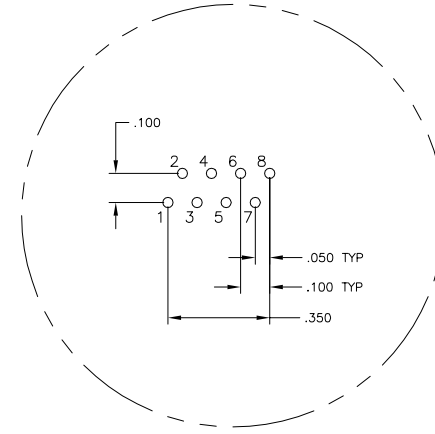
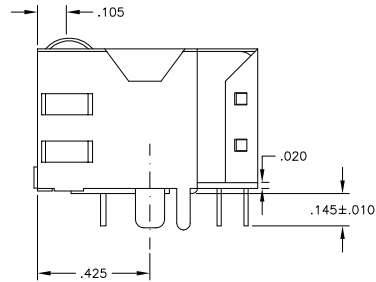
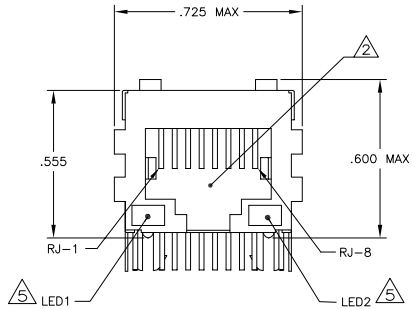
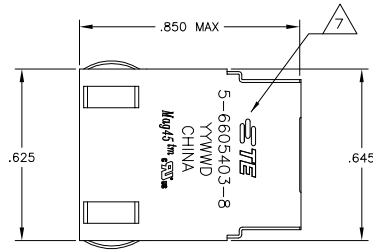
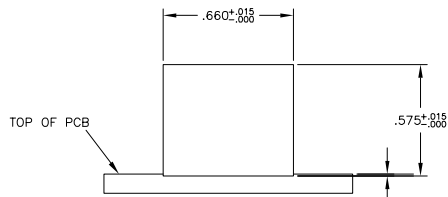


MECHANICAL:

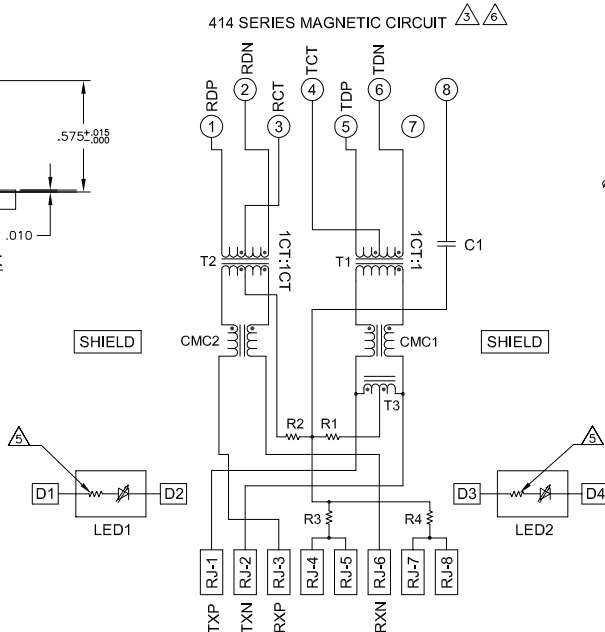


Pin Designations

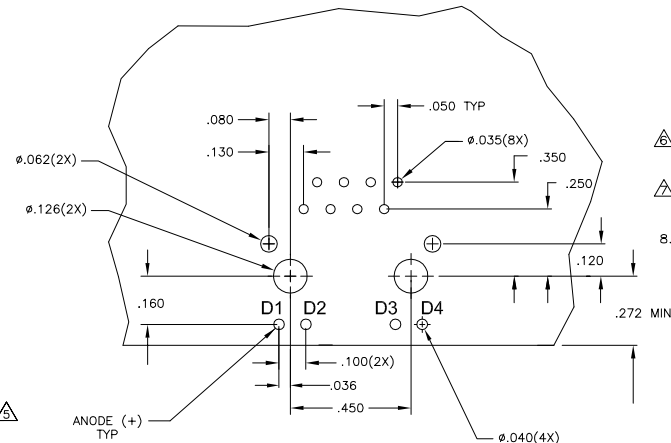


Suggested Panel Cutout

414 SERIES MAGNETIC CIRCUIT



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



Suggested PCB Layout (Component Side)

REV. NO.		REVISIONS		DATE	BY	APP'D
#	DATE	DESCRIPTION				
E1		REVISED PER ECO-11-005140		25MAR11	RK	HMR
F		ECO-11-015766		30MAY2011	EL	LR

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): 350nH 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
33-20LOG(f/50)dB MIN FROM 40.1MHz 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 0°C TO +70°C.

THE 250 OHM LED RESISTORS ARE OPTIONAL, PLEASE SEE CHART FOR PRESENCE OR ABSENCE OF LED RESISTORS. IF THE LED WITHOUT 250 OHM RESISTORS, LED IS DRIVEN WITH CONSTANT CURRENT AT APPROX 20mA.
LED COLOR : DOMINANT WAVELENGTH (AD): GREEN 568 nm TYP @ IF=20mA
FORWARD VOLTAGE (VF): GREEN 2.2V TYP @ IF=20mA
DOMINANT WAVELENGTH (AD): YELLOW 588 nm TYP @ IF=20mA
FORWARD VOLTAGE (VF): YELLOW 2.1V TYP @ IF=20mA.
IF THE LED WITH 250 OHM RESISTORS, LED IS DRIVEN WITH 5V VOLTAGE AND THE MAX OPERATING CURRENT IS 20mA.
LED COLOR : DOMINANT WAVELENGTH (AD): GREEN 568 nm TYP @ VF=5V
FORWARD CURRENT (IF): GREEN 12 mA TYP @ VF=5V
DOMINANT WAVELENGTH (AD): YELLOW 588 nm TYP @ VF=5V
FORWARD CURRENT (IF): YELLOW 13 mA TYP @ VF=5V

INDICATED CONNECTIONS ARE FOR NIC CONFIGURATION. THE MAGNETICS ARE ASYMMETRICAL, 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. THESE PARTS ARE RECOMMENDED FOR WAVE SOLDERING PROCESS. PREHEAT TEMPERATURE IS 120°C TO 160°C, 120 SECONDS TO 180 SECONDS, PEAK SOLDERING TEMPERATURE IS 260 °C MAX, 10 SECONDS MAX.

YES	GREEN	YES	GREEN	YES	6-6605403-1
YES	GREEN	NO	YELLOW	NO	5-6605403-8
NO	GREEN	YES	GREEN	YES	1-6605403-1
2KV DECOUPLING CAPACITOR	LED1	250 OHMS RESISTOR	LED2	250 OHMS RESISTOR	PART NUMBER
THIS DRAWING IS A CONTROLLED DOCUMENT.		DRG. NO. ATTADIA - 07MAR2003		TE Connectivity	
DIMENSIONS:		DRAWING TITLE: 414 SCHEMATIC, 414 SERIES CIRCUIT, SHIELDED, OPTIONAL DECOUPLING CAPACITOR, WITH LEADS		DATE: 108-2100	
UNLESS OTHERWISE SPECIFIED:		DRAWING NO. 108-2100		REV. 1	
INCHES		SCALE: NTS		SHEET 1 OF 1	
MATERIAL		FINISH		RESTRICTED TO	
CUSTOMER DRAWING		SCALE: NTS		REV. F	