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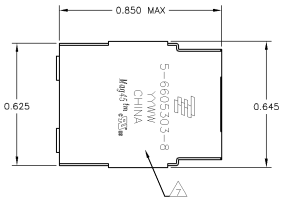
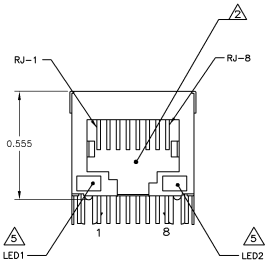
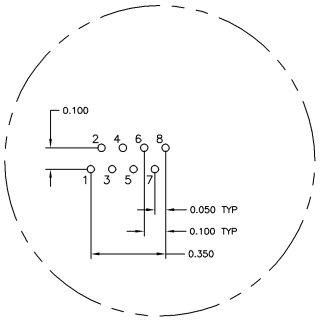
LTR	DESCRIPTION	DATE	DWN	APVD
C	PER ECO-08-028079	04SEP2008	RQ	TX

MECHANICAL:





315 SERIES MAGNETIC CIRCUIT 3 6



Pin Designations

NOTES:

1. MATERIALS:
HOUSING - THERMOPLASTIC PET POLYESTER FLAMMABILITY RATING UL 94V-0
SHIELD - .010" THICK, C26800 BRASS PREPLATED WITH 30µINCH SEMI-BRIGHT NICKEL. SOLDER TABS POST DIPPED WITH 100µINCH MIN SAC SOLDER
MOD JACK CONTACTS - 0.0157 X 0.018" PHOSPHOR BRONZE, 50µINCH MIN OVERALL NICKEL UNDERPLATE, WITH SELECT 50µINCH MIN HARD GOLD FINISH PLATE SOLDERTAILS WITH 100µINCH MIN MATTE TIN AND/OR SAC SOLDER DIP.
LIGHT EMITTING DIODE(LED) - DIFFUSED EPOXY LENS, .020" x .020" CARBON STEEL WIREFRAME LEADS PRE-PLATED WITH 80µINCH SILVER OVER 40µINCH NICKEL UNDERPLATE OVER 40µINCH COPPER UNDERPLATE. POST-PLATED WITH 100µINCH MIN MATTE TIN AND/OR SAC SOLDER DIP OR PURE TIN SOLDER DIP.

2. RJ45 JACK CAVITY CONFORMS TO FCC RULES AND REGULATIONS PART 68, SUB PART F.

3. MAGNETICS
-IMPEDANCE: 100 OHMS
-TURNS RATIO (CHIP,CABLE): TX = 1:1, RX = 1:1
-OPEN CIRCUIT INDUCTANCE (OCL): 350µH MIN @100kHz, 0.1VRMS, 8mADC BIAS FROM 0°C TO 70°C, TX AND RX
-PERFORMANCE @ 25°C:
INSERTION LOSS (IL): 1.1dB MAX FROM 0.5MHz TO 100MHz
RETURN LOSS (RL): 18dB MIN FROM 0.5MHz TO 30MHz
18-20LOG(f/30)dB MIN FROM 30.1MHz TO 60MHz
12dB MIN FROM 60.1MHz TO 80MHz
CROSSTALK ATTENUATION: 35dB MIN FROM 0.5MHz TO 40MHz
33-20LOG(f/50)dB MIN FROM 40.1MHz TO 100MHz
COMMON MODE REJECTION RATIO (CMRR): 30dB MIN FROM 0.5MHz TO 100MHz
-ISOLATION VOLTAGE: COMPLIES WITH IEEE802.3 2002, PARA 23.5.1.1, ITEM b

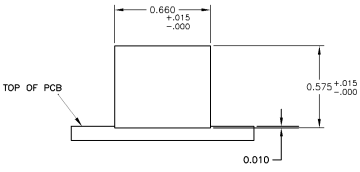
4. OPERATING TEMPERATURE: FROM 0°C TO +70°C.

5. LEDS ARE DRIVEN WITH CONSTANT CURRENT AT APPROX 20mA
LED COLOR: DOMINANT WAVELENGTH (λD): GREEN 568 nm TYP @ IF=20mA
FORWARD VOLTAGE (VF): GREEN 2.2V TYP @ IF=20mA
DOMINANT WAVELENGTH (λD): YELLOW 588 nm TYP @ IF=20mA
FORWARD VOLTAGE (VF): YELLOW 2.1V TYP @ IF=20mA

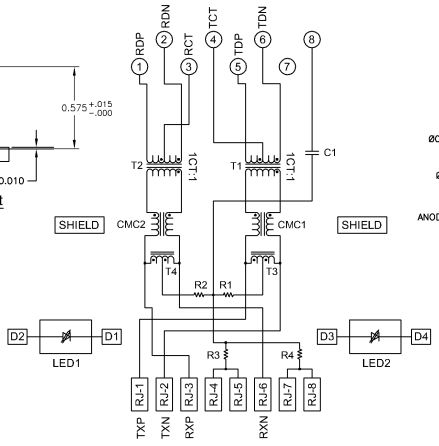
6. INDICATED CONNECTIONS ARE FOR NIC CONFIGURATION. THE MAGNETICS ARE SYMMETRICAL, AND SUPPORT AUTO-MDI/MDIX.

7. TYCO ELECTRONICS LOGO, PART NUMBER, DATE CODE, COUNTRY OF ORIGIN AND AGENCY APPROVAL MARKING IN APPROXIMATE LOCATION SHOWN.

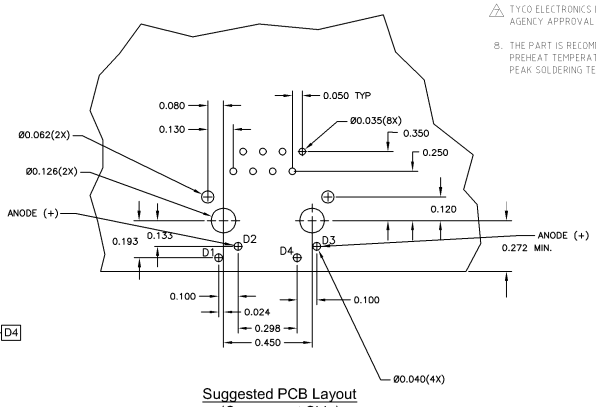
8. THE PART IS RECOMMENDED FOR WAVE SOLDERING PROCESS. PREHEAT TEMPERATURE IS 120°C TO 160°C, 120 SECONDS TO 180 SECONDS. PEAK SOLDERING TEMPERATURE IS 260 °C MAX, 10 SECONDS MAX.



Suggested Panel Cutout



C1=1000pF, 2kV CAPACITOR
R1-R4 = 75 OHMS, 1/16 W RESISTORS



Suggested PCB Layout
(Component Side)

YES	GREEN	YELLOW	5-6605303-8
2KV DECOUPLING CAPACITOR	LED1	LED2	PART NUMBER

THIS DRAWING IS A CONTROLLED DOCUMENT.

DIMENSIONS: INCHES

TOLERANCES UNLESS OTHERWISE SPECIFIED: 3 PLC ± -- ; 2 PLC ± .010 ; 1 PLC ± .005 ; ANGLES ± --

MATERIAL 1

FINISH 1

DRN: C. ATTADIA -- 04MAR2005 DOC'S
CHK: D. FARDLE 04MAR2005
APVD: D. FARDLE 04MAR2005
PRODUCT SPEC: 108-2100
APPLICATION SPEC: --
WEIGHT: --

Tyco Electronics Corporation, Chang'Ping, China

1X1 MAG45(TM), 4N2 SCHEMATIC(10/100 ETHERNET), 315 SERIES CIRCUIT, DECOUPLING CAPACITOR, WITH LEDS, NO PANEL GROUND TABS

SIZE: A1 | CAGE CODE: 00779 | DRAWING NO: C-6605303 | RESTRICTED TO: --

CUSTOMER DRAWING | SCALE: 1:1 | SHEET: 1 OF 1 | REV: C