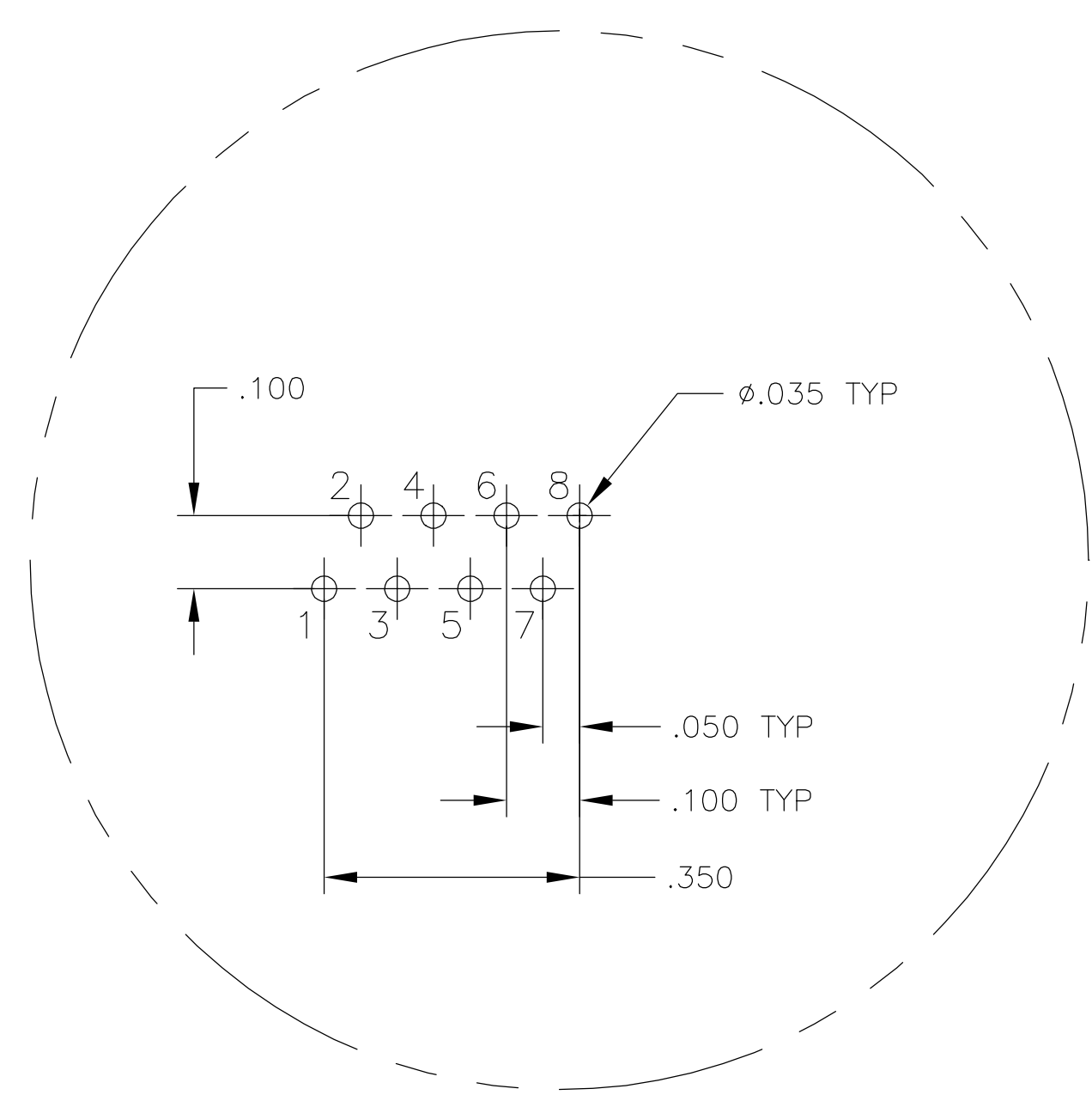
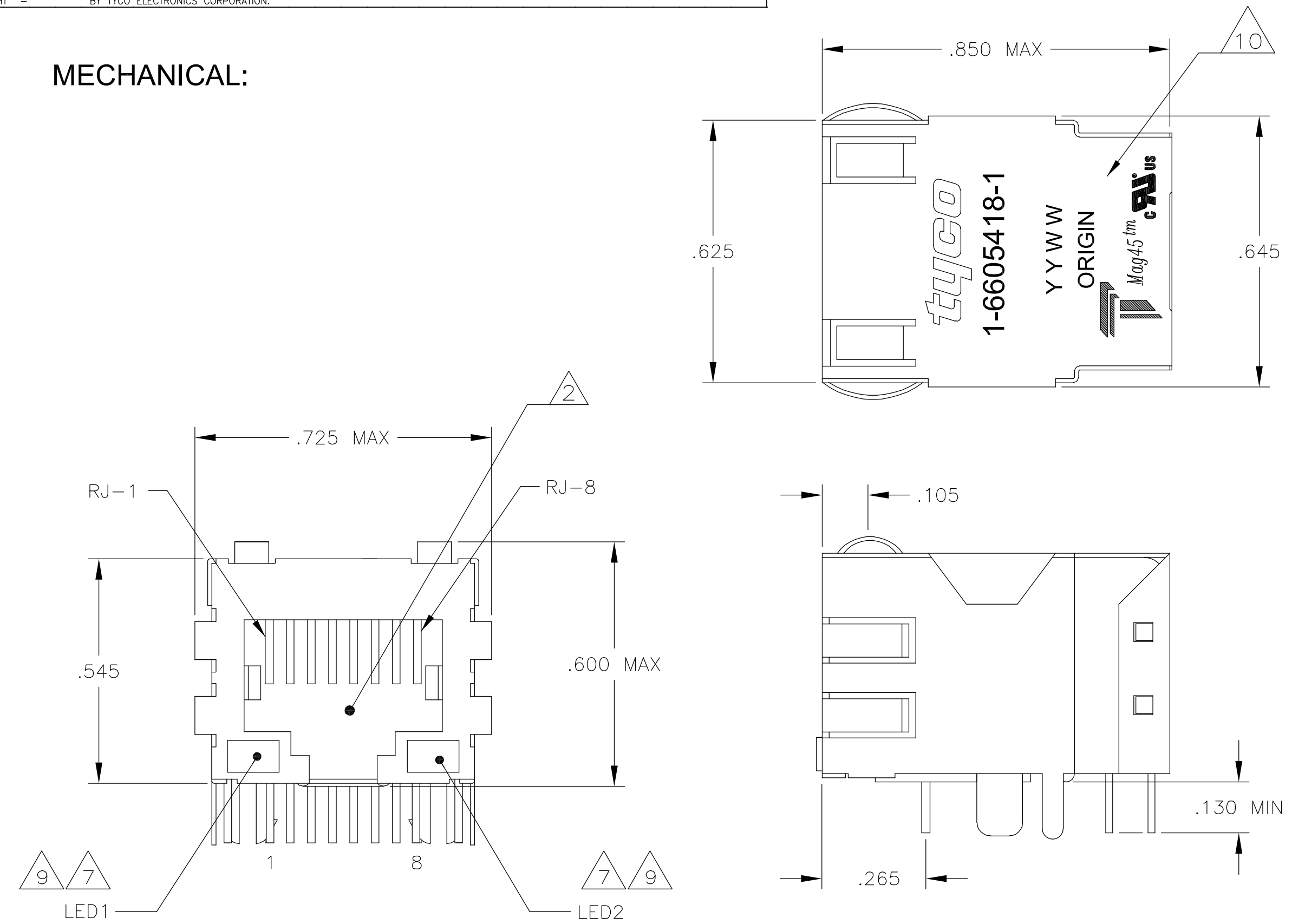


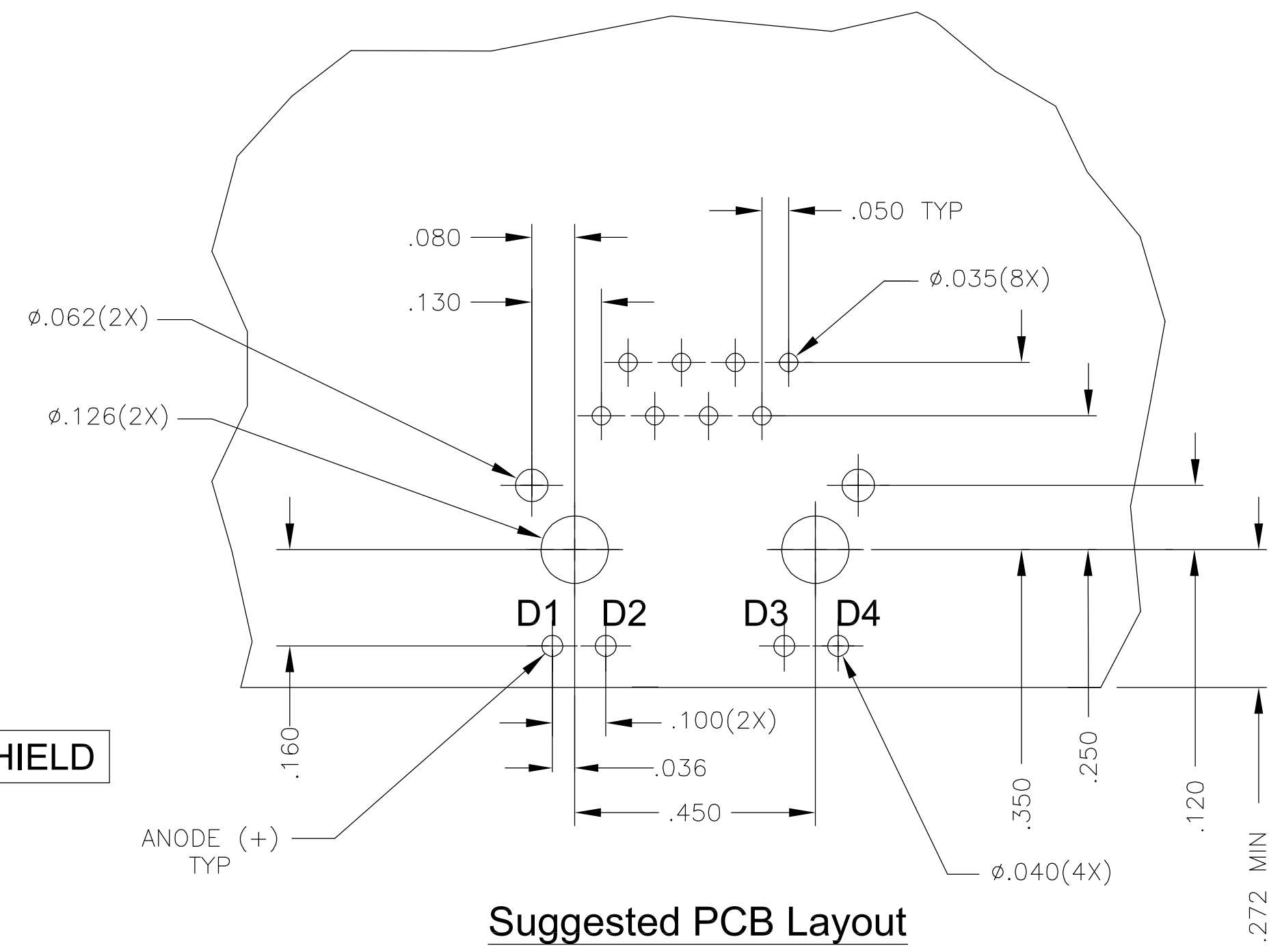
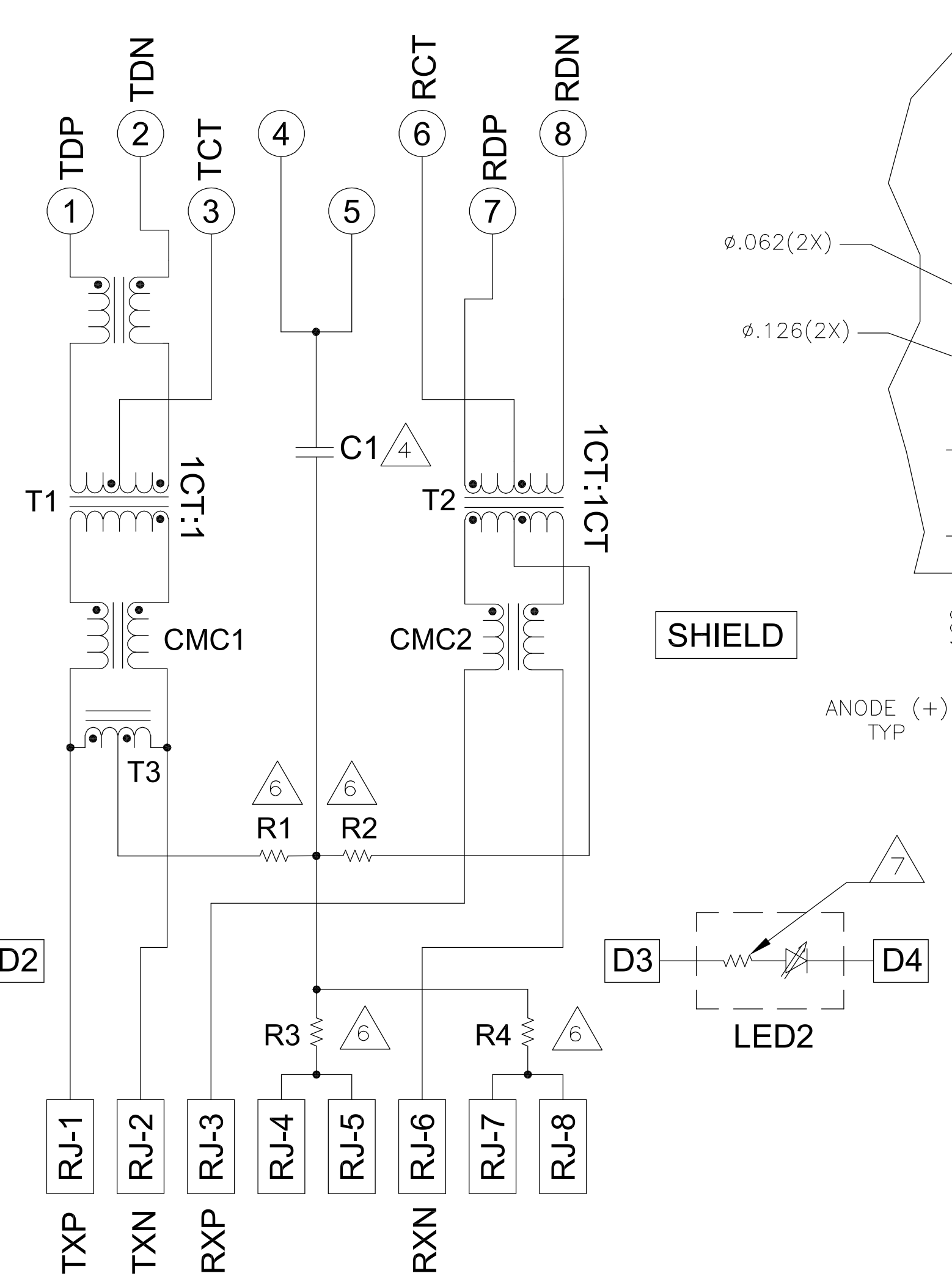
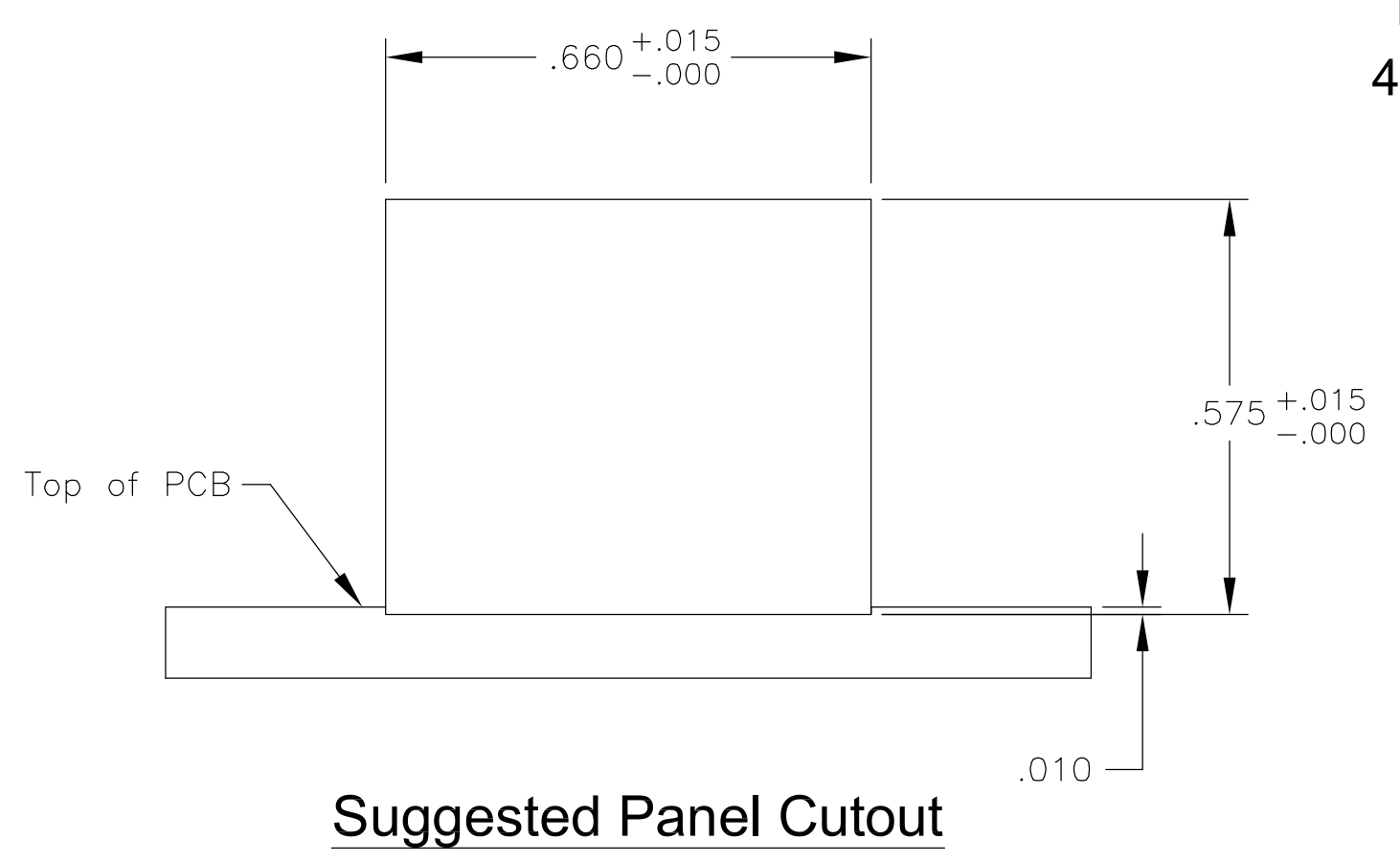
LOC		DIST		REVISIONS			
AA	22	P	L/R	DESCRIPTION	DATE	DWN	APVD
B	ECO-05-013676				11NOV2005	CG	DH

**MECHANICAL:**



**Pin Designations**

**ELECTRICAL:**  
417P10 SERIES MAGNETIC CIRCUIT



**Suggested PCB Layout**  
(Component Side)

- △ MATERIALS:  
HOUSING - THERMOPLASTIC PET POLYESTER FLAMMABILITY RATING UL 94V-0.  
SHIELD - .010" THICK, C26800 BRASS PREPLATED WITH 30μINCH MIN 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 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  
33-20\*LOG(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 a or b.
- △ C1 IS A 1000 pF, 2KV DECOUPLING CAPACITOR.
- 5. OPERATING TEMPERATURE: FROM 0°C TO +70°C
- △ R1-R4 = 75 OHMS, 1/16 W, 5% RESISTORS.
- △ LED COMPLIANT WITH IEC60825-1 SAFETY OF LASER PRODUCTS. WHEN OPERATED UP TO 20 mA. THE 250 OHM RESISTOR IS INCLUDED IN THE LEDS.
- △ INDICATED CONNECTIONS ARE FOR NIC CONFIGURATION. THE MAGNETICS ARE ASYMMETRICAL AND DO NOT SUPPORT AUTO-MDI/MDIX.
- △ LED PEAK WAVELENGTH: GREEN(λ) = 565nm
- △ TRADEMARK, PART NUMBER, DATE CODE, COUNTRY OF ORIGIN AND AGENCY APPROVAL MARKING IN APPROXIMATE LOCATION SHOWN.

GREEN	GREEN	1-6605418-1
LED1	LED2	PART NUMBER

THIS DRAWING IS A CONTROLLED DOCUMENT.		DIN G. ATTADIA - 02MAR2005		Tyco Electronics Corporation	
DIMENSIONS: INCHES		TOLERANCES UNLESS OTHERWISE SPECIFIED:		Harrisburg, PA 17105-3608	
0 PLC	± .005	D. FAROLE - 02MAR2005		Tyco Electronics	
1 PLC	± .010	NAME		1X1 MAG45(TM), MODULAR JACK, SHIELDED,	
2 PLC	± .015	PRODUCT SPEC		4N2P10 SCHEMATIC, 417P10 MAGNETIC CIRCUIT,	
3 PLC	± .020	APPLICATION SPEC		DECOUPLING CAPACITOR, WITH RESISTOR LEDS	
4 PLC	± .025	SIZE		A1	
ANGLES	± .005	CAGE CODE		00779	
MATERIAL	FINISH	DRAWING NO		6605418	
		WEIGHT		-	
		CUSTOMER DRAWING		SCALE NTS SHEET 1 of 1 REV B	