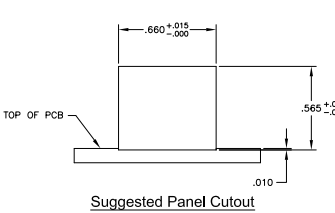
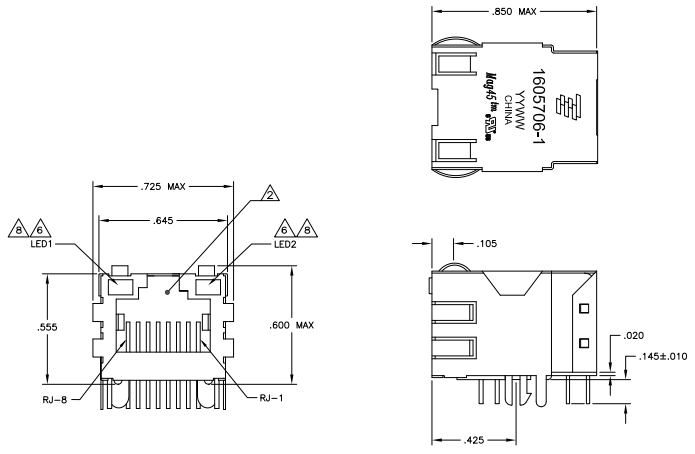
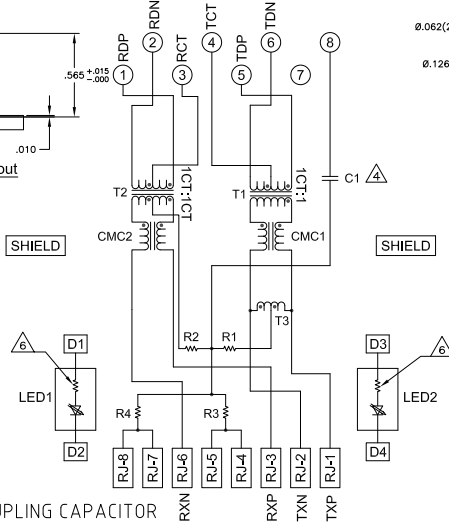


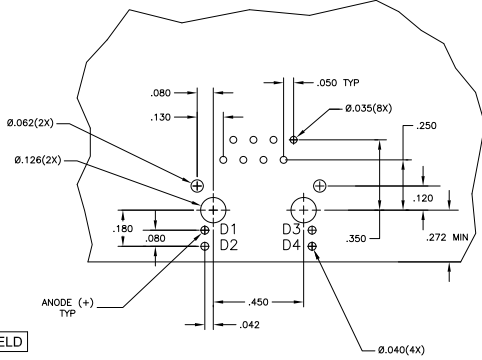
MECHANICAL:



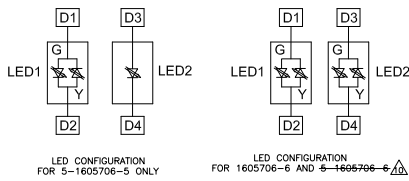
714 SERIES MAGNETIC CIRCUIT



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



Suggested PCB Layout (Component Side)



LED CONFIGURATION FOR 5-1605706-5 ONLY

LED CONFIGURATION FOR 1605706-6 AND 5-1605706-6

REV	DATE	DESCRIPTION	BY	CHK	APP
AA	22				
B		REVISED PER ECO-08-009778	15AAL2008	DL	TX
B1		REVISED PER ECO-10-000443	15M019	KK	AEG

**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 - .0157" x .018", 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 60µINCH COPPER UNDERPLATE, POST-PLATED WITH 300µINCH THICK TIN-LEAD.

**RAJ5 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  $\theta = 0^\circ - 70^\circ$ .  
-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-399 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-60.0 MHz	0.6 dB(MAX)	18.0 dB(MIN)	43.0 dB(MIN)	35.0 dB(MIN)
60.1 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 RATED @ T=25° C.  
\*INDICATED INSERTION LOSS REFERS TO MAGNETIC CIRCUITRY ONLY.

**DIELECTRIC (ISOLATION VOLTAGE):**  
-1500 VRMS (0.5 mA CUTOFF CURRENT) FOR 60 SECONDS DURATION WHEN WITHOUT DECOUPLING CAPACITOR.  
-2250 VDC (1 mA CUTOFF CURRENT) FOR 60 SECONDS DURATION WHEN 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 DECOUPLING CAPACITOR.
- △ ALL DIMENSIONS NOMINAL UNLESS OTHERWISE NOTED.
- △ LED COMPLIANT WITH IEC60825-1 SAFETY OF LASER PRODUCTS. WHEN OPERATED UP TO 20 mA THE 250 OHM RESISTOR IS INCLUDED. THE 250 OHM RESISTOR IS INCLUDED IN THE LEDS ON 1605706-1, 1-1605706-1, 5-1605706-2 AND 6-1605706-1 ONLY.
- △ INDICATED CONNECTIONS ARE FOR NIC CONFIGURATION. THE MAGNETICS ARE ASYMMETRICAL, AND DO NOT SUPPORT AUTO-MDI/MDIX.
- △ LED PEAK WAVELENGTH: GREEN(L) = 565nm  
YELLOW(L) = 585nm
- 9. THESE PARTS ARE RECOMMENDED FOR WAVE SOLDERING PROCESS, PEAK WAVE SOLDERING TEMPERATURE IS 265°C MAX, 10 SECONDS MAX.
- △ OBSOLETE PARTS: OBSOLETE CIS STREAMLINING PER DRENAUD/D.SINISI

REV	DATE	DESCRIPTION	BY	CHK	APP
YES	GREEN	GREEN	6-1605706-1		
YES	YELLOW	GREEN	5-1605706-9		
YES	GREEN	YELLOW	5-1605706-8		
YES	GREEN	GREEN	5-1605706-7		
OBsolete	YES	GREEN/YELLOW	GREEN/YELLOW	5-1605706-6	
OBsolete	YES	GREEN/YELLOW	GREEN	5-1605706-5	
OBsolete	YES	YELLOW	GREEN	5-1605706-2	
OBsolete	YES	GREEN	YELLOW	5-1605706-1	
OBsolete	NO	GREEN	GREEN	1-1605706-1	
OBsolete	NO	GREEN	GREEN	1605706-7	
OBsolete	NO	GREEN/YELLOW	GREEN/YELLOW	1605706-6	
OBsolete	NO	GREEN	YELLOW	1605706-4	

THIS DRAWING IS A CONTROLLED DOCUMENT.	REV	DATE	DESCRIPTION	BY	CHK	APP
108-2100			7N2 SCHEMATIC, 714 SERIES CIRCUIT, SHIELDED, OPTIONAL DECOUPLING CAPACITOR, WITH LEDS			
A100779			1605706			