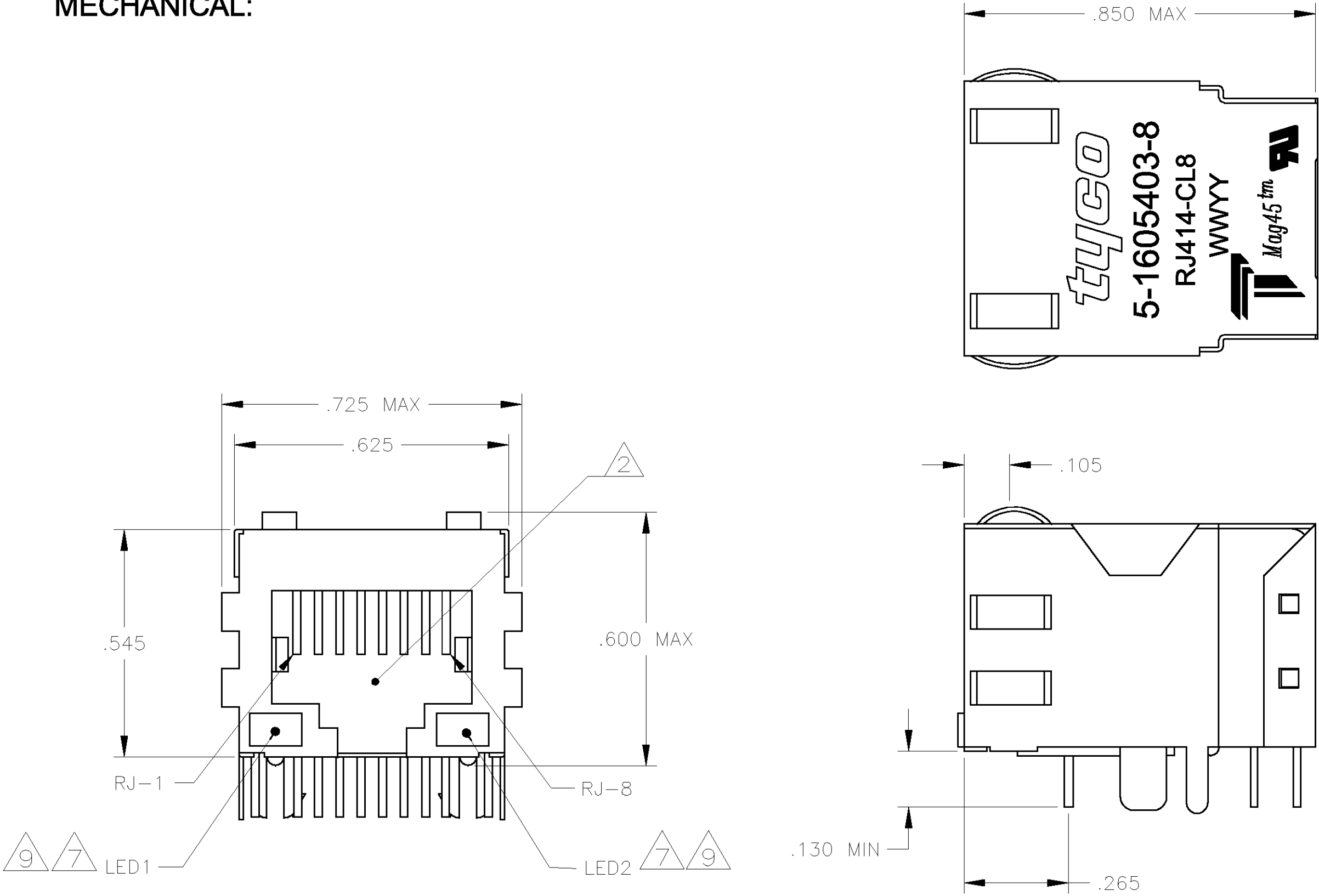
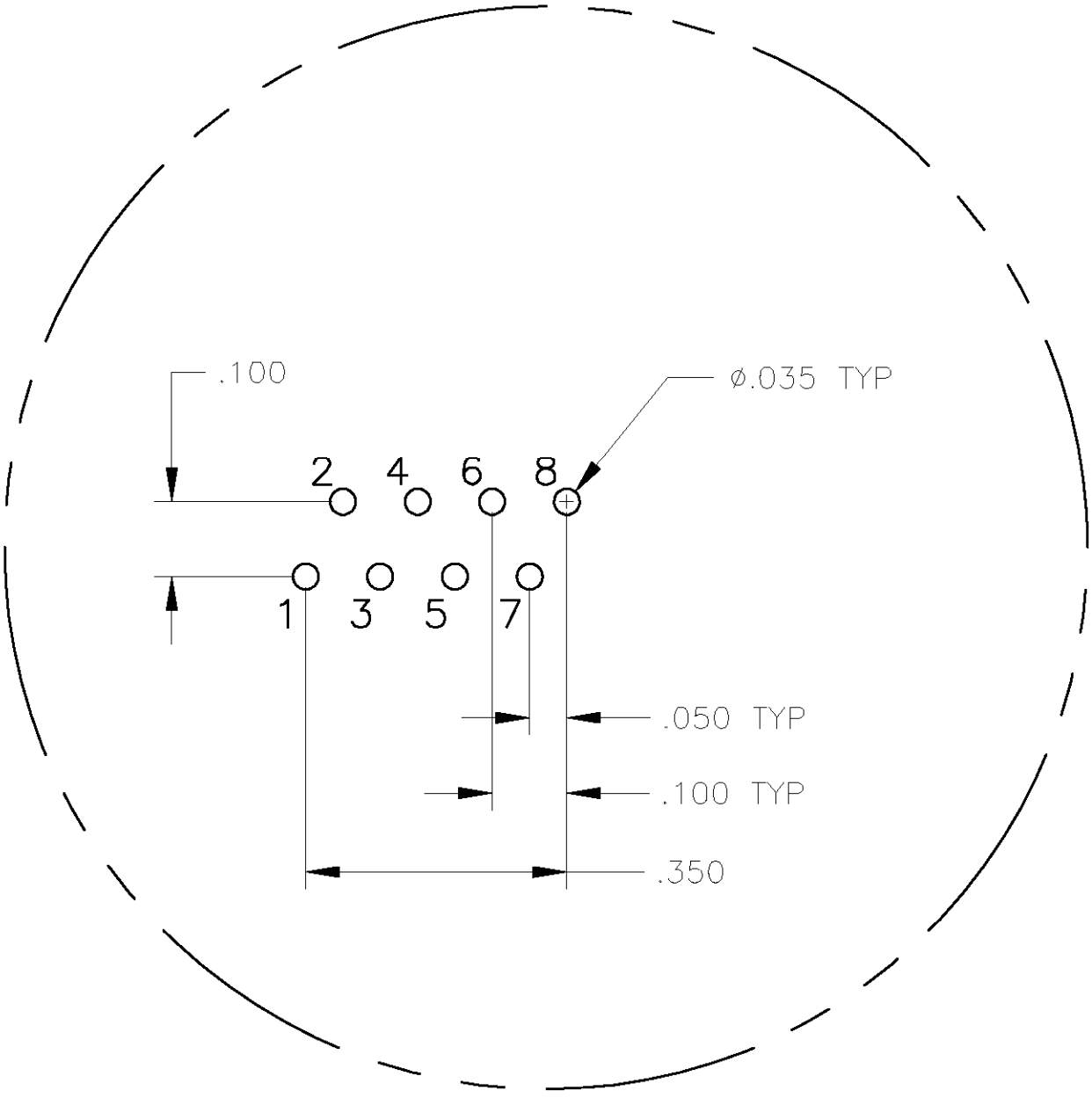


MECHANICAL:



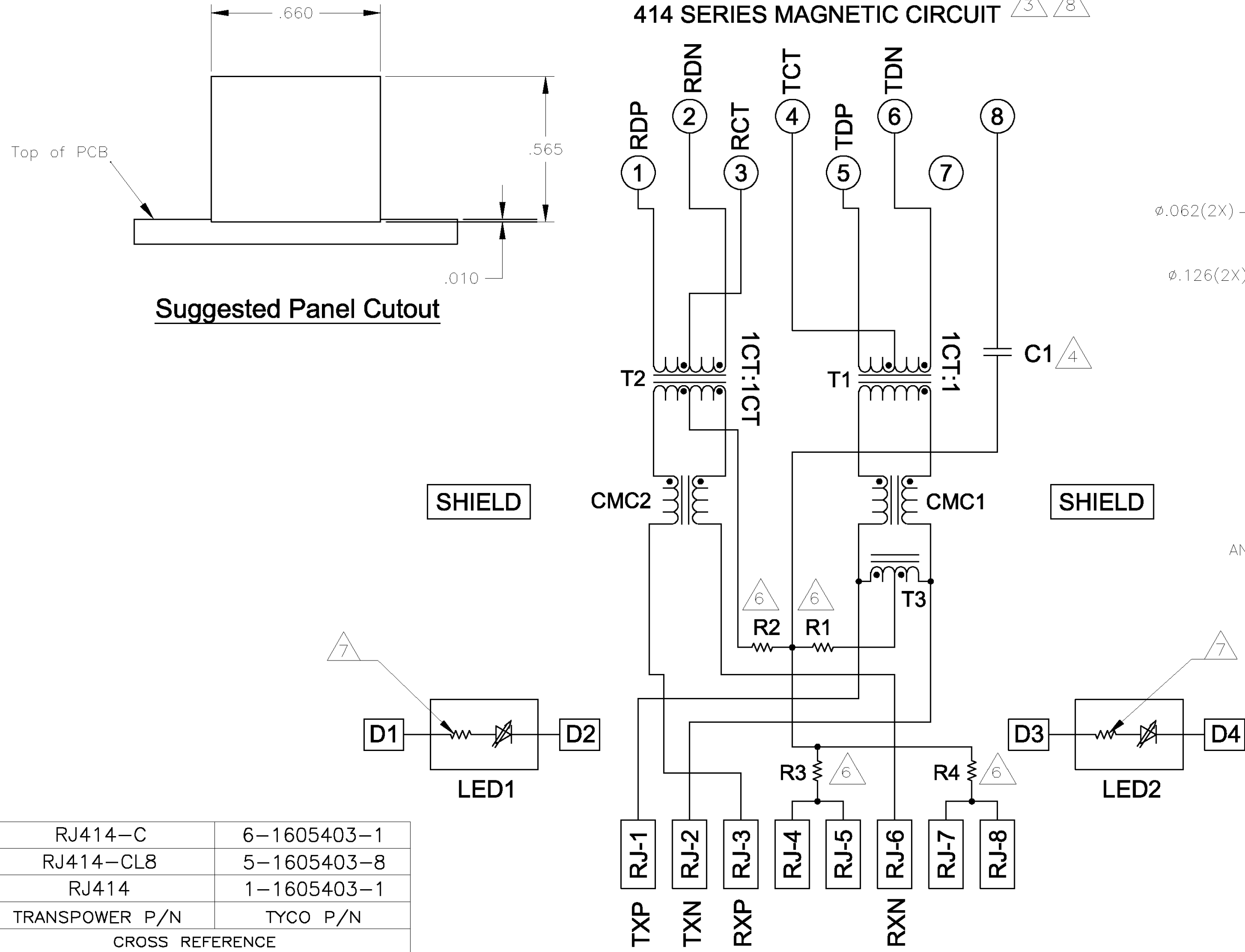
Pin Designations



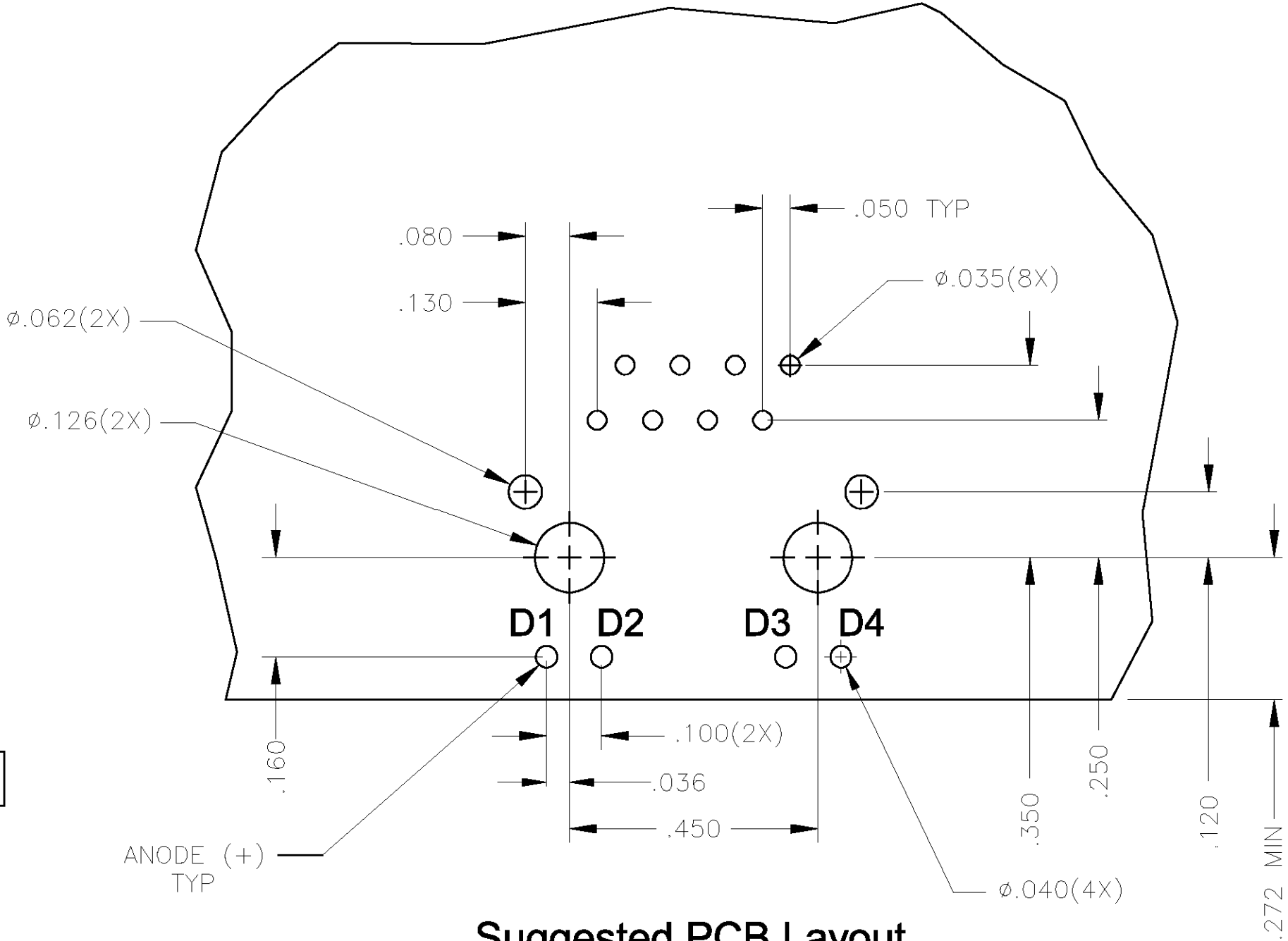
- MATERIALS:**
HOUSING - THERMOPLASTIC PET POLYESTER FLAMMABILITY RATING UL 94V-0.
SHIELD - .010" THICK, C26800 BRASS PREPLATED WITH 80-150μinch SEMI-BRIGHT NICKEL; POST-DIPPED WITH 100μinch MIN TIN-LEAD.
MOD JACK CONTACTS - .012" x .018" THICK, PHOSPHOR BRONZE, 50μinch MIN OVERALL NICKEL UNDERPLATE, WITH SELECT 50μinch MIN HARD GOLD FINISH PLATE. SOLDER TAILS WITH 50μinch MIN TIN-LEAD FINISH PLATE.
LIGHT EMITTING DIODE(LED) - DIFFUSED EPOXY LENS, .020" x .020" CARBON STEEL WIREFRAME LEADS PREPLATED WITH 90μinch SILVER OVER 40μinch NICKEL UNDERPLATE OVER 80μinch COPPER UNDERPLATE, POST-PLATED WITH 300μinch THICK TIN-LEAD.
- RJ45 JACK CAVITY CONFORMS TO FCC RULES AND REGULATIONS PART 68, SUB PART F.**
- MAGNETICS:**
-IMPEDANCE: 100 OHMS
-TRANSMIT OPEN CIRCUIT INDUCTANCE (OCL): 350μH (MIN) @100KHZ, 0.1VRMS WITH 8 mA DC BIAS
-RISE TIME: 2.5 NANO-SECONDS FROM 10 TO 90 PERCENT.
-TURNS RATIO (CHIP: CABLE): TX: 1:1, RX: 1:1
- PERFORMANCE:**
-TRANSMIT RJ1 & 2.
RECEIVE RJ3 & 6.
-INSERTION LOSS: FREQUENCY: 100 KHZ TO 100 MHZ, TX/RX: -1.1 DB (MAX)
-RETURN LOSS: FREQUENCY: 1 MHZ TO 60 MHZ, TX/RX: -18.0 DB (MIN)
FREQUENCY: 60.1 MHZ TO 80 MHZ, TX/RX: -15.0 DB (MIN)
FREQUENCY: 80.1 MHZ TO 100 MHZ, TX/RX: -12.0 DB (MIN)
-CROSSTALK: NEXT (TX TO RX) 35.0 DB (MIN) @100MHZ
-TX CMRR: FREQUENCY: 100KHZ TO 100 MHZ, 42.0 DB (MIN)
-RX CMRR: FREQUENCY: 100KHZ TO 100 MHZ, 33.0 DB (MIN)
HIPOT (ISOLATION VOLTAGE) :
-1500 VRMS (0.5mA CUTOFF CURRENT) FOR 60 SECONDS DURATION WITHOUT DECOUPLING CAPACITOR.
2250 VDC (1mA CUTOFF CURRENT) FOR 60 SECONDS DURATION WITH DECOUPLING CAPACITOR.
-ALL BRIDGED ON EITHER SIDE OF MAGNETICS PACKAGE FOR RJ-45 CONTACTS.
OPERATING TEMPERATURE: FROM 0° - +70°C.

- C1 IS AN OPTIONAL 1000 pF, 2KV DECOUPLING CAPACITOR.**
- ALL DIMENSIONS NOMINAL UNLESS OTHERWISE NOTED.**
- 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 RESISTORS ARE INCLUDED, EXCEPT ON 5-1605403-8.**
- INDICATED CONNECTIONS ARE FOR NIC CONFIGURATION. THE MAGNETICS ARE ASYMMETRICAL, AND THEREFORE DO NOT SUPPORT AUTO-MDI/MDIX.**
- LED PEAK WAVELENGTH: GREEN(λ) = 565nm
YELLOW(λ) = 585nm.**

414 SERIES MAGNETIC CIRCUIT



Suggested PCB Layout
(Component Side)



RJ414-C	6-1605403-1
RJ414-CL8	5-1605403-8
RJ414	1-1605403-1
TRANSPower P/N	TYCO P/N
CROSS REFERENCE	

YES	GREEN	GREEN	6-1605403-1
YES	GREEN	YELLOW	5-1605403-8
NO	GREEN	GREEN	1-1605403-1
DECOUPLING CAPACITOR	LED1	LED2	PART NUMBER

THIS DRAWING IS A CONTROLLED DOCUMENT.		OWN D. HARRINGTON	25JUL2002	Tyco Electronics Corporation Harrisburg, PA 17105-3608	
DIMENSIONS: INCHES		CHK M. HOSIER	25JUL2002	NAME EG LAURER	
TOLERANCES UNLESS OTHERWISE SPECIFIED:		APVD EG LAURER	25JUL2002	PRODUCT SPEC 108-2100	
0 PLC ± -		APPLICATION SPEC		SIZE A1	
1 PLC ± .010		WEIGHT		CAGE CODE 00779	
2 PLC ± .005		CUSTOMER DRAWING		SCALE NTS	
3 PLC ± .005		SHEET 1		OF 1	
4 PLC ± -		REV A			
ANGLES FINISH					