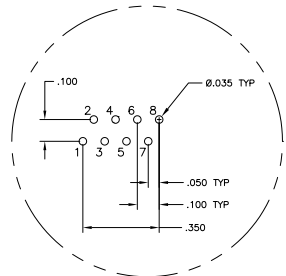
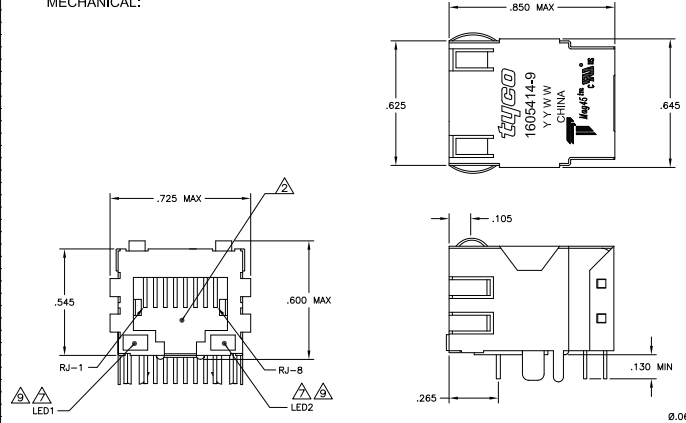
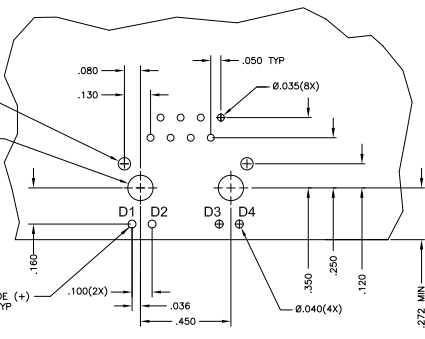


REV	DATE	DESCRIPTION	BY	CHK	APP
D		REV PER ECO-06-026703	DMOVIS	KZ	TX
D1		REVISED PER ECO-09-024606	DMOVIS	KK	AEG

**MECHANICAL:**

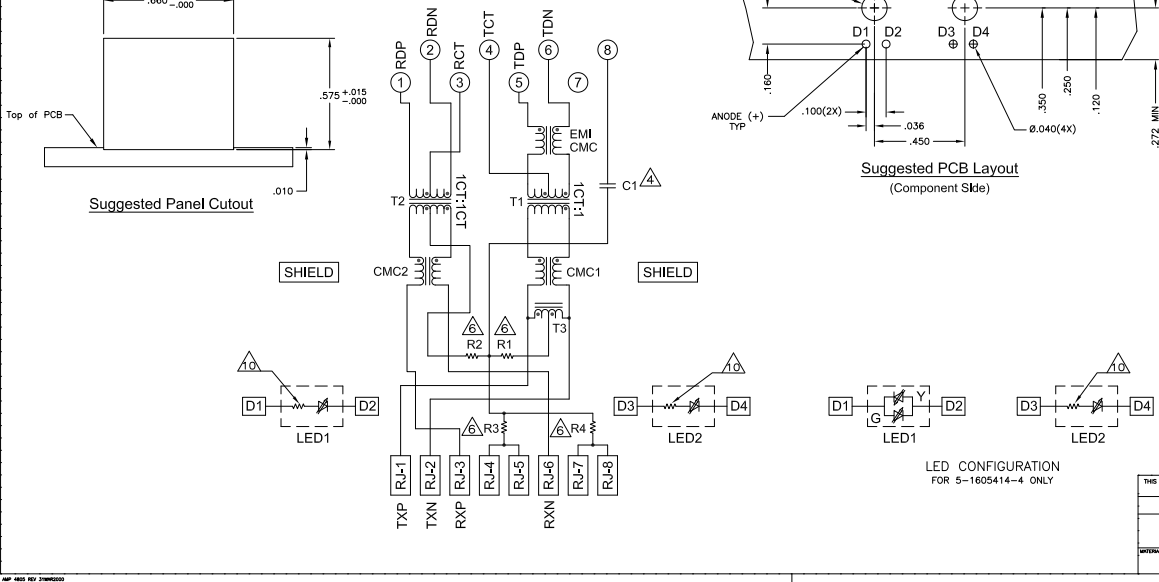


Pin Designations



Suggested PCB Layout  
(Component Side)

**ELECTRICAL:**  
 417 SERIES MAGNETIC CIRCUIT



LED CONFIGURATION  
 FOR 5-1605414-4 ONLY

**MATERIALS:**  
 HOUSING - THERMOPLASTIC PET POLYESTER FLAMMABILITY RATING UL 94V-0, SHIELD - .017" THICK, C26800 BRASS PREPLATED WITH 80-150µinch SEMI-BRIGHT NICKEL, POST-DIPPED WITH 100µinch MIN TIN-LEAD.  
 MOD JACK CONTACTS - .0157" 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 FOR EACH TRANSFORMER OVER T = 0° - +70°C.  
 -RISE TIME: 2.5 NANO-SECONDS FROM 10 TO 90 PERCENT.  
 -TURNS RATIO (CHP- CABLE): TX: 1:1, RX: 1:1  
 PERFORMANCE:  
 -TRANSMIT RJ1 & 2  
 -RECEIVE RJ3 & 6

FREQUENCY	*INSERTION LOSS	RETURN LOSS	CROSSTALK ATTENUATION	COMMON MODE REJECTION RATIO
.100 MHz-999 MHz	1.0 dB(MAX)	18.0 dB(MIN)	43.0 dB(MIN)	46.0 dB(MIN)
1.0 MHz-15.0 MHz	0.3 dB(MAX)	18.0 dB(MIN)	43.0 dB(MIN)	35.0 dB(MIN)
15.1 MHz-80.0 MHz	0.6 dB(MAX)	16.0 dB(MIN)	43.0 dB(MIN)	35.0 dB(MIN)
80.1 MHz-80.0 MHz	1.1 dB(MAX)	15.0 dB(MIN)	38.0 dB(MIN)	33.0 dB(MIN)
80.1 MHz-100.0 MHz	1.1 dB(MAX)	12.0 dB(MIN)	38.0 dB(MIN)	33.0 dB(MIN)

\*ALL MAGNETIC ELECTRICAL CHARACTERISTICS TESTED @ 25°C  
 \*INDICATED INSERTION LOSS REFERS TO MAGNETIC CIRCUITRY ONLY

HIPOT (ISOLATION VOLTAGE):  
 -2250 VDC (1 mA 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. IF NO CAPACITOR, TRACE IS CONTINUOUS.

- △ 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.
- △ INDICATED CONNECTIONS ARE FOR NIC CONFIGURATION. THE MAGNETICS ARE ASYMMETRICAL, AND THEREFORE DO NOT SUPPORT AUTO-MDI/MIDX.
- △ LED PEAK WAVELENGTH: GREEN(L) = 565nm  
 YELLOW(L) = 585nm
- △ THESE 250 OHM RESISTORS ARE INCLUDED IN THE LEDS ON 5-1605414-1, 5-1605414-4 AND 6-1605414-1 ONLY.
- △ OBSOLETE PARTS: OBSOLETE CIS STREAMLINING PER D.RENAUD/D.SINISI

OBsolete	YES	GREEN	GREEN	6-1605414-1
	YES	GREEN	GREEN	5-1605414-7
	YES	GREEN/YELLOW	GREEN	5-1605414-4
	YES	GREEN	YELLOW	5-1605414-1
	NO	YELLOW	GREEN	1605414-9

DECOUPLING CAPACITOR	LED1	LED2	PART NUMBER
△	△	△	

REVISIONS	DATE	DESCRIPTION	BY	CHK	APP
1		1X1 MAG45(TM), MODULAR JACK, 417 SCHEMATIC, 417 MAGNETIC CIRCUIT, SHIELDED, OPTIONAL DECOUPLING CAPACITOR, WITH LEDS			
2		108-2100			
3		DATE USE DRAWING NO			
4		SIZE			
5		REVISIONS			
6		DATE USE DRAWING NO			
7		SIZE			
8		REVISIONS			
9		DATE USE DRAWING NO			
10		SIZE			