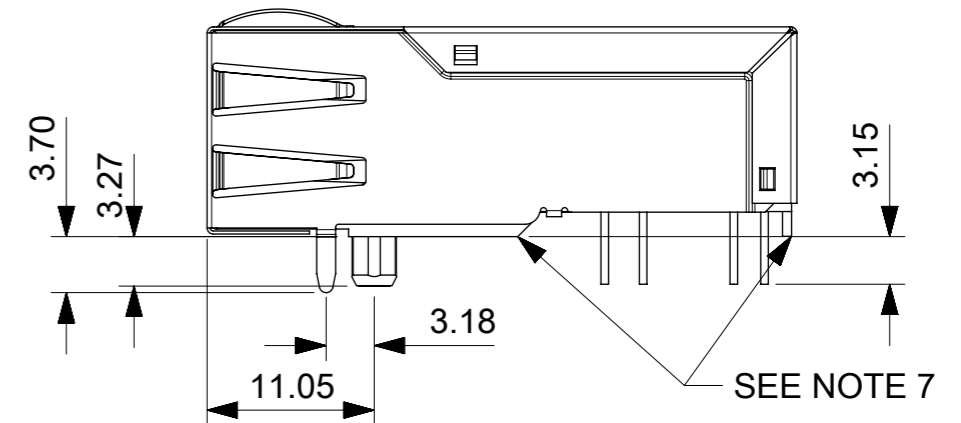
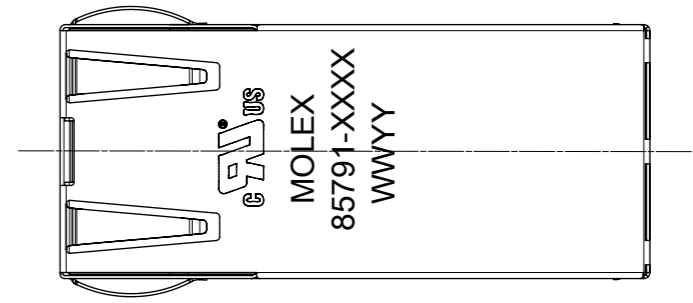
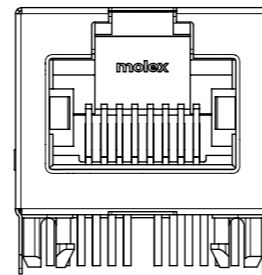
PDJack™ GIGABIT SINGLE PORT MAGNETIC JACK WITH INTEGRATED POWER OVER ETHERNET PLUS POWERED DEVICE (PD) CONTROLLER AND BRIDGE RECTIFIERS



SCALE 1:1



NO SHIELD
SPRING VERSION
85791-4420



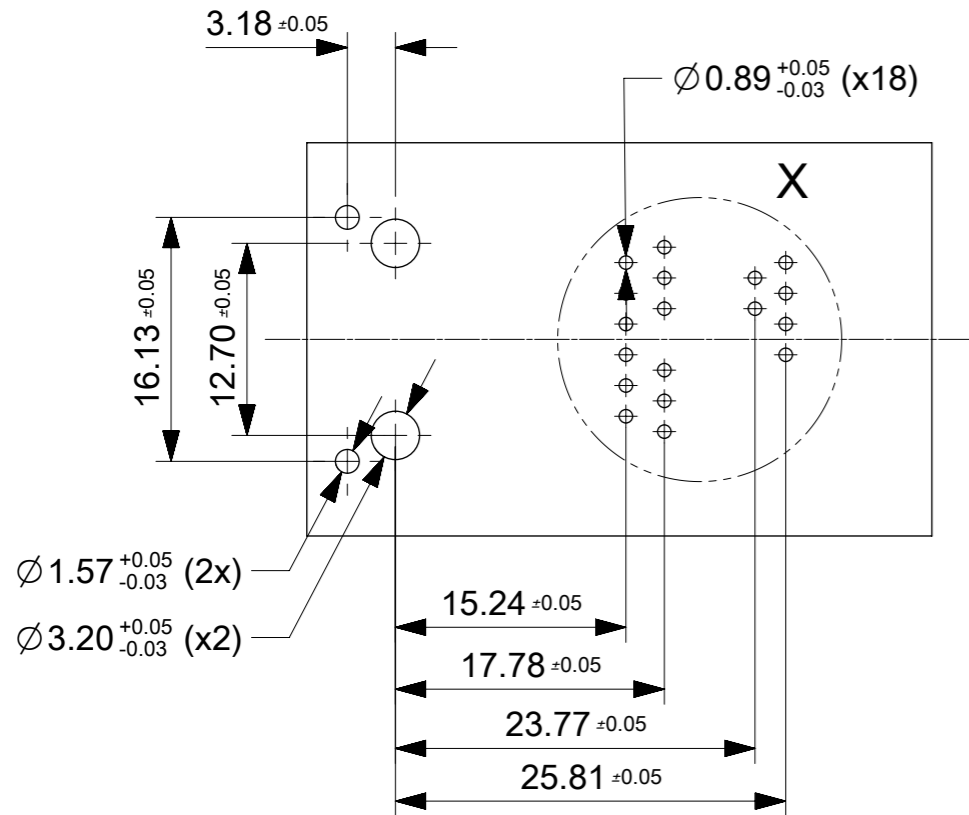
NOTES:

- 1 - SHIELD MATERIAL: STAINLESS STEEL (GROUND PINS ARE TIN 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-85791-001
- 6 - PACKAGING SPECIFICATION: PK-85759-001
- 7 - STAND OFF TO SYSTEM BOARD
- 8 - STUBBED PINS AND SHIELD LATCHES: AVOID TO ROUTE TRACES OR TO PLACE ANY VIAS OR PAD IN THIS AREA
- 9 - RECOMMENDED PCB THICKNESS: 1.6mm
- 10 - INSCRIPTION MARKED BY LASER:
UL LOGO
1st : MOLEX
2st : P/N (SEE BOM)
3rd : DATE CODE(WEEK/YEAR)

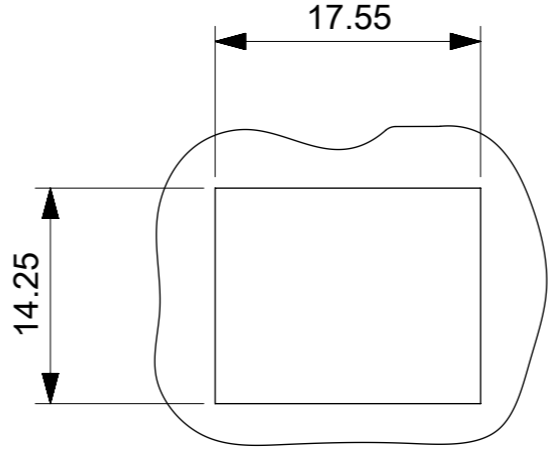
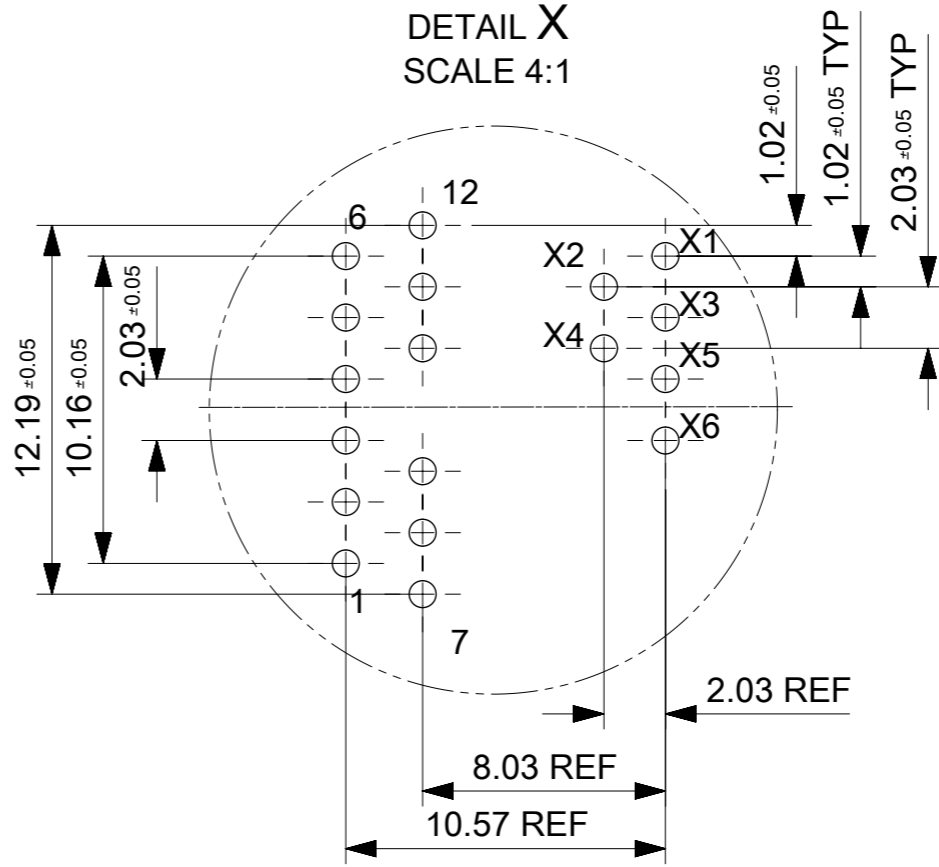
THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION

EC DESCRIPTION EC NO: 102944 DRWN: MFURKEL CHK'D: CBRUNS APPR: CBRUNS	2015/09/28 2016/03/14 2016/03/14	QUALITY SYMBOLS ▽ = 0 ▽ = 0 ▽ = 0 ▼ = 0 ▽ = 0 ☒ = 0 ■ = 0 ▽ = 0	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION UNITS SCALE mm 2:1								
	DRWN BY DATE MFURKEL 2015/06/10		ANGULAR TOL ± 0.5 °		CHK'D BY DATE								
	APPR BY DATE CBRUNS 2016/03/14		4 PLACES ± 3 PLACES ± 2 PLACES ± 0.25 1 PLACE ± 0.5 0 PLACES ±		DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		DRAWING SIZE THIRD ANGLE PROJECTION A3		PRODUCT CUSTOMER DRAWING				
	EC NO: 102944 DRWN: MFURKEL CHK'D: CBRUNS APPR: CBRUNS		DRWN BY DATE MFURKEL 2015/06/10		CHK'D BY DATE CBRUNS 2016/03/14		APPR BY DATE CBRUNS 2016/03/14		SERIES MATERIAL NUMBER CUSTOMER 85791 SEE BOM / SHEET 3		DOCUMENT NUMBER DOC TYPE DOC PART SHEET NUMBER 857910020 PSD 000 1 OF 3		

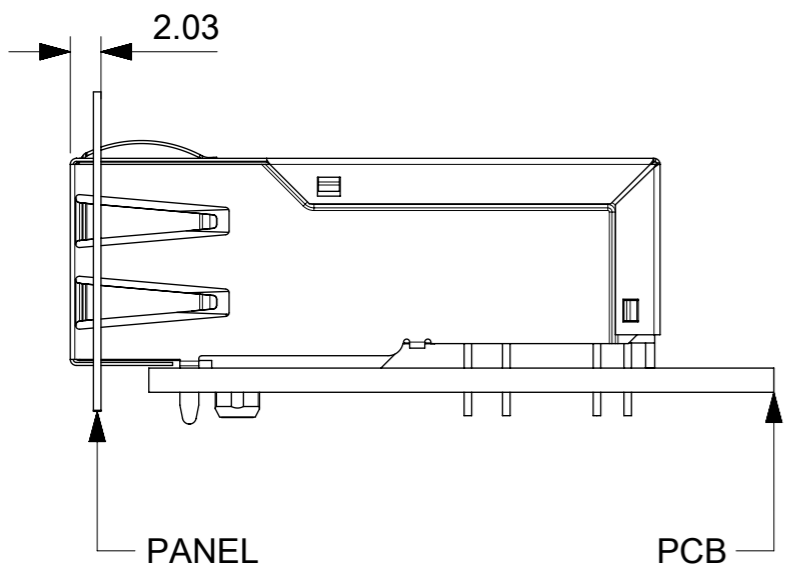
SUGGESTED BOARD LAYOUT - COMPONENT SIDE



PIN CONFIGURATION



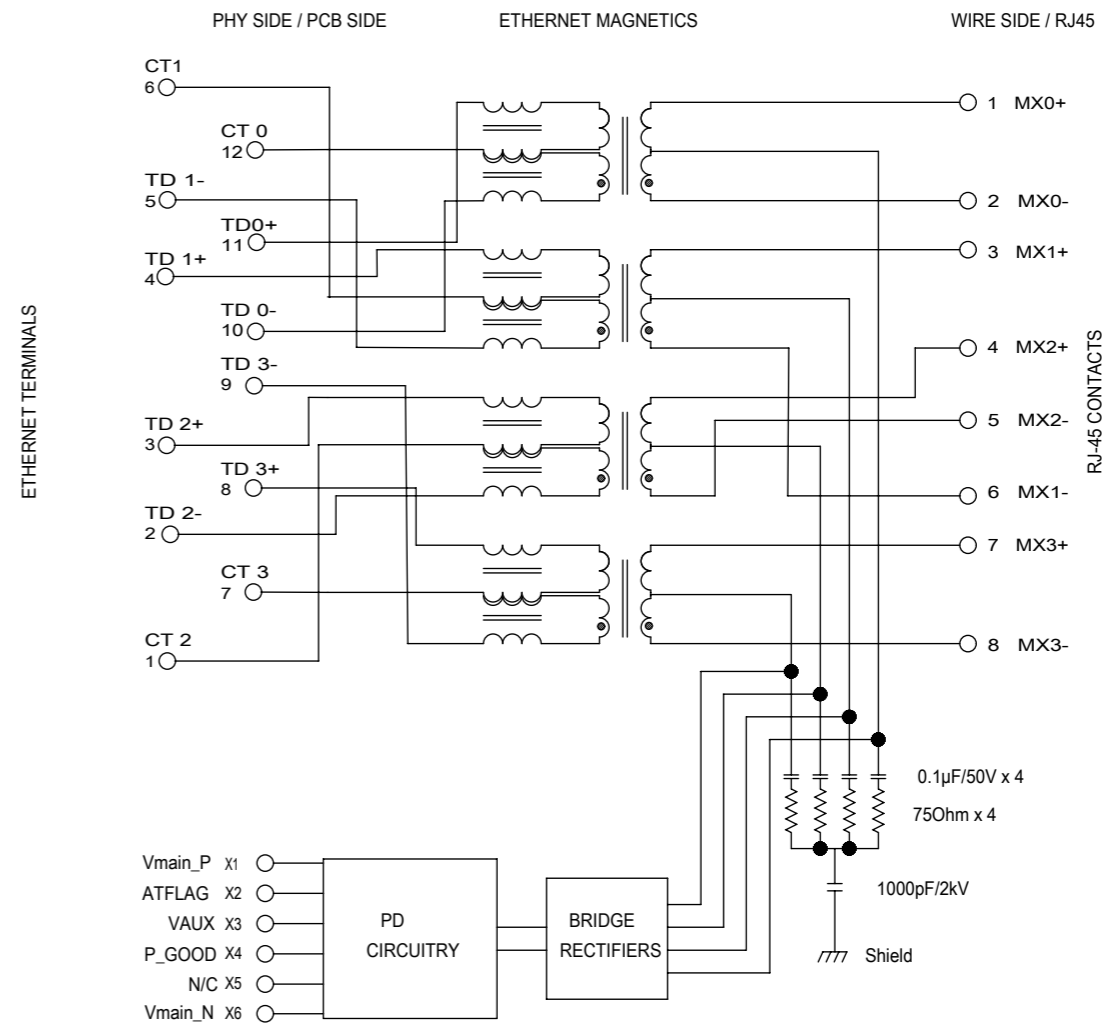
SUGGESTED PANEL CUTOUT



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EC DESCRIPTION EC NO: 102944 DRWN: MFURKEL CHK'D: CBRUNS APPR: CBRUNS	2015/09/28 2016/03/14 2016/03/14	QUALITY SYMBOLS ▽ = 0 ▽ = 0 ▽ = 0 ▼ = 0 ▽ = 0 ☒ = 0 ■ = 0 ▽ = 0	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION UNITS mm		SCALE 2:1					
			ANGULAR TOL ± 0.5 °		DRWN BY MFURKEL		DATE 2015/06/10					
			4 PLACES ±		CHK'D BY CBRUNS		DATE 2016/03/14		PRODUCT CUSTOMER DRAWING			
			3 PLACES ±		APPR BY CBRUNS		DATE 2016/03/14					
2 PLACES ± 0.25		DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		DRAWING SIZE A3		THIRD ANGLE PROJECTION		DOCUMENT NUMBER 857910020		DOC TYPE PSD	DOC PART 000	SHEET NUMBER 2 OF 3

Electrical Specifications @25°C		
Operating temperature (SEE PART NUMBER)		
Description	VALUE	
OCL POE+TRANSF. 20mA bias	350µH min.	0/70°(0/55°Class4)
Turns Ratio	1CT:1CT	
Insertion Loss		Typical Values (dB max.)
Frequency (MHz)	Limits (dB max.)	0.5 @ 10MHz
1.0-9.9 MHz	0.4+0.1*log(F)	0.7 @ 50MHz
10-49.9 MHz	0.5+0.3*log(F/10)	1.0 @ 80MHz
50-79.9 MHz	1+1.4*log(F/80)	1.3 @ 100MHz
80-100 MHz	1.3+3*log(F/100)	
Return Loss		TYPICAL Values (dB min.)
Frequency (MHz)	Limits (dB min.)	27 @ 10MHz
1-9.9 MHz	27dB min.	10 @ 100MHz
10-100 MHz	27-17*log(F/10)	
CMR		TYPICAL Values (dB min.)
Frequency (MHz)	Limits (dB min.)	34 @ 10MHz
1-9.9 MHz	34dB min.	27 @ 80MHz
10-79.9 MHz	27dB min.	21.5 @ 200MHz
80-199.9 MHz	27-14.5*log(F/80)	10 @ 400MHz
200-399.9 MHz	21.5-39*log(F/200)	10 @ 1000MHz
400-1000 MHz	10	
NEXT		TYPICAL Values (dB min.)
Frequency (MHz)	Limits (dB min.)	50 @ 6MHz
1-5.9 MHz	50	34 @ 50MHz
6-49.9 MHz	45-16*log(F/10)	25 @ 100MHz
50-100 MHz	25-30*log(F/100)	
Isolation PHY to Wire side	2.25kVDC/60sec	



PIN	NAME	FUNCTION
X1	Vmain_P	Output voltage from PDJack(TM)
X2	ATFLAG (LOW)	Indicates 2 Event Classification was detected. Indicates PoE+ power levels available (Class 4 devices only)
X3	VAUX	Nominal voltage of 10.5V. Used as a startup supply for an external DC/DC controller.
X4	P_GOOD (LOW)	Indicates power good status
X5	N/C	
X6	Vmain_N	Vmain reference

PART NUMBER	CONNECTOR CONFIGURATION	CLASS / MAX POWER	OPERATING TEMPERATURE
857910020	GIGABIT POE PLUS PDJack(TM)-ICM	0 / 13W	0°C TO +70°C
857911020	GIGABIT POE PLUS PDJack(TM)-ICM	1 / 3,84W	0°C TO +70°C
857912020	GIGABIT POE PLUS PDJack(TM)-ICM	2 / 6,49W	0°C TO +70°C
857913020	GIGABIT POE PLUS PDJack(TM)-ICM	3 / 13W	0°C TO +70°C
857914020	GIGABIT POE PLUS PDJack(TM)-ICM	4 / 25,5W	0°C TO +55°C
857914420	GIGABIT POE PLUS PDJack(TM)-ICM NO SHIELD SPRINGS / PAGE 1	4 / 25,5W	0°C TO +55°C

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EC DESCRIPTION EC NO: 102944 DRWN: MFURKEL CHK'D: CBRUNS APPR: CBRUNS	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 2015/06/10		GIGABIT POE PLUS PDJACK (TM) 1X1			
			CHK'D BY CBRUNS	DATE 2016/03/14			PRODUCT CUSTOMER DRAWING		
			APPR BY CBRUNS	DATE 2016/03/14		SERIES 85791		MATERIAL NUMBER SEE BOM / SHEET 3	CUSTOMER
F REV		A3		DRAWING SIZE A3	THIRD ANGLE PROJECTION	DOCUMENT NUMBER 857910020	DOC TYPE PSD	DOC PART 000	SHEET NUMBER 3 OF 3