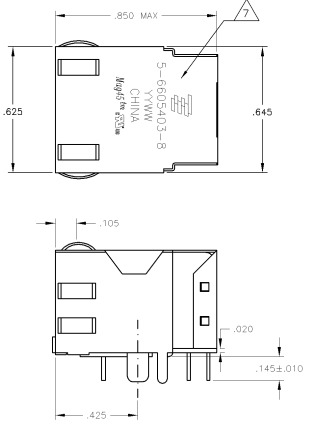
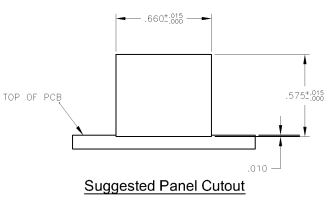
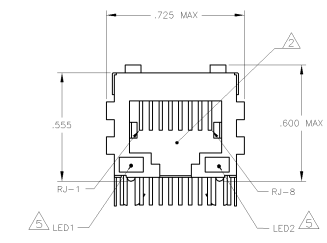


**MECHANICAL:**

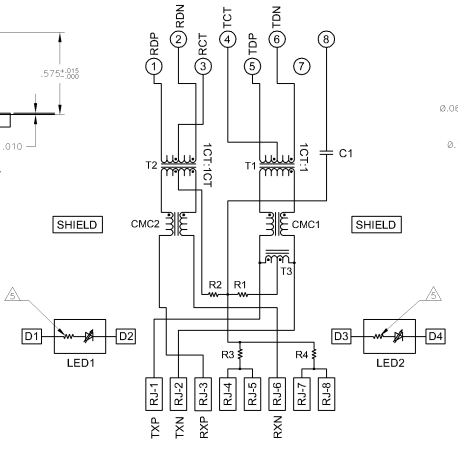


**Pin Designations**

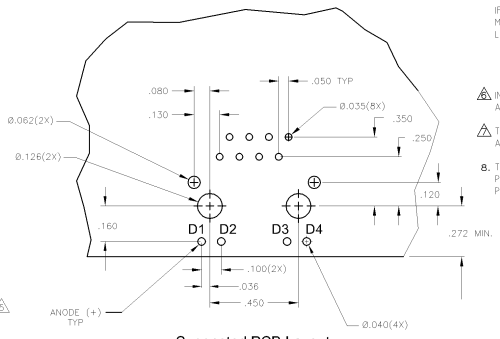
- △ MATERIALS
  - HOUSING - THERMOPLASTIC PET POLYESTER FLAMMABILITY RATING UL 94V-0
  - SHIELD - .010" THICK C24800 BRASS PREPLATED WITH 30µINCH SEMI-BRIGHT NICKEL SOLDER TABS POST DIPPED WITH 100µINCH MIN SAC SOLDER
  - MOD JACK CONTACTS - 0.0157 X 0.018" PHOSPHOR BRONZE, 50µINCH MIN OVERALL NICKEL UNDERPLATE, WITH SELECT 50µINCH MIN HARD GOLD FINISH PLATE
  - SOLDER TABS WITH 100µINCH MIN MATTIE TIN AND/OR SAC SOLDER DIP
  - LIGHT EMITTING DIODE(LEI) - 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 MATTIE 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 (KHP CABLE) TX + 11, RX + 11
  - OPEN CIRCUIT INDUCTANCE (OCIL) 350µH MIN @100MHz, 0 TVRMS, 8mADC BIAS FROM 0°C TO 70°C, TX AND RX
  - PERFORMANCE @ 25°C
    - INSERTION LOSS (IL) 1.0dB MAX FROM 0.5MHz TO 100MHz
    - RETURN LOSS (RL) 18dB MIN FROM 0.5MHz TO 30MHz
    - 18-20.0dBi/30dB MIN FROM 30.1MHz TO 60MHz
    - 12dB MIN FROM 60.1MHz TO 80MHz
    - CROSSTALK ATTENUATION 35dB MIN FROM 0.5MHz TO 40MHz
    - 33-20.0dBi/50dB MIN FROM 40.1MHz TO 100MHz
    - COMMON MODE REJECTION RATIO (CMRR) 30dB MIN FROM 0.5MHz TO 100MHz
    - ISOLATION VOLTAGE COMPLIES WITH IEEE802.3 2002, PARA 23.5.11, ITEM b
- 4. OPERATING TEMPERATURE FROM 0°C TO -70°C.



**414 SERIES MAGNETIC CIRCUIT**



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



- △ INDICATED CONNECTIONS ARE FOR NIC CONFIGURATION. THE MAGNETICS ARE ASYMMETRICAL, AND THEREFORE DO NOT SUPPORT AUTO-MDI/MIX
- △ TYCO ELECTRONICS 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 |

|                                       |      |                                  |  |                           |
|---------------------------------------|------|----------------------------------|--|---------------------------|
| THIS DRAWING IS A CONTROLLED DOCUMENT |      | ATTACH - SECURITY CLASSIFICATION | TYCO Electronics   | Two Dimension Corporation |
| DESIGNER                              | DATE | REV                              | DESCRIPTION  | DATE                      |
|                                       |      |                                  | 1X1 MAG457M0, MODULAR JACK, 4N2 SCHEMATIC, 414 SERIES CIRCUIT, SHIELDED, OPTIONAL DECOUPLING CAPACITOR, WITH LEADS |                           |
| APPROVED                              | DATE | REV                              | DESCRIPTION  | DATE                      |
|                                       |      |                                  | THE 1 LINE SIZE  | REVISIONS                 |
| REVISION                              | DATE | BY                               | DESCRIPTION  | DATE                      |
|                                       |      |                                  | A1 100779  | 6605403                   |
| CUSTOMER DRAWING                      |      | SCALE                            | NTS  | 1                         |