Excellent Integrated System Limited

Stocking Distributor

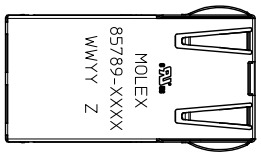
Click to view price, real time Inventory, Delivery & Lifecycle Information:

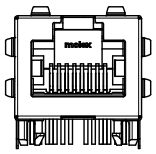
Molex Connector Corporation
0857891001

For any questions, you can email us directly:
sales@integrated-circuit.com

EIS electronic components
Distributor of Molex Connector Corporation: Excellent Integrated System Limited
Datasheet of 0857891001 - CONN MAGJACK 1PORT 1000 BASE-T
Contact us: sales@integrated-circuit.com Website: www.integrated-circuit.com

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

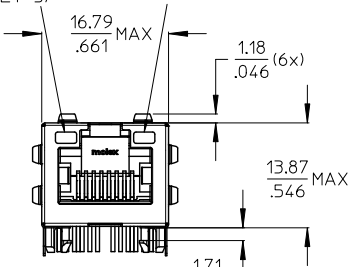




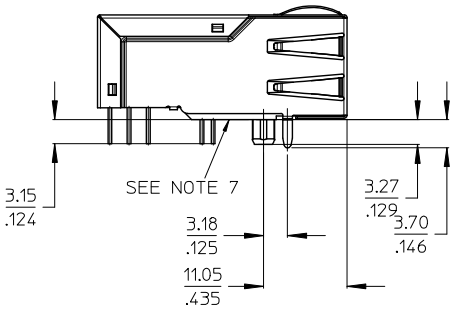
FRONT VIEW
NON LED VERSION
P/N 85789-1020

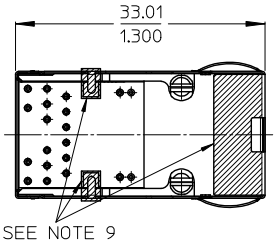
LEFT LED
(SEE SHEET 3)

RIGHT LED
(SEE SHEET 3)

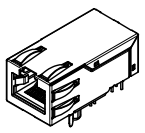


FRONT VIEW
LED VERSION
P/N SEE BOM ON SHEET 3

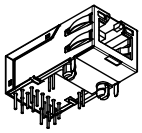




NOTES:
1 - SHIELD MATERIAL: STAINLESS STEEL
(GROUND PINS ARE SOLDER DIPPED)
2 - PLASTIC MATERIAL: PBT, BLACK, UL 94V-0
3 - TERMINALS MATERIAL: PHOSPOR BRONZE
RJ45 CONTACTS PLATING: 0.76 MICROMETER GOLD
OVER 1.9 MICROMETER NICKEL ON MATING AREA
SOLDER TERMINALS: 3 MICROMETER TIN
4 - MATING INTERFACE ACCORDING 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



NON LED VERSION
SCALE 1:1



LED VERSION
SCALE 1:1

NOTES UPDATE
EC NO: DESCRIPTION
DRWN:MMANGARUDOV 2014/11/28
CHKD:DBYRNES 2014/12/05
APPR:SSTEINKE 2014/12/22
REV: D

QUALITY SYMBOLS
▼=0
▽=0

GENERAL TOLERANCES (UNLESS SPECIFIED)	mm	INCH
4 PLACES	± ---	± ---
3 PLACES	± ---	± .010
2 PLACES	± 0.25	± .020
1 PLACE	± 0.5	± ---
0 PLACE	±	±
ANGULAR ± .5 °		

DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS

DIMENSION STYLE	MM/IN
SCALE	2:1
DESIGN UNITS	METRIC
	THIRD ANGLE PROJECTION
DRAWN BY / DATE	JBADER 2010/01/14
CHECKED BY / DATE	MMANGARUDOV 2010/01/14
APPROVED BY / DATE	SSTEINKE 2010/03/09
MATERIAL NO.	SEE SHEET 3/4
TITLE	GIGABIT MAGNETIC JACK POE PLUS ENABLED 1X1
DOCUMENT NO.	SD-85789-001
SHEET NO.	1 OF 4
SIZE	A3

molex

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Datasheet of 0857891001 - CONN MAGJACK 1PORT 1000 BASE-T
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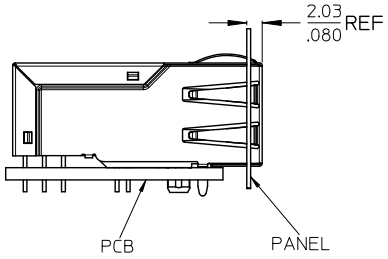
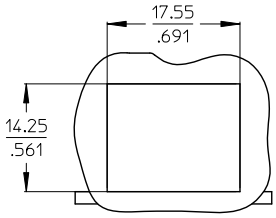
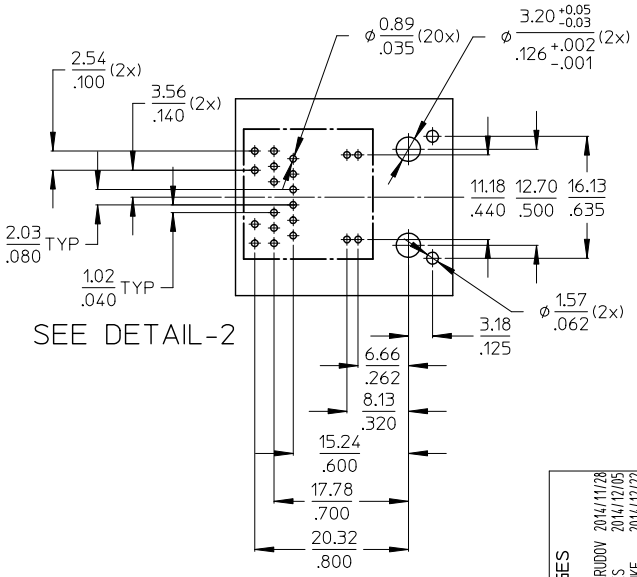




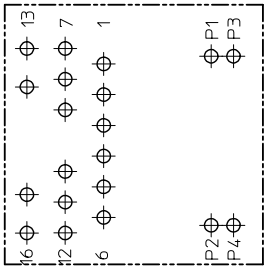
SUGGESTED PANEL CUTOUT

SUGGESTED BOARD LAYOUT - COMPONENT SIDE



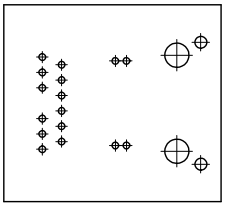
SEE DETAIL-2

PIN CONFIGUARTION



DETAIL-2
SCALE 4:1

SUGGESTED BOARD LAYOUT
NON LED VERSION



NO CHANGES				D
EC NO:	DRWN:MMANGARUDOV	CHKD:DBYRNES	APPR:SSTEINKE	REV
	2014/11/28	2014/12/05	2014/12/22	

DESCRIPTION

QUALITY SYMBOLS
▼=0
▽=0

GENERAL TOLERANCES (UNLESS SPECIFIED)

	mm	INCH
4 PLACES	± ---	± ---
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1 PLACE	± 0.5	± ---
0 PLACE	±	±

ANGULAR ± .5 °

DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS

DIMENSION STYLE	MM/IN
SCALE	2:1
DESIGN UNITS	METRIC
	THIRD ANGLE PROJECTION
DRAWN BY	JBADER
DATE	2010/01/14
CHECKED BY	MMANGARUDOV
DATE	2010/01/14
APPROVED BY	SSTEINKE
DATE	2010/03/09
MATERIAL NO.	SEE SHEET 3/4
TITLE	GIGABIT MAGNETIC JACK POE PLUS ENABLED 1X1
DOCUMENT NO.	SD-85789-001
SHEET NO.	2 OF 4
SIZE	A3

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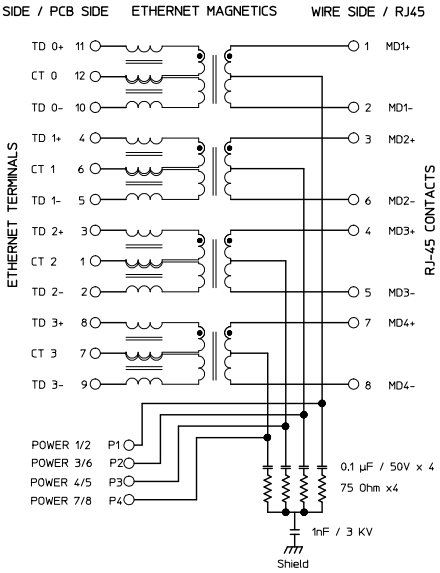
Datasheet of 0857891001 - CONN MAGJACK 1PORT 1000 BASE-T
Contact us: sales@integrated-circuit.com Website: www.integrated-circuit.com

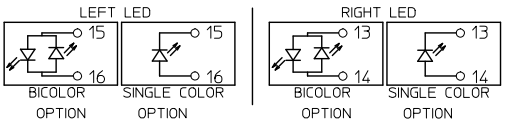
Electrical Specifications @25°C		
Operating temperature (0°C to +70°C)		
Description	Value	
OCL POE+TRANSF. 20mA bias (0°C to +70°C)	350µH min.	
OCL NONPOE TRANSF. 8mA bias (0°C to +70°C)	350µH min.	
Turns Ratio	1CT:1CT	
Insertion Loss		
Frequency (MHz)	Limits (dB max.)	Typical Values (dB max.)
1.0-9.9 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	LED1 POLARITY			LED2 POLARITY		
	LEFT LED			RIGHT LED		
	PIN15	PIN16	COLOR	PIN13	PIN14	COLOR
85789-1001	-	+	GREEN	-	+	GREEN
85789-1003	-	+	GREEN	-	+	GREEN
	+	-	ORANGE			
85789-1006	-	+	GREEN	-	+	YELLOW
85789-1007	-	+	GREEN	-	+	GREEN
	+	-	YELLOW			
85789-1012	-	+	YELLOW	-	+	GREEN
	+	-	GREEN			
85789-1013	-	+	YELLOW	-	+	YELLOW
	+	-	GREEN	+	-	GREEN
85789-1014	-	+	YELLOW	-	+	GREEN
85789-1015	-	+	YELLOW	-	+	GREEN
	+	-	GREEN			
85789-1017	-	+	GREEN	-	+	YELLOW
	+	-	ORANGE			
85789-1020	NON LED					

ADDITIONAL LED COLORS AND CONFIGURATIONS AVAILABLE ON REQUEST

SEE TABLE FOR LED OPTIONS



NO CHANGES
EC NO:
DRWN:MMANGARUDOV 2014/11/28
CHKD:DBYRNES 2014/12/05
APPR:SSTEINKE 2014/12/22
REV D
DESCRIPTION

QUALITY SYMBOLS
▼=0
▽=0

GENERAL TOLERANCES (UNLESS SPECIFIED)

	mm	INCH
4 PLACES	± ---	± ---
3 PLACES	± ---	± .010
2 PLACES	± 0.25	± .020
1 PLACE	± 0.5	± ---
0 PLACE	±	±

ANGULAR ± .5 °

DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS

DIMENSION STYLE: MM/IN
SCALE: 5:1
DESIGN UNITS: METRIC
THIRD ANGLE PROJECTION

		DATE
DRAWN BY	JBADER	2010/01/14
CHECKED BY	MMANGARUDOV	2010/01/14
APPROVED BY	SSTEINKE	2010/03/09

TITLE: GIGABIT MAGNETIC JACK POE PLUS ENABLED 1X1

molex

MATERIAL NO.: SEE BOM
DOCUMENT NO.: SD-85789-001
SHEET NO.: 3 OF 4
SIZE: A3

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Operating temperature (-40°C to +85°C)		
Description	Value	
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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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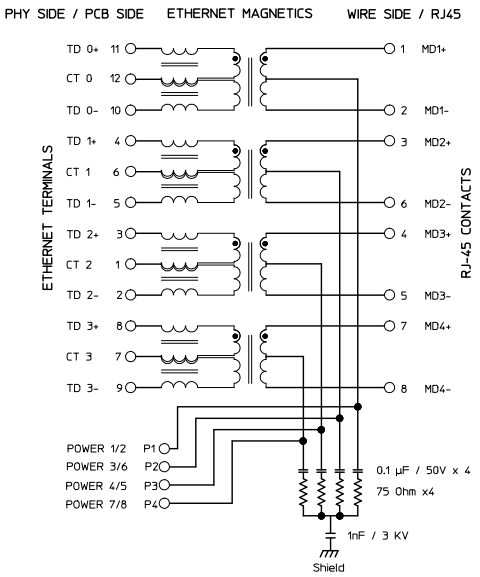
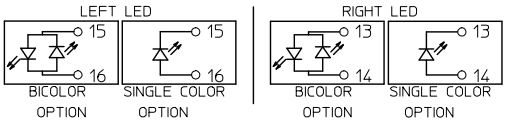
6-49.9 MHz	45-16*log(F/10)	34 @ 50MHz
50-100 MHz	25-30*log(F/100)	25 @ 100MHz
Isolation PHY to Wire side	2.25kVDC/60sec	



PART NUMBER	LED1 POLARITY			LED2 POLARITY		
	LEFT LED			RIGHT LED		
	PIN15	PIN16	COLOR	PIN13	PIN14	COLOR
85789-3006	-	+	GREEN	-	+	YELLOW
85789-3016	-	+	GREEN	+	-	GREEN
	+	-	YELLOW			

ADDITIONAL LED COLORS AND CONFIGURATIONS AVAILABLE ON REQUEST



SEE TABLE FOR LED OPTIONS

BOM CHANGED
EC NO: DRWN:MMANGARUDOV 2014/11/28
CHKD:DBYRNES 2014/12/05
APPR:SSTEINKE 2014/12/22
REV D
DESCRIPTION

QUALITY SYMBOLS
▼=0
▽=0

GENERAL TOLERANCES (UNLESS SPECIFIED)

	mm	INCH
4 PLACES	± ---	± ---
3 PLACES	± ---	± .010
2 PLACES	± 0.25	± .020
1 PLACE	± 0.5	± ---
0 PLACE	±	±

ANGULAR ± .5 °

DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS

DIMENSION STYLE: MM/IN
SCALE: 5:1
DESIGN UNITS: METRIC
THIRD ANGLE PROJECTION

DRAWN BY: JBADER DATE: 2010/01/14
CHECKED BY: MMANGARUDOV DATE: 2010/01/14
APPROVED BY: SSTEINKE DATE: 2010/03/09
MATERIAL NO.: SEE BOM

TITLE: GIGABIT MAGNETIC JACK POE PLUS ENABLED 1X1
molex
DOCUMENT NO.: SD-85789-001
SHEET NO.: 4 OF 4
SIZE: A3

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tb_frame_A3_P_AM_T
Rev E1 2012/01/25

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Datasheet of 0857891001 - CONN MAGJACK 1PORT 1000 BASE-T
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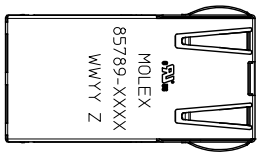
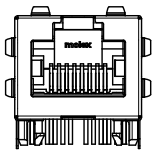
GIGABIT SINGLE PORT MAGNETIC JACK
PoE+ MAGNETICS ACC. TO IEEE802.3at
FOR PSE OR PD APPLICATIONS

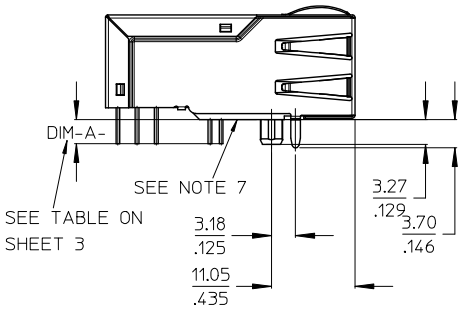


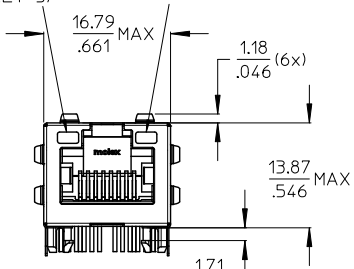


FRONT VIEW
NON LED VERSION
P/N SEE BOM ON SHEET 3

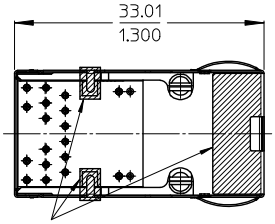
LEFT LED
(SEE SHEET 3)

RIGHT LED
(SEE SHEET 3)





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



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1st : MOLEX
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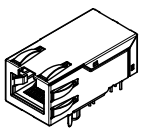
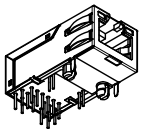


NON LED VERSION
SCALE 1:1



LED VERSION
SCALE 1:1

NOTES UPDATE
EC NO: DESCRIPTION
DRWN:MMANGARUDOV 2014/11/28
CHKD:OBYRNES 2014/12/05
APPR:SSTEINKE 2014/12/22
REV B

QUALITY SYMBOLS
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▽=0

GENERAL TOLERANCES (UNLESS SPECIFIED)

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ANGULAR ± .5 °
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS

DIMENSION STYLE	MM/IN
SCALE	2:1
DESIGN UNITS	METRIC
	THIRD ANGLE PROJECTION
DRAWN BY / DATE	JBADER 2014/04/25
CHECKED BY / DATE	MMANGARUDOV 2014/05/05
APPROVED BY / DATE	SSTEINKE 2014/06/11
MATERIAL NO.	SEE SHEET 3
DOCUMENT NO.	SD-85789-401
SHEET NO.	1 OF 3
SIZE	A3

TITLE: GIGABIT MAGNETIC JACK
POE PLUS ENABLED 1X1

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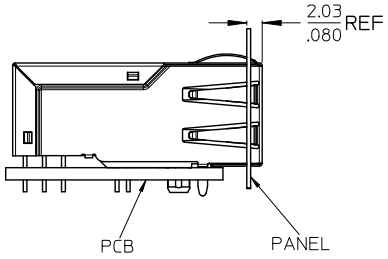
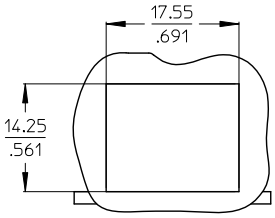
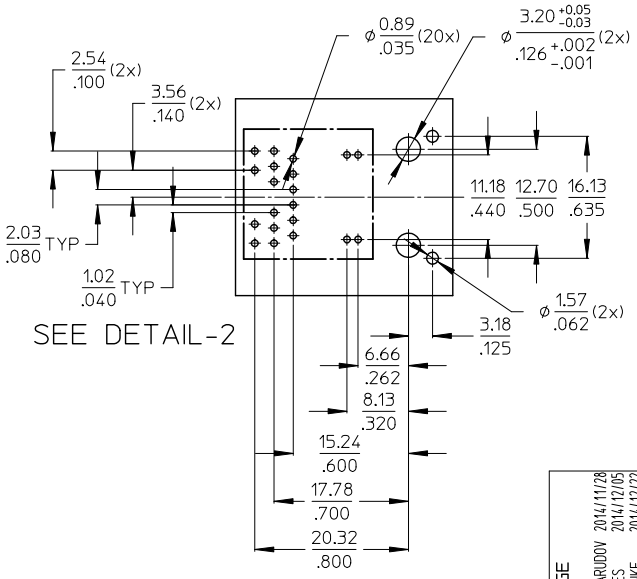
Contact us: sales@integrated-circuit.com Website: www.integrated-circuit.com





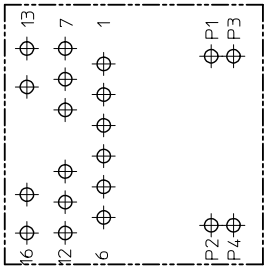
SUGGESTED PANEL CUTOUT

SUGGESTED BOARD LAYOUT - COMPONENT SIDE



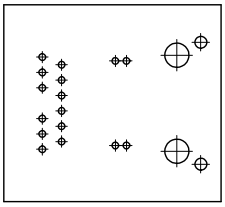
SEE DETAIL-2

PIN CONFIGUARTION



DETAIL-2
SCALE 4:1

SUGGESTED BOARD LAYOUT
NON LED VERSION



NO CHANGE	QUALITY SYMBOLS	GENERAL TOLERANCES (UNLESS SPECIFIED)
EC NO:	▼=0	mm / INCH
DRWN:MMANGARUDOV 2014/11/28	▽=0	4 PLACES ± --- / ± ---
CHKD:DBYRNES 2014/12/05		3 PLACES ± --- / ± .010
APPR:SSTEINKE 2014/12/22		2 PLACES ± 0.25 / ± .020
DESCRIPTION		1 PLACE ± 0.5 / ± ---
		0 PLACE ± / ±
		ANGULAR ± .5 °
		DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS
B		
REV		

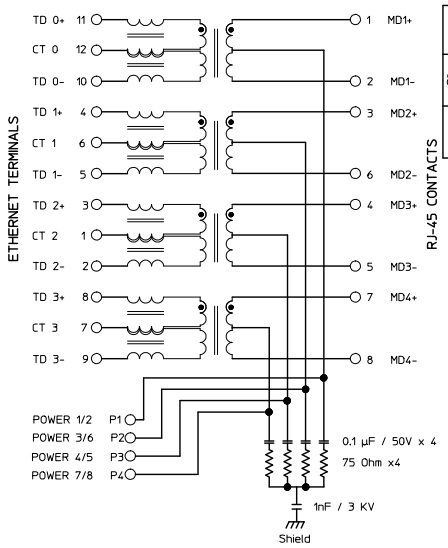
DIMENSION STYLE: MM/IN	SCALE: 2:1	DESIGN UNITS: METRIC	THIRD ANGLE PROJECTION
DRAWN BY: JBADER DATE: 2014/04/25	TITLE: GIGABIT MAGNETIC JACK POE PLUS ENABLED 1X1		
CHECKED BY: MMANGARUDOV DATE: 2014/05/05			
APPROVED BY: SSTEINKE DATE: 2014/06/11	molex		
MATERIAL NO.: SEE SHEET 3	DOCUMENT NO.: SD-85789-401	SHEET NO.: 2 OF 3	
SIZE: A3	THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION		

tb_frame_A3_P_AM_T
Rev E1 2012/01/25

Distributor of Molex Connector Corporation: Excellent Integrated System Limited
Datasheet of 0857891001 - CONN MAGJACK 1PORT 1000 BASE-T
Contact us: sales@integrated-circuit.com Website: www.integrated-circuit.com

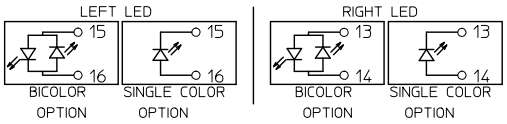
Electrical Specifications @25°C		
Operating temperature (-40°C to +85°C)		
Description	Value	
OCL POE+TRANSF. 20mA bias (-40°C to +85°C)	350μH min.	
OCL NONPOE TRANSF. 8mA bias (-40°C to +85°C)	350μH min.	
Turns Ratio	1CT:1CT	
Insertion Loss		
Frequency (MHz)	Limits (dB max.)	Typical Values (dB max.)
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	

PHY SIDE / PCB SIDE ETHERNET MAGNETICS WIRE SIDE / RJ45



PART NUMBER	DIM-A- SHEET 1	LED1 POLARITY LEFT LED PIN15	PIN16	COLOR	LED2 POLARITY RIGHT LED PIN13	PIN14	COLOR
85789-4008	2.50mm	-	+	GREEN	-	+	GREEN
		+	-	YELLOW	+	-	YELLOW
85789-4020	2.50mm	NON LED					

ADDITIONAL LED COLORS AND CONFIGURATIONS ARE AVAILABLE ON REQUEST



SEE TABLE FOR LED OPTIONS

BOM UPDATE 2014/11/28
EC NO: DRWN:MMANGARUDOV 2014/12/05
CHKD:DBYRNES
APPR:SSTEINKE 2014/12/22
REV B

QUALITY SYMBOLS
▼=0
▽=0

GENERAL TOLERANCES (UNLESS SPECIFIED)

	mm	INCH
4 PLACES	± ---	± ---
3 PLACES	± ---	± .010
2 PLACES	± 0.25	± .020
1 PLACE	± 0.5	± ---
0 PLACE	±	±

ANGULAR ± .5 °
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS

DIMENSION STYLE: MM/IN
SCALE: 5:1
DESIGN UNITS: METRIC
THIRD ANGLE PROJECTION

DRAWN BY: JBADER DATE: 2014/04/25
CHECKED BY: MMANGARUDOV DATE: 2014/05/05
APPROVED BY: SSTEINKE DATE: 2014/06/11
MATERIAL NO.: SEE BOM

TITLE: GIGABIT MAGNETIC JACK POE PLUS ENABLED 1X1
molex
DOCUMENT NO.: SD-85789-401
SHEET NO.: 3 OF 3
SIZE: A3

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Rev E1 2012/01/25