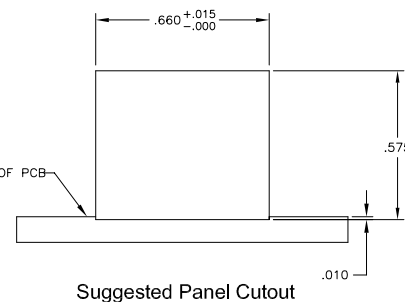
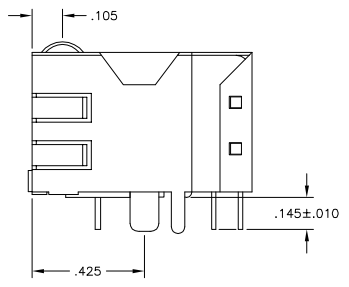
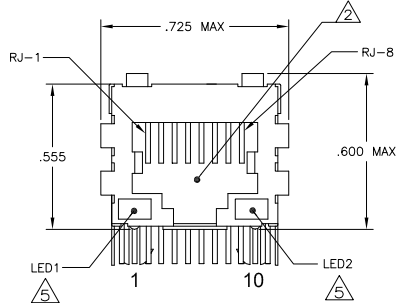
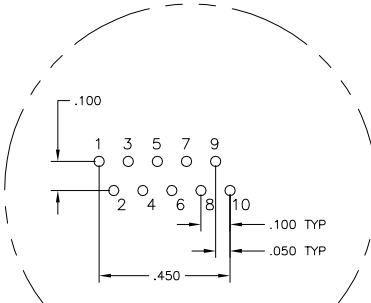
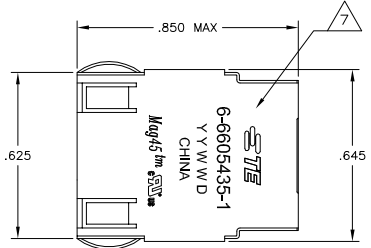


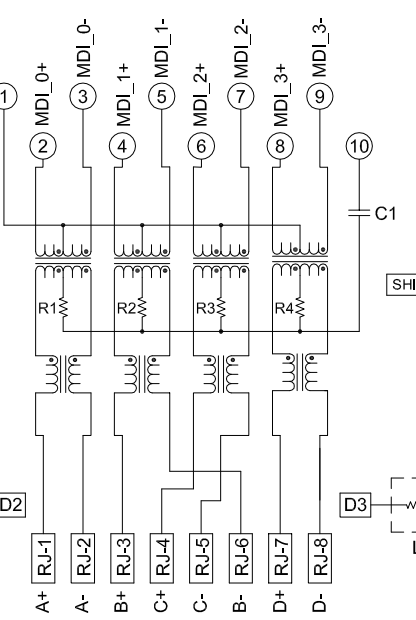
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LOC	DATE	REVISIONS			
AA	22				
#	DATE	DESCRIPTION	BY	CHK	APP
C1		REVISED PER ECO-11-005140			
D		ECO-11-015766			

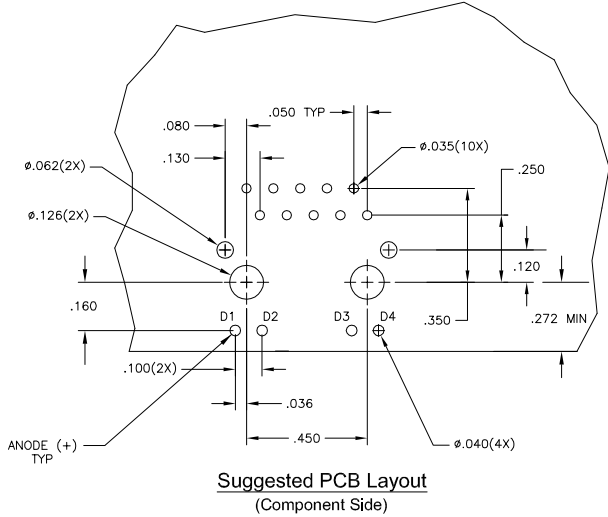
**MECHANICAL:**



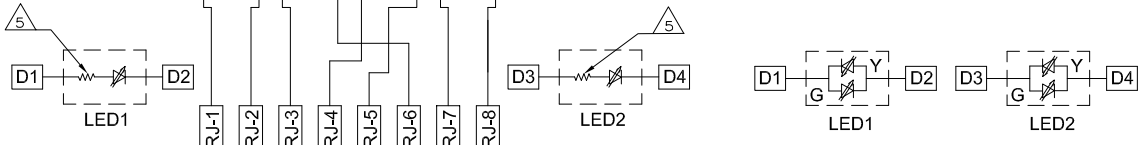
**4G01P1 GIGABIT MAGNETIC CIRCUIT**



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



**Suggested PCB Layout (Component Side)**



**LED CONFIGURATION FOR 5-6605435-6 ONLY**

- △ **MATERIALS:**  
HOUSING - THERMOPLASTIC PET POLYESTER FLAMMABILITY RATING UL 94V-0  
SHIELD - .010" THICK, C26800 BRASS PREPLATED WITH 30 INCH SEMI-BRIGHT NICKEL. SOLDER TABS POST DIPPED WITH 100 INCH MIN SAC SOLDER.  
MOD JACK CONTACTS - 0.0157 X 0.018" PHOSPHOR BRONZE, 50 INCH MIN OVERALL NICKEL UNDERPLATE, WITH SELECT 50 INCH MIN HARD GOLD FINISH PLATE SOLDER TABS WITH 100 INCH 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 80 INCH SILVER OVER 40 INCH NICKEL UNDERPLATE OVER 40 INCH COPPER UNDERPLATE. POST-PLATED WITH 100 INCH 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 (CHP:CABLE): 1:1 ALL FOUR PAIRS  
-OPEN CIRCUIT INDUCTANCE (OCL): 350uH MIN @100kHz, 0.1VRMS, 8mA DC BIAS FROM 0°C TO 70°C, ALL FOUR PAIRS  
-ALL FOUR PAIRS BI-DIRECTIONAL  
-PERFORMANCE @ 25°C  
INSERTION LOSS (IL): 1.6dB MAX FROM 0.5MHz TO 100MHz  
RETURN LOSS (RL): 18dB MIN FROM 0.5MHz TO 40MHz  
12-20LOG10(F)80dB MIN FROM 4.0MHz TO 100MHz  
CROSSTALK ATTENUATION: 35dB MIN FROM 0.5MHz TO 40MHz  
33-20LOG10(F)50dB MIN FROM 4.0MHz 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° TO +70°C.
- △ THE 250 OHM 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 (λD): GREEN 568 nm TYP. ∴ IF=20mA  
FORWARD VOLTAGE (VF): GREEN 2.2V TYP. ∴ IF=20mA  
DOMINANT WAVELENGTH (λD): 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 (λD): GREEN 568 nm TYP. ∴ VF=5V  
FORWARD CURRENT (IF): GREEN 12 mA TYP. ∴ VF=5V  
DOMINANT WAVELENGTH (λD): YELLOW 588 nm TYP. ∴ VF=5V  
FORWARD CURRENT (IF): YELLOW 13 mA TYP. ∴ VF=5V
- △ THE MAGNETICS ARE SYMMETRICAL, AND SUPPORT AUTO-MDI/MDIX.
- △ TE CONNECTIVITY LOGO TE CONNECTIVITY 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 WAVE SOLDERING TEMPERATURE IS 260C MAX, 10 SECONDS MAX.

YES	GREEN	YES	GREEN	YES	6-6605435-1
YES	GREEN	NO	YELLOW	NO	5-6605435-8
YES	GREEN/YELLOW	NO	GREEN/YELLOW	NO	5-6605435-6
YES	GREEN	YES	YELLOW	YES	5-6605435-1

DIMENSIONS:		DRAWING NO.		REV	
0	PAC	100779	1	1	1
1	PAC				
2	PAC				
3	PAC				
4	PAC				
	INCHES				
	MILLIMETERS				

THIS DRAWING IS A CONTROLLED DOCUMENT. DATE: 03/2003. ATTADIA - 03/2003. CHG. FAROLE - 03/2003. NAME: 1X1 MA645(TM) MODULAR JACK (10 PIN HORIZ), 4G1P1 SCHEMATIC, 4G01P1 GIGABIT CIRCUIT, DECOUPLING CAPACITOR, WITH LEDS. SCALE: 1:1. SHEET 1 OF 1. REV D.