161 Alden Road, Units 7 & 8, Markham, Ontario Canada L3R 3W7
Tel: +1 416 754-3322 Fax: +1 416-754-3299
Email: info@edac.net http://www.edac.net

ENGINEERING CHANGE NOTICE

Date:	Document Number
January 3, 2018	ECN20180103-00
Revision Number	SHEET
1	1 of 7

CHANGE TYPE

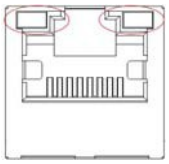
- [ ] CLASS I Customer notification and approval required prior to implementation
- [X] CLASS II Customer notification only, no approval required
- [ ] CLASS III No customer notification required

REASON OF CHANGE

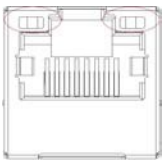
Old tooling has worn out and need to be replaced by new tooling with design improvements.
Affected P/Ns: 1. A63-112-431P112 2. A63-113-431P112 3. A63-112-413P112 4. A63-113-413P112 5. A60-115-231P190

DESCRIPTION OF CHANGE:

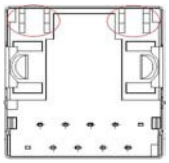
1.Design change in shield to eliminate the use of glue to hold LEDs in place.



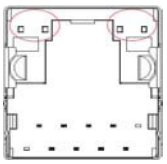
CHANGE TO



2.Design improvement to the housing to allow easy insertion of LEDs without the need to do pre-bending on the leads.



CHANGE TO



3. Implementation:Running Change

PARTIES AFFECTED

[X] Customer	[ ] NORCOMP	[X] ECA
[X] Distributors	[ ] MH	[X] EDG
[ ] Suppliers	[X] ETW	[X] EDAC UK

KEY TARGET DUE DATES IF CHANGE IS APPROVED TO PROCEED (check if applicable and show target dates as known)

- [ ] Submit Quote _____
- [ ] Prod. Trial Run _____
- [ ] Run at Rate _____
- [ ] PPAP from Supplier _____
- [ ] MRD of Production Parts _____

ACKNOWLEDGEMENT FOR ECN INITIATION: (OPTIONALS)

- [ ] Tooling Rep _____
- [ ] Mfg Eng Rep _____
- [ ] Production Rep _____
- [ ] Materials Rep _____
- [ ] Quality Rep _____
- [ ] Process Eng Rep _____
- [ ] Facilities Rep _____
- [ ] Sales Rep. _____
- [ ] Product Eng. Rep. _____
- [ ] Purchasing Rep _____

APPROVALS FOR ECN INITIATION (REQUIRED)

- [ ] President _____
- [ ] Vice President Bob Sakitkovski
- MINIMUM OF TWO SIGNATURES REQUIRED
- [ ] Engineering Manager Ronnie Sta. Monica
- [x] Mechanical Engineer Yu Zhang

STATUS

APPROVED [ ]

CCS CHANGE REQUEST #

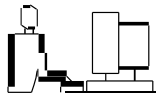
REJECTED [ ]

Change REJECTED by:

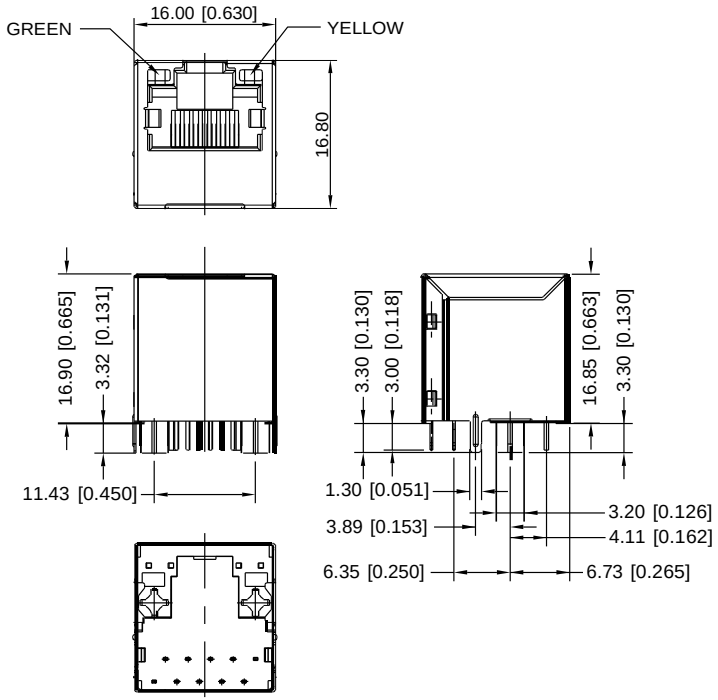
Rejected Date:

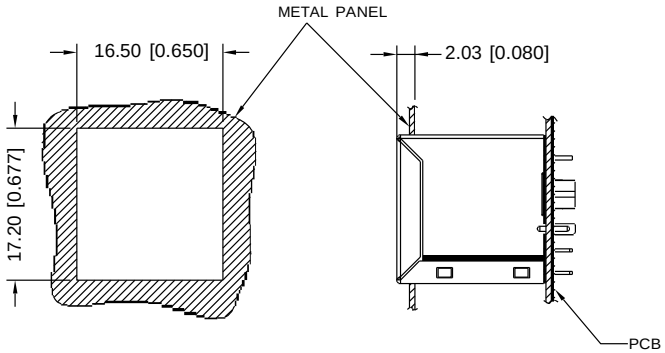
TOLERANCE UNLESS OTHERWISE SPECIFIED IN MM: ±0.254

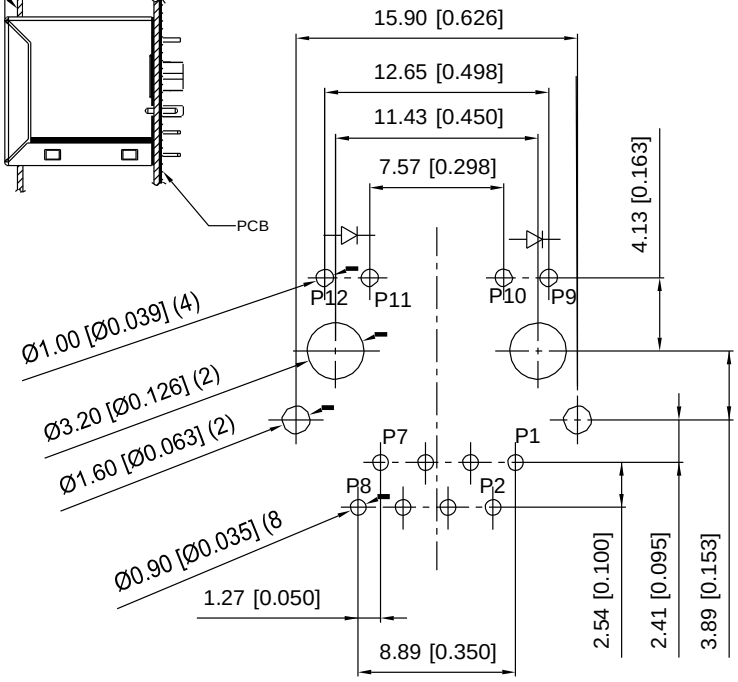
THIS IS A C.A.D. GENERATED DRAWING
DO NOT MAKE MANUAL REVISIONS TO MASTER.



ISSUE NUMBER
ORIGINAL (1)
UPDATE LED: GREEN-YELLOW WAS YELLOW-GREEN (2) R.STA.MONICA MAR.07/2016
UPDATE DRAWING (3) Y.ZHANG JAN.04/2018







RECOMMENDEDP.C.B.LAYOUT
TOLERANCE: ±0.10[±0.004]

NOTES:
1. MATERIALS:
HOUSING: THERMOPLASTIC, UL94 V-0, COLOR: BLACK
SHIELD: COPPER ALLOY WITH NICKEL PLATING
CONTACTS: COPPER ALLOY PLATED WITH GOLD PLATING AND TIN IN SOLDER AREA

PART NO	GOLD PLATING THICKNESS
A63-112-431P112	GOLD FLASH PLATING
A63-113-431P112	15 MICRO INCHES OF GOLD
A63-114-431P112	30 MICRO INCHES OF GOLD

2. OPERATING TEMPERATURE: 0°C TO +70°C
3. STORAGE TEMPERATURE: -40°C TO +85°C
4. MATE WITH MODULAR PLUG CONFORMING TO FCC PART 68, SUBPART F.
5. RECOMMENDED TEMPERATURE FOR WAVE SOLDERING IS 260°C MAX, 10 SEC MAX
6. DIMENSION: MM [INCHES]

RoHS COMPLIANT

THIS SERIES FULLY CONFORMS TO THE EUROPEAN UNION DIRECTIVES 2002/95/EC AND 2002/96/EC FOR RoHS COMPLIANCY.

RJ45 MAGNETIC JACK WITH LED, VERTICAL, 8P, 8C SHIELDED, 10/100Mbps FILTER

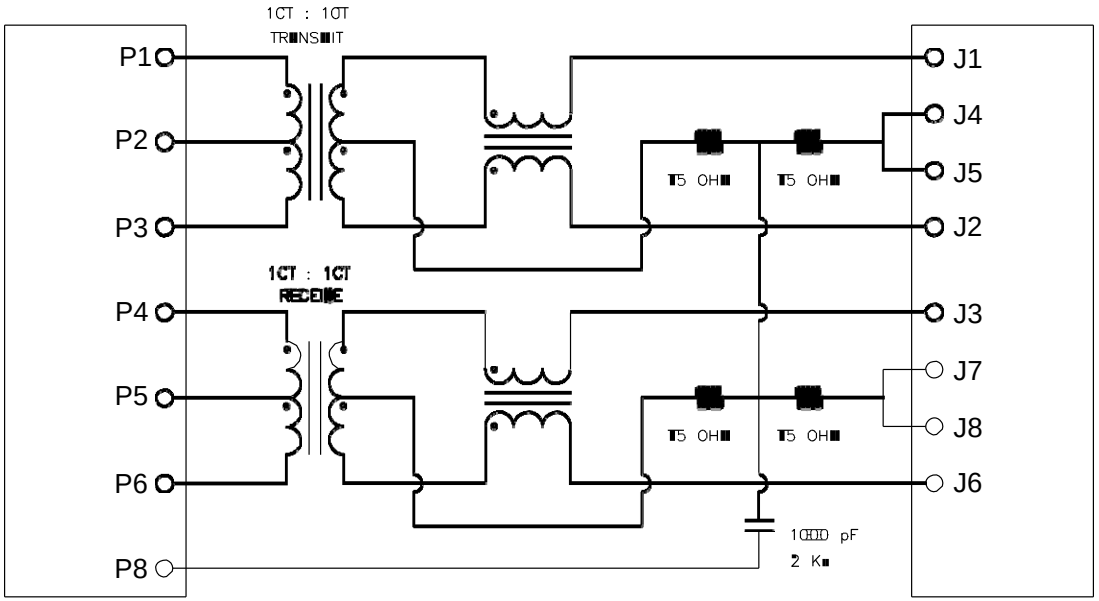
EDAC INC
TORONTO, ONTARIO
CANADA
YOUR CONNECTION TO QUALITY & SERVICE

■C■D REFERENCE NO.: ■63-11X-431P112	
DR■■N: R.ST■.■ONIC■	D■TE: JUN.2■/2012
CHECKED:	D■TE:
P■RT NU■■ER: SEE NOTE	SHEET 1 OF 2
DR■■ING NU■■ER: A63-11X-431P112	ISSUE: 3

THIS IS A C.A.D. GENERATED DRAWING
DO NOT MAKE MANUAL REVISIONS TO MASTER.

ELECTRICAL CIRCUIT:

CONNECTOR SOLDER SIDE



TEST NOTES:(25±5°C)

1.TR:(100KHz,0.1V);
PINS:(P1-P3):(J1-J2)=1:1±3%
PINS:(P4-P6):(J3-J6)=1:1±3%

2.LX:(100KHz,100mV,8mA, DC Bias)
PINS: (P1,P3),(P4,P6)=350uH MINIMUM

3.DC RESISTANCE:
PINS:(J1-J2),(J3-J6)= 1.2 OHMS MAXIMUM

4.HIPOT:
PINS(P1,P3)TO(J1,J2)=1500VAC
PINS(P4,P6)TO(J3,J6)=1500VAC

5.INSERTION LOSS: RS = RL = 100 OHM
-1.2dB MAXIMUM AT 100KHz TO 100MHz;

6.RETURN LOSS:
-18dB MINIMUM AT 1MHz TO 30MHz;
-12dB MINIMUM AT 30MHz TO 80MHz

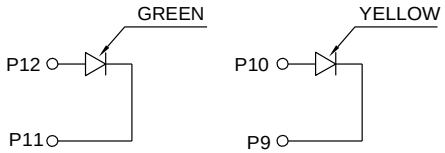
7.CROSS TALK:
-35dB TYPICAL AT 1MHz TO 100MHz

8.COMMON TO COMMON MODE ATENUATION:
-30dB TYPICAL AT 30MHz TO 100MHz

9. LEAKAGE INDUCTANCE:
PINS: P1-P3, WITH J1-J2 SHORTED=0.35 uH MAX @1MHz
PINS: P4-P6, WITH J3-J6 SHORTED=0.35 uH MAX @1MHz

10. INTERWINDING CAPACITANCE:
PINS:(P1-P3):(J1-J2)= 40 pF MAX @1MHz
PINS:(P4-P6):(J3-J6)= 40 pF MAX @1MHz

LED CIRCUIT:



LED SPECIFICATIONS (WITH FORWARD CURRENT OF 20 mA)			
STANDARD LED	WAVELENGTH	FORWARD V (MAX)	TYP
GREEN	565 nm	2.4 V	2.2 V
YELLOW	590 nm	2.5 V	2.1 V

RoHS COMPLIANT

THIS SERIES FULLY CONFORMS TO THE EUROPEAN UNION DIRECTIVES 2002/95/EC AND 2002/96/EC FOR RoHS COMPLIANCY.

RJ45 MAGNETIC JACK WITH LED, VERTICAL, 8P, 8C SHIELDED, 10/100Mbps FILTER

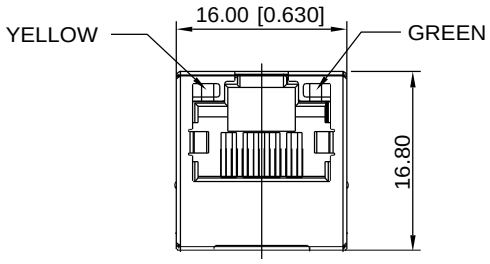
EDAC INC
TORONTO, ONTARIO
CANADA
YOUR CONNECTION TO QUALITY & SERVICE

CAD REFERENCE NO.: A63-11X-431P112	
DRAWN: R.STANIONIS	DATE: JUN.21/2012
CHECKED:	DATE:
PART NUMBER: SEE NOTE	SHEET 2 OF 2
DRAWING NUMBER: A63-11X-431P112	ISSUE: 3

THIS IS A C.A.D. GENERATED DRAWING
DO NOT MAKE MANUAL REVISIONS TO MASTER.

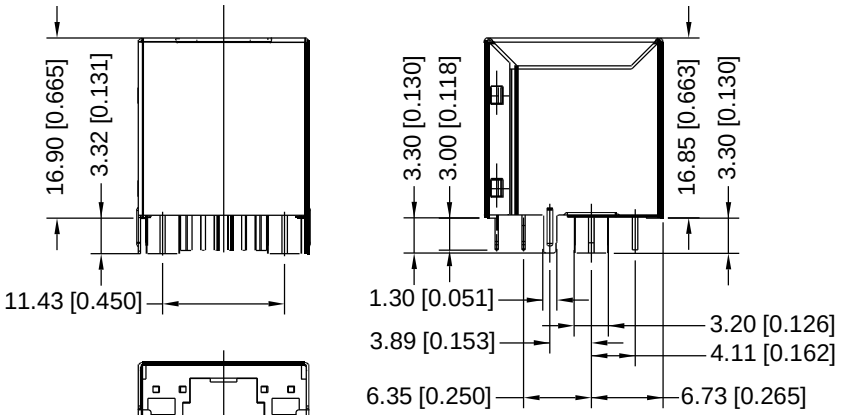
UNLESS OTHERWISE STATED ALL DIMENSIONS ARE TOLERANCED TO ±0.254[0.010]

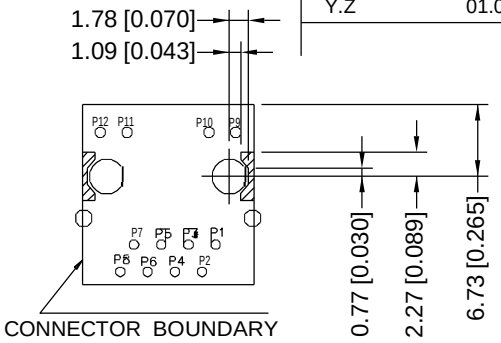
ISSUE NUMBER	
ORIGINAL	1
DIM UPDATE-C.B 10.3.16	2
UPDATE DRAWING	3
Y.Z	01.04.2018

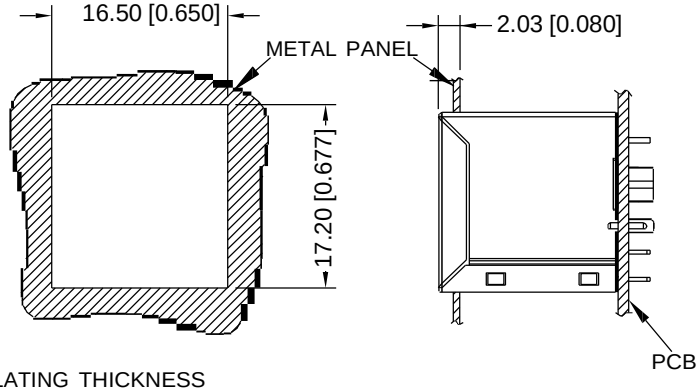


LED SPECIFICATION			
STANDARD LED	WAVELENGTH	Forward V(max)	TYP
GREEN	565nm	2.4V	2.2V
YELLOW	590nm	2.5V	2.1V

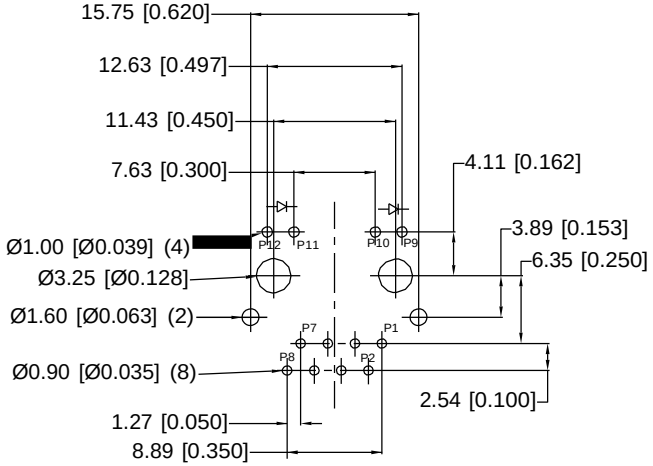
*WITH A FORWARD CURRENT OF 20mA







SUGGESTED PANEL OPENING



UNIT: mm["]
TOL': ±0.10[0.004]

RECOMMENDED PCB LAYOUT

NOTES:
1.CONNECTOR MATERIAL:
HOUSING: THERMOPLASTIC UL94 V-0
SHIELD: BRASS
SHIELD PLATING: NICKEL
CONTACT: COOPER ALLOY
CONTACT PLATING: P/N — GOLD PLATING THICKNESS
A63-112-413P112 — 6 MICRO-INCHES MIN IN CONTACT AREA
A63-113-413P112 — 15 MICRO-INCHES MIN IN CONTACT AREA
2.PIN NOT ELECTRICALLY CONNECTED MAYBE OMITTED
SEE ELECTRICAL DRAWING FOR OMITTED PINS
3.RJ45 CAVITIES CONFORM TO FCC RULES AND REGULATION PART 68.
4.THE PART IS RECOMMENDDED FOR WAVE SOLDERING PROCESS
PEAK SOLDERING TEMPERATURE IS 260°C MAX,10 SECS MAX
5.OPERATING TEMPERATURE T=0°C TO 70°C
6.STORAGE TEMPERATURE T=-40°C TO 85°C
7.All CRITICAL DIMENSIONS WITH "*"

RoHS COMPLIANT

THIS SERIES FULLY CONFORMS TO THE EUROPEAN UNION DIRECTIVES 2011/65/EU FOR RoHS COMPLIANCY.

RJ45 MAGNETIC JACK WITH LED, VERTICAL, 8P, 8C SHIELDED, 10/100Mbps FILTER

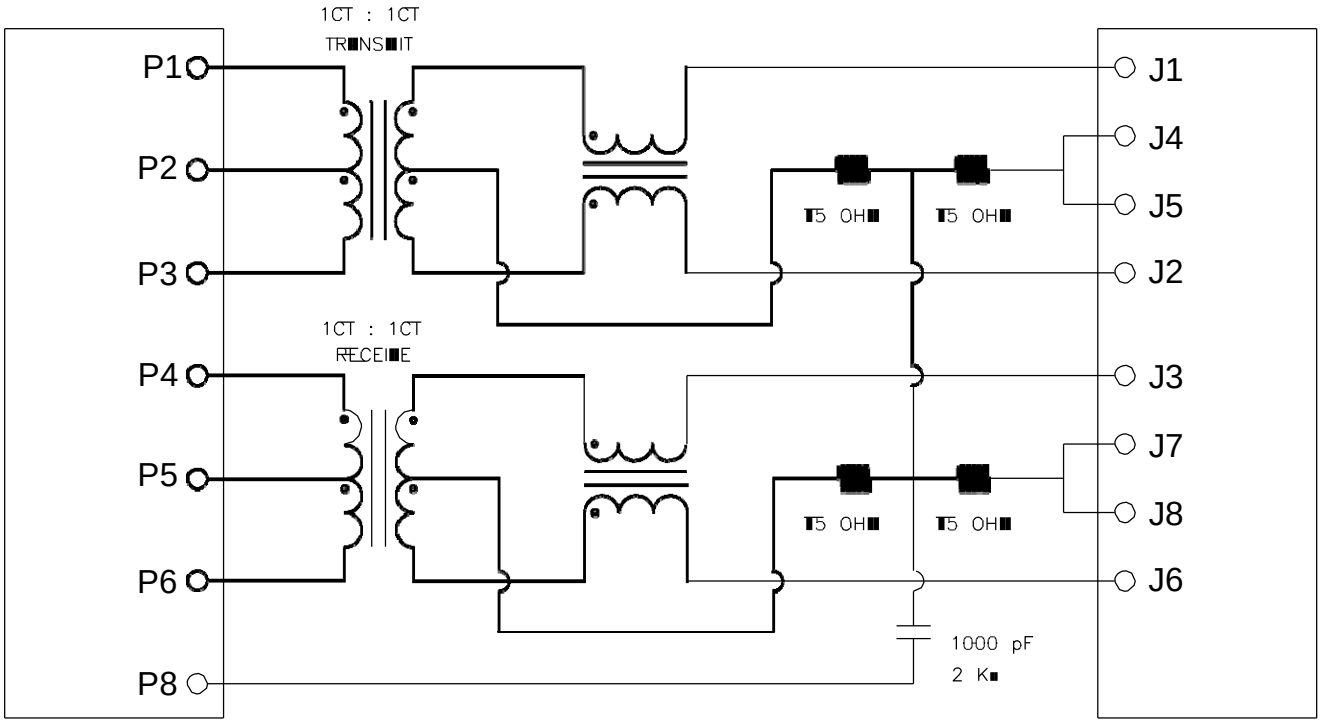
ACAD REFERENCE NO. A63-11X-413P112	
DRAWN: C.B	DATE: OCT 03/16
CHECKED:	DATE:
SCALE: (IN C.A.D. 1:1)	SHEET 1 OF 2
DRAWING NUMBER A63-11X-413P112	ISSUE 3

EDAC INC
TORONTO, ONTARIO
CANADA
YOUR CONNECTION TO QUALITY & SERVICE

THIS IS A C.A.D. GENERATED DRAWING
DO NOT MAKE MANUAL REVISIONS TO MASTER.

ISSUE NUMBER
ORIGINAL 1

CONNECTOR SOLDER SIDE



TEST NOTES:(25±5°C)

1.TR: @100KHz:

PINS:(P1-P3):(J1-J2)=1:1±2%

PINS:(P4-P6):(J3-J6)=1:1±2%

2.LX:(100KHz,100mV,8mA, DC Bias)

PINS: (P1,P3),(P4,P6)=350uH MINIMUM

3.DC RESISTANCE:

PINS:(J1-J2),(J3-J6)= 1.2 OHMS MAXIMUM

4.HIPOT:

PINS(P1,P3)TO(J1,J2)=1500VAC

PINS(P4,P6)TO(J3,J6)=1500VAC

5.INSERTION LOSS: RS = RL = 100 OHM

-1.0dB MAXIMUM AT 1MHz TO 100MHz;

6.RETURN LOSS:

-18dB MINIMUM AT 1MHz TO 30MHz;

-16dB MINIMUM AT 30MHz TO 60MHz

-16dB MINIMUM AT 30MHz TO 60MHz

7.CROSS TALK:

-30dB min AT 1MHz TO 100MHz

8.COMMON TO COMMON MODE ATENUATION:

-30dB TYPICAL AT 1MHz TO 100MHz

9. LEAKAGE INDUCTANCE:

PINS: P1-P3, WITH J1-J2 SHORTED=0.35 uH MAX @1MHz

PINS: P4-P6, WITH J3-J6 SHORTED=0.35 uH MAX @1MHz

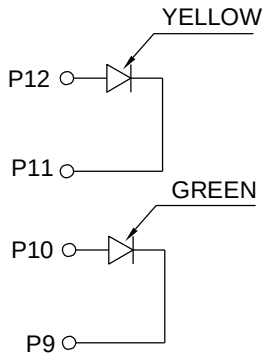
10. INTERWINDING CAPACITANCE:

PINS:(P1-P3):(J1-J2)= 40 pF MAX @1MHz

PINS:(P4-P6):(J3-J6)= 40 pF MAX @1MHz

11. ISOLATION: PHY SIDE TO LINE SIDE: 1500VAC or 2250VDC

LED CIRCUIT:



LED SPECIFICATIONS (WITH FORWARD CURRENT OF 20 mA)			
STANDARD LED	WAVELENGTH	FORWARD V (MAX)	TYP
GREEN	565 nm	2.4 V	2.2 V
YELLOW	590 nm	2.5 V	2.1 V

RoHS COMPLIANT

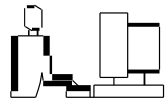
THIS SERIES FULLY CONFORMS TO THE EUROPEAN UNION DIRECTIVES 2011/65/EU FOR RoHS COMPLIANCY.

RJ45 MAGNETIC JACK WITH LED, VERTICAL, 8P, 8C SHIELDED, 10/100Mbps FILTER

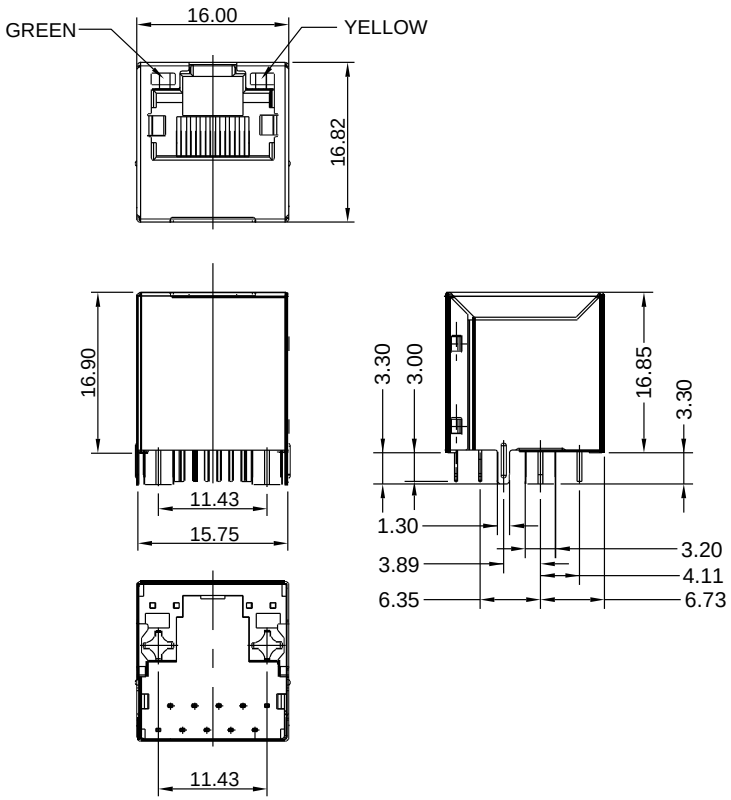
EDAC INC
TORONTO, ONTARIO
CANADA
YOUR CONNECTION TO QUALITY & SERVICE

ACAD REFERENCE NO. A63-11X-413P112	
DRAWN: C.B	DATE: OCT. 03/16
CHECKED:	DATE:
SCALE: N.T.S	SHEET 2 OF 2
DRAWING NUMBER A63-11X-413P112	ISSUE 3

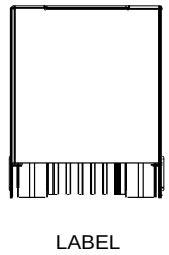
THIS IS A C.A.D. GENERATED DRAWING
DO NOT MAKE MANUAL REVISIONS TO MASTER.

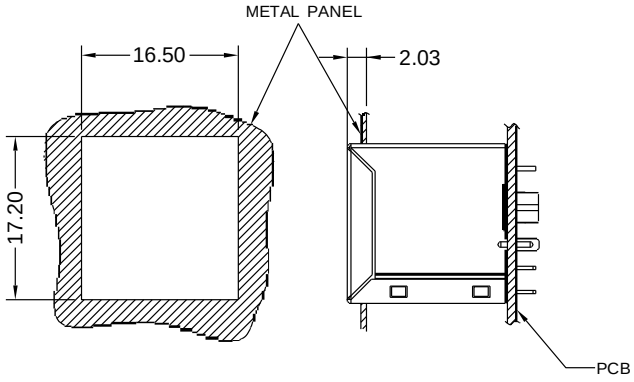


ISSUE NUMBER	
ORIGINAL	1
UPDATE DRAWING	
Y.ZHANG JAN.04/2018	2

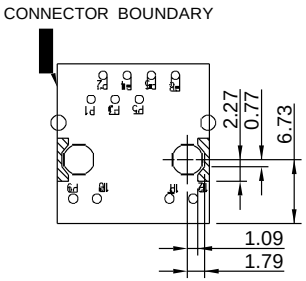


UNLESS SPECIFIED ALL DIMENSIONS TOLERANCE IS ±0.254

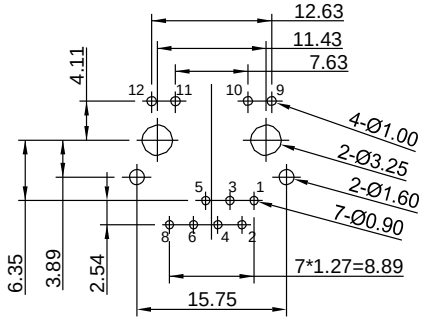




RECOMMENDED PANEL OPENING
(TOLERANCE:±0.10)



KEEP OUT AREA



RECOMMENDED PCB LAYOUT
(TOLERANCE:±0.10)

Connector Material:

1. Housing : ThermoPlastic UL94V-0
   Contact: Copper Alloy. Selective 50u" Gold Plated Min In Contact Area.
   Shield: Brass Nickel Plated
2. Operating Temperature: 0°C to +70°C
3. Storage Temperature: -40°C to +85°C
4. Recommended Wave Soldering Temerature:
   260°C Max, 10 Seconds Max
5. Pins Not Electrically Connected Maybe Omitted. See electrial Diagram for Omitted Pins.
6. Cavity Conforms To FCC Rules And Regulation Part 68 Subpart F.

180° RJ45 10/100 BASE-T JACK WITH MAGNETIC MODULE

ACAD REFERENCE NO.	A60-115-231P190
DRAWN: N.SONDH	DATE: May. 09/16
PART NUMBER	SEE ABOVE
SHEET 1 OF 2	
DRAWING NUMBER	A60-115-231P190
ISSUE	2

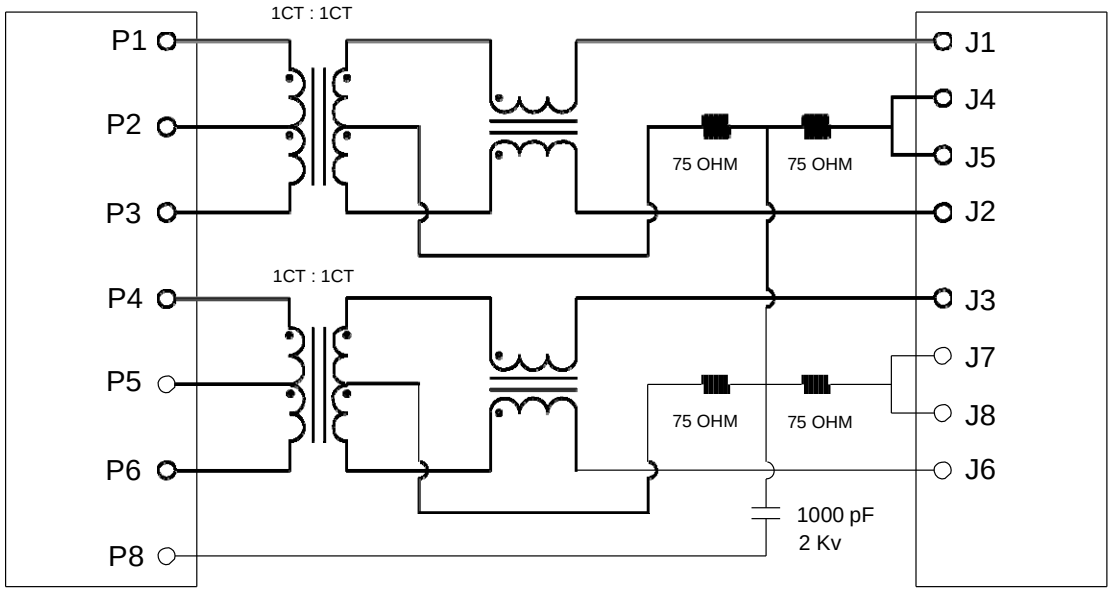
EDAC INC
TORONTO, ONTARIO
CANADA
YOUR CONNECTION TO QUALITY & SERVICE

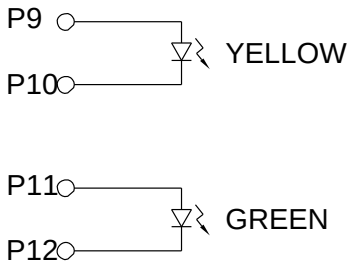
RoHS COMPLIANT

THIS SERIES FULLY CONFORMS TO THE EUROPEAN UNION DIRECTIVES 2011/65/EU FOR RoHS COMPLIANCY.

THIS IS A C.A.D. GENERATED DRAWING
DO NOT MAKE MANUAL REVISIONS TO MASTER.

CIRCUIT SCHEMATIC





Electrical Specifications:

1. Turn Ratio @100KHz:
   PINS:(P1~P3):(J1~J2)=1:1±5%
   PINS:(P4~P6):(J3~J6)=1:1±5%
2. Primary Inductance: 350uH Min @100KHz,0.1V 8mA DC Bias
3. DC Resistance: (J1~J2),(J3~J6)= 1.2 Ohms Max
4. Insertion Loss: 1-100MHz 1.2dB MAX
5. Return Loss:
   1MHz - 30MHz -1.2 dB Max
   30MHz - 60MHz -16 dB Min
   60MHz - 80MHz -10dB Min
6. Cross Talk: 1MHz - 100MHz -30dB Min
7. Common To Common Mode Atenuation:
   1MHz - 100MHz -30dB Min
8. Isolation:
   PHY Side To Line Side: 1500VAC OR 2250VDC

LED SPECIFICATIONS			
STANDARD LED	WAVELENGTH	Forward V (max)	TYP
GREEN	565 nm	2.4V	2.2V
YELLOW	590 nm	2.5V	2.1V

WITH FORWARD CURRENT OF 20mA

THIS SERIES FULLY CONFORMS TO THE EUROPEAN UNION DIRECTIVES 2011/65/EU FOR RoHS COMPLIANCY.

180° RJ45 10/100 BASE-T JACK WITH MAGNETIC MODULE

EDAC INC
TORONTO, ONTARIO
CANADA
YOUR CONNECTION TO QUALITY & SERVICE

ACAD REFERENCE NO. A60-115-231P190
DRAWN: N.SONDH
DATE: May. 09/16
PART NUMBER
SEE ABOVE

DRAWING NUMBER
A60-115-231P190
ISSUE
2