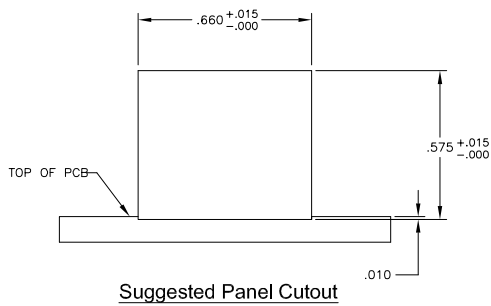
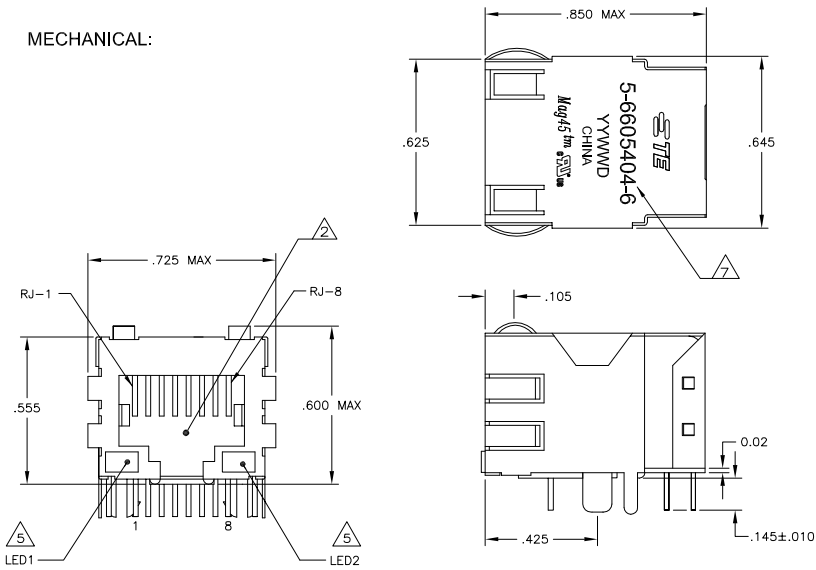


LOC	REV	DESCRIPTION	DATE	BY	APP
AA	22				
B	ECO-08-022357		01DEC2008	QL	TX
C	ECO-11-015766		30MAY2011	EL	LR

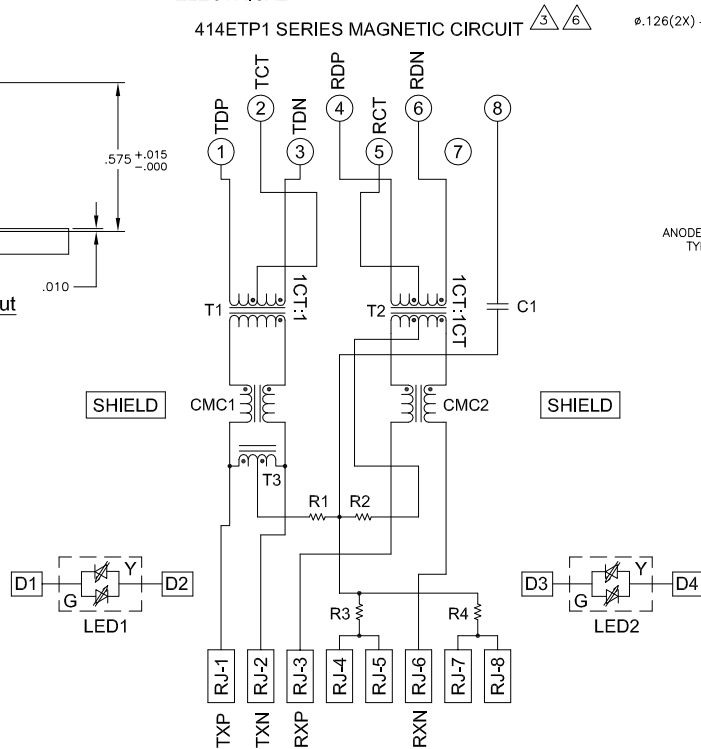
**MECHANICAL:**



**Suggested Panel Cutout**

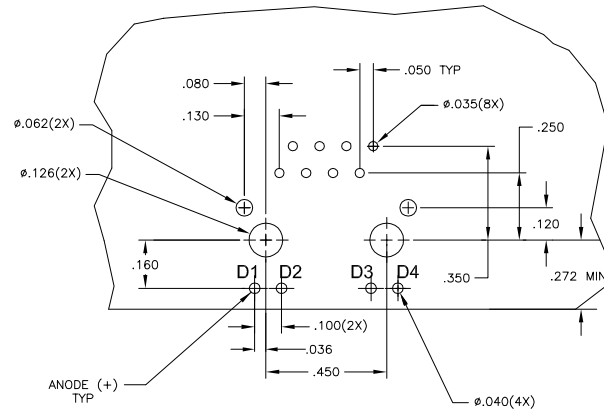
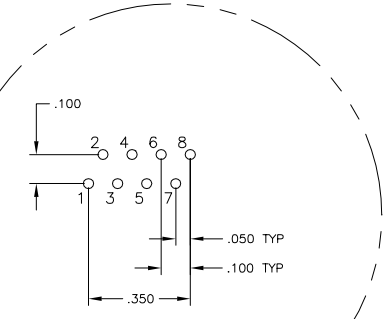
**ELECTRICAL:**

**414ETP1 SERIES MAGNETIC CIRCUIT**



C1 = 1000 pF, 2kV DECOUPLING CAPACITOR  
R1-R4 = 75 OHMS, 1/16 W, 5% RESISTORS

**Pin Designations**



**Suggested PCB Layout**  
(Component Side)

- △ **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.
- △ RJ45 JACK CAVITY CONFORMS TO FCC RULES AND REGULATIONS PART 68, SUB PART F.
- △ **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 -40°C TO +85°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 4.0MHz
  - 33-20\*LOG(f/50)dB MIN FROM 4.01MHz TO 100MHz
  - COMMON MODE REJECTION RATIO (CMRR): 30dB MIN FROM 0.5MHz TO 100MHz
  - ISOLATION VOLTAGE: 2250VDC (MAX) FOR 60 SECONDS WITH A RISE TIME OF 500V/SEC.
- 4. OPERATING TEMPERATURE: FROM -40°C TO +85°C INDUSTRIAL TEMPERATURE RATED.
- △ LEDs ARE DRIVEN WITH CONSTANT CURRENT AT APPROX 20 mA
  - LED COLOR: DOMINANT WAVELENGTH (λD): GREEN 568 nm TYP @ IF=20 mA
  - FORWARD VOLTAGE (VF): GREEN 2.2V TYP @ IF=20 mA
  - DOMINANT WAVELENGTH (λD): YELLOW 588 nm TYP @ IF=20 mA
  - FORWARD VOLTAGE (VF): YELLOW 2.1V TYP @ IF=20 mA
- △ INDICATED CONNECTIONS ARE FOR NIC CONFIGURATION. THE MAGNETICS ARE ASYMMETRIC, AND THEREFORE DO NOT SUPPORT AUTO-MDI/MDIX.
- △ TE CONNECTIVITY 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 WAVE SOLDERING TEMPERATURE IS 260°C MAX, 10 SECONDS MAX.

GREEN/YELLOW	GREEN/YELLOW	5-6605404-6
LED1	LED2	PART NUMBER

DIMENSIONS:		INCHES:		MATERIAL:		FINISH:		WEIGHT:		SCALE:		SHEET:		REV:																
0	PAC	±	-	1	PAC	±	-	2	PAC	±	.010	3	PAC	±	.005	4	PAC	±	-	INCHES	±	-	SCALE	NTS	SHEET	1	OF	1	REV	C