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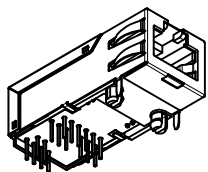
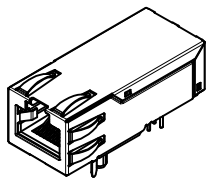
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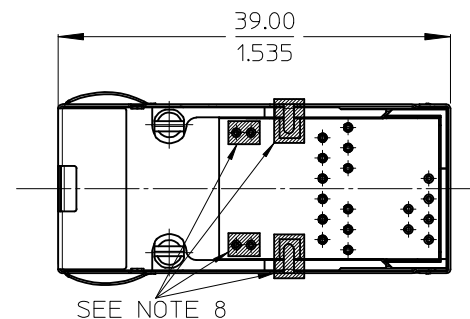
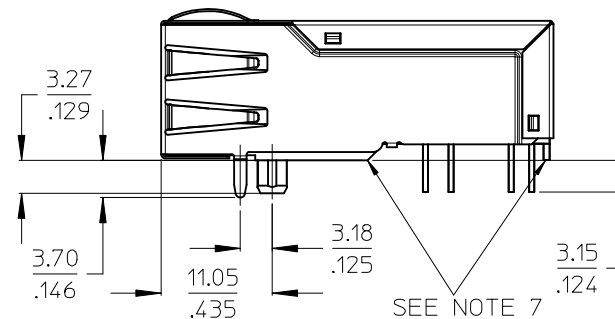
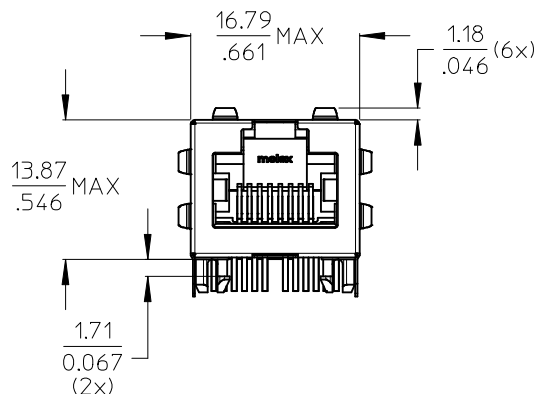
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**PDJack™ GIGABIT SINGLE PORT MAGNETIC JACK WITH
INTEGRATED POWER OVER ETHERNET PLUS POWERED
DEVICE (PD) CONTROLLER AND BRIDGE RECTIFIERS**



SCALE 1:1



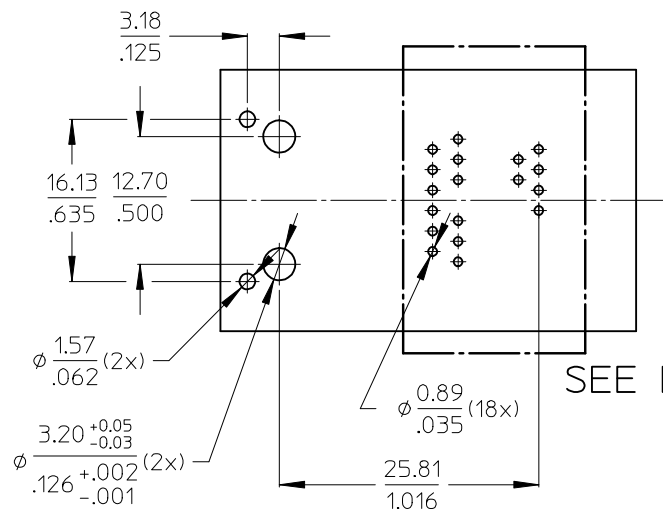
NOTES:

- 1 - SHIELD MATERIAL: STAINLESS STEEL
(GROUND PINS ARE TIN DIPPED)
- 2 - PLASTIC MATERIAL: PBT, BLACK, UL 94V-0
- 3 - EXCEEDS PRODUCT REQUIREMENTS BASED ON
PRODUCT SPECIFICATION PS-85791-001
CONTACTS MATERIAL: PHOSPHOR BRONZE
CONTACT PLATING: GOLD OR GOLD FLASH
OVER PALLADIUM NICKEL
- 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 / 0.067inch
- 10 - INSCRIPTION MARKED BY LASER:
1st : MOLEX
2st : P/N (SEE BOM)
3rd : DATE CODE(WEEK/YEAR)
UL LOGO (OPTIONAL)

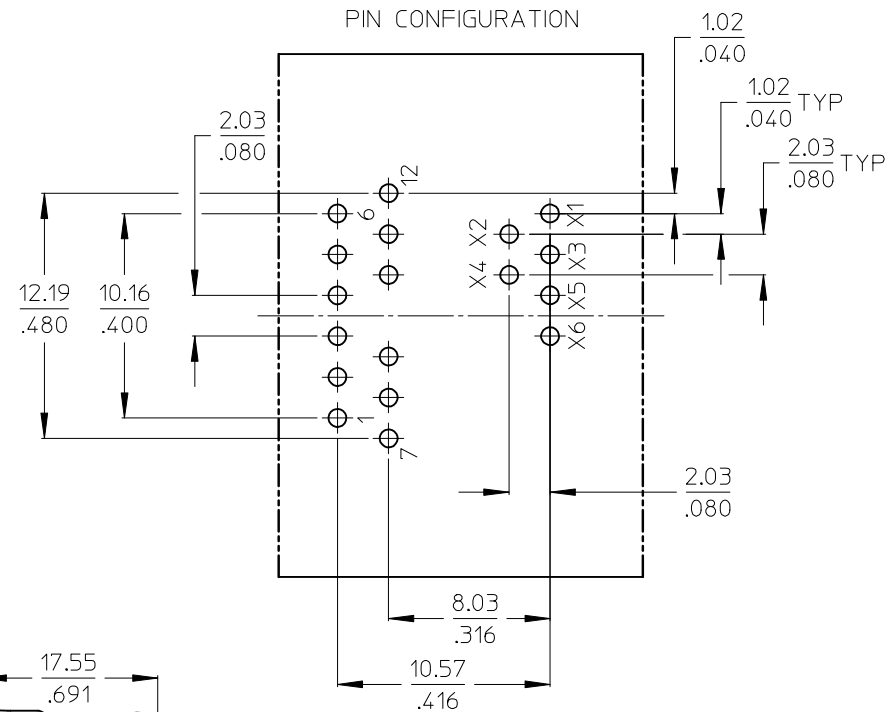
ENTER DESCRIPTION EC NO: MG2011-0056 DRWN: JBADER 2013/02/08 CHKD: MMANGARUDOV 2013/04/05 APPR: SSTEINKE 2014/04/25	DESCRIPTION	QUALITY SYMBOLS ▽=0 ◻=0	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE MM ONLY		SCALE 2:1	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION				
				mm	INCH	DRAWN BY MMANGARUDOV	DATE 2012/04/25	TITLE GIGABIT POE PLUS PDJACK(TM) 1X1					
			4 PLACES	± ---	± ---	CHECKED BY JBADER	DATE 2012/04/25						
			3 PLACES	± ---	± ---	APPROVED BY SSTEINKE		DATE 2012/06/18	MOLEX MOLEX INCORPORATED				
			2 PLACES	± 0.25	± ---								
			1 PLACE	± 0.50	± ---	MATERIAL NO.		DOCUMENT NO.	SHEET NO.				
			ANGULAR ± .5 °		SEE SHEET 3		SD-85791-002		1 OF 3				
			DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION								

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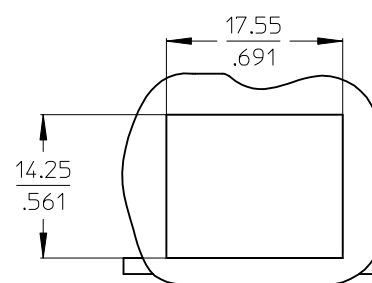
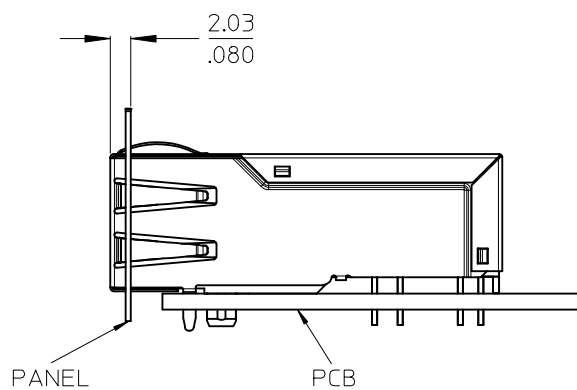
SUGGESTED BOARD LAYOUT - COMPONENT SIDE



PIN CONFIGURATION



DETAIL-3
SCALE 4:1



SUGGESTED PANEL CUTOUT

ENTER DESCRIPTION EC NO: MG2011-0056 DRWN:JBADER 2013/02/08 CHKD:MMANGARUDOV 2013/04/05 APPR:SSTEINKE 2014/04/25		DESCRIPTION	QUALITY SYMBOLS ▽=0 ◻=0	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE MM ONLY		SCALE 2:1	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION		
					mm	INCH	DRAWN BY MMANGARUDOV	DATE 2012/04/25	TITLE GIGABIT POE PLUS PDJACK(TM) 1X1			
				4 PLACES	± ---	± ---	CHECKED BY JBADER	DATE 2012/04/25				
				3 PLACES	± ---	± ---	APPROVED BY SSTEINKE	DATE 2012/06/18	MOLEX INCORPORATED			
				2 PLACES	± 0.25	± ---	MATERIAL NO.					
D		REV		DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		SEE SHEET 3		SD-85791-002				
				THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION								

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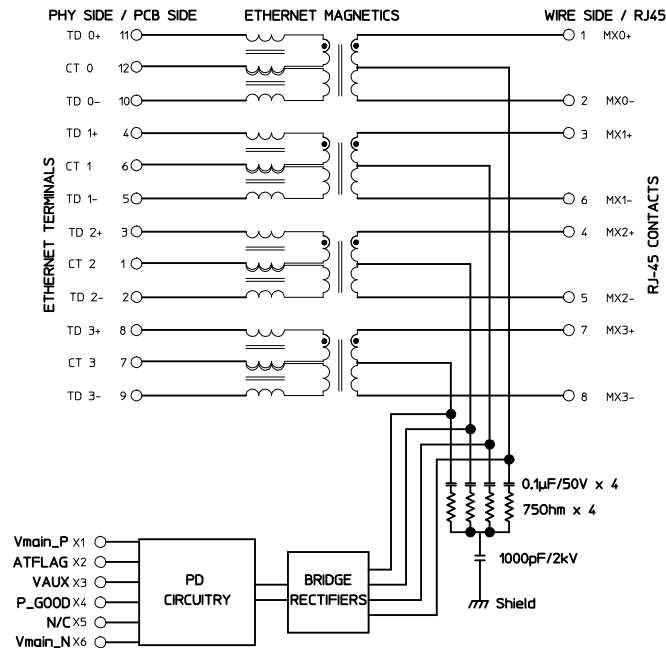
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Electrical Specifications @25°C		
Operating temperature (SEE PART NUMBER)		
Description	Value	
OCL POE+TRANSF. 20mA bias	350uH min.	0/70°(0/55°C)class4)
Turns Ratio	1CT:1CT	
Insertion Loss		Typical Values (dB max.)
Frequency (MHz)	Limits (dB max.)	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
85791-0020	GIGABIT POE PLUS PDJack(TM)-ICM	0 / 13W	0°C TO +70°C
85791-1020	GIGABIT POE PLUS PDJack(TM)-ICM	1 / 3,84W	0°C TO +70°C
85791-2020	GIGABIT POE PLUS PDJack(TM)-ICM	2 / 6,49W	0°C TO +70°C
85791-3020	GIGABIT POE PLUS PDJack(TM)-ICM	3 / 13W	0°C TO +70°C
85791-4020	GIGABIT POE PLUS PDJack(TM)-ICM	4 / 25,5W	0°C TO +55°C

DIMENSION STYLE	SCALE	DESIGN UNITS	THIRD ANGLE PROJECTION
MM ONLY	5:1	METRIC	
MMANGARUDOV 2012/04/25			
JBADER 2012/04/25			
SSTEINKE 2012/06/18			
M-	DOCUMENT NO.		SHEET NO.
SEE BOM			3 OF 3
A3	THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION		